



L'ORÉAL

**Proceedings of 3<sup>rd</sup> International Joint Conference on  
Business Strategies on Global Markets  
Trends in International Business 2012**

June 28, 2012

Prague, Czech Republic and Lyon, France



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## Introduction

This international scientific conference is the result of the long lasting cooperation between the University of Economics, Prague and Université Jean Moulin Lyon 3, IAE Lyon. In 2010, both universities decided to organize an annual conference on Trends in International Business. This year, the scientific board decided to focus the 3<sup>rd</sup> annual conference on *Business Strategy on Globalized Markets* – the theme of the two-year interfaculty research project *IGA VŠE MF/13/2012* sponsored by the Internal Grant Agency of the University of Economics, Prague.

Globalization is a phenomenon influencing business strategies of both multinationals and SMEs in all economic sectors. The conference's aim was to discuss different aspects of international business strategies in order to better understand the approaches of Czech and French researchers to this current international management topic. The project was co-chaired by Hana Machková, Josef Taušer and Paul-Marc Collin. The proceedings were prepared by Iveta Němečková and Iveta Černá.

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# COMPETITIVENESS OF THE NEW MEMBER COUNTRIES OF THE EUROPEAN UNION

Kateřina GAJDUŠKOVÁ<sup>1</sup>

**Abstract:** *The article deals with the competitiveness of new member states of the European Union, its development during the crisis and recovery. It defines the competitiveness and describes the methodology of its measurement by the World Economic Forum, which is used to analyze the competitive advantages of observed countries. New member states of the EU are characterized by an educated workforce and a technological endowment, but they have problems with both an efficient functioning of institutions and a small market size. Mostly they lag behind “old” member countries, which surpass them in innovations and business sophistication. During the crisis they managed in sustaining their position in the world competitiveness, Poland, Malta and Bulgaria even reached better positions. On the other hand Slovakia and Latvia were seriously hit by the crisis and their competitive position among others has worsened.*

**Keywords:** competitiveness, new member states, crisis.

**JEL classification:** O11, O57, O40.

## Introduction

European economies have been affected significantly by the crisis, some of them have not been able to successfully face the consequences and thus have lost their international competitive position. The global financial and economic crisis has revealed weaknesses of individual economies and has pointed out their position and development in the global economy. Therefore the aim of this paper is to analyze the impact of the economic crisis on the competitiveness of the new member states (NMS) of the European Union. The article not only describes how much the NMS are competitive in the world, but it analyzes the development of their positions in competitiveness during and after the crisis.

The article is divided into three consecutive chapters. The first part defines competitiveness and because it is not possible to find a single definition, it refers to the most commonly used approaches and theories. The second chapter describes the evaluation of competitiveness of countries by the World Economic Forum (WEF) and

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briefly describes the methodology. Based on these first two chapters the article analyzes the competitiveness of the NMS of the European Union in the last chapter (Chapter 3), their position in the global economy and development in times during and after the crisis.

### **Definition of competitiveness**

The term “competitiveness of countries” has slightly different definitions and concepts. In general, it expresses how the states manage to raise domestic product, direct investment, export, etc. in comparison to other countries. Most authors conclude that a higher competitiveness finally leads to wealthier countries (mostly represented by a higher GDP per capita). Examination of the competitiveness represents a searching for appropriate evaluation indicators and their correct interpretation, recalculation into indexes by which the countries are finally compared with each other. In this first chapter, there will be mentioned the basic and most frequently used approaches for the definition of competitiveness from the first ideas to the definitions and indexes of current economic institutions.

### **Individual concepts of evaluating the national competitiveness**

The beginnings of comparing countries and their competitiveness can be found already in the classic theories of international economics. The competitiveness of the country is perceived as a comparative advantage, as mentioned by Ricardo (1817). If a country identifies its advantages (low labor intensity in the processing of the product) and focuses on them, it can increase their productivity and income as a result. Because countries are differently endowed with production factors and are at different stages of economic development, they also have different comparative advantages. Comparative advantage in this case can be therefore taken as a competitive advantage (Schuller and Lidbom, 2009: 935).

Porter (1990: 78-86) gives another definition of the competitiveness. He defines it with four main factors describing the national economy. These factors include (1) strategy, organization and business competition, (2) domestic demand, (3) supply and (4) production factors. The domestic environment is expressed with these four factors as the major determinants that affect the competitive advantage of countries. Porter's model became the basis for further research in the field of competitiveness and has been extended with other factors by international authors, for example Rugman and D'Cruz (1998), Moon (1998) and Dunning (1993).

Weihrich (1999: 2-3) deals with the home environment and its relation to foreign countries with the help of TOWS matrix (Threats, Opportunities, Weaknesses, Strengths). This model expresses the advantages and disadvantages of the country's strengths and weaknesses, comparing them to the opportunities and threats in the world market and determining the best strategy for the country. This approach



represents an analysis of the culture, the political system, natural resources, the management style of domestic companies, technologies, etc. while taking into account the conditions abroad.

### **Evaluation of competitiveness by international institutions**

Basic models of competitiveness are further developed and used to assess the competitive position of a country in the world economy. At present time, the analyses are focused on assessing the overall competitiveness of a country with a wide range of indicators by international organizations that evaluate countries on a global level.

OECD (2010) defines the country's competitiveness as an advantage or disadvantage in selling its products in international markets. For this purpose it is used the effective exchange rate, or the difference between domestic and foreign unit labor costs in industry or in consumer prices expressed in current prices. These indicators of competitiveness are calculated for 28 OECD member states and twelve other major economies in the world. Very often is also used the definition of competitiveness from the OECD (Hatzichronoglou, 1996: 24), which characterizes the competitiveness at all levels - companies, industries, regions, nations and supranational groups - as the ability to create a relatively high level of income and employment which is sustainable in international competition.

The European Union and its institutions also deal with the analysis of the competitiveness. European Commission (2010) considered a competitive economy as such an economy, which has a high degree of long-term productivity growth. In particular, it highlights the importance of the industry driven by small and medium enterprises. The Commission also recommends focusing on development and innovation, information and communication technologies, entrepreneurship, competition, education and training. Every year it issues European Competitiveness Report which evaluates the progress made in these areas.

In the Czech Republic, the Czech Competitiveness Council measures the international competitiveness. It examines the factors that contribute to a successful trade and subsequently lead to a higher GDP per capita, a higher profit and a higher standard of living (Stacey, 2009: 3). These factors are divided into 6 groups - general economic indicators, legal environment, government, infrastructure, human resources and finance and monetary policy. The Council aims to assess the overall competitiveness of the Czech Republic compared to other selected European countries.

Institute for Management and Development, IMD (Garelli, 2009) defines competitiveness as a success of nations and enterprises in managing their ability to achieve greater wealth. It is not represented only by growth or economic performance, but also by a quality of life, technology, knowledge, etc. To measure the competitiveness of countries it uses four basic groups of indicators - economic

performance, government efficiency, business environment and infrastructure, by which it evaluates and ranks today about 58 countries in the world.

Among the major organizations dealing with this issue is also included the World Economic Forum, WEF (Schwab, 2011: 4) which defines competitiveness as the set of institutions, policies and factors that influence the level of productivity and thus the country's total wealth. If a country is more productive, it is able to produce higher level of income for its residents and a higher rate of return for investors as well. It measures the competitiveness of 142 countries with twelve pillars that will be discussed in more detail in subsequent chapters.

It can be concluded that competitiveness is represented by growth of productivity. Higher productivity reflects the higher efficiency of production and increasing exports, income and GDP per capita. Some approaches are more focused on individual factors that affect the competitive position of countries, such as home environment, low costs, an inflation rate, or production factors endowment. It is also being often emphasized the importance of not only economic growth, but also social development of the country.

### **Evaluation of competitiveness by WEF**

The competitiveness of the NMS will analyzed with the help of the WEF ranking, therefore its methodology will be briefly analyzed in this second part. According to the Forum, the overall evaluation of the competitiveness of countries is based on a quantitative evaluation of items divided into twelve groups (pillars). By measuring the competitiveness of individual pillars obtained from these items, the overall competitiveness of the country is then calculated. For importance of individual pillars and for searching the competitive advantages, it is important to take into account the economic development of the country as well.

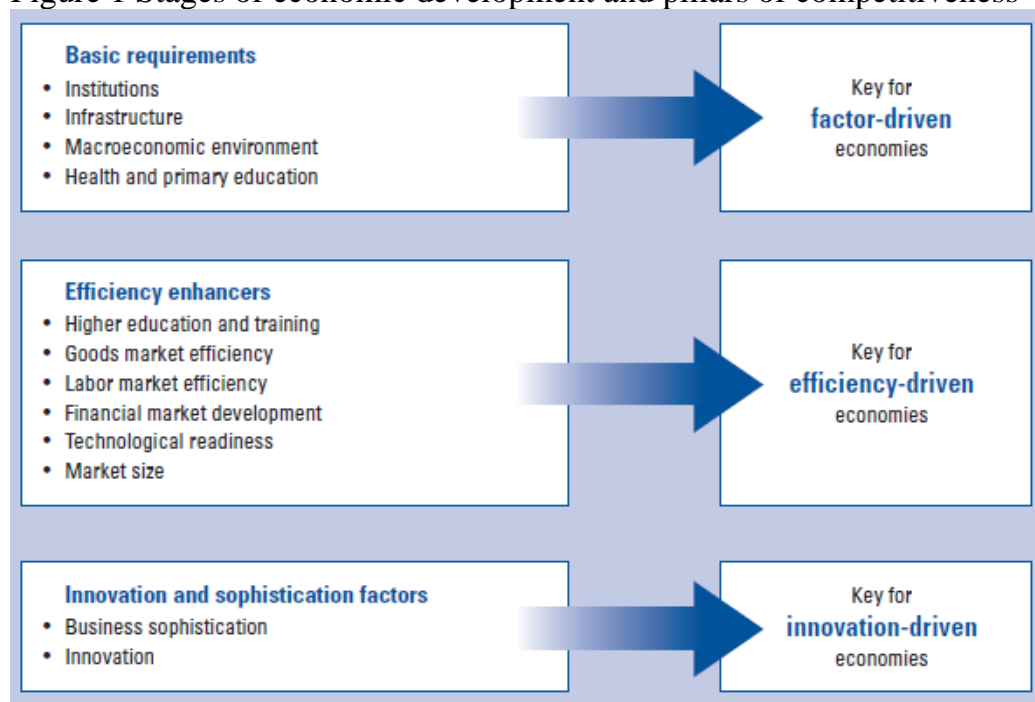
World Economic Forum defines the level of competitiveness of the country as its level of productivity. This is measured with using the structure of twelve pillars, which are further subdivided into smaller items. Among these twelve pillars are following:

1. Institutions
2. Infrastructure
3. Macroeconomic environment
4. Health and primary education
5. Higher education and training
6. Goods market efficiency
7. Labor market efficiency
8. Financial market development

9. Technological readiness
10. Market size
11. Business sophistication
12. Innovation

Individual pillars are differently important for the competitiveness of differently developed countries. To account for this difference, WEF introduced three stages of economic development, between which it divides the countries and gives the special weighted importance to individual pillars. Between these three stages there are also two other transition stages. Criteria for matching the country with the specific stage of development are its GDP per capita and the share of export of raw materials in total exports of the country. Figure 1 shows the described relations.

Figure 1 Stages of economic development and pillars of competitiveness



Source: *World Competitiveness Report 2011-2012* (2012: p. 9)

In the first stage of the economic development there are economies driven by factors of production, i.e. economies with low productivity which produce and sell cheap products. Their competitiveness is based on the endowment of production factors, especially cheap labor and raw materials and therefore the first four pillars are important for them - institutions, infrastructure, macroeconomic environment and health and basic education. Economies in the second stage of development are driven

by efficiency. They have higher labor productivity, efficient production process and sell products of a high-quality. Therefore, the competitiveness of these countries depends mainly on the following six pillars - higher education and training, goods and labor market efficiency, financial market development, technological readiness and market size. Economies in the highest stage of development are driven by innovation. They sell unique products and their competitiveness lies in the last two pillars - business sophistication and innovation.

The distribution of the NMS according to the stages of economic development is presented in Table 1. Most countries are either among the economies driven by innovation or in a transition stage between stage 2 and 3. Only Bulgaria and Romania are economies driven by efficiency. It means that for NMS the most important items are developed pillars either 11 and 12, or 5 to 10. Countries should take this fact into account in improving their competitiveness and they should improve their competitive advantages and remove barriers especially in these pillars. Not to do so will lead to loss of productivity and competitiveness.

Table 1 Ranking of NMS in the stages of economic development

Stage 1	Transition	Stage 2	Transition	Stage 3
		Bulgaria	Estonia	Cyprus
		Romania	Hungary	Czech Republic
			Lithuania	Malta
			Latvia	Slovenia
			Poland	
			Slovakia	

*Source: World Competitiveness Report 2011-2012 (2011: p. 11)*

The current classification of countries into stages of economic development is the result of changes caused by the financial and economic crisis. Slovakia and Estonia were in the third stage of development even two years ago, but the crisis has significantly reduced their GDP per capita which led to the decline in the stage of transition. Romania plunged from the stage of transition to the efficiency-driven stage.

The overall measure of competitiveness of the country is the global competitiveness index (GCI). Individual performance of the country by pillars is converted into the basic development index, which expresses the final ranking in competitiveness of the country. Weights are allocated among the various pillars, depending on what stage of development the country is located in. Individual items in pillars are evaluated based on statistical data or questionnaire.

The ranging in the global competitiveness index as well as in the individual pillars is important for the interpretation of the country's competitiveness. As a competitive advantage is considered position of the country in the pillars, if:

- it is in the range 1-10 (for countries up to rank 10 of GCI)
- it is higher than the country GCI (for countries that have GCI rank 11 to 50)
- it is higher than 51 (for countries that have GCI rank 51 and more)

### **Comparison of NMS competitiveness**

The empirical part is based on the analysis of the competitiveness of countries by the World Economic Forum and its Competitiveness Report (World Competitiveness Report). Based on the definition and explained methodology it is now possible to examine the competitiveness of the NMS. First part will describe their current situation and second part will analyze development during and after the crisis. The major emphasis will be put on the success of countries in the rankings of competitiveness in individual pillars and on the analysis of their competitive advantages.

### **Competitiveness of the NMS**

Despite of being very similar economies, the countries of Central and East Europe are quite different in the level of competitiveness. The twelve NMS are variously distributed in the ranking of competitiveness and between the best Estonia and the worst Romania there are about 40 ranks. The best NMS reach ranks around 30 in a global comparison, while the worst NMS can be found around rank 70 out of 142 surveyed countries. Three "old" EU member states - Spain, Portugal and Italy, as well as rapidly growing economies in the world - India, Brazil and Russia have also the similar ranking as the NMS. The only EU country, which has reached a lower rank than Bulgaria, is Greece, because its competitiveness has dropped significantly during last years.

The NMS are situated in the second quarter of the total ranking behind, the 30 most competitive economies. Their overall ranking and evaluation by the pillars is presented in Table 2. The most competitive NMS are Estonia, the Czech Republic, Poland and Lithuania. On the contrary, the lowest ranks are reached by Romania, Bulgaria and Slovakia. The most favorable results were achieved in pillar 5 (Higher education and training) and pillar 9 (Technology readiness). On the contrary, the worst ranks were usually reached in pillar 1 (Institutions), 11 (Business sophistication) and 10 (Market size). In summary, it is possible to conclude that competitiveness of NMS is based on education, skilled workforce and flexibility in adopting of new technologies. Conversely, barriers to higher productivity are particularly rigid institutions, poorly functioning legal system and a small domestic and foreign demand.

Table 2 Ranking according to the GCI (2011-2012)

pillar	Estonia	Czech Republic	Poland	Lithuania	Cyprus	Hungary	Malta	Slovenia	Latvia	Slovakia	Bulgaria	Romania
<b>1</b>	29	84	52	62	36	73	38	55	66	101	110	99
<b>2</b>	40	36	74	43	31	46	47	37	61	57	87	95
<b>3</b>	21	43	74	73	64	67	51	35	93	56	46	87
<b>4</b>	26	51	40	46	13	54	29	24	49	43	57	66
<b>5</b>	23	30	31	26	39	45	37	21	34	53	70	55
<b>6</b>	29	36	52	64	27	55	34	48	60	51	86	96
<b>7</b>	16	42	58	54	60	66	103	102	47	59	56	92
<b>8</b>	41	53	34	89	25	63	15	102	60	47	75	84
<b>9</b>	27	31	48	34	41	36	26	32	46	37	50	60
<b>10</b>	100	40	20	79	103	52	127	80	95	58	64	44
<b>11</b>	53	36	60	54	48	69	42	49	71	63	96	102
<b>12</b>	30	33	58	48	45	34	51	40	59	96	93	95
<b>Total</b>	<b>33</b>	<b>38</b>	<b>41</b>	<b>44</b>	<b>47</b>	<b>48</b>	<b>51</b>	<b>57</b>	<b>64</b>	<b>69</b>	<b>74</b>	<b>77</b>

*Source: World Competitiveness Report 2011-2012, (2011, pp. 15-22)*

The observed economies have a relatively well qualified workforce, they widely assume new technologies and the common foreign trade policy of the EU ensures relatively low barriers to trade with other countries. However, some countries need to improve basic pillars in areas such as infrastructure and institutions, market efficiency and technological readiness. In order to strengthen their international competitiveness, they should further improve research, development and innovations. Future development should, of course, also lead to the elimination of barriers in the single market (efficient goods market, labor and capital), which will result in an increase of trade, investment and GDP growth.

The Czech Republic reached the rank 38 in the last WEF competitiveness rankings. It achieved best evaluation in pillar 5 (Higher education), 9 (Technological readiness) and 12 (Innovation), where competitive advantages are in particular the availability of research and training services, FDI, investments in research and development and quality of research institutions. Overall, the Czech Republic had 40 competitive advantages, the lowest amount was located in pillar 1 (Institutions), which represents the greatest barrier of competitiveness. As an innovation-driven economy, the Czech Republic has a lot of benefits in the last two pillars, especially in pillar 12 (Innovation) it is at the second position (33) among the NMS, behind Estonia.

## Development of the competitiveness during the crisis

The crisis proved the real competitiveness of countries and its long-term sustainability. Countries that have not been able to maintain their position in rankings of competitiveness, they are considered as less stable and their competitive advantages are not sustainable in the long-run. Therefore the crisis can be understood as a "sieve of competitiveness" of countries. All developed countries were more or less affected by the crisis and registered a decline in the results in the evaluating indicators. Nevertheless, even the countries that have experienced reduced productivity could have moved up in rankings, if the other countries reported much higher drop of productivity.

The financial crisis has reduced the demand and thus also the economic activity, GDP per capita, exports and income. This decrease started after the long-term favorable economic development, when both the old, and in particular the new EU member states recorded an economic growth. The following Table 3 brings developments of the basic indicators in the NMS and confirms the described situation.

Table 3 Development of economic indicators during the crisis, % change on previous year

	HDP per capita (PPS)			EX per capita (PPS)			Real labor cost per employee			Real labor productivity per employee		
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
EU 27	0.4	-6.0	3.8	3.0	-16.5	15.1	1.0	2.8	-1.6	-0.6	-2.5	2.5
EU 15	-0.7	-6.1	4.1	2.8	-17.1	15.7	1.1	3.0	-1.4	-0.7	-2.5	2.3
Bulgaria	0.3	-5.9	3.9	3.3	-19.8	26.5	3.7	8.1	2.7	3.5	-2.9	5.3
CZ	1.0	-6.0	0.5	-3.1	-15.5	14.8	1.8	-0.3	-0.5	1.7	-6.7	0.4
Estonia	-2.9	-12.4	5.4	3.4	-21.5	28.9	8.3	2.4	-6.6	-3.8	-4.7	7.4
Cyprus	3.0	-3.3	3.0	-3.6	-15.7	6.3	-2.7	6.6	-2.9	1.4	-1.3	1.1
Latvia	2.9	-20.3	8.3	3.4	-18.0	32.1	6.9	-6.7	-7.7	-4.2	-5.3	4.7
Lithuania	5.4	-19.9	9.4	16.3	-26.9	37.1	0.6	2.4	-9.1	3.6	-8.6	6.9
Hungary	5.2	-9.2	3.9	5.6	-13.5	16.1	-0.9	-0.6	-6.1	2.4	-4.2	0.9
Malta	0.5	-4.7	4.1	-6.9	-16.0	19.3	0.2	3.3	-3.3	1.5	-2.4	0.0
Poland	4.4	0.7	7.0	3.6	0.0	16.1	4.3	-1.4	0.8	1.2	1.2	3.5
Romania	15.4	-10.8	3.6	23.3	-10.8	17.6	6.6	-1.2	1.8	7.3	-4.7	-0.2
Slovenia	3.6	-10.0	1.0	0.0	-22.1	14.3	2.0	5.6	1.4	1.0	-6.3	4.0
Slovakia	7.1	-7.2	5.3	2.7	-20.7	20.7	1.5	8.2	-1.8	2.4	-3.0	5.8

Source: Eurostat, National Accounts

The observed countries recorded a decrease in growth of selected economic indicators in 2008 and even an absolute decline in 2009. Poland, a relatively closed economy,

was the only country that has kept the GDP growth during the crisis. Only a small decline in GDP per capita was recorded in two island economies - Malta and Cyprus. On the contrary, the highest reduction in GDP was registered in the Baltic States - Lithuania, Latvia and Estonia, as well as Hungary, Romania and Slovenia. But in fact these countries were the fastest growing economies in 2007. A similar trend can be seen in exports, just with one difference - both Malta and Cyprus recorded a relatively significant drop in exports in 2009 due to their dependency on the European demand. The figures for 2010 point to a new recovery of the economies.

From Table 3 it is possible to deduce the development of the productivity in these countries. Of course, the most favorable development was registered in Poland, which is the only country reporting the labor productivity growth in 2009. A relatively small decline was registered in Malta and Cyprus and the worst slump in productivity was recorded in the Baltic States, Hungary, Romania, Slovenia and the Czech Republic. The consequences of the crisis are evident even in the real labor costs. In 2007, most of the countries registered the decline in labor costs, but in the crisis times it changed and almost all economies showed an increase in labor costs. The positive development can be observed only in Hungary. In 2009 Latvia, Romania and Poland also reduced labor costs, but in these two countries the decrease was followed after a high growth in 2008. The most significant increase in labor costs was recorded in Cyprus, Slovakia and Bulgaria. In 2010, in the NMS there was a slight increase in labor productivity and a more pronounced decrease in labor costs.

The biggest negative annual changes were recorded in the Baltic economies, Hungary, Romania and Slovenia. It is therefore possible to assume that this development greatly influenced their international competitiveness and that the countries will most likely lose their positions in the ranking of competitiveness. The crisis thus highlighted the stable economies with a sustainable level of productivity and pointed to the instability of the other countries, which should focus on removing barriers of their competitiveness. For a country and in particular for investors it is not only important the position in the ranking of competitiveness, but especially its long-term sustainability or improvement. Some countries were unable to keep their competitive position during the crisis and they dropped by more than ten positions. On the contrary, successfully functioning economies advanced their positions.

Table 4 provides an overview of the development of ranking of competitiveness in recent years. Almost all countries declined in the period 2007-2008, but this was not due to a decrease in their competitiveness, but because of adding 10 more countries in the evaluation. Four countries were ranked between positions of the NMS and therefore the NMS decreased their ranking.



Table 4 Development of country competitiveness (ranking)

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
<b>Estonia</b>	26	27	32	35	33	33
<b>Czech Republic</b>	31	33	33	31	36	38
<b>Poland</b>	45	55	53	46	39	41
<b>Cyprus</b>	39	51	40	34	40	44
<b>Slovenia</b>	40	39	42	37	45	47
<b>Lithuania</b>	39	38	44	53	47	48
<b>Malta</b>	51	56	52	52	50	51
<b>Hungary</b>	38	47	62	58	52	57
<b>Slovakia</b>	37	41	46	47	60	64
<b>Romania</b>	73	74	68	64	67	69
<b>Latvia</b>	44	45	54	68	70	74
<b>Bulgaria</b>	74	79	76	76	71	77
<i>Number of countries</i>	<i>121</i>	<i>131</i>	<i>134</i>	<i>133</i>	<i>139</i>	<i>142</i>

*Source: World Competitiveness Reports*

The most important period is 2008-2009, which reflects the crisis years in these countries. In general it is possible to say that the NMS did quite well during the crisis. Most of them kept their ranking, or moved to better positions. The best performance was recorded in Poland, which was gaining during the crisis times and moved from rank 55 to 39, which is an increase of 16 ranks. Other countries that have shown long-term increase of competitiveness were also Malta and Bulgaria, although this growth was only by a few ranks. Despite the economic crisis these three countries succeeded in improving their competitiveness and they convinced the investors about their stability. Also in the previous part these countries belonged between countries, which were able to cope with the crisis and its impact on the real economy well.

The Czech Republic was also not doing worst during the crisis when it managed to keep or even improve its position to rank 31. In the final evaluation report, however, it has lost its competitiveness and moved to rank 38. Similar trends were observed also in Cyprus and Romania. During the crisis, they were better in improving their competitiveness than the others, but they lost several positions in the last year. Hungary fell down in the period 2008-2009 by 15 ranks, but after that it has been experiencing only growth. Slovenia and Lithuania fluctuated in the ranking and their positions slightly worsened, especially in the case of Lithuania by 10 ranks.

On the contrary, countries which have had problems with the crisis and have not been able to keep their competitiveness have fallen down by many ranks. These countries include especially Slovakia and Latvia. Slovakia fell by 24 ranks during the last five evaluation reports and even Latvia by 29 ranks. Restoring of their competitiveness will require improvements in all pillars, in the basic pillars like the infrastructure, effective

institutions, stable economic environment and quality education as well as in the effective functioning of goods, labor and capital markets. They also need to further invest in R & D and new technologies to increase and keep their competitive advantage.

## **Conclusion**

The article describes the competitiveness of the NMS, their current position and development during the crisis. The NMS are in the second quarter out of all 142 evaluated countries in the WEF ranking of competitiveness. They lag behind the "old" member states of the European Union and the BRIC countries are only a few positions behind them. Among the most competitive countries of the NMS belong Estonia, the Czech Republic, Poland and Lithuania, while the lowest ranks are reached by Romania, Latvia and Bulgaria. Their competitive advantages consist especially of a skilled workforce, good infrastructure and technological development. The problematic parts are particularly inefficient functioning of institutions, technological readiness and small market size. Their overall competitiveness during the crisis did not record significant losses. Most countries have kept their rankings and some countries even improved their competitiveness. On the contrary, two countries had difficulties in tackling with the crisis and they have not been able to succeed in competitiveness with others. Slovakia and Latvia plummeted by more than 10 positions and lost their competitiveness.

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# THE POSSIBILITIES OF USING CZECH TECHNOLOGIES IN THE CARIBBEAN REGION

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**Abstract:** *This paper is focused on the description of the Euro-Caribbean relationship. It briefly analyses the possibilities for Czech traders and offers an idea regarding the existence of European Territory in the Caribbean overseas countries and territories (OCTs), mainly French (French Guiana, Guadeloupe and Martinique) and how to develop and deepen there the possibilities for Czech scientists, technology transfer and business activities. This paper points out the experience from EU Strategy for the Baltic macroregion and EU Strategy for the Danube macroregion to be used as possible future approach to the Caribbean region or the Caribbean macroregion.*

**Keywords:** Ministry of Foreign Affairs, Ministry of Industry and Trade, Honorary Consulates, Export strategy for 2012-2020, Ministry of Education, Youth and Sports, Academy of Sciences of the Czech Republic, Technology center of the Academy of Sciences of the Czech Republic, Enterprise Europe Network, Technology agency of the Czech Republic, The Council of public research institutions of applied research of the Czech Republic, Grant agency, The Science and Technology Parks Association of the Czech Republic, Program MOBILITY and Barrande, Program Horizont 2020, European Business and Innovation Centre Network, The competitiveness and Innovation Framework Programme, EU Strategy for the Baltic macroregion, EU Strategy for the Danube macroregion, Black Sea Synergy, University of the West Indies, NIHERST, CAIC, NISTT, CARDI, JAMPROCORP, UTech, Cariscience, SRC, CCST, ACURIL, Caribbean Export Development Agency, NCST, CRNM, CROSQ, BIDC, industrial incubators, free trade processing zones.

**JEL classification:** O320.

## Introduction

The Czech economy is strongly export oriented. In the times of the world financial crisis, when the EU countries and the eurozone are in economic recession, Czech companies seek for possibilities to survive in the stronger competition environment, mainly that coming from Asia. In that regard and through effort to diversify export territories and export articles, we can point out the importance of technology, science,

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research and innovation. In order to succeed and attract the client's attention a company must differentiate its products. The Czech Republic as historically a developed and industrialized country financially supports technology, research, development and innovation. The main act that controls this area of support of science, research and innovation in the Czech Republic is the Act, n. 130/2002 Coll. on the support of research, experimental development and innovation, amended in the year 2009. As far as the state support of the Czech economy and export is concerned, there exists cooperation between the Ministry of Foreign Affairs, the Ministry of Industry and Trade, the Chamber of Commerce, the Confederation of Industry. To promote Czech export, the Ministry of Foreign Affairs presented on 12 March 2012 new Export<sup>2</sup> conception. On 14 March 2012 the Czech Government approved new Export strategy for 2012-2020 that will contribute to the development and support of the growth of Czech economy. Regarding the economic growth, the SMEs (Small and Medium Enterprises) are the most important holders of new, innovative ideas, because of the fact that they get better used to market and technological changes and challenges.

### **The definition<sup>3</sup> of the transfer of technologies, licences and spin-off companies**

The technical term transfer of technologies covers different topics, areas from the the U.S. and European point of view. In the USA the transfer of technologies is considered mainly as licensing (sale of licences to patents and related sale of intellectual property, but also the so called spin-off companies or the cooperation between universities and companies (joint research, etc.). On the contrary in the Czech Republic and in Europe the concept of the transfer of technologies is perceived widely, including the cooperation between companies, companies and research institutions, e.g. universities. Transfer of technologies can be perceived as process of the transfer of already established technologies in one region or country to other country or region. This unique process can be understood also as transfer of the results of the research and development from research into practice.

### **Licences and spin-off companies**

In the process of the technology transfer the licences are very important. A company concludes a licence agreement in order to accelerate or to develop the innovative cycle, to obtain cheaper licence, to diversify the offer on the market, etc. Irreplaceable position in that process is played by mergers and acquisitions, where a part or a company as a whole is sold and M&A are used mainly in new technologies (biotechnology or

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<sup>2</sup> [http://www.mzv.cz/jnp/cz/udalosti\\_a\\_media/udalosti\\_a\\_temata/x2012\\_03\\_12\\_podpora\\_exportu\\_a\\_ekonomickych\\_zajmu\\_cr\\_v\\_zahranici.html](http://www.mzv.cz/jnp/cz/udalosti_a_media/udalosti_a_temata/x2012_03_12_podpora_exportu_a_ekonomickych_zajmu_cr_v_zahranici.html)

<sup>3</sup> Ing. Jiří Janošec, consultation on technology transfer, December 2011, TC AS CZ

information technology). The use of the results of the research into practice ensures also the so called spin-off<sup>4</sup> companies that represent the cooperation between the universities and companies where the result of the research is provided by a licence agreement or by sale. In this kind of cooperation the company uses the spaces and laboratories of the university. Israel successfully operates in this field.

## **The transfer of technology in the Czech Republic**

### **The available scientific literature in the Czech Republic**

In the Czech Republic there exists a limited number of publications where it could be clearly seen just from the heading that the book refers to the transfer of technologies. In the world there exists an immense number of technical literature on this topic, but there exist even more texts that handle the issue of the innovation process as a whole (the technology transfer is its part). The transfer of technology can be described also indirectly, through the cooperation of Universities and companies, the use of the results of the development in practice, etc. It remains unclear if and in that case to what extent can those results, findings and knowledge be transferred into the Czech environment that has its specific characteristics. The origin of limited volume of specialized literature to the transfer of technologies can derive from the fact that this topic is in the Czech Republic handled only by the limited circle of scientists and it is not worth publishing in the Czech language. The majority of technical literature in the Czech Republic is in English or there exist specialized training courses (for Ph.D. students that would like to become the so called technology scouts). The Technology Center of the Academy of Sciences of the Czech Republic applies the same model, the same procedure. It gains knowledge from the Enterprise Europe Network and the headquarters in Brussels prepares schooling for its members. The Technology Center AS CR occasionally obtains training courses from specialized organizations ASTP<sup>5</sup> and PROTON<sup>6</sup>.

In the Czech Republic the bibliography on the transfer of technology is limited. According to Ing. Jiří Janošec and Ing. Václav Suchý from the Department of the business support and transfer of technology of the Technology center of the Academy of Sciences of the Czech Republic the following resources are nearly the only one on that topic that exist in the Czech Republic in Czech language: Ivan Dobiáš (2004), Management duševního vlastnictví poznatků VaV - Inženýrská akademie ČR, řada R - č. 3/2004, Ústav termomechaniky AV ČR. Ivan Dobiáš (2008), Vádemekum komercializace poznatků výzkumu a vývoje, Bílá kniha výzkumu, vývoje a inovací v ČR, 2008 TC AV ČR, Úspěšné transfery technologií TC AV ČR, listopad 2011. The

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<sup>4</sup> <http://fit.cvut.cz/en/node/214>

<sup>5</sup> <http://www.astp.net>

<sup>6</sup> <http://www.protoneurope.org>

issues of the Transfer of Technologies and the Intellectual Property right is handled also by Doc. Josef Malý, CSc and Doc. JUDr. Martin Boháček, CSc from the University of Economics in Prague.

### **Public support of research, development and innovation in the Czech Republic**

In the Czech Republic the export, science, research and innovation is supported by the Ministry of Foreign Affairs of the Czech Republic (**MFA CZ**), Ministry of Industry and Trade (**MIT**), Ministry of Education, Youth and Sports (**MEYS**) in cooperation with The Czech Chamber of Commerce, Confederation of industry of the Czech Republic, unions and associations. These activities cover also organizing of workshops and schoolings. One of these workshops prepared by MFA took place on 24. 6. 2011 and was focused on the possibilities of using the instruments of EU for projects of Czech companies. In order to promote Czech export, Czech economy, the viceminister for Economy of the MFA Tomáš Dub<sup>7</sup> organizes territorial meetings for future Ambassadors to meet with representatives of business subjects that make possible to introduce new Ambassadors to CEOs of export companies, banks and business unions. To promote Czech export MFA cooperates with ICC (International Chamber of Commerce) on the training courses, workshops and matchmakings. MFA supports the expansion of Czech companies also through so called Projects<sup>8</sup> for support of economy diplomacy. In the 2012 most of those projects will be implemented in Asia or Latin America in longterm goal to support the diversification of Czech export into non-European territories.

### **New conception of MFA CZ to support the economic interests**

The Minister of Foreign Affairs of the Czech Republic Karel Schwarzenberg together with the viceminister Tomáš Dub and the director of the Bilateral economic cooperation and export promotion department Martin Dvořák presented on 12 March 2012 the new conception of MFA CZ for the support of economic interests of CZ abroad. In terms of this conception is emphasised the importance of economic agenda on the Czech Embassies and support and developement of economic relations. The interests of the Embassies are supported by 162 Honorary consulates of the Czech Republic. New conception is focused on support of export, investment, scientific and technology cooperation and cooperation of universities. On 13 April the MFA CZ signed the Memorandum of cooperation between MFA and the University of Economics in Prague in order to ensure courses for economic diplomats (heads of Economic Sections). To support the Czech export MFA consults current issues and

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<sup>7</sup> [http://www.mzv.cz/jnp/cz/udalosti\\_a\\_media/udalosti\\_a\\_temata/x2012\\_03\\_12\\_podpora\\_exportu\\_a\\_ekonomickych\\_zajmu\\_cr\\_v\\_zahranici.html](http://www.mzv.cz/jnp/cz/udalosti_a_media/udalosti_a_temata/x2012_03_12_podpora_exportu_a_ekonomickych_zajmu_cr_v_zahranici.html).

<sup>8</sup> [http://www.mzv.cz/jnp/cz/udalosti\\_a\\_media/udalosti\\_a\\_temata/x2012\\_03\\_12\\_podpora\\_exportu\\_a\\_ekonomickych\\_zajmu\\_cr\\_v\\_zahranici.html](http://www.mzv.cz/jnp/cz/udalosti_a_media/udalosti_a_temata/x2012_03_12_podpora_exportu_a_ekonomickych_zajmu_cr_v_zahranici.html).

possibilities with business platforms, Czech Chamber of Commerce ([www.komora.cz](http://www.komora.cz)), Confederation of industry of the Czech Republic, Association of SME, Union of Czech and Moravian production cooperatives<sup>9</sup>, Association of Engineering Technology<sup>10</sup>, etc.

### **Honorary Consulates of the Czech Republic**

A very important tool for the promotion of Czech interests in terms of so called economic diplomacy are the honorary consulates (**HC**) headed by honorary consuls. MFA CZ currently uses services of 162 Honorary Consuls. Their number is steadily increasing. In June of 2008 a historically first meeting of all the Honorary Consuls of the Czech Republic took place in Prague. This conference notably contributed to the development of bilateral relationship and to the development of new business opportunities. The post of the Honorary Consul is not in occupational relationship with the MFA CZ neither receives financial support from the MFA CZ. The honorary consul represents the Czech Republic, helps to promote economic relations, protects Czech citizens, who are in an emergency in the country that is under his jurisdiction, helps to arrange the official visits of the high representatives of the Czech Republic, etc. In return the HC can participate in the official diplomatic activities and receptions, where he can make business and other contacts, is a full member of Local Consular Corps. The candidate for the function of HC should be an experienced person with contacts to the political and social inner circles. A foreign country usually chooses institute of honorary consul in other country where it has no diplomatic ties (represented only on a non residential basis) or in a country that is too big to be covered only by the Embassy or General Consulate.

### **Ministry of Education, Youth and Sports**

In CZ the main administrative authority responsible for research and development is the Ministry of Education, Youth and Sports (MEYS) excluding areas, where is active the Council for research, development and innovation (CRDI) that was established for the support of science and research in the CZ. MEYS supports the science and research by Program **NICER** (National information center for European research (<http://www.fp7.cz/cz/nicer/>) financed by MEYS CZ from the program **EUPRO**<sup>11</sup> (National initiative for the support of implementing Czech research into the Framework Programmes of research and technological development<sup>12</sup>) as well as the National

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<sup>9</sup> <http://www.scmvd.cz/>

<sup>10</sup> <http://www.sst.cz/eng>

<sup>11</sup> <http://www.msmt.cz/mezinarodni-vztahy/vyzkum-a-vyvoj-1/programy-cost-cz-ld-eupro-ii-le-eureka-cz-lf-ingo-ii-lg-a>

<sup>12</sup> <http://www.msmt.cz/mezinarodni-vztahy/vyzkum-a-vyvoj-1/programy-kontakt-cost-eupro-ingo-eureka>



information net, NINET (<http://www.ninet.cz>). On the web pages of MEYS<sup>13</sup> CZ more information can be obtained on other programs **COST CZ**, **EUPRO II**, **EUREKA CZ**, **INGO II** a **KONTAKT II**. Project of the Technology profile of the Czech Republic is supported by MEYS CZ through the Program KONTAKT<sup>14</sup>. The **Technology profile of the Czech Republic** is a database<sup>15</sup> of innovative potential of the Czech Republic and was supported by Czech-German scientific-technical cooperation with official support of German ministry of education and science in 1998.

In the Czech Republic is going on the National project **EF-TRANS**<sup>16</sup> (Effective transfer of technologies) that has as main goal working out of the best possible methodologies for the technology transfer in the conditions of the Czech Republic. The head of the project is Ing. Pavel Komárek, CSc. ([pavel.komarek@msmt.cz](mailto:pavel.komarek@msmt.cz)). The project is the initiative in the area of tertiary education, research and development and is developed in terms of Operational program Education for competition. More information can be obtained at <http://eftrans.reformy-msmt.cz>.

### **Czech institutions that support technology and development**

#### ***The following institutions in the Czech Republic support technology, research, science and innovation***

Science is in the Czech Republic supported by **Universities**, e.g. Czech Technical university in Prague ([http://www.cvut.cz/en?set\\_language=en](http://www.cvut.cz/en?set_language=en)), Charles University (Prague, (<http://www.cuni.cz/UKENG-1.html>), Technical university in Liberec (<http://www.tul.cz/>), University of Technology Brno (<http://www.vutbr.cz>), University of Pardubice (<http://www.upce.cz/en/index.html>), Technical University of Ostrava (<http://www.vsb.cz/en/>) and also in the University of Economics in Prague, where the European Conference on Innovation and Technology (under patronage of [www.ceskahlava.cz](http://www.ceskahlava.cz)) takes place in May. The face-to-face contact with scientist from several European countries is very useful.

The **Council for research, development and innovation** runs the web portal <http://www.vyzkum.cz>. The Council is founded on the Act, n. 130/2002 (amended 2009) on the support of research, experimental development and innovation and is advisory body of the Government on research, development and innovation. In the field of promotion of science and research is active the **Council of public institutions of applied science** that was established on 8 September 2009 and which joins together public scientist institutions created by ministries and regions. An important part in the

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<sup>13</sup> <http://www.msmt.cz/mezinarodni-vztahy/vyzkum-a-vyvoj-1/programy-cost-cz-ld-eupro-ii-le-eureka-cz-lf-ingo-ii-lg-a>

<sup>14</sup> ([http://www.aipcr.cz/pdf/KONTAKT\\_2008.pdf](http://www.aipcr.cz/pdf/KONTAKT_2008.pdf))

<sup>15</sup> [http://www.techprofil.cz/o\\_projektu.asp](http://www.techprofil.cz/o_projektu.asp) or  
<http://www.techprofil.cz/find.asp?SearchForm=MapDefQueries>

<sup>16</sup> E-Bulletin EF-Trans, číslo 08, říjen 2011 accessible at < <http://eftrans.reformy-msmt.cz> >.

promotion of technology and innovation in the Czech Republic is played by the **Technology agency** (<http://www.tacr.cz/en>) and the Czech Republic **Science and technology parks association** (<http://www.svtp.cz/en/about-stpa-cr/>): The Technology Agency of the Czech Republic was established by the Act No. 130/2002 Coll. on the support of research, experimental development and innovation (1 July 2009). It supports applied research, experimental development and innovation in the Czech Republic.

In the Czech Republic the main institution in the field of the support of science, research, technology and innovation is the **Academy of sciences** of the Czech Republic<sup>17</sup> and **Technology center**<sup>18</sup> of the Academy of sciences of the Czech Republic which at the same time forms part of the Enterprise Europe Network for the Czech Republic. The science is also supported by the **Technology agency**<sup>19</sup>, the **Council of public research institutions of applied research**<sup>20</sup>, the **Grant agency**<sup>21</sup> and the **Science and Technology Parks Association of the Czech Republic**<sup>22</sup>. Very important institution that contributes to the development of the Czech innovation process is the **Association of Innovation Entrepreneurship of the Czech Republic** (AIE CZ). It was created in 1993 as non governmental organization in the field of innovative business. **Technology and innovation is supported also by Professional Associations (Unions) and Regions.**

### **Technology center of the Academy of Sciences of the Czech Republic**

**Technology center** of the Academy of Sciences of the Czech Republic<sup>23</sup> (**TCAV ČR**) is a non profit interest association of legal persons, 5 Institutes of Academy of Sciences. It was created in 1994 and shortly after that became a leading national workplace for the support of the international research and development cooperation in the whole European research area. **TCAV ČR** also supports origin and development of small innovative companies and the implementation of subsequent technology transfers. **TCAV ČR** considerably contributes to the higher participation of Czech teams in the European research area. The **TCAV ČR** manages from the year 2001 the Group of Strategic studies (**STRAST**) that took active part in the preparation of National policy on research and development, National program on research, National innovative strategy and National innovative policy. Starting from 2005 the Technology center of AS CZ operates in Brussels the Czech liaison office for European research

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<sup>17</sup> <http://www.cas.cz/index.html>

<sup>18</sup> [www.tc.cz](http://www.tc.cz)

<sup>19</sup> <http://www.tacr.cz/en>

<sup>20</sup> <http://www.ravyz.cz/clenove>

<sup>21</sup> <http://www.gaav.cz/index.html>

<sup>22</sup> STPA CR, <http://www.svtp.cz/en>

<sup>23</sup> Ing. Václav Suchý, consultation on technology transfer, October 2011, TC AS CZ

(CZELO)<sup>24</sup> that associates the Czech research and the research administration in the EU and supports the involvement of Czech research into European research cooperation<sup>25</sup>.

Science is supported also by the **The Grant Agency of the Academy of Sciences** of the ČR (<http://www.gaav.cz/>). The Grant agency is the internal body of the Academy of Sciences. It was created by the Act No. 283/1992 Coll., on Academy of Sciences of the Czech Republic. The Grant Agency distributes upon the results of competitive tenders in the field of research and development special-purpose funds devoted for this purpose from the budget of the Academy of Sciences.

Science is supported also by **CEBRE**<sup>26</sup>, Czech Business Representation to the EU in Brussels. CEBRE was founded by important Czech organizations in the field of export and business promotion. The support to this initiative was implemented by the Ministry of Industry and Trade of the Czech Republic together with its trade promotion (semi-budgetary) agency CzechTrade. CEBRE offers to Czech businessmen basic information and other analysis, such as future decisions and regulations of EU.

### **The possibilities for the transfer of Czech technologies into the Region of Latin America and the Caribbean (LAC)**

Regarding the transfer of Czech technologies into the Region of Central America and South America as suitable platform for the future cooperation between Czech science and research development institutions could be mentioned the Enterprise Europe Network, because it has its contact net in some of the LAC countries (Chile, Grenada, some French oversea countries and territories) and supports the technology transfer in that region. Direct contact to the French OCTs and EEN branches in the region of Latin America and the Caribbean (LAC) can be analyzed at [http://www.enterprise-europa-network.ec.europa.eu./index\\_en.htm](http://www.enterprise-europa-network.ec.europa.eu./index_en.htm).

### **Scientific cooperation between the CZ and the LAC region - Bilateral contracts on scientific cooperation between CZ and LAC countries**

Many bilateral scientific, technological, educational contracts exist between CZ and LAC countries. This cooperation has a long tradition.

Besides the abovementioned program KONTAKT there exists a serie of bilateral contracts on scientific cooperation between the Czech Republic and other states of South or Central America. Some of them are old dated. Those contracts exist with the Bolivian Republic (n.. 127/1973 Coll., La Paz 6. 9. 1972), with Brasil (Brasilia, 2. 7.

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<sup>24</sup> <http://www.czelo.cz>

<sup>25</sup> <http://www.czelo.cz/cesky-vyzkum>

<sup>26</sup> <http://www.cebre.eu/>

1985), with Ecuador (n. 96/1973 Coll., Prague 15. 9. 1971), with Grenada (n. 67/1981 Coll., Prague 4. 6. 1980), with Chile (Santiago, 4. 11. 1971), with Colombia (n. 120/1973 Coll., Bogota 13. 7. 1971), with Costa Rica (n. 52/1974 Coll., San José 24. 8. 1972), with Cuba (La Habana, 13. 10. 1965), with Nicaragua (n. 100/1980 Coll., Prague 4. 4. 1980), with Panama (n. 50/1980 Coll., Panama 17. 4. 1979) or with Peru (n. 6/1974 Coll., Lima 7. 7. 1971). Those agreements are numerous, but is questionable how they are implemented and fulfilled in practice. It can be assumed that part of the contracts is at present inactive, or more precisely fulfilled in limited measures. More detailed information can be obtained in Czech MFA or MIT.

### **Program MOBILITY and Barrande**

Based on the international agreements on scientific cooperation, CZ implements in the terms of MOBILITY program with Argentina, Austria, France, Germany, Greece, Hungary, Poland, Slovakia, Slovenia. The aim of MOBILITY is to promote contacts between research organizations through supporting movement of scientists active in common projects of basic research. This support is based on funding of the travel and accommodation costs (it doesn't cover the participation of scientists in conferences, workshops). The approved projects are managed by **Association of Innovation Entrepreneurship**<sup>27</sup> (AIE) of the Czech Republic based on the agreement between AIE and the Ministry of Education, Youth and Sports (MEYS). Starting from 2011 the projects<sup>28</sup> for selected countries are managed in electronic way. It is very interested that in the LA region the only country with active cooperation in the Mobility program is Argentina, where a total 9 projects were realized. As possible start to that cooperation could be used an already existing cooperation between CZ and France, so called **Program Barrande** that is based on the Agreement between the Czechoslovak Socialistic Republic and the Republic of France on scientific and technical cooperation dated 29 June 1965 signed in Prague. On the Czech side the Barrande initiative is managed by MEYS and on the French side it is managed by the Ministry of National Education.

### **Support of Research and Science on the European level**

The Research and innovation under the terms of EU area represents the most important priority<sup>29</sup> in the EU Program for economic growth. In that regard are active the following institutions that could be used to further develop and deepen cooperation with Czech institutions: European research area<sup>30</sup>, Framework programs<sup>31</sup>, Program

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<sup>27</sup> <http://www.aipcr.cz/eng/default.asp>

<sup>28</sup> [www.msmt-vyzkum.cz](http://www.msmt-vyzkum.cz)

<sup>29</sup> Program Horizon 2020

<sup>30</sup> [http://ec.europa.eu/research/era/index\\_en.htm](http://ec.europa.eu/research/era/index_en.htm)

<sup>31</sup> [http://cordis.europa.eu/fp7/home\\_en.html](http://cordis.europa.eu/fp7/home_en.html)

Horizont 2020 (see below), Joint Research Centers<sup>32</sup>, European Council for Research<sup>33</sup>, European innovative and technological institute<sup>34</sup>, Competitiveness and innovation Framework Program (<http://ec.europa.eu/cip>).

### **Program Horizont 2020**

The new EU program will ensure the financial resources for financing the research and innovation for the period 2014–2020. Horizont 2020 will have 80,2 billions EUR available for research institutions, universities, innovative private companies and SMEs. It is an integrated system that will cover all current european instruments for financing science and research. More information on the Horizont 2020 can be analyzed on [http://ec.europa.eu/research/horizon2020/index\\_en.cfm?pg=home](http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=home) or <http://www.fp7.cz/cz/horizon-2020>.

### **European Business and Innovation Centre Network**

On the European level in the field of research and support of technology and innovation is active the BIC (Business and Innovation Centre) joined in the network EBN<sup>35</sup> (European Business and Innovation Centre Network). First Business Innovation Centre (BIC) was opened in Belgium. This network was established by the European Commission and industry leaders. In 1991 was established the first BIC outside the EU in the then Czechoslovak Republic. EBN is a reference point in European Union on incubation, innovation, spin-off companies and SME.

### **Enterprise Europe Network**

Enterprise Europe Network (EEN) was launched in 2008 by the European Commission. It was established on the former **Innovation Relay Centres**<sup>36</sup> (1995) and **Euro Info Center**<sup>37</sup> (1987). It has branches in 47 countries (e.g. USA, Russian Federation, Israel, China, Mexiko, Chile (took part in the previous initiative Innovation Relay Centres) and through France also in Grenada, Guadeloupe or French Guiana. EEN<sup>38</sup> is an integrated Network and offers support and advice to businesses in particular SMEs. The EEN enables SMEs to have a fast access to information and uses internal database to arrange workshops and connect scientists, other interested groups. Enterprise Europe Network searches partners for international technological cooperation or sale of own technology or purchase of foreign technology.

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<sup>32</sup> <http://ec.europa.eu/dgs/jrc/index.cfm>

<sup>33</sup> <http://erc.europa.eu/>

<sup>34</sup> <http://eit.europa.eu>

<sup>35</sup> <http://www.ebn.be>

<sup>36</sup> [http://www.wipo.int/export/sites/www/sme/en/activities/meetings/oecd\\_04/theme1-6.pdf](http://www.wipo.int/export/sites/www/sme/en/activities/meetings/oecd_04/theme1-6.pdf)

<sup>37</sup> <http://www.euro-info.org.uk/>

<sup>38</sup> [http://www.enterprise-europe-network.ec.europa.eu/index\\_en.htm](http://www.enterprise-europe-network.ec.europa.eu/index_en.htm)

The **EEN** has branches also in the LAC region, but only in the French<sup>39</sup> overseas countries and territories, namely in Guadeloupe, Martinique, French Guiana. There may be used the Program Barrande (see above) for the promotion of CZ presence in the OCTs. These countries have legislative agreement. More information on the possibilities of cooperation on French OCTs can be obtained at Chamber of Commerce Pointe-a-Pitre (<http://www.pointe-a-pitre.cci.fr>), Chambre of Commerce and Industry of Martinique (<http://www.martinique.cci.fr>), Chamber of Commerce and Industry of French Guiana (<http://www.guyane.cci.fr>). In French Guiana there exists also the Center „Guyane Technopole“ (<http://www.cr-guyane.fr/la-guyane/economie/guyane-technopole>). In 2009 the Commerce and Industry Chamber in French Guiana opened branches in Macapa (Brasil) and Paramaribo (Suriname). More information can be obtained at [http://www.guyane.cci.fr/fr/international/affaires\\_europeennes](http://www.guyane.cci.fr/fr/international/affaires_europeennes).

### **Network EEN in the Czech Republic**

The network EEN was established in the CZ with support of the Ministry of Industry and Trade. The key role in the CZ EEN branch plays the **Technology center** of the Academy of Science of the Czech Republic. The main goal is support of CZ SME in the process of promoting their success in the international markets. The EEN CZ closely cooperates with Ministry of Industry and Trade, Czech Chamber of Commerce, Confederation of industry of the CZ and contributory organization CzechInvest. More information on EEN CZ can be analyzed on [www.een.cz](http://www.een.cz) or [www.crr.cz/een](http://www.crr.cz/een).

**Czech branch of EEN** occasionally receives technology offers and offers for cooperation from Latin America in terms of the intern database of the EEN net. Some of them mediates to local companies in the Czech Republic. EEN CZ systematically doesn't develop scientific contacts with LAC region. **It means that in this field there exists a scope for cooperation and development.**

### **The competitiveness and Innovation Framework Programme (CIP)**

The CIP for the period 2007—2013 is the European program to support innovation, ICT and energy sector. It is complement to the **Seventh Framework program (7FP)** and **Cohesion policy** of EU implemented through **structural funds** (National operational programs). More information on this programme can be seen at [http://ec.europa.eu/cip/index\\_en.htm](http://ec.europa.eu/cip/index_en.htm).

### **Programs ERA, ERAWATCH, CORDIS, Initiative Marie Curie**

To promote science and technology in the EU there exist the initiatives ERA<sup>40</sup> (European Research Area), ERAWATCH<sup>41</sup> (European Commission's information

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<sup>39</sup> <http://www.outre-mer.gouv.fr/?les-outre-mer-a-la-foire-de-hanovre.html>

<sup>40</sup> [http://ec.europa.eu/research/era/understanding/what/what\\_is\\_era\\_en.htm](http://ec.europa.eu/research/era/understanding/what/what_is_era_en.htm)

platform on research systems), Program CORDIS<sup>42</sup> (information service of the EU for research and development). At web pages ERAWATCH scientists can obtain information on technology cooperation with third countries like Argentina, Brasil<sup>43</sup>, Chile<sup>44</sup>, Mexico<sup>45</sup>. Also important regarding promotion of science and technology is also the initiative Marie Curie ([http://ec.europa.eu/research/fp7/understanding/marie-curieinbrief/home\\_en.html](http://ec.europa.eu/research/fp7/understanding/marie-curieinbrief/home_en.html)).

## **Overseas countries and territories**

Generally the OCTs are small island states outside the EU territory. The small size determines their economic vulnerability. Their inhabitants **are citizens of the EU**, but those territories are **not part of the EU** and they are not directly subject to EU laws. The OCTs are not sovereign states. They have a special status of association which enables them to create economic and social development. Among the OCTs exist differences in the rate of independence on the member state of the EU. The region where are the Caribbean overseas countries and territories (OCTs) is located between states that form important organizations **CARICOM** and **MERCOSUR**. There exist<sup>46</sup> 26 OCTs. The relationship to OCTs is managed by the decision of the Council dated 27 November 2001 (2001/822/EC) amended by resolution n. 2007/249/EC dated 26 April 2007. The European Commission in June 2008 started a public debate on the future replacement of the current approach to the OCTs. The revision of the relationship has link to the new financial framework 2013-2020 as well as the EDF (European development fund). The current decision n. 2001/822/EC expires at the end of 2013. Concerning these facts there exist scope for reassessment of the relationship with OCTs. The OCTs have big potential in renewable energy sector, communication, IT and research and development of innovation, so there exist real possibilities for starting and further development of technology cooperation between that Region and the Czech Republic.

## **The possibilities of using European overseas countries and territories in the Caribbean for the development of European technology, research and innovation**

The main idea of this paper is to try to take into account the fact that in the Caribbean there exist many overseas countries and territories of EU countries (OCTs or in French so called DOMs, <http://www.domtom.fr>). The majority of the countries obtained their independence in the second half of the last century. Those countries formed the

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<sup>41</sup> <http://erawatch.jrc.ec.europa.eu/>

<sup>42</sup> [http://cordis.europa.eu/home\\_en.html](http://cordis.europa.eu/home_en.html)

<sup>43</sup> [http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country\\_pages/br/country](http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/br/country)

<sup>44</sup> [http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country\\_pages/cl/country](http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/cl/country)

<sup>45</sup> [http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country\\_pages/mx/country](http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/mx/country)

<sup>46</sup> [http://ec.europa.eu/europeaid/where/octs\\_and\\_greenland/index\\_en.htm](http://ec.europa.eu/europeaid/where/octs_and_greenland/index_en.htm)

organization of CARICOM using the example of European integration process (EU/EC). Those countries that didn't obtain the independence have a link to the following European countries (United Kingdom, France and Netherlands) and form the OCTs. The region of the Caribbean is generally perceived as part of the ACP (Africa, Caribbean, Pacific) countries. The EU has a special treatment and procedure regarding the ACP territories. The continent of Latin America is divided into Central America and South America. In the Caribbean there exist countries that form the ACP group and also dependent countries (OCTs) with special links to some abovementioned EU countries. Concerning this division of the Caribbean region, it could be also taken into consideration the experiences from **EU Strategies<sup>47</sup> to the Baltic and Danube macroregions**. It would be interesting from the European point of view to try to see this region as a whole, as a macroregion, and not only as OCTs, ACP countries or countries of South or Central America. In that regard it could possibly be even the EuroCaribbean macroregion due to the presence of European OCTs. The EU has developed EU Strategy for the Baltic region, in 2011 the **EU Strategy for the Danube region** was put into practice (<http://www.danube-region.eu/>) and also EU has experienced the **Black Sea Synergy**. Regarding the recent Strategy for the Danube Region there took place several meetings in Romania, Bucharest. The presence of **Interact points** concerning the development of EU Strategy is very important (<http://www.interact-eu.net>). The Caribbean could be seen as Caribbean macroregion and in future there could be developed EU Strategy for the Caribbean Macroregion. It could be useful to take experience, links, ideas and sample of structure of those existing Strategies for a possible future formation of the (Euro)Caribbean Macroregion, including example of the existing webpages, logos of the Danube or Baltic Strategy. A macroregion is a geopolitical subdivision that encompasses several traditionally or politically defined regions. The meaning may vary, with the common denominator being cultural, economical, historical or social similarity within a macroregion. In the Caribbean the common denominator could be the Caribbean sea, common shared history. In this context it is interesting to use experience with history of OAS, ECLAC where several European states are present as observers or have the association status. The same approach/definition of the region and territories of so called broader Caribbean (the Caribbean Sea, Central America and northern part of the Latin America) as the Caribbean Macroregion can be used or defined from the Czech point of view at least for scientific and analytical purposes in order to focus on and promote the Czech export in that region and contribute to the further development of the growth of Czech economy.

## **Possibilities for Czech scientists and Entrepreneurs**

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<sup>47</sup> [http://www.interact-eu.net/macro\\_regional\\_strategies/macro\\_regional\\_strategies/283/3921](http://www.interact-eu.net/macro_regional_strategies/macro_regional_strategies/283/3921)



Czech Entrepreneurs should try to analyse new possibilities deriving from the new Bilateral Agreements (so called **EPA**<sup>48</sup> agreements) between the EU and the ACP countries and the EU and the Central American Nations. They should also consider the fact that many of the European Countries do have the membership (observer status) in regional organizations and also have bilateral Trade Chambers.

According to the information from Ing. V. Suchý from the Department of Technology transfer of the Czech Technology Center of AS CZ the region of Latin America and the Caribbean is a perspective one and its importance will grow in the near future. In the EEN net there exists a growing interest in that regard and cooperation with BRICS<sup>49</sup> countries is desirable and is also in line with new Czech Export strategy for 2012-2020 and new conception of Export support from MFA CZ. The author debated with **Ing. Daniela Váchová**, the Director and coordinator of the Enterprise Europe Network in the Czech Republic and also with **Ing. Václav Suchý** and **Ing. Jiří Janošec**, from the Department of Transfer of technology of the Technology center of AS CZ the possibilities of the involvement of Czech EEN into the cooperation with LAC countries. To summarize, the net EEN has active branches in Chile, Mexico and through French participation also in French Guiana, Guadeloupe and Martinique. Mainly with the Chilean and Mexican branches could be developed a closer cooperation beyond the regular existing cooperation used in the present relations in the EEN network. Some cooperation already exists. From the point of view of the Czech Republic and taking into account the abovementioned facts that EC is in the process of reassessment of the current relationship with EU OCTs and that EU has concluded the EPA agreements with ACP countries to promote trade I think there exists scope to develop the current cooperation even further possibly starting with promoting the technology cooperation using the EEN net and also using experience of TCAS CZ and also possibly through Memorandum of understanding between Czech and Caribbean universities in order to foster scientific and educational cooperation.

In the region of LAC, the author recommends to start technology and innovative cooperation with the following institutions: **NIHERST**<sup>50</sup> - The National Institute of Higher Education, Research, Science and Technology, **CAIC** (Caribbean Association of Industry & Commerce, [www.caic.org.tt](http://www.caic.org.tt)), **NISTT**<sup>51</sup> (National Innovation System for Trinidad and Tobago, **CARDI** (The Caribbean Agricultural Research and Development Institute, <http://www.cardi.org/>) based on Trinidad and Tobago, **JAMPROCORP** (Jamaica Promotions Corporation, [www.jamprocorp.com](http://www.jamprocorp.com)),

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<sup>48</sup> Consulted with PhDr. Štěpán Vojnár, Ministry of Industry and Trade, Czech Republic

<sup>49</sup> <http://capitalismmagazine.com/2012/04/brics-summit-brazil-russia-india-china-and-south-africa/>

<sup>50</sup> <http://niherst.gov.tt/aboutus/index.htm>

<sup>51</sup> <http://pesrga.gov.tt/news/2011-01-22-national-innovation-system-nistt>

**UTech**<sup>52</sup>, University of Technology Jamaica, net **Cariscience** (<http://www.cariscience.com>), **SRC**<sup>53</sup> (Scientific Research Council) both based on Jamaica, **CCST**<sup>54</sup> (Caribbean Council for Science and Technology), **UNICA**<sup>55</sup> (Association of Caribbean Universities and Research Institutes), **ACURIL**<sup>56</sup> (Association of Caribbean University, Research and Institutional Libraries), **Caribbean Export Development Agency**<sup>57</sup>, **NCST** (Barbados National Council for Science & Technology, <http://ncst.gov.bb/>), **CRNM** (Caribbean Regional Negotiating Machinery - <http://www.crnrm.org/>), **CROSQ** (Caricom Regional Organisation for Standards and Quality, <http://crosq.org/>), **BIDC**<sup>58</sup> (Barbados Investment Development Corporation).

The presence of **industrial incubators** in the LAC region can be analysed on **Info Dev** Incubator Support Center (<http://www.idisc.net/en>). The map (<http://www.idisc.net/en/IncubatorsMap.aspx>) shows that there are many incubators in Central American countries and also on some Caribbean islands.

On the **Czech** side the partners could be: the Academy of sciences of the Czech Republic and its Technology center, European Enterprise Network Czech Republic, Association of Innovation Entrepreneurship, Chamber of Commerce, Czech incubators and innovative companies and the abovementioned Czech Universities (Brno, Liberec, Ostrava, Pardubice and Prague technical University ČVUT, Charles University and VŠE (University of Economics in Prague)) and other science and technology institutions as well as Czech state export support institutions (MFA, MIT, CzechTrade) and others.

In the future the best way for the Czech Republic and its export promotion institutions would be to develop bilateral cooperation between Czech universities, research institutions, chamber of commerce. The net EEN is working on the same principle. Through the net EEN the cooperation is possible, but on the **multilateral** level. The Czech science, innovative and technology institutions can and should start developing **their own** net developed on a contractual basis directly between institutions. That could contribute to the development of the **bilateral** relationship.

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<sup>52</sup> <http://www.utech.edu.jm/>

<sup>53</sup> <http://src-jamaica.org/>

<sup>54</sup> <http://www.ccst-caribbean.org/>

<sup>55</sup> <http://www.unica.uprm.edu/> nebo [http://www.university-directory.eu/Puerto-](http://www.university-directory.eu/Puerto-Rico/Association-of-Caribbean-Universities-and-Research-Institutes-UNICA.html)

[Rico/Association-of-Caribbean-Universities-and-Research-Institutes-UNICA.html](http://www.university-directory.eu/Puerto-Rico/Association-of-Caribbean-Universities-and-Research-Institutes-UNICA.html), 31.3.2012

<sup>56</sup> <http://acuril.uprrp.edu/>

<sup>57</sup> <http://carib-export.com>

<sup>58</sup> <http://bidc.com> and <http://www.bidc.org/>

## Conclusion

In this paper the author briefly analyses a variety of innovative and technology oriented institutions in the CZ and in EU. It is intended to search for possible links, connection among the states, organizations (ACS<sup>59</sup>, ECLAC<sup>60</sup>), regions, continents and to see whether there are possibilities to take an advantage of a membership, observer or associated status in an organization of LAC region for European Countries and thus for the Czech Republic. Author asks himself why some European countries like Finland, France, Italy, Netherlands, Spain, United Kingdom have membership or observer status in Association of Caribbean States and other Caribbean institutions (e.g. bank, <http://www.iadb.org/en/about-us/member-countries,6291.html>).

Regarding the presence of French and Dutch OCTs in the Caribbean such a territory offers for Europe and the Czech Republic advantages like cheaper transport costs for the goods and services to the Caribbean region, tax and customs issues, etc. A very interesting idea for a future analysis is the existence of European Area in the Caribbean (OCTs). In that regard the author considers that the European territory in the Caribbean could be used as a base for the reexport of European (Czech) goods and services to the whole region and through regional organizations and initiatives to the countries (member states) of CARICOM, agreement DR-CAFTA, with USA (CBI-Caribbean Basin Initiative), with CANADA (Initiative CARIBCAN). The common history, shared values, educated workforce, the position of the Caribbean countries between South America, Central America and close to the Panama Channel, to main maritime routes and the U.S. market make them a comparative advantage in comparison to countries from Africa and Asia what is very interesting and could be decisive.

In that context there can be useful help and assistance of the Ministry of Foreign Affairs of the Czech Republic and also use of the services and experience of the Honorary Consulates and the CzechTrade agency. As possible partner in cooperation between the Czech Republic's science and transfer technology institutions could be used as a start the University of West Indies that has Campuses that cover the entire Caribbean: Cave Hill (Barbados), Mona (Jamaica) and St. Augustine (Trinidad and Tobago). In that regard could be also used University of Guyana or of Trinidad and Tobago or some regional IPAs (Investment Promotion Agencies and their Association - CAIPA (Caribbean Association of Investment Promotion Agencies)) or existing incubators or free trade processing zones.

To promote the bilateral trade between the Czech Republic and the Caribbean region, in order to facilitate the transfer of Czech Technology to that region, some new export

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<sup>59</sup> [www.acs-aec.org](http://www.acs-aec.org)

<sup>60</sup> <http://www.eclac.cl>

supporting organisation, association, for example the Czech-Caribbean Chamber of Commerce and Industry with headquarters in Prague and branches in the Caribbean islands could be founded. This chamber could be used as an umbrella of future institutions (e.g. investment Promotion Agencies) and associations. The Author thinks that there is a scope for creating such an institution that doesn't exist so far. The author of this paper analyses this idea in his thesis "The Transfer of Technology to the Caribbean Region". The cooperation between Czech and Caribbean scientists, research and educational institutions could be useful as a start. The idea of the Caribbean Macroregion could be defined from the Czech academic point of view to better approach the future cooperation between CZ and the LAC institutions.

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<<http://www.msmt.cz/mezinarodni-vztahy/vyzkum-a-vyvoj-1/programy-kontakt-cost-eupro-ingo-eureka>>

Research possibilities in Brasil.

<[http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country\\_pages/br/country](http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/br/country)>

Research possibilities in Chile.

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# RISK WEIGHTED ASSETS IN CONTEMPORARY INTERNATIONAL FINANCE

Václav VLASÁK<sup>1</sup>

**Abstract:** *Banking industry is strongly dependent on economic development and banks do influence economic phases. Financial institutions are an integral part of everyday life in small and medium size business as well as of corporations. Contemporary challenges in corporate finance and corporate banking are connected with new banking regulations reflecting the past crisis. Measures focus on different approach to risk policies in corporate banking, mainly in risk weighting of assets.*

**Keywords:** factoring, receivables financing, risk weighted assets, banking regulations, European Union.

**JEL classification:** G01, G21, G32.

## Introduction

Banks are an important part of the economy. These institutions facilitate various payments, grant loans and collect and appreciate deposits of their clients. Almost all the money that banks use in everyday business is not owned by the bank itself; it is owned by their clients. A bank's future net income is uncertain and highly dependent on the volatility of these assets and the reliability of the debtors. The key issue is credit risk – risk of default or late payments.

Similar to other sectors of the global and national economies, the banking industry faces new challenges in these times of post credit crisis. The mending of these poor credit portfolios takes considerable time, effort and resources of both the banks and shareholders. As a result of the recent credit crisis, banks have changed the way in which they approach credit risk management and the evaluation of debtors' financial health. Decisions involving high risk transactions or assets are of particular focus at this time.

A bank's decision to extend credit is based in legal framework and the regulations of the banking industry. Regulatory institutions around the world tightened their requirements for money lending as a result of the recent global crisis. It is common knowledge that the crisis was strongly impacted by bad credit decisions of certain banks. The main idea behind contemporary lending rules is based on the ratio of

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capital to risk assets held by the bank. In other words, regulators say: Banks must hold more capital than credit granted. The riskier the financed asset, the more capital the bank has to hold to cover the potential losses.

These new capital requirements and credit risk mitigation plans are not only a result of recent market events. In 1999, the Bank for International Settlements introduced a package of measures to make Banks be better equipped with immediate facilities for loss coverage. European banks are to meet the by the regulator set Core Tier 1 Ratio of 9% as of June 2012.

## **Hypothesis**

Paper predicts banks are to cut the risk weighted assets by selling them. Banks do not want to waste profits and dividends, trying to find alternative options to fulfill the requirements and keep the overall financial stability of sector. Beside cutting assets, banks do use the alternative risk transfer for assets clean-up.

## **Brief overview on crediting**

When you lend your money, you need to know overall risk of your borrower and transaction. This is business of risk management, who based on financial performance, management, accounting and other information, settles so called “rating”. Take it as a grade in class, 1 is the best, 5 is the worst, in banking known as default. Company that is evaluated as with rating 5, is financially not able to live any further and almost immediately goes bankrupt.

The better rating your company has, the less risky your company is. Then less risky you are, the more money at good conditions you can get. As you have a good rating, bank does not have to predict your soon end and does not have to prepare money to depreciate your exposition. Capital demand, that bank has to hold for occasion of your default, is not high.

Credit rating tell us rate of debtor 's creditworthiness. Exposition is total sum of all by bank granted loans, a so called limit. Total limit settles maximum available sum of all credit facilities either in form of loan, bank guarantees, foreign exchange derivatives or letters of credit. Exposition is constituted by short, mid and long term facilities. Short term facility is expressed in working capital financing up to 18 months, mid term – up to 5 years and long term – typically investments for longer than 60 months period.

Each rating grade expresses certain financial stability and ranking. Groups with same grade aggregate total probability of loss. You can easily and exactly express potential loss of assets granted to group of customers with similar rating. In this way banks put client' s with similar financial situation into one cluster and do know the overall likelihood of cluster' s default.

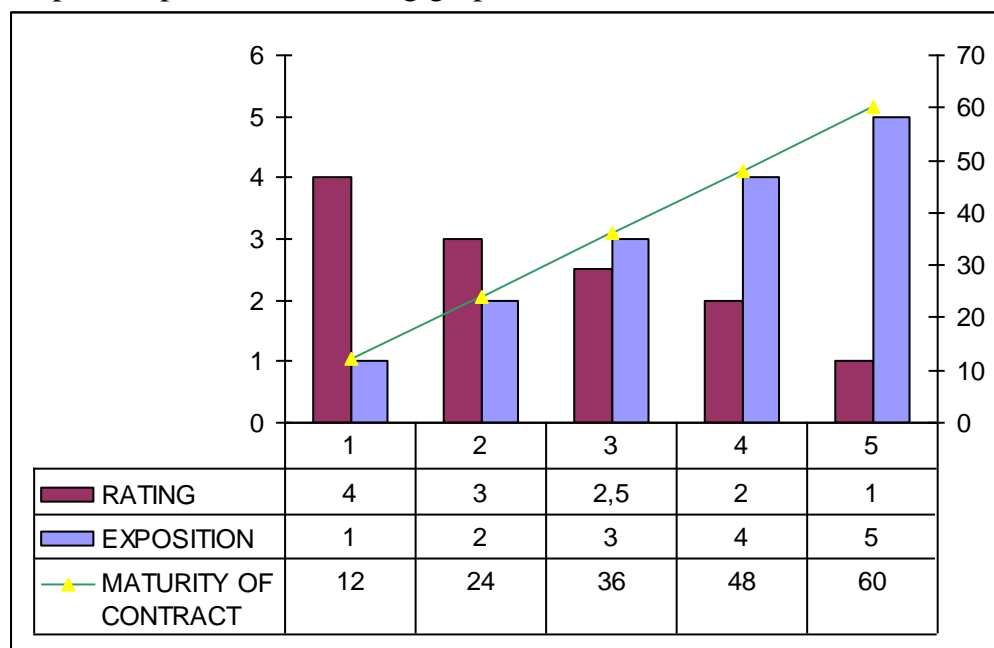


Table 1 Exposition and credit limit matrix

Corporate credit limits matrix*					
Exposition	1 Mio. EUR	2 Mio. EUR	3 Mio. EUR	4 Mio. EUR	5 Mio. EUR
Rating	1,0				
	1,5				x
	2,0			x	
	2,5				
	3,0		x		
	3,5				
	4,0	x			
	4,5	x			
	5,0	Rating of	Default	Bankruptcy	
		non available zone			
		available zone			
		x credit granted with conditions - collateral, insurance			

Source: Author's own work

Graph 1 Exposition and rating graph



Maturity of contract in years, rating grades (1-5), Exposition in Mio. EUR

Source: Author's own work

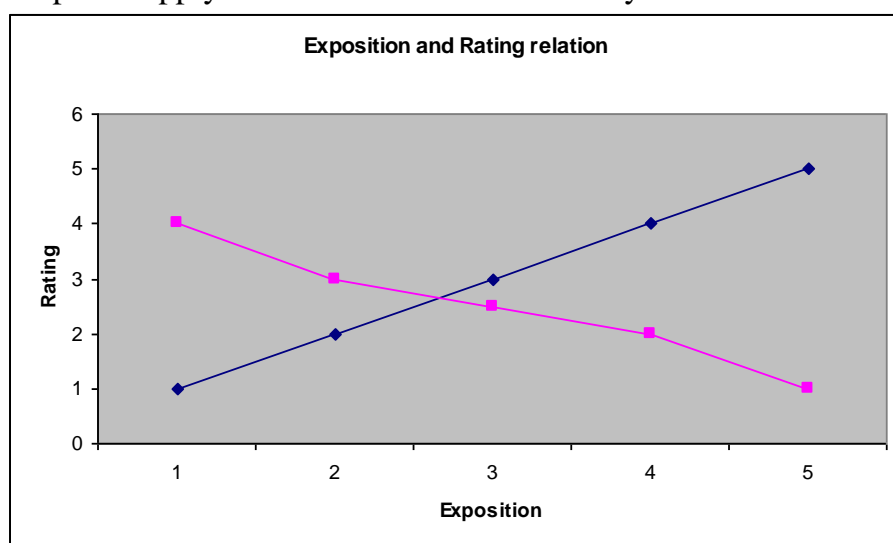
Brief overview on rating groups is most important to forecast future incomes stemming from portfolio, as well as prospective losses. Point of risk weighted assets lowering is hidden mainly in crediting better performing corporations- up to rating

grade 3. Total expense of financing client's with rating 3,5 and worse, highly exceeds cost/benefit ratio for bankers.

Grating credit to worse performing enterprise is in first half of 2012 almost forgotten. Exceptions are made based on better collateralization – using pledge or receivables, real estate, company's share or machines.

If you plot rating and limits of exposition together with tenor of facilities, you can easily outline the very basic two lines in economy – supply and demand for certain bank loan. Maturity and exposition create the supply side, the rating, overall financial situation of debtor, outlines the demand.

Graph 2 Supply and demand for credit facility

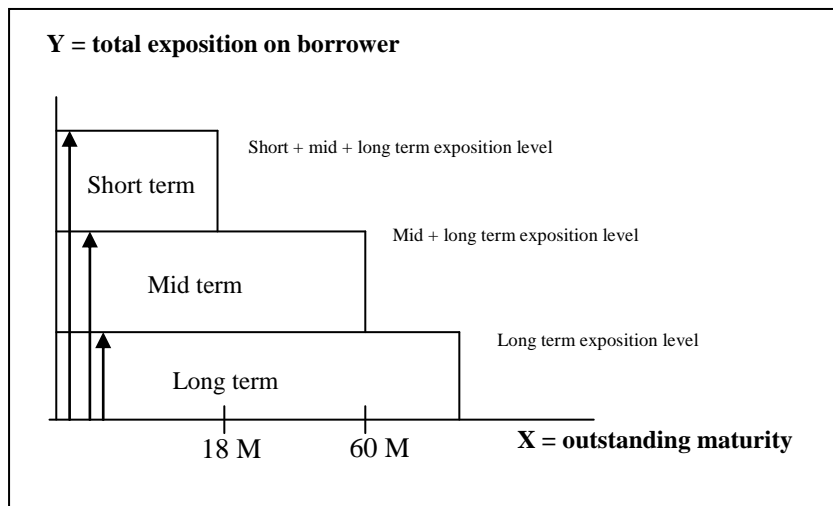


Source: Author's own work

### Waterfall principal

Total exposition, consisted of either short, mid or long term facilities, is shaped in a waterfall pattern. The time accord rule says, the longer the maturity, the lower exposition. The short term exposition could be repaid back soon and therefore risk of default could be accurately forecasted. The shorter the maturity is, the more could client get in form of a loan facility because probability of default is low in short term.

Graph 3 Waterfall Principal in Credit risk management



Source: Raiffeisenbank Water fall principal

## Risk weighted assets

Assets considered as risky are multiplied by exposition, in other words, amount of credit. Risk weight of each credit product is influenced by probability of default (PD), loss given default (LGD), sales(S) and maturity of transaction (M).

$RWA = EAD * RW$  where  $EAD$  = exposition according to collateral\*credit conversion factor,  $RW = f(PD, LGD, S, M)$

Key factor is client's rating, Risk weight is in direct proportion with rating. In worse rating portfolio risk weight accelerates. Probability of default,(PD), express the potential of bankrupt in percentage. The higher probability of default, the higher risk costs. Loss given default (LGD) express loss for exposition, value used for enumeration is 45%. The higher sales(S) company has, the higher risk cost it bears, because the higher sales you have, the more is bank willing to extend you with credit. Maturity is mainly important in investments for long term. The longer period you granted with money, the higher potential risk in course of business.

Credit conversion factor tells us how risky certain bank product is. Less risky are letters of credit, pledge on cash, non payment guarantee. More risky, and therefore more risk cost spending is loan or payment guarantee.

## BASEL II

Capital adequacy rules for banks were introduced in 1998 by Basel Committee for Banking Supervision. Set of rules is still aiming at exact capital standard in banking and to protect the financial stability of sector. Basel strictly set relation between bank's equity and risk weighted assets (Panagopoulos and Vlamis 2009).

Capital adequacy is calculated =  $0,08 * [( \text{regulatory capital} - \text{regulatory loss}) / (0,08 * \text{RWA} + \text{capital requirements to market a operative risk})]$  , where regulatory capital, Tier 1= issued capital added to deferred incomes/losses and Regulatory loss = Provision to assets – expected loss (EADxPDxLGD)

### **How to deal with new capital adequacy rules**

Clean up is a control method of correcting the portfolios in terms of financial accounting – if all loans are correctly filed. It is one of the ways to meet the target - control, whether all facilities are correctly entered into core systems. Extra collateralization doesn't have to be properly spelled and therefore enumeration of risk weighed assets could be higher, then they in fact are. Clean up is really important mainly for longer maturities and high exposures, where exact indemnity could save bank high portion of risk assets cost.

Banks have the option to add extra capital to raise core Tier 1 ratio. Only few names out of European Banking branch did this scenario, having respect to bad Unicredit experience. Capital raise is most expensive out of all measures and does not yield confident merit. Rising capital quote means cut current profits and dividends, what shareholders do not expect definitely and do not want.

Banks in crisis are more likely to make negative restatements to total assets, as they are ready to sell assets and booster capital to assets ratio (Junarsin 2011). High risky, no or very low collateralized facilities are biggest threat in risk weighted assets calculation. Bank could easily sell outstanding receivables stemming from worse portfolio. Assets sale could be done either separately, in package of few loans or complete portfolio. When you sell complete portfolio of loans to customers, other competitors are more willing to buy. Entire portfolio earns you quickly high amount of new customers, as the customers are the dominant cash generator for banks.

Shorten the long money is way to have portfolios with better expectation of potential loss. The longer period bank grants money, the less probable the estimation of default is. When there is an option and the client is able to repay the loan in a shorter time, this could be on of the ways to cut the risk costs.

Let thing the banker has certain amount of loan granted to medium size company. Year on year figures shows worsening rating. With very low rating, incomes for bank, as it has to hold more capital and cash relevant equivalents, sloped down. The banker has to find a solution, one out of many could be meeting to client. Banker says, your financials are not very positive, we would like to take your building into pledge to be better secured in order to be able to carry with banking business. If the client says yes, banker is happy as his business carries on, credit facility is better collateralized and banks spares portion of risk weighted assets cost.

Change of risk weighting model is a tricky measure. You play a game and in the middle you see, that you will probably lose, so change the rules. Bank proposes the new risk model, which regulator approves. Change of model is not easy and is not the quickest solution, but brings primarily lookout to close future. Bankers admit, that more convincing procedure would be to use the former model and cut the risky assets to meet the 9% Tier 1 ratio as of June 2012 (Vaughan 2011).

Cash coverage, or pledge on standing account bear no risk cost at all. Lending institution would be easy to cover the default just by transferring the money from one account just to another in one Bank. Most of the bank 's clients are not cash rich and do use this collateral very rarely. By doing so, lending in the bank would not have much sense. Businesses do use banking financing mainly due to lack of cash.

### **Solution in corporate finance - Alternative risk transfer**

Alternative risk transfer (ART) is complement to already mentioned procedure. ART Consists of credit risk transfer from lender on to co-lenders, guarantors or sub-lenders. In fact bank partly or completely shift the exposure and the risk on third party in crediting procedure. Insurance companies as guarantors, creditworthy business partner as a sub-debtor or financially strong mother companies could help in rating procedure and this way facilitate the lending process.

Typically trade finance and documentary business facilities are convenient for alternative risk transfer. Exporter does not have proper financial stability to cover the loan installments, therefore credit insurance company steps into business and guarantees the loan repayment. Letter of credit enables to cut the risk cost, as liable is not only supplier, but also the business partner, let us say, his bank. Bank guarantee in form bid bond could save large proportion of risky assets. Probability, when business wins the tender and does not conduct the work, is really low.

Factoring financing purports the risk transfer from lender to debtors. Company supplies to portfolio of debtors, who are creditworthy for bank. Factoring risk is stipulated in the probability risk of debtor's portfolio in the first place, financial health of supplier is not the most important, but can not be omitted. Default risk of portfolio is way lower than risk of one sole lender.

In case whole portfolio or certain debtors are not legible in terms of risk, insurance comes in place. Credit insurance company is to bear part of risk, consisted of potential debtor's insolvency or payment refusal. Factoring transaction with insurance company as a guarantor ensures high sureness about future incomes stemming from business. Factoring with insurance brings not only earnings, but also vastly cuts risk weighted assets costs for transaction.

Alternative risk transfer products in trade finance, bank guarantees or factoring enables Bank to supply their clients with competitive product, that is better risk managed than

conventional credit financing. In addition, alternative risk transfer facilities extend the available credit limits set by bank.

## **Summary and Conclusion**

This study investigates on the capital adequacy model and measures in banking sector. Contemporary financial industry is to cope with past losses stemming from bad credit decision and newly set rules given by European regulators. Banks are to meet the 9 % Tier 1 ratio to risk weighted assets.

Already in 1998 were published the BASEL rules setting proportion of equity to assets. As proven, banks have to hold equity buffer for occasional losses. The merit of BASEL convention protects the banks and depositors, but also do trace the cycles in economy. Buffer is set lower in economic boom and on the contrary higher in recession. This way banks do support the boom, but also choke the economic recovery in times of recession.

Vast majority of European Banks know, that 9 % measure fulfillment is not easy. Financial institutions decided to change the assets side of their balance sheet. Sale of assets, clean up in credit filing, extra collateralization, shorten the long term loans, cut the high exposures or alternative risk transfer are ways to lower the risky assets weight. Changes in liabilities side of balance sheet are not acceptable for bankers and shareholders, as they don't want the profit and dividends shortage.

Lending money keeps the banks going further. Even with changed rules, main focus on cost benefits ratio in financial industry still remains importantly stressed. European banking authority rules will have time restricted effect. Cycles in economy go onward and capital adequacy measures will be copying the global economy development either directly or with certain delay.

Taken together results show temporarily cut in new loans to worse financially performing lenders, cutting the exposures and new collateralization. Banks in crisis have higher intragroup transactions with parent or holding companies, simply in order to boost the equity and facilitate further growth.

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# INTERNATIONAL IMPACTS OF RISK CAPITAL INVESTMENTS ON THE EUROPEAN ECONOMY

Martin JUREK<sup>1</sup>

**Abstract:** *In this paper I present the risk capital industry's contributions to an economy undergoing economic downturn and describe the industry as an instrument in the financial crisis struggle. In this sense, it can be a very effective tool in supporting small and medium-sized companies and thus adding value to society as a whole. General partners secure an invested firm's sustainable growth primarily through financial, operational and governance engineering. Moreover, their expertise improves the firm's internationalization processes and provides for compliance with regulatory directives. This paper also introduces my research by describing the seven main research hypotheses. A descriptive analysis of 369 general partners provides introductory information regarding their typology, country of origin, capital fund/staff size and industry focus.*

**Keywords:** performance of venture capital, private equity, impacts of risk capital.

**JEL classification:** G24.

## Introduction

In times when the economic situation is undergoing a downturn, policymakers and businessmen seek recovery “cures” more than at other times. When state finance is also in the red, the government comes under scrutiny and often takes controversial and contradictory actions. As a result, we can see many mixed steps. These can be divided into passive and active measures. In the first group, the most commonly used actions are tax increases and revising and reallocation of government expenditures. On the active side there are entrepreneurial support and incentives to keep employment high. In this sense, small and medium-sized enterprises play a crucial role. As they account for 95% of all firms, they generate almost three quarters of employment. Due to globalization resulting in reduced importance of economies of scale, the contribution of small and medium-sized firms is enhanced. However, they face the traditional problems of financing, operational activities and upgrading managerial capabilities. Moreover, they struggle with regulatory burdens and new technologies. These obstacles are facilitated by risk capital - private equity or venture capital entry.

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This industry brings about not only financial but also managerial and operational support.

The sector of risk capital is the objective of my research and this paper. The research hypotheses focus on the performance of particular firms financed by private equity or venture capital funds. The main concept is based on the presumption that the macroeconomic stability of a country is largely derived from the microeconomic prosperity of individual firms. They not only secure government expenditures by paying taxes, but they also provide employment for fellow citizens. Further, they bring innovation and international experience. Risk capital investment fosters a firm's development and its support can be a competitive advantage and an instrument to overcome the current economic downturn. As a result, the question of the performance of risk capital fund investments has attracted the attention of western investors, academics and policymakers alike for many years.

Comparison of international risk capital markets reveals that there are large differences in investment activity across nations. Many researchers have attempted to explore the risk capital market. Many previous studies, however, suffer from a lack of long-term comparable datasets and overall low availability of data. This is due to the relative youth of this industry in Europe. For these reasons, some academic findings have relied mainly on the data from the United States.

In my research I draw the attention back to the initial industry's contribution to society derived from the financial, operational and governance engineering at a micro level. More specifically, my focus is on the added value from the risk capital investment to the firm invested in. In that sense I distinguish financial, governance and operational performance and impact on employment, innovation and internationalization of the invested company. Such contribution then impacts the macroeconomic situation of a country. Thus the support (or at least no regulation) of the industry is essential to the overall economy and could be one of the tools to lead an economy out of downturn.

The paper proceeds as follows: First, the related literature is reviewed. Then, the industry overview and the international impacts of risk capital industry and the internationalization process model are described. Next, the analyses of hypotheses and descriptive of data sample are performed. Finally, the conclusion with a prospect to future research is displayed.

### **Previous academic findings on risk capital performance**

The majority of research efforts on national levels measure the activity of risk capital in comparison to the public market benchmark equivalent or as a percentage of GDP. At international levels practical difficulties in findings consist of the application of different methodologies and low compatibility of data meanings and providers.

Comparing the industry with public markets stating the (not always proved empirically) claim attractiveness and profitability of this asset class is not accurate. Most importantly, it groups risk capital in with riskier financial instruments such as hedge funds, thus hiding the inherent historical attributes of entrepreneurial support, operational and governance engineering. With such a limited view, the industry has come under increasing media scrutiny in the past few years, attracting the attention of regulators. Moreover, as Talmorand Vasvari(2011) state, it attracts additional capital at times when fund and deal sizes are at a record high and from less experienced and less sophisticated investors who may end up backing the wrong general partners, based on the belief that even a random fund selection process would lead to supposedly attractive average returns. In fact, these average returns are not necessarily attractive and, more problematic for the industry as a whole, as long as less skilled general partners continue to obtain funding, average future returns are less likely to increase than they otherwise would be.

The academic research literature usually tends to compare private and public equity returns or explores the determinants of risk capital activities in a particular country. The outcomes report a better performance for private equity, although the results vary based on the sample chosen and assumptions made. International comparison also reveals enormous differences in activities across countries.

Using a dataset of 73 private equity funds over the last two decades, Ljungqvist and Richardson (2003) analyze the cash flow, return, and risk characteristics of private equity. Unlike other studies, they detail cash flow data for each fund, rather than accounting returns. In terms of performance, they document that private equity funds generate excess returns on the order of five to eight percent per annum relative to the aggregate public equity market. Moreover, while they estimate the betas of the private equity funds' portfolios to be greater than one, they show that on a risk-adjusted basis the excess value of the typical private equity fund is on the order of 24 percent relative to the present value of the invested capital. The interpretation they present is that it represents compensation for holding a 10-year illiquid investment.

Kaplan and Schoar (2005) investigate the performance and capital inflows of 746 private equity partnerships. Average fund returns are little above the Standard&Poor's 500 benchmark equivalent, although there is substantial heterogeneity across funds. Authors state that returns persist strongly across different funds raised by a partnership. In that respect better performing partnerships are more likely to raise follow-on funds and larger funds. At the industry level, they find market entry and fund performance cyclical; however, established funds are less sensitive to cycles than new entrants.

In opposition to the previous two researches, Phalippou and Gottschalg (2008) use a dataset of 1328 mature private equity funds finding, that performance estimates

found in previous research and used as industry benchmarks are overstated. They show that in commonly used samples, accounting values reported by mature funds for non-exited investments are substantial and they provide evidence that these mostly represent living dead investments. Moreover they document a bias towards better performing funds in these data. After correcting for bias and accounting values, average fund performance underperforms the S&P 500 by 3% to 6%. They conclude that the stunning growth in the amount allocated these funds cannot be attributed to genuinely high past net performance. As a result they discuss several potentially misleading aspects of standard performance reporting and discuss some of the added benefits of investing in risk capital.

Most recently Gottschalg et al. (2010) prove the outperformance of risk capital over public markets. Their report investigates components of 46 buyout fund returns using a dataset provided by Pantheon, a major fund of funds. In contrast to previous studies, the authors focus on returns at the fund level net of fees and carry. Such perspective tends to be more accurate for investors. First they identify the key components of net returns and then deviate to compare the internal rate of return of private equity investments to passive returns from public market indices. This report ignores the typically irregular timing of fund investments' cash flows and the differences in operating and leverage risk. The authors provide evidence of a weighted average funds' outperformance of 4.47% over the public market.

Tab. 1 Academic findings on risk capital performance

Authors	Risk capital funds performance	Sample Size
Ljungqvist and Richardson (2003)	5%-8% above the S&P 500	73
Kaplan and Schoar (2005)	Above the S&P 500	746
Phalippou and Gottschalg (2008)	3%-6% below the S&P 500	1328
Gottschalg et al. (2010)	4.5% above public market	46

Source: author

## Venture Capital and Private Equity Overview

The venture capital (VC) and private equity (PE) industry sometimes defined as risk capital has its origins in the United States of America. The history goes back to the beginning of angel investing connected with wealthy American families in the 1930s. The American Research and Development Corporation from 1946 was then the early start of venture capital financing. Venture capital was given a boost, however, in

1958 with the small business investment companies (SBICs) licensing. In their book, Talmor and Vasvari (2011) list the most affluent VC/PE firms. The first of today's big private equity firms, Warburg Pincus, was formed only in the late 1960s, followed by another large private equity firm today, Thomas Lee Partners (1974) and KKR (1978). That is how the incredible history of VC/PE industry was founded.

In Czech literature and in some countries in the CEE, the term "risk capital" is commonly used. Such capital represents a fairly new and a relatively rarely used form of entrepreneurial activity financing in the Czech market and in the CEE. The definition of risk capital varies and even application of the term is not uniform (Černohlávková et al., 2007). A broader definition used by the European Private Equity and Venture Capital Association (EVCA) presents risk capital as an entrepreneurial activity financing form in various development phases. Investments start with a seed, start up and early growth financing and through transaction activities, mergers and acquisitions end by either initial public offerings (IPO) or rescue financing. Such capital is part of the asset management industry with investments transferred into not publicly traded securities.

How is this industry actually distinctive among its peers? Within the service sector, risk capital investors are classifiable. In comparison to consultants/accountants who provide strategic advice only, risk capital investors provide both guidance and monetary support (Wright et al., 2005). Next, in contrast to banks, they provide equity capital that is designed for use in risky settings where it is costly for lenders and borrowers to interact due to asymmetric information problems (Jeng and Wells, 2000). Investors, however, do not only pursue short-term investment value appreciation, but they strive for an overall evaluation increase. They share this common interest with the subject's owners and serve as business partners as a result. This partnership is based firstly on financial support and secondly on management experience and provision of industrial knowledge. General partners take an active role in the companies, are part of the management boards. Before investing, investors perform a due diligence process with an extensive insight into the business they invest in. Talmor and Vasvari (2011) argue that private equity funds operate with much better information and stronger controls over portfolio companies than, for example, mutual funds holding quoted equities. At its peak, the venture capital and private equity industry can be divided into buyout and venture capital funds. Both buyout funds and venture capital funds share similar organizational structures regarding their management fee structure and longevity. However, they differ in investment strategy. Buyout funds tend to focus on more mature companies and are larger in size (Talmor and Vasvari, 2011).

An investor is generally a privately-owned VC/PE fund, an investment company. The next possibility is a fund partially owned by a corporate entity whose main activity is

different. In this case, we use the terms captive (share is larger than 50%) or a semi-captive (20-50%) mother company. The last option is a government-owned fund as part of public pension fund. This option is especially well developed in Nordic countries. The industry is not static and its dynamic development is one of the main characteristics of the industry that is defined by its international expansion.

## **Impacts of Risk Capital**

The risk capital industry started as a market niche with a very low ratio towards the public market. Its position, however, has been successfully progressing and has secured its significance to the point when some authors wrote about decreasing need for public companies. Jensen (1989) points out that the publicly held corporation, the mainstay of economic progress in the United States for a century, has outlived its usefulness in many sectors of the economy and is being eclipsed. The public corporation has been outshined by new organizations emerging in its place – organizations that are corporate in form but have no public shareholders and are not listed or traded on organized exchanges.

Such an exaggerated approach, though not fully proven, turned the attention of academics towards the impacts of these non-public organizations. Economists were asking what was driving the risk capital activity and success. What specifically are private equity and venture capital firms bringing to the invested companies?

Kaplan and Stromberg (2008) sum up three sets of changes to the firms in which they invest, which they categorize as financial engineering, governance engineering, and operational engineering. Those three areas are generally seen to add value. Lerner et al. (2009) describe them in the following way:

- Financial engineering refers to steps taken to add value by making capital structure more efficient – that is, decreasing the cost of capital. Typically, this goal is achieved in buyouts by taking on leverage and bringing in outside capital.
- Governance engineering refers to processes that create value by improving incentives and monitoring in the companies that private equity investors finance. These steps can include the imposition of formal monitoring techniques and compensation that links pay to performance.
- Operational engineering refers to initiatives by private equity funds to improve the firms they finance through the provision of formal and informal consulting services to boost production processes, working capital management, marketing and product mix, and related areas.

All three of these areas are incorporated in my research with slight modifications and are described below under “Hypotheses”. These points are also enhanced by the

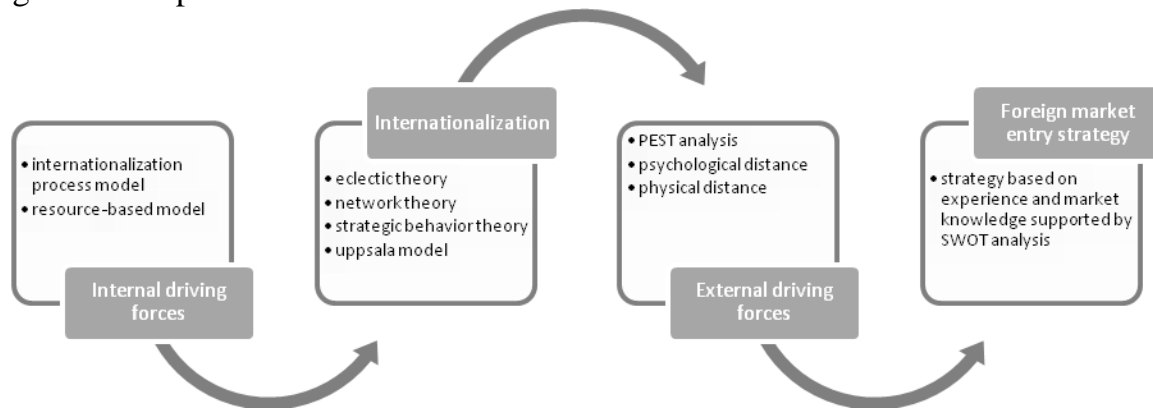
impacts of risk capital on employment size, internationalization, innovation and regulatory attempts.

### **Internationalization Process of Risk Capital**

In the economics literature, there is no single generally accepted definition of the term “internationalization” or foreign market entry. On the contrary, there are many different definitions stressing specific aspects of internationalization. Calof and Beamish (1995) describe internationalization as “the process of adapting firms’ operations (strategy, structure, resource, etc.) to international environments.” For them, moreover, internationalization includes the reaction of a firm, for example dropping a product or factory operation because of international factors. Internationalization can be seen as the process of adapting exchange transaction modality to international markets (Andersen, 1997). Internationalization of firms is a process in which the firms gradually increase their international involvement. As the process is gradual, it implies a step-by-step approach with growing intensity (Johanson and Vahlne, 2006).

In my research, a wide definition of internationalization is chosen: Internationalization is the beginning and increasing interaction of a firm with market participants from other nations (Ninan, 2009). This definition covers several aspects. There is a beginning of international interaction. Further, it is a process of increased interaction. Last, it is stressed that internationalization involves dealing with foreign market. When analyzing the internationalization of the risk capital industry, several theories and models were applied. The majority of them describe the internationalization of the industry only generally. More practically applicable are elements of internal and external driving forces – triggers that are deducible in some internationalization theories and models. These can be found especially in the works of Swedish and Nordic authors. Based on my own empirical study, a combination of these internal and external driving forces is behind the risk capital entry into foreign markets. In the study, risk capital fund managers and academic experts were interviewed and selected articles applied. A deeper analysis of the data collected is desirable and will follow in papers to come. The whole process flows according to the scheme in Figure 1. Internal forces influence the firm’s critical decision to internationalize. They play a critical competitive advantage. External forces decide upon specific foreign markets and their economic vicinity. A foreign market entry strategy is then a result of both forces. Internationalization models and theories build a theoretical connection between the internal and external forces. The internationalizing firm is not particularly aware of this concept that the firm is creating. The evaluation takes place *ex post* as a result.

Fig. 1 Risk capital internationalization model



Source: author

The internal driving forces take place at the firm's level as such and can be described by two models. The first one is the Swedish internationalization process model (Johanson and Vahlne, 1990). In this model, the internationalization can be viewed as continuously proceeding series of affairs and as a learning process. The fundamental idea is that the current state strongly influences the future state of internationalization. A market engagement is characterized by level of resources and by a degree of commitments to a certain market. Detection of opportunities, recognition of competitors, market conditions and distribution channels analysis are all based on market knowledge. Resources in the firm are the second model (Wright, 2001). The following sections are related to the Wright's resource model: general human capital, management know-how, industry-specific know-how, ability to acquire financial capital. International activities are dependent on just those resources. Human capital, strategy and management vision are different and constructed by one's own opinion on the market and ambitions.

External driving forces influence the selection of the foreign country which the risk capital investor is entering. In the so-called meta level (above-industry level), the effects of economic distance are rising. This distance can be divided into psychological and physical one (Johansson and Vahlne, 1990). The psychological distance is built by constraints repressing flow of information from the market to the firm and vice versa. The physical distance is a barrier in the flow of goods and payments between the firm and the market. For the purposes of a strategic audit of macro environment and foreign market evaluation, the PEST analysis is suitable. A specific foreign market entry strategy is created as a consequential interconnection of internal and external driving forces based on SWOT analysis.

### Recent Development of the Risk Capital Industry and Regulatory Activities

During the last financial crisis, starting with the global credit crisis in 2008, the risk capital industry experienced a dramatic decline. A significant slowdown affected

primarily the buyouts industry. According to Talmor and Vasvari (2011) the crisis demonstrated itself in many ways, stressing the buyouts size, expensive debt and new focus. The following conclusions can be drawn:

- Debt financing became expensive, scarce and fewer deals were using it.
- The overall fundraising and deals' size decreased.
- Investors' focus changed. They began to readjust their geographical portfolio towards emerging markets. The importance of operational engineering began to outweigh financial engineering.
- New financial regulatory activities will restrict VC/PE funds.

The risk capital industry was exempt from many reporting, registration and requirements that were demanded from other types of investments. New regulations, however, will place considerable requirements on risk capital funds. In Europe, the Alternative Investment Fund Managers (AIFM) Directive from late 2010 is the most important legislative process ever faced by the European private equity and venture capital industry. It is also one of the most rigorously debated pieces of financial regulation ever to emerge from the EU, with around 2,000 amendments tabled by MEPs to the Commission's original draft (EVCA, 2011). This Directive mainly changes capital/governance requirements and leverage limits resulting in obstacles for non-European investors to place funds in Europe. In the U. S., the Dodd-Frank Act of July 2010 requires new registration with the Securities and Exchange Commission (SEC) for funds with more than USD 150 million. The SEC registration brings SEC oversight and new compliance with its policies. Despite some exemptions, the risk capital industry will be more supervised and will face increased regulatory costs.

## **Hypotheses**

The questionnaire is not described in detail due to space limitations. It is divided into three parts. The first part consists of descriptive information about the respondent's firm in terms of its type, fund/staff size and origin. The second part elaborates industry focus of general partners. The third part dwells on the performance of invested firms in terms of finance, operations, governance, internationalization, innovation and regulation. The aim of the study is to provide answers to the seven hypotheses listed below.

The research hypotheses focus on the performance of particular firms. Hypotheses contain indicators that address an essential part of firm's sustainability. The concept is aimed at the micro side of economics. This outline is based on the presumption from the introduction of this paper. The macroeconomic stability of a country is for the most part derived from the microeconomic prosperity of individual firms. They not only



secure government expenditures by paying taxes, but they also provide employment for fellow citizens. Further, they bring innovation and international experience.

H1: Private equity and venture capital entry has a positive effect on an invested firm's financial performance – firms financed with a VC/PE investment have lower financial development. It thus creates more opportunities for general partners to add value through financial engineering.

H2: Private equity and venture capital entry has a positive effect on an invested firm's operational performance – firms financed with a VC/PE investment lack effective operational procedures. Such a situation thus creates more opportunities for general partners to create value through operational engineering.

H3: Private equity and venture capital entry has a positive effect on an invested firm's governing performance – firms financed with a VC/PE investment often face a poor institutional environment. General partners overcome this difficulty and overall governing underperformance. Moreover, they motivate and educate the staff.

H4: Private equity and venture capital entry has a positive effect on employees – a firm's employment increases in a long run. Although a certain decrease in staff size can be seen during the first years following investment, in the long run, the opposite is true. This is due to job creation resulting from innovation and internationalization brought by general partners.

H5: Private equity and venture capital entry effects positively firm's internationalization. International experience and networking of general partners result in high degree of internationalization level.

H6: Private equity and venture capital entry increases a firm's innovation – general partners foster the innovation process and encourage patent filings as a result.

H7: The Directive on Alternative Investment Fund Managers (AIFM) will not have a negative impact on general partners' investment decision processes.

### **The questionnaire and addressees**

With regard to financial performance, the questionnaire considers questions covering indicators from financial analysis. Indicators cover data from a firm's balance sheet and income statement. All questions concern a positive trend in indicators. Only for weighted average cost of capital is a decrease desirable.

- Total sales and their trackable increase are addressed. A positive trend in total sales is one of the most important prerequisites for a firm's future growth.
- Earnings before interest and taxes (EBIT) is equal to a firm's profit excluding interest and income tax expenses. The synonym "operating profit" is also used. This indicator signifies whether sales growth also leads to increased profit.

- Return on Equity (ROE) – The amount of net income returned as a percentage of equity. ROE measures a firm's profitability by revealing how much profit is generated with the money invested.
- Return on Assets (ROA) – An indicator of how profitable a firm is in relation to its total assets. ROA provides a measurement of management efficiency at using its assets to generate earnings.
- The weighted average cost of capital (WACC) – The rate at which a firm is expected to pay on average to its creditors, owners and providers of capital.
- Solvency – the ability to pay a firm's obligation to creditors and other third parties in the long run.
- Liquidity – an indicator of maintenance of positive cash flow, while satisfying immediate obligations.

Operational performance follows financial performance, complementing one another. Questions in the questionnaire focus on: higher efficiency of production processes, increased productivity, time needed to bring a new product or service to the market, optimization of inventory, resources allocation, service level, production facilities, product quality, and marketing activities.

Under questions regarding governance performance, the following issues are addressed: controlling, monitoring, networking, long-term performance based managerial compensation -incentives schemes.

Sections covering the remaining hypotheses are described in brief due to the lower number of such questions. Regarding the positive effect on employees, job creation in the long run is mainly tracked. Moreover, comparable education and remuneration levels and their development are monitored. A firm's internationalization is defined by sales increase in foreign markets, new market entries and international networking. A secondary aim is to prove the risk capital internationalization model described in detail earlier. Questions connected to innovation cover patent filings and registrations, impact on a firm's innovation and creation of new firms. The last set of questions asks about increased costs that the Directive on Alternative Investment Fund Managers could lead to and about the effects on investments that general partners expect and that this directive implies.

Some of the questions displayed provide metric responses. The majority of responses, however, are ordinal, made via entries on a seven-point Likert scale. Other responses are also categorical.

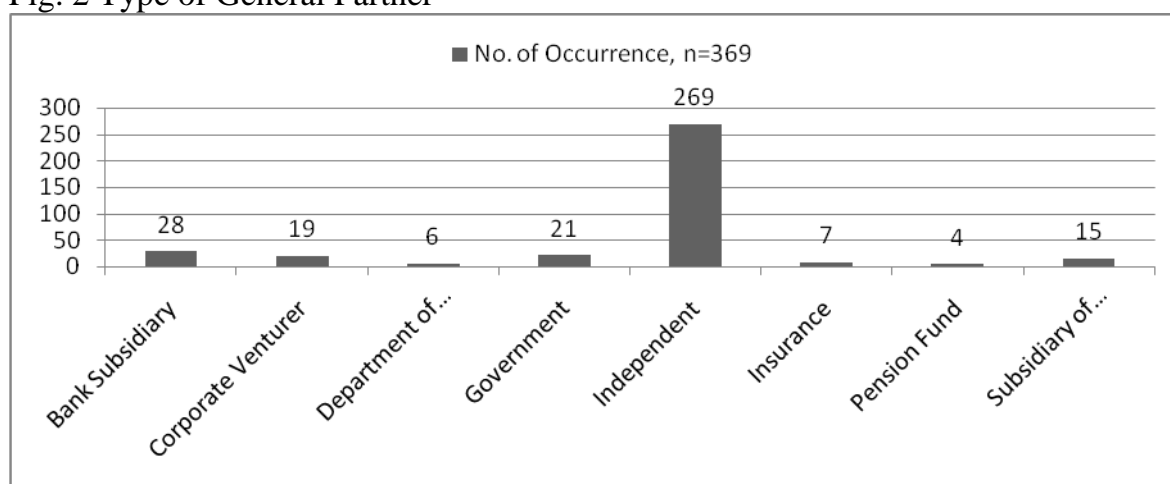
The ordinal responses range as follows: strongly agree, agree, agree somewhat, undecided, disagree somewhat, disagree, strongly disagree. Respondents have the option to evaluate any question as irrelevant or leave the question unanswered.

The survey was distributed via email to 369 general partners in Europe. Risk capital firms were selected from the European Private Equity and Venture Capital Association (EVCA) database. This organization is the prime source for information about the European venture capital and private equity industry. All respondents were general partners (GP) and current full members of EVCA.

## Descriptive analysis

The responding general partners are segmented into the following groups: bank subsidiary, corporate venture, department of corporation, government, independent, insurance, pension fund, subsidiary of private equity. These segments are presented in Figure 2. A vast majority - almost three quarters - define themselves as independent general partners. A nearly equal proportion of respondents from bank subsidiaries, corporate venturers, governments and subsidiaries of private equity is covered. Only 5% of firms come from departments of corporations, insurance companies or pension funds.

Fig. 2 Type of General Partner



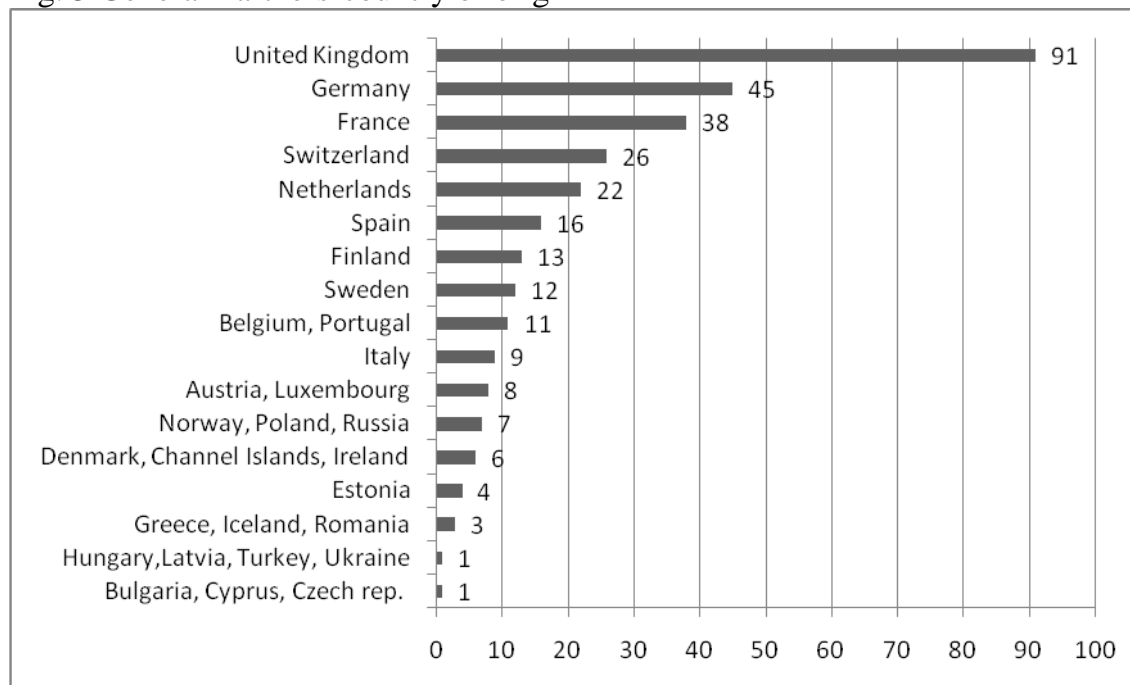
Source: author

A geographic distinction is made according to the origin of general partners. All main European players are covered, including Russia, Iceland, Turkey and the Channel Islands. From the European Union member states, the following respondents are missing: Slovakia, Slovenia, Malta, and Lithuania. The origin of investors is presented in Figure 3. Almost 50% of respondents have their seat in the United Kingdom, Germany or France. The risk capital industry is least represented in Bulgaria, Cyprus, Czech Republic, Hungary, Latvia, Turkey and Ukraine.

Not all respondents provided information regarding the fund capital and staff size. 288 respondents stated the size of their fund capital and 299 quoted their staff size. Both the capital fund and staff sizes are very heterogeneous. The majority oscillates around

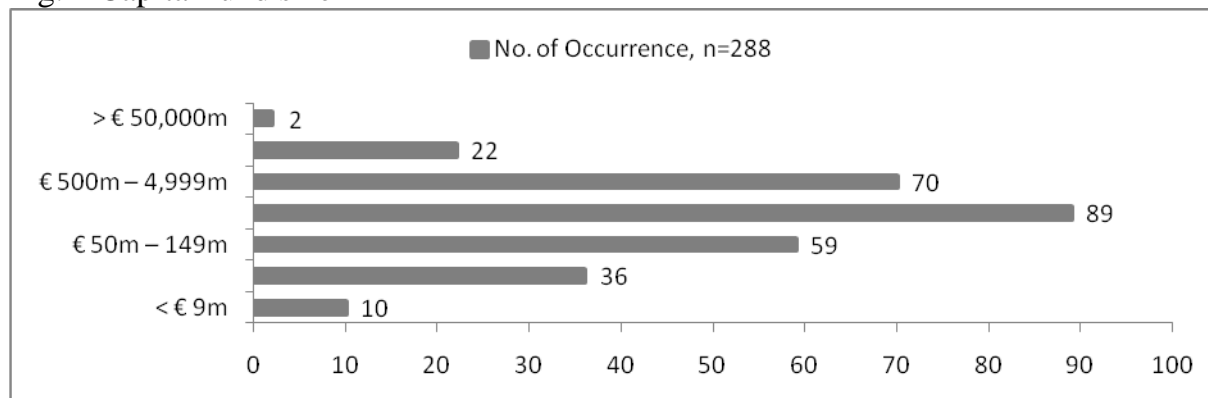
the € 150m - 499m interval. Almost one half of general partner firms employ between 5 and 14 employees.

Fig. 3 General Partners' country of origin



Source: author

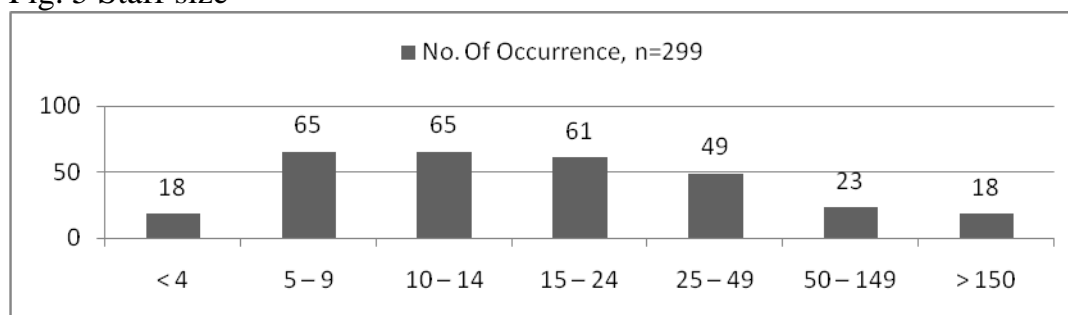
Fig. 4 Capital fund size



Source: author

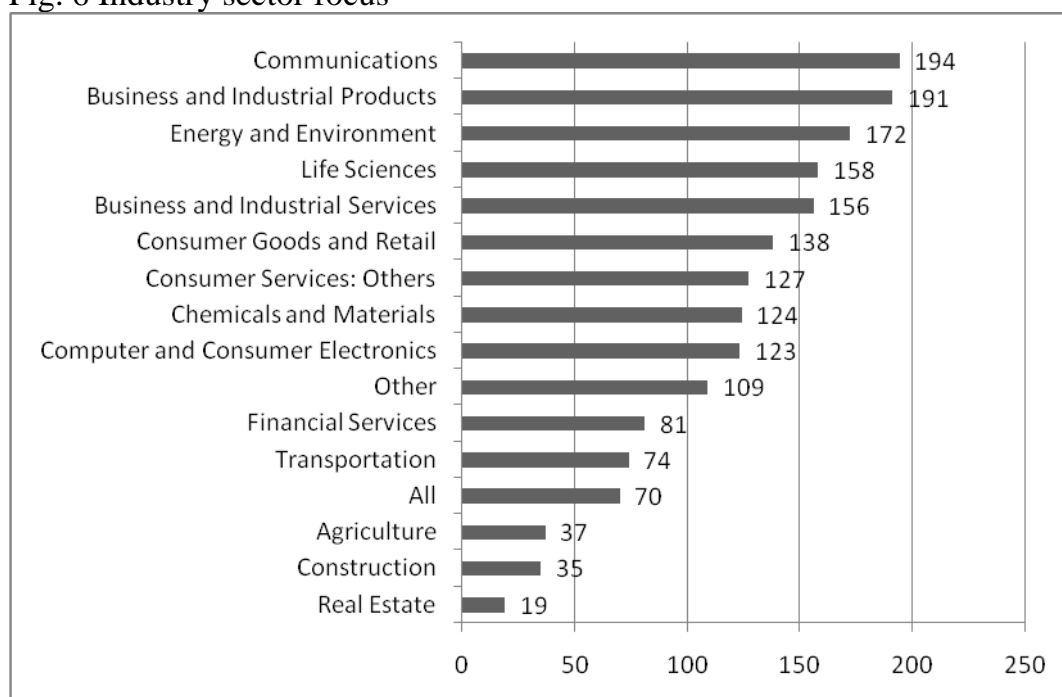
In Figure 6, the focus of general partners is displayed. Not surprisingly, communications, business and industrial products and energy/environment score the highest. The least popular industries include real estate, construction and agriculture.

Fig. 5 Staff size



Source: author

Fig. 6 Industry sector focus



Source: author

## Conclusions

The aim of this paper was to present the risk capital industry's contributions to an economy undergoing economic downturn and describe it as an instrument in the financial crisis struggle. In this sense, the industry can be a very effective tool in supporting small and medium-sized companies and thus adding value to all of society. General partners secure an invested firm's sustainable growth primarily by financial, operational and governance engineering. Moreover, their expertise improves a firm's internationalization processes and provides for compliance with regulatory directives.

After the introduction, the current academic findings were set forth. Then the venture capital and private equity economic impacts were reviewed. The industry market started as a market niche with a very low ratio towards public markets. In the course of

events, the industry's activities and success have increased to an extent that the position of public markets became doubtful. Some authors even describe them as having outlived their usefulness in many sectors of the economy and as being eclipsed. In the next paragraphs, the internationalization and industry's internationalization model were described, dividing the process into internal and external driving forces resulting in a foreign market entry strategy. In the last theoretical chapter, the recent development of regulatory activities affecting the risk capital industry was described.

In this paper, an introduction to my research was presented. The research provides answers to seven specific hypotheses covering invested firm's performance, employment/innovation development, internationalization and regulation. Hypotheses contain indicators that address essential areas of firm's sustainability. The research was conducted via questionnaires. The focus is on a micro-level, observing performance of particular firms. In contrast, previous academic researchers applied a macro-level approach monitoring risk capital funds' performance in comparison to public markets. The questionnaire was sent to 369 European general partners that are also full members of the European Private Equity and Venture Capital association. In this paper a descriptive analysis of respondents were provided. This analysis covered typology of general partners, their country origin, capital fund/staff size and industry focus. Results of this analysis build a cornerstone for further research that uses descriptive statistics and the Wilcoxon signed rank test. The research aims to prove relationships and significance among the impacts of a risk capital firm's entry. The next paper thus, will provide answers to the hypotheses introduced here.

## **Acknowledgement**

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# THE POSSIBILITIES OF THE CORPORATE RISK MANAGEMENT IN THE CZECH ENVIRONMENT, EMPHASISING ON THE MARKET RISKS

Klára KOUKALOVÁ<sup>1</sup>

**Abstract:** *There are plenty of risks connected with the entrepreneurship. The Czech companies are facing new risks when they start to move their business into foreign countries. The company should be capable to formulate all the risks which threaten its financial results and define all the methods to manage them efficiently.*

*A lot of foreign authors deal with the financial risk management either for financial or nonfinancial companies. The available literature focusing on the Czech business environment is poor. The main tools of the risk management and its benefits are not sufficiently explained. Due to the ignorance the Czech companies are than making disadvantageous hedging contracts or are simply avoiding them. The prospects about the entry of the Czech Republic into the Euro zone are diminishing and therefore the Czech financial managers should adopt the principles of the hedging instruments, at least the instruments suitable for the currency risk management.*

*The essay describes the basic risks which could endanger the financial stability of the company. On the example of the currency risk, the risk management process is described. Not only are the instruments offered by a bank presented. On the concrete example of the Czech company is than demonstrated that it is possible also in the Czech environment to create the professional and efficient risk management strategy.*

**Keywords:** market risk, currency risk, corporate risk management.

**JEL classification:** F31, G32.

## Introduction

The current business environment evinces plenty of risks that managers have to deal with. The deeper internationalization processes along with globalization facilitated the global diffusion of people, capital, information as well as risks and financial distress. The managers all over the world have to deal with these changing circumstances and utilize their knowledge of the overall management methods.

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Corporate risk management became one of the most discussed management field recently. Only a clear and comprehensible approach to the risks coming from both external and internal environment of the company can lead to value enhancing management processes.

There was written much abroad about the efficient risk management. Several studies tried to explore the efficiency of risk management processes used in a company or compared the use of various tools trying to find the best combination of them. But just a little has been written about the Czech business environment, its approach to risk management and the available risk management tools in the Czech Republic.

This paper should at first present and explain the basic terms which can be met when reading about risk management. The necessity of the adequate adoption of the risk management techniques will be supported by the observation of the current market developments. Next to it the paper will describe the risk management tools and typical processes which the company has to undergo when the risk should be correctly governed. On the example of the exchange rate risk the concrete risk management process will be presented. At least the paper will discuss the corporate risk management on the example of one of the largest Czech companies, highly dependent on the price of raw materials.

## **Risk and risk management in general**

### **Risks and financial risks**

Everyday a company as well as a man they are facing plenty of risks. Risk can be characterized as a likelihood that something unpredictable will happen. It doesn't matter if there is a positive or a negative result of that unpredictable event, we always speak about risk. The risk is closely connected with uncertainty, even though they have to be distinguished. Uncertainty can't be measured on the contrary to risk. When managing the risks we are trying to transform uncertainty into certainty. There are three basic components of risk:

- probability that something happen,
- the event,
- impact of the event on the company.

There are as many sorting of risks as many authors are dealing with this topic. I will mention the classification done by the Greenwich Treasury Advisors LLC, because they mention all the risks from the company's point of view, namely<sup>2</sup>:

- business risk – which includes sales, marketing, manufacturing, competition and reputation risk,
- market risk – which includes interest rate, equity, commodity, exchange rate and inflation risk,
- liquidity risk – which includes funding, credit lines, contingent capital, long term vs. short term financing risk,
- credit risk – which includes commercial, counterparty, sovereign, settlement risk and
- operational risk – which includes systems, controls, regulatory, fraud, weather and natural disasters risk.

All the risks mentioned above come from the internal or external environment of the company. The basic mistake of the financial managers is often seen in the excessive concentration to the external influences and overseeing the inside treats. Later in this paper we will discuss only the market risks, especially the interest rate, exchange rate risk and commodity risk.

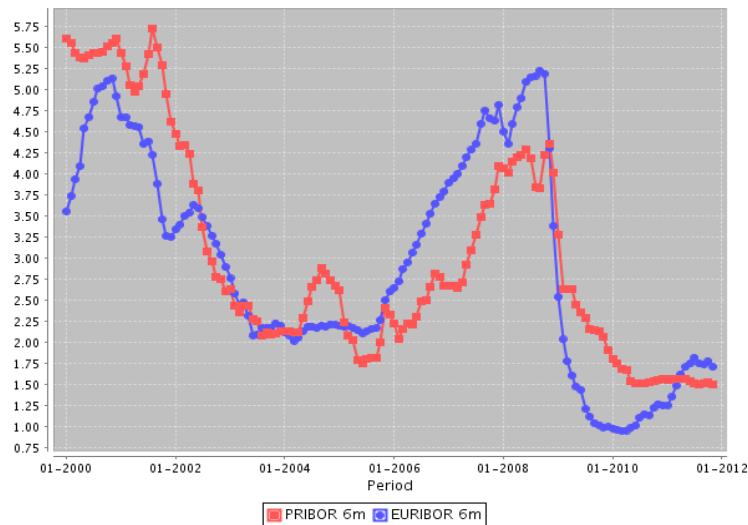
### ***Interest rate risk***

Interest rate risk arises from the threat that the interest rates are going to change. If we are planning to deposit our financial funds, the declining interest rates would cause us financial loses. On the other hand when we need a credit, we are afraid of the raising interest rates. Interest rates play a significant role in the business. In the EU the most important interest rate is EURIBOR (Euro Interbank Offered Rate), for the Czech environment PRIBOR is usually used as a base when determining the final interest rate for a client. As we can see on the following chart, during the last three years the levels of interest rates changed rapidly. The 2008 peak of PRIBOR ascended to 4, 36 % in November, when EURIBOR reached its maximum even earlier in September with 5, 22 %. Comparing to the values from 2010, with 1, 51 % for PRIBOR and 0, 95 % for EURIBOR, the difference is significant.

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<sup>2</sup> Greenwich Treasury Advisors LLC – Treasury Management Advisory: Corporate Commodity Risk Management

Chart 1 The development of PRIBOR 6M and EURIBOR 6M from the beginning of 2000 monthly data



Source: CNB website:

[http://www.cnb.cz/cnb/STAT.ARADY\\_PKG.VYSTUP?p\\_period=1&p\\_sort=2&p\\_des=50&p\\_sestuid=462&p\\_uka=4%2C9&p\\_strid=AAF&p\\_od=200801&p\\_do=201111&p\\_lang=EN&p\\_format=0&p\\_decsep=%2C](http://www.cnb.cz/cnb/STAT.ARADY_PKG.VYSTUP?p_period=1&p_sort=2&p_des=50&p_sestuid=462&p_uka=4%2C9&p_strid=AAF&p_od=200801&p_do=201111&p_lang=EN&p_format=0&p_decsep=%2C), 4.12.2011

When the company is deciding whether to take a loan or not, there are several factors it has to take into account. Next to the actual market situations, the company's financial stability, it also has to choose between the fix and floating rate. Provided that a company chooses a fix rate, it is exposed to the risk that the interest rate will decline in the future. When the manager chooses the floating rate, he can benefit from the falling interest rates but in the same time he is endangered by the unlimited growth of the market interest rates. The proper tools to manage interest rate risk will be presented later.

### ***Exchange rate risk***

Exchange rate risk sometimes titled also as currency exposure or foreign exchange risk is the most common financial risk. The exchange rate risk is very much similar to the above mentioned interest rate risk. It arises from the unpredictable movements of the exchange rates. Some of the dimensions of the foreign exchange risk are influencing all the Czech companies, not only those with the international activities (e.g. by the foreign competitors whose good became cheaper with the appreciation of the Czech crown). These three dimensions are:

- transaction,

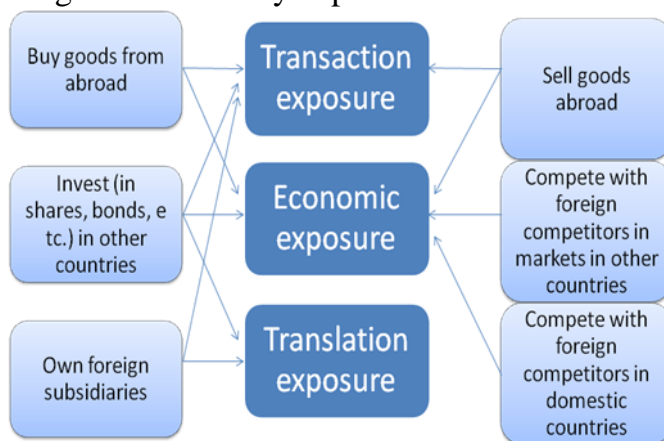
- translation and
- economic risk.

Transaction risk refers to the risk that the company's receivables (or payables) denominated in the foreign currency lose (gain) on their nominal value expressed in the domestic currency. It is connected with the time difference between the arrangement of the contract and the financial settlement of the related receivables (payables). The transaction risk is the easiest one to be managed.

Translation risk is mainly perceived by the multinational corporations with subsidiaries abroad. When the consolidated balance sheet for the whole group is designed the volatility of the exchange rates can influence the valuation of the foreign assets and liabilities.

The last one, the economic risk is defined as the risk based on the loss of the firm's competitiveness due to the change of the exchange rates. The majority of the Czech exporters were used to take the advantage of the weak Czech crown for several years. Therefore their goods were cheaper in comparison to the goods of their foreign competitors. With the stronger Czech crown they were forced to put up prices and their good became less competitive. All the three basic types of the currency risk and the situations due to which the risk is arising are graphically represented on the following diagram.

Diagram 1 Currency exposures



*Source: Coyle, B: Introduction to Currency Risk*

The currency risk is the most widened financial risk and its tools are therefore deeply examined. They will serve as the example hedging tools later in this text. The

necessity of the management of the exchange rate exposures demonstrates the volatility of the Czech crown for the last year in the relation to the Euro. The exchange rate CZK/EUR on the 28.12.2010 reached the level of 25,360 CZK/EUR, one month later the Czech crown appreciated by 5 % to 24,010 CZK/EUR on the 4.2.2011. The worst levels for the year 2011 were recorded on the 25.11.2011 with 26,026 CZK/EUR in contrast with the level of the year 2008 with only 23,221 CZK/EUR which we still have in mind.

The higher the unpredicted volatility of the Czech crown the greater the possibility of the financial losses for the company. The Euro is the most often used invoicing currency for the Czech exporters, because of that its movements should be highly monitored by all the Czech financial managers especially in the unstable times like the recent ones.

### ***Commodity risk***

Commodity risk is defined as the risk of financial losses connected with the adverse movements of commodity prices. Only some companies are exposed to the commodity risk. Especially following branches of industry are affected: chemicals, manufacturing, transportation and logistics, metals, engineering and construction etc. The unpredicted losses are growing with the rising share of the commodity on the total production.

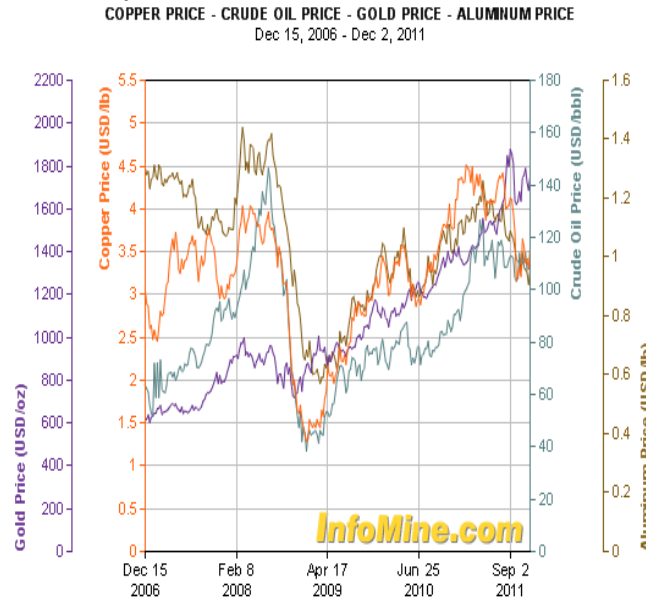
There is one specific of the commodities in comparison with the other assets, namely nearly all of them are priced in the US dollar. That means that when the US dollar is depreciating, the commodity prices are rising (with the assumption of a stable demand and supply). Some shifts in the commodity prices could be because of that explained by the situation of the US economy and therefore easily to be predicted.

On the other hand, commodities became a new source of interest for the speculators during the unstable global financial environment. Especially after the financial crises started by the bankruptcy of the Lehman Brothers the speculators found in the commodities like gold or silver the secure harbor of their investments. The gold price recorded significant rise in the last 3 years and the price levels reached historical values of 1,902 US dollar/oz. in the beginning of September 2011. There is a risk of speculative bubble connected with gold prices.

The prices of some other commodities which are characteristic with limited global supplies evince also upward trend. Another factor which contributes to the commodity price creation could be the expected economic forecast for the global economy. The more optimistic the expectation the higher the tendency of the commodity prices growth. Plenty of other factors enter the creation of the commodity prices. The

evolution of the prices of some crucial commodities in the last 5 years represents the following chart.

Chart 3 The development of the commodities prices – crude oil, copper, gold and aluminium during the last 5 years



Source:

<http://www.infomine.com/chartsanddata/chartbuilder.aspx?z=f&g=127657&dr=12m,10.12.2011>

From the statements above it is quite clear that qualitative prediction of the commodity prices is a difficult process with high professional demands on the financial managers.

### **Enterprise risk management, corporate risk management and hedging**

We are now familiar with the principal risks which can endanger the financial results of the company. There are several additional terms used in the risk management terminology which has to be clarified before further analysis.

In the literature the authors distinguish between the terms enterprise risk management (ERM), corporate risk management, risk management and hedging. Enterprise risk management represents the coherent approach to the risk management in both the financial and non financial companies and can be replaced with the term financial management. After the case of Enron, WorldCom and others the deeper approach to the inside processes in a company were established. To prevent the failures of the individuals as well as the whole departments of the company the enterprise risk management as a complete management framework was created. On the base of the

Sarbanes-Oxley Act of 2002 in the USA and similar legislation in other countries the systems of the internal control were united for all the listed companies. “Enterprise risk management encompasses:

- aligning risk appetite and strategy,
- enhancing risk response decisions,
- reducing operational surprises and losses,
- identifying and managing multiple and cross-enterprise risks,
- seizing opportunities and
- improving deployment of capital.”<sup>3</sup>

There was written much about the enterprise risk management and it is not the object of this paper to deal with ERM more detailed.

Corporate risk management is another phrase connected with risks faced by the company. This term is used when the corporate risks mentioned in the chapter 2 of this paper are discussed, mainly the market risks. Corporate risk management focuses on the external risks of market price fluctuations and the possibilities of their management. This branch of the risk management will be examined in the following text.

Hedging is one of the possibilities how the corporate risk management can be executed. It must be separated from the similar phrase, namely the hedge funds. While hedging means following the company’s strategy to minimize the risk as much as possible through e.g. the use of the financial derivatives, hedge funds commonly search for risks. Hedge funds are the investment funds whose goal is to maximize the returns of the investments. Usually they use aggressive and risky investment strategies.

The above mentioned explanations of the particular terms connected with the risk management could vary according to different authors. The reader must be careful and distinguish whether the financial or non financial environment is described in the text.

### **The processes of the corporate risk management in the company**

The corporate risk management is a complex process starting with the identification, evaluation and reaction together with control of the risks. Because the risks don’t affect the firm separately but mostly they are more or less directly or indirectly correlated, the financial manager should handle with them as a whole. Therefore it is recommended to settle a special department (treasury department) in the company

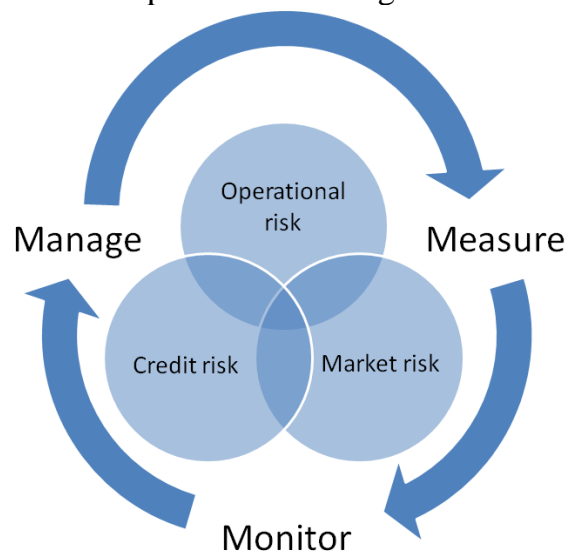
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<sup>3</sup> COSO: Enterprise Risk Management – Intergrated Framework



which will deal only with the corporate risks and which will coordinate the possible adopted methods of the risk management throughout the company. The risk management process is permanent and its particular parts are transforming one to another constantly as shown in the following diagram.

Diagram 2 The process of the corporate risk management



*Source: WEST, T., RAMAKRISHNAN, S.: Commodity Risk Management: Towards a Consistent Approach*

When starting the risk analyses we have to divide three levels of risks, namely corporate risks, strategic risks and project risks, all of them separated due to the levels of management which has to deal with them. Corporate risks endanger the company's financial results as a whole. Strategic risks are connected with decisions on the strategic level of the corporation. Project risks should be taken into account when developing every project of the company.

### **Identification of the risks**

At the beginning of the identification process, the financial manager has to clarify his own subjective attitude to the risk. The manager can be risk averse, risk seeking or risk neutral. From this subjective perception of the risk, the final corporate risk strategy will be determined. As mentioned above the risk doesn't always mean only the negative influence on the company. When undergoing the risk, new opportunities are opening to the company. Without accepting some level of risk the company can't be efficient. The manager should behave according to the following statements:

- “The firm can maximize its profit by taking risks only in the areas in which it has unique expertise or experience.
- The firm minimizes risks in the areas in which it has no unique competitive advantage.”<sup>4</sup>

The decision about the level of the uncertainty the management is ready to accept for creating additional value for the company is a big challenge for the risk manager. It is easy to deduce that only with the well-educated financial manager; the use of the hedging tools can create additional value for the company. On the other hand with an inadequate usage of them even higher losses can be generated. This professional on the right position would then count as an additional competitive advantage of the company.

After identification of the basic risks influencing the particular company the relation between them has to be examined. Some risks are enhancing the others as well as some impact the others adversely. Next step of the financial manager should be the matching of the risks with their significance. The greater is the possible loss arising from the position, the higher must be the significance of the risk.

Every company is endangered by different moves of the exchange rates, of the commodity prices or the interest rates. When talking about the exchange rate risks, the exporter is afraid of the appreciation of his domestic currency. On the contrary the importer would notice financial loss when his domestic currency depreciates. Because most of the companies are exporters of some good as well as importers of the other one, the manager has to determine the net position of the company to the certain currency. When the receivables in the particular currency exceed the payables, the company is said to have a long position in this currency. When the receivables are lower than payables, the company is short in this currency. It is obvious that one company can be short in one currency and long in a different one.

### **Assessment of the risks**

There are several ways how to assess the risks. From the early years of the risk management the methodology of the risk assessment developed into the wide procedure supported by sophisticated computer programs. Quantitative and qualitative approach to the risk assessment should be combined. Following factors influence the choice of the suitable assessment methods:

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<sup>4</sup> Greenwich Treasury Advisors LLC – Treasury Management Advisory: Corporate Commodity Risk Management

- availability of resources,
- experience of the risk manager with the chosen technique,
- size and complexity of the evaluated processes,
- the phase of the project,
- available information,
- purpose of the risk assessment etc.

The qualitative analysis examines the relative significance of the risks facing the project or the whole company. The qualitative approach is represented by the methods as brainstorming, assumption analysis, interviews, creating risk matrix chart etc. When the quantitative approach is chosen, the absolute values for every risk will be the computer's output. Usually the modified Value at Risk analysis, stress tests, sensitivity testing represents the quantitative approaches. Certainly it is true that the greater the exposure to some of the risks the more elaborated the approach to their assessment. The financial institutions operate with the most sophisticated computer systems concerning the risk assessment. On the other hand the computer proceedings were created on certain assumptions and they don't work correctly when some extreme conditions appear. Therefore the risk manager should keep certain distance from these absolute computer outputs and work with them carefully.

### **Adopting the risk strategy on the example of the currency risk management**

The choice of the adequate risk management tool depends mainly on the following factors:

- category of the risk, which should be hedged,
- extend of the risk, meant as the proportion of the endangered assets (cash flows) to the total assets (cash flows),
- size of the company,
- experiences of the responsible manager,
- costs connected with the selected tool,
- field of the industry in which the company is doing business,
- level of development of the financial services in the given country.

Because the most important risk influencing the Czech companies is the exchange rate risk, the detailed approach to the creation of the risk management strategy will be presented on this concrete category of risks.

The currency risk can be prevented already during the negotiating process of the contract through the right choice of the terms of payment. The term of payment should particularize when, where and how the payment should be executed. The buyer can pay the price before, at the time or after the delivery of the goods. The shorter is the delay between the date of the delivery and the payment date, the less is the seller exposed to the currency risk. The place of the payment used to be determined by the number of the seller's bank account together with the name and address of his bank. The payment in cash is rare in the contracts between two developed countries. Finally the suitable method of payment must be chosen. Following methods of payment could be selected:

- open account payment,
- documentary letter of credit,
- documentary collection,
- others (e.g. barter or countertrade).

The methods of payment differ according to the security level for both of the parties, the speed of the execution and costs and fees connected with their arrangement by a bank. The more secure is the chosen method of payment for one party, the less secure is it for the other one. Therefore the consensus is needed to be met already during the creation of the contract. The bid of the suitable method of payment can produce additional comparative advantage in comparison with the bid of the competitors.

As mentioned above the exchange rate risk is divided into transaction, translation and economic risk. Each of them can be managed by different methods. The financial manager has three choices how to deal with the currency risk:

- to shift the risk to the counterparty of the contract,
- to hedge the risk or
- to do nothing and let the volatile exchange rates freely influence his financial statements.

### ***Shifting the exchange rate risk - invoicing***

The origin of the exchange rate risk lies in the invoicing in the foreign currency. If the contract is denominated in the exporter's currency, no exchange rate risk arises. It

would be natural that the companies tend to denominate their contracts in their own currencies.

The published studies confirm the invoicing strategy differently. Due to the traditional study by Grassman the contract between two manufacturers coming from industrialized countries is mainly denominated in the exporter's currency. Throughout sometimes the exporters have enough power to enforce their currency the more recent studies show the rising importance of the usage of a vehicle currency. Vehicle currency is a currency of neither the importer nor the exporter. It is mostly a stable, liquid currency with low transaction costs. In most cases the US dollar is used as a vehicle currency. Some companies are obliged to raise competitiveness by invoicing in the currency of their major competitors. For the importer it is than easier to compare the bids.

Invoicing in the domestic currency is the easiest way how to get rid of the transaction and translation risks. The Czech companies are not supposed to have such a big power on the market to set the Czech crown as the contract currency. As well as in the rest of the EU the Czech companies mainly use Euro for denominating their foreign contracts. The second mostly used currency is US dollar, but during the last 10 years its share decreased significantly. It is common that also in the contracts done with the Russian or Chinese business partners the Euro is used. With the rising volatility of the Euro it is a question whether it will keep its wide usage in the international trade.

### ***Financial and operational hedging***

When the invoicing strategy can't be executed the other form of risk managing comes up, namely financial or operational hedging. These academic experts and the professionals differ in the characterization of the financial and operational hedging. Both approaches depict the next table together with the concrete suitable hedging tools.

In the practice the terms financial hedging and the use of financial derivatives merge together. In the academic literature the financial hedging sometimes also cover the use of foreign currency debt which for professionals belongs to natural hedging strategy. Academics use the term operational hedging only in the connection with the territorial diversification of production.

Financial derivatives represent the effective tool of the financial risk management for each risk category. There are 4 basic types of derivative contracts, namely forwards, futures, options and swaps. The hedgers mainly use the forwards, options and swaps especially when hedging the exchange rate risk. The futures as well as the exchange

traded options are used rarely; their usage is more often connected with hedging of the commodity and equity risks typical for the US business environment. The different application of the particular derivatives confirms the study made by Allayannis, Ihrig and Weston (2001) which states that when the financial derivative is used in the company then 90 % of financial managers use forwards, 29 % swaps, 26 % options and 0,006 % futures.<sup>5</sup> The financial derivatives can be traded on the exchanges or on the OTC (over the counter) market. To the exchange traded derivatives belong futures and options. Forward, swaps and some options are traded on the OTC market, without such a strict conditions comparing to the exchange trading. It is not a subject of this paper to present the basic substance of the derivatives contracts.

Table 1 Classification of the hedging instruments

Hedging literature	Financial hedges		Operational hedges
Financial statements	Derivative hedges	Natural hedges	
Specific tools	Forwards (futures), options, swaps	Foreign-currency debt	Diversification across currency zones, operational matching of revenues and expenditure

*Source: DÖHRING, B. (2008), Hedging and invoicing strategies to reduce exchange rate exposure: a euro-area perspective*

In the last 20 years the use of the financial derivatives rose dramatically. It was not thanks to their usage as the hedging tool. More than 95 % of the financial derivatives market creates speculations. The notional amounts outstanding from the OTC derivatives rose from 270 trillion US dollars in the first half of 2005, passed 516 trillion US dollars in 2007 and reached their peak in the first half of 2011 at the level of 707 trillion US dollars. The distribution of each derivative type and its share on the total notional amounts for the OTC derivatives shows the next chart.

The interest rate derivatives create the major part of the global OTC derivative market. Despite the rising proportion of the foreign exchange derivatives, their share just as the share of the other types of derivatives remain considerably low in comparison with the interest rate derivatives.

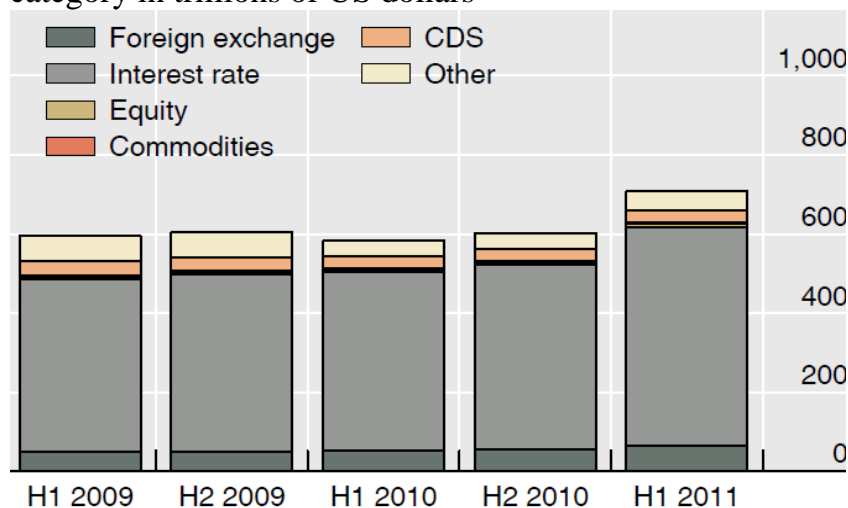
The Czech as well as the foreign companies mostly use the simple forward contracts as the effective hedging tool. The counterpart for all the derivatives is mainly the

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<sup>5</sup> ALLAYANNIS, G. and IHRIG, J. , WESTON, J.P. (2001), Exchange-Rate Hedging: Financial vs. Operational Strategies

company's bank which decided whether the contract will be realized or not. Due to the credit information about the client the bank is competent to determine the concrete condition for each contract. Sometimes the collateral is demanded to be paid.

Chart 4 OTC derivatives market - The notional amounts outstanding by market risk category in trillions of US dollars



Source: website of the Bank for International Settlements - [http://www.bis.org/publ/otc\\_hy1111.pdf](http://www.bis.org/publ/otc_hy1111.pdf), 11.12.2011

Foreign currency loan can serve as a simple substitute for the use of the derivative contract. The advantage of the foreign currency loan is the longer term prospect comparing to the derivative contract. The maturity of the exchange rate derivatives rarely extends 1 year horizon. The multinational corporations with the access to the international capital markets can issue the bonds in the currency in which they expect future revenues.

The other way of the natural hedging or operational hedging is based on the matching of the foreign receivables and payables as much as possible. The only problem connected with natural hedging is the different maturity of the particular cash flows. Very often it is impossible to integrate the payments and revenues. The larger manufacturing companies could use the natural hedging in the different form. They can move their production or subsidiaries abroad and pair the payments and receivables more efficient.

### **The benefits of the efficient currency risk management**

The authors of the studies dealing with the risk management issues are not unanimous when evaluating the hedging processes. There is an agreement about some benefits of the risk management. The efficient hedging brings primarily:

- predictable future cash flow,
- reduction of the corporate tax liability,
- reduction of the costs of underinvestment,
- better utilization of the internal funds for investment projects.

The older the published study the more optimistic view on the risk management. Another interesting observation is that the studies based on the data from the US business environment are more positive when judging the efficiency of the risk management. The explanation could be that the US managers are more qualified in this field and their methods then create the additional value for the company. The relationship between the usages of the financial and operational hedging was also deeply examined. The result is that the efficiency of the risk management rises with the parallel use of both types of hedging. When the financial or the operational hedging is used separately the additional value of the company is lower.

The evaluation of the risk management processes is not easy. When the company decides whether to hedge or not it must take into account that the results of the hedging strategies won't be always positive, especially at the beginning of their usage. The biggest benefit of the risk management represents the exact knowledge of the future cash flows. That means that with the financial derivative contracts the company is capable to change the future uncertainty into certainty.

### **Managing financial risks on the example of the large Czech company**

In the following text the concrete approach to the financial risks will be described. The presented Czech company is exposed to credit, currency, interest rates, commodity and liquidity risks. The process of risk identification, evaluation and reaction is situated in the special treasury department, one of the economic departments of the company. In this treasury department 3 people are employed and their major activities consist of monitoring of the market development, management of the liquidity, arranging the hedging contracts and permanent providing of the communication with the company's bank. All the activities of the treasury department are regularly presented to the Committee of the financial risk management, which is the advisory authority of the Board of directors.



**Credit risk**

The company provided special type of services which are characterized with the advanced payments. Therefore the company almost doesn't bear the credit risks. Only additional services which take place through intermediaries could be affected by credit risk. The company benefits from its strong market position which enables its counterparties to find the offered services somewhere else. Therefore the partners behave responsible and pay their liabilities mostly in time.

**Market risks**

Market risks greatly influence the financial results of the company. The firm is dependent on the exchange rate shifts, price of its crucial commodity, namely fuel, and because of the several leasing agreements also the rising level of the interest rates could shake with the company's liquidity.

**Interest rate risk**

The financial and operational leasing agreements are based on the EURIBOR and LIBOR interest rates. The leasing agreements are set to the 12 years period. Operational leasing was arranged on the fixed interest rate and therefore must not be hedged. All the financial leasing agreements stand on the floating interest rates. Only for a 1/6 of the financial leasing contracts the interest rate swap as an appropriate hedging tool was selected. With the current declining trend of the global interest rates the hedging strategy seems to be disadvantageous. The rest of the financial leasing agreements are currently not hedged. There is a calculation that with the growth of the interest rate by 0, 1 % the leasing costs of the company rise by additional 0, 6 %. In comparison with the impacts of exchange rate and commodity risk, the financial losses connected with the interest rate movements seem to be insignificant.

**Currency risk**

The company has two basic open currency positions, namely it is long towards the Euro and it is short towards the US dollars. Next to this to major positions, the company is little bit short towards the Czech crown and long towards the British pound.

As much as possible the company is using the natural hedging. The management tries to realize the payments in particular currency in the same value and time as the revenues in this same currency. Several older leasing agreements remain denominated in the US dollars which build up even larger short position for the company. To

remove this imbalance the management decided to arrange all the new leasing agreements in the Euro to utilize the Euro revenues for the leasing payments.

The company uses simple forward contracts and a little of options to hedge the currency risk. The risk management strategy sets the principle to hedge 20 – 80 % of the future cash flows by the financial derivative instruments in the maximum time horizon of 3 years. 80 % of the cash flows planned for the next year, 50 % of the cash flows in the second year and 20 % of the cash flows expected in 3 years are hedged. The maturity of the simple currency forward moves from 1 month to 1 year. The company uses long put option to hedge the long position towards the Euro.

### **Commodity risk**

The commodity risk is the main risk faced by this Czech company. 25 % of the total costs are spent on the purchase of the fuel whose price is derived from the prices of crude oil. The commodity prices rose significantly in the last three years and nobody knows what levels they are going to reach in the future. The decision about the hedging of the commodity risk is a crucial task for the treasury department. The strategy is constantly revised by all the departments responsible for the risk management in the company. The detailed consumption of the fuel is planned in a 1 year horizon. Due to the experience the managers are able to decide whether to buy now or wait till the price falls. Every day the bank is sending the concrete list of conditions for single financial derivatives. The conditions determine the type of the derivative, its maturity and the price of the commodity available under these circumstances.

The company chose swaps and options as the effective hedging tool with the maturity not longer than one year. The reason of such a short maturity is that the bank didn't allow the company to hedge for a longer period of time. The bank has all the credit information about the client. According to them the bank offers the possible contracts which can be made by the client. The fuel is purchased through the foreign bank subsidiary on the Rotterdam exchange. The board of directors defines the maximum levels of the option premiums which the managers are allowed to accept. Due to the high option prices, the company decided to use the special option strategy, namely the zero cost collar strategy. According to the zero cost collar, the company sets the acceptable price of the commodity and pays no option premiums. The worse are the future prospects of the company, the more often the options and zero cost collars are used as a proper hedging tool.

## **Liquidity risk**

It is always difficult to manage the liquidity risk. Nobody can predict the exact future cash flows and with the worsening economic environment the number of cash flow failures is growing. In addition the subject of business of this company is highly seasonal. The cash flows produced during the summer period is almost twice as high as the cash flows created during winter. The bank is not interested about the seasonality of the business and requires as usual the regular monthly instalments of the operational credit.

The common tool of liquidity management is the creation of the detailed cash flow plan. The cash flow is planned for 1 – 2 year horizon with regular specification. Every month the report about the compliance with the cash flow forecast is presented. The reasons of deviation have to be described and according to the new findings revised cash flow plan is approved.

The cash flow forecasting is much simplified owing to the hedging tools used by the company. Thanks to the forwards, swaps and options it is easier for the company to predict the future expenditures. The prediction of the future revenues is much harder and it relies on the revenues simulation based on the historical data.

The risk management process in the company mentioned in this article is highly professional. There are not too many people dealing with hedging opportunities but that simplified the communication between them. The less people are dealing with the risk management process the easier the consensus is found. The responsibilities are strictly established and every action must be approved by all the department levels of the risk management. The managers understand the basic benefits which the efficient hedging creates and don't exceed the given hedging strategy by speculations.

## **Conclusion**

Risk management is an important management field. The financial risks are more dangerous in the recent times of uncertainty and unstable environment. The risk management is a long and demanding process but with the adequate approach it must not be that difficult to minimize the negative impacts of the internal and external business environment.

This essay emphasize mainly on the risks which could cause considerable financial losses to the company. The special attention was dedicated to the interest rate, exchange rate and commodity risks, where the evidence of the recent market developments was provided. Because the Czech Republic has its own domestic currency, the process of the risk management strategy creation was introduced just on

the currency risk. The risk management used to be closely connected with the use of the financial derivatives. Also different methods of hedging were described.

The last part of the essay described the approach to the risk management and hedging strategy on the concrete example of the Czech company. The company is exposed to the basic financial risks presented before and because of that all the important aspects of the theory were at the second part of the essay demonstrated in practice. The risk strategy of the presented company is found as a highly professional one. In the recent time the best product or service doesn't directly mean the best financial results; the suitable risk management strategy can create deciding comparative advantage in the battle of competitors.

### **Acknowledgement**

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# COMPETITIVENESS OF THE CZECH OFFICIAL EXPORT SUPPORT MODEL IN VIEW OF GLOBAL TRENDS

Johannes ROTECKER<sup>1</sup>

**Abstract:** *Fast growing exports of China, Brazil and India, as well as the fact, that those economies do not participate in the OECD “Arrangement on Officially Supported Export Credits”, demand new solutions that guarantee the level playing field for official export support. In the currently uncertain situation any further improvements of the OECD Arrangement would be rather difficult to attain as they would deepen the disadvantage of the participants to the Arrangement towards emergent economies. As long as those solutions are not found and depending on intensity of competition on official credit programs, it is quite possible that unregulated or semi regulated tools for official export promotion would be used more than ever, including matching of irregular export support as a counteraction. In view of that, the Czech ECAs need to be prepared for stronger competition. The new Export Strategy of the Czech Republic envisages some improvements of the current export support model, including an initiation of some unregulated or not fully regulated tools.*

**Keywords:** Export Strategy of the Czech Republic, OECD Arrangement, BIC, G7, IMU, tied and untied aid.

**JEL classification:** F13, H81.

## Introduction

There is evidence of economic shifts that have taken place in the past decade. The fast growth of major emerging economies like Brazil, India and especially China (BIC) has led to their significant role in the global economy and international trade of today. The economic rise of the BIC has an impact on official export support mainly regulated by the OECD “Arrangement on Officially Supported Export Credits” (OECD Arrangement) since neither of them is OECD member i.e. their official export support is not obliged to comply with the OECD Arrangement rules<sup>2</sup>. Therefore, there is a high awareness of a possible competition distortion. In the event of a conflict escalation, the level playing field for official export support could be undermined and consequently the OECD Arrangement could be weakened. Such a scenario would mean a rollback to a competition built not so much on the quality of products and services but to an extended degree on financial terms and export conditions.

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<sup>2</sup> With exception of Brazil’s participation to the OECD Aircraft Sector Understanding.

## **Investigation design**

The present research aims to analyse global trends in official export credit programs and how they are integrated into the Czech official export support model that will be modified in accordance with the newly issued Czech export strategy for 2012-2020. The design of investigation is based on three theses that are to be examined on behalf of statistical data and factual evidence. The theses are as follows:

- In spite of the latest improvements of the OECD Arrangement there still exist relevant unregulated or not fully regulated official export support practices,
- As long as the BIC do not participate in the OECD Arrangement it is unlikely that official export support practices that are outside the rules will be regulated by the OECD Arrangement,
- The newest export strategy of the Czech Republic for the period 2012-2020 contains not fully regulated official export support tools.

## **Export support practices outside the rules of the OECD Arrangement**

Since it came into existence, the OECD Arrangement has been modified in many aspects in order to level the playing field for official export support. An illustrative example is the case of tied aid. Tied aid was casually misused in the 1980s and early 1990s as an export promotion tool while distorting the level playing field and failing its goal of development assistance. So the participants to the OECD Arrangement amended rules on tied aid on two occasions in order to reduce the trade distortion and to make tied aid a legitimate development aid (Tvardek, pp. 208-212). The main improvements were made on restrictions on country availability and project availability for tied aid as well as on the minimum level of concessionality (MLC), which was increased first to 35% and in the latest agreement to 50%. As things stand, tied aid can be provided only in the event that there is no access to market financing and it is restricted to a limited target group of countries. These are countries whose per capita GNI is not above the World Bank's threshold for lower middle income countries (OECD Arrangements, pp. 19-24).

Nevertheless, there are other export support practices that are unregulated or whose regulation by the OECD Arrangement is rather weak. Among such practices belong so-called market windows, untied aid, interest make up (IMU) or also FDI support. Market windows are government-owned institutions that operate in two ways as official export credit lenders and private banks without being either subject to the OECD Arrangement or to the market limitations of commercial banks. Their hybrid nature gives them an advantage over both official Export Credit Agencies (ECA) and private banks. Unlike other official ECAs, those institutions can flexibly and simultaneously manage between an "Official Window" that offers Arrangement terms for riskier transactions and a "Market Window" for less riskier transactions. In

comparison to commercial banks the market windows receive benefits from their governments. Examples include any paying of corporation taxes, favorable raising of funds due to an implicit government guarantee or better administrative costs (Hufbauer). A traditional market window is the Canadian Export Development Corporation. Originally it was also Germany's state-owned Kreditanstalt für Wiederaufbau (KfW) that, however, in 2008 transferred its export finance to a newly-created independent subsidiary KfW IPEX-Bank as consequence of an understanding between the European Commission and German State as owner. KfW IPEX-Bank operates since then under commercial conditions, is subject to taxation and funds its business on the basis of its own rating (cf. KfW IPEX). However, such a solution in form of "a bank in a bank" may be still not good enough in the eyes of some participants to the OECD Arrangement. Further, there are suspicions that other ECAs have started their own market window programs, such as Italy's SACE or Belgium's ONDD (U.S. Eximbank Competitiveness Report 2010, p. 71). Czech Export Bank (ČEB) also has a market window since it provides credits on commercial terms using some of the privileges of being a state-owned ECA, e.g. using the sovereign credit rating for raising of funds or using flexibility in product processing and combination.

As for untied aid, in 2004 the participants to the OECD Arrangement came to a transparency agreement in order to monitor untied aid since "during the 1980s/early 1990's and beyond, concerns existed among some Participants to the Arrangement that untied aid programs could be implemented in such a way as to make them de facto tied aid." (Tvardek, p. 212). There are suspicions that, for example, Japan used it as an instrument for export support (Hufbauer). The use of untied aid for trade purposes has an advantage over that of tied aid, which is given by the fact that the minimum level of concessionality (MLC) for untied aid is almost 30% below the minimum MLC for tied aid, and, additionally, the measurement of the MLC for untied aid is more favorable for the donor than the formula for the MLC for tied aid (Tvardek, pp. 212, 213). In 2010 Japan was by far the most important provider of untied aid amongst the OECD members with a volume of US\$ 8 billion followed by France with US\$ 1.7 billion and Germany with US\$ 1.3 billion (US Eximbank Competitiveness Report 2010, p. 66). It seems that the transparency agreement on tied aid works for it has been renewed four times consecutively. (Tvardek, p. 213). Furthermore there is untied lending support that can be either an untied loan or guarantee or insurance. It is rather linked to the strategic interests of the donor country and not to the export and therefore is not subject to the OECD Arrangement. Again Japan run by far the largest program for untied lending by spending on them combined about US\$ 26 billion for 2009-2010. In second place is Italy with US\$ 3 billion followed by Germany with US\$ 2 billion and France with US\$ 1 billion. (US Eximbank Competitiveness Report 2010, pp. 100-102).



Another rather unregulated export promotion tool is the so-called interest make up (IMU) which consists of providing commercial banks with the difference between the fixed minimum official interest rate<sup>3</sup>, and the variable market cost of funds, i.e. the interest rate risk is borne by ECAs and not by commercial banks. Additionally, ECAs pay to commercial banks an agreed interest spread. This kind of export support is most notably used in some European countries like France, Italy and Spain. The scope of application of the OECD Arrangement includes interest rate support, though there are not any details about its form like for example interest spread. About ten years ago IMU programs earned criticism in the USA because of generous spreads that “may induce European commercial banks to provide export financing for projects and countries that US commercial banks would not extend to US exporters. In extreme cases, the European commercial banks may even “kick back” some of the extra spread to the borrower, providing an additional inducement to buy European exports.” (Hufbauer). Also in the US Eximbank Competitiveness Report from 2004 is stated: “One long-standing issue with competitiveness implications remains unresolved: the existence and use of interest make-up (IMU) schemes, a tool largely used by European ECAs in conjunction with their commercial banks that can involve a degree of subsidization.” (p. 95). Nevertheless, it became apparent that the thread of IMU distorting the level playing field for official support was quite small since commercial banks could provide longer-term export financing at sub-CIRR floating interest rates. Therefore the official export support experienced a shift to pure cover support with a diminished role of direct export loans and IMU<sup>4</sup> (U. S. Eximbank Competitiveness Report 2008, p. 19). Even during the financial crisis and the credit crunch of 2008-09, IMU was not the best solution to keep export activities intact because many commercial banks were not liquid enough or just too cautious to borrow (cf. *ibidem*, pp. 88, 89). Today, IMU seems to be accepted as a tool of export support.

There are even more unregulated practices to promote export support, e.g. financing or pure cover of foreign direct investments. The officially supported FDI programs are widely used as a complementary tool to exports. “Evidence indicates that foreign investment abroad stimulates the growth of exports from originating countries (investing countries) and, consequently, that this investment is complementary to trade.” (Fontagné, p. 5). In 2009/2010 Japan had the most impressive official support program for FDI with estimated US\$ 30.4 billion of spending followed by the USA with US\$ 10.3 billion and Germany with US\$ 8.0 billion (US Eximbank Competitiveness Report 2010, p. 105).

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<sup>3</sup> CIRR: Commercial Interest Reference Rates.

<sup>4</sup> The part of pure cover in long-term export support of all OECD members increased from ca. 60% in 1998 to ca. 85% in 2006 (U.S. Eximbank Competitiveness Report 2006, p. 21).

## Global trends in world trade and official export support and their impact on the OECD Arrangement

Discussing trends in international trade and their significance for the OECD Arrangement Robert M. Mulligan claimed that economic shifts that are related to a steep growth of emergent economies, especially Brazil, India and China, would possibly weaken the OECD Arrangement if an agreement could not be found about either any form of participation of the BIC to the Arrangement or a completely new arrangement on official export support with the BIC as co-signatories (Mulligan, April 2007). In order to strengthen his thesis he made projections of export and official export support volume in the G7 countries and in the BIC for 2010. Figure 1 shows a comparison of his estimates and real numbers.

Figure 1: G7 vs. BIC Merchandise Exports and Medium- and Long-term Official Export Support

	2000	2005	2010*	2010**
Merchandise exports (US\$bn) – G7	2941	3997	5080	5218
Merchandise exports (US\$bn) – BIC	348	970	2000	1605
Merchandise exports (US\$bn) – China	249	762	1578	1270
Proportion of world merchandise exports (%) – G7	45.4	40.0	33.3	39.0
Proportion of world merchandise exports (%) – BIC	5.4	9.6	13.1	12.0
Proportion of world merchandise exports (%) – China	3.9	7.3	10.4	9.5
Officially supported medium-long-term exports (US\$bn) – G7	49.0	59.8	65.4	72.0
Officially supported medium-long-term exports (US\$bn) – BIC	3.6	27.0	72.7	80.0
Officially supported medium-long-term exports (US\$bn) – China		17.5	45.0	70.0

\* *Real figures*

\*\* *Projection by Mulligan*

*Sources: Mulligan, Robert M. April 2007,*

*WTO International Trade Statistics 2011,*

*U.S. Eximbank, Competitiveness Reports 2006, 2009 and 2010,*

*Own calculations.*

The presented statistics show that Mulligan overestimated the increase of G7 exports by \$US 138 billion while underestimating heavily the growth of the BIC exports by an error of \$US 395 billion. Probably the main reason why he overestimated the merchandise exports growth of the G7, is their significant drop in 2009 as consequence

of the financial and economic crises in 2008/2009 following by a rather slow recovery in 2010. The BIC exports went also significantly down in 2009, however, they rebounded impressively in 2010. As for the estimation of medium- and long-term official support credits, their increase was less steep as predicted by Mulligan in both the G7 and the BIC countries. Nevertheless, he was right projecting that the total BIC's medium- and long-term officially export support would surpass that of the G7. As a matter of fact, China spent in 2008 US\$ 52 billion for official export support, which was more than the entire G7 spending with US\$ 41.8 billion (U. S. Eximbank Competitiveness Report 2010, p. 11). In 2010 China still had the biggest official support program with a volume twice that of Germany, which was in the second place (cf. *ibidem*).

Figure 2: Accumulated New Medium- and Long-term Official Export Support related to Accumulated Merchandise Exports of G7 and BIC between 2006 and 2010

	Country	Official Export Support (US\$bn)	Exports (US\$bn)	Official Export Support in % of Exports
1.	Brazil	50.8	852	6,0
2.	India	39.6	852	4.6
3.	China	203.1	6400	3.2
4.	France	61.2	2678	2.3
5.	Italy	28.6	2315	1.2
6.	Germany	68.4	6264	1.1
7.	U.S.	57.8	5795	1.0
8.	Canada	6.7	1970	0.3
9.	Japan	11.3	3430	0.3
10.	U.K.	5.1	2107	0.2

*Sources: WTO International Trade Statistics 2011,  
U.S. Eximbank, Competitiveness Report 2010,  
Own calculations.*

Taking into account the fast growth of BIC's export volume, especially that of China, and their impressive official export support provided in recent years, as demonstrated in Figure 2 by means of support-export ratio, it is really a concern that China, Brazil and India do not participate in the OECD Arrangement on a regular basis. If those economies will not join it, it could weaken the OECD Arrangement since it seems that China in particular uses non-conforming export financing pursuing strategic goals (cf. U.S. Eximbank Competitiveness Report 2010, pp. 108-113). That could provoke matching of irregular financing by the participants while undermining the

Arrangement.<sup>5</sup> The OECD is well aware of this threat as shows following statement of Steve Tvardek, the Head of the OECD Export Credits Division: “The biggest single challenge facing the current system of export credit disciplines is that posed by the growth and development of emerging market economies (principally Brazil, China, India and South Africa) with major export sectors, and governments that do not currently join in applying the export credit disciplines – mainly for historical reasons.” (Tvardek, p. 232). As long as the BIC do not join the OECD Arrangement, it could hardly be the priority of the participants to regulate further export support practices for the more they level the playing field within the OECD the more it increases their disadvantage towards the powerful emergent countries.

### **Recent changes in the Czech official export support model and implications of global trends on the new Czech export strategy**

The official export support in the Czech Republic is carried out by two state-owned ECAs, namely the Česká exportní banka<sup>6</sup> (ČEB) and Exportní garanční a pojišťovací společnost<sup>7</sup> (EGAP). The new official export support commitments of ČEB and EGAP experienced a steep growth in recent years including two consecutive substantial jumps between 2008 and 2010 from \$US 3.11 billion in 2008 to \$US 4.07 billion in 2009 and finally to \$US 5.03 billion in 2010, as shown in Figure 3.

Figure 3: Merchandise exports and New Medium- and Long-term Official Export Support of Czech Republic (\$US Billion)

	2005	2006	2007	2008	2009	2010
Marchandise exports	78	95	122	147	113	133
New official support commitments – ČEB <sup>8</sup>	0.77	0.65	0.86	1.16	1.23	1.93
New official support commitments – EGAP <sup>9</sup>	0.75	1.17	1.82	1.95	2.84	3.11
New official support commitments – ČEB and EGAP	1.52	1.82	2.68	3.11	4.07	5.03

*Sources: WTO International Trade Statistics 2011,  
ČEB Annual Reports 2005-2010,  
EGAP Annual Reports 2005-2010,  
Own calculations.*

<sup>5</sup> The U.S. Eximbank already set a precedent in 2010 by matching a Chinese irregular export offer for a rail transaction in Pakistan (U.S. Eximbank Competitiveness Report 2010, p. 110).

<sup>6</sup> Czech Export Bank.

<sup>7</sup> Export Guarantee and Insurance Corporation.

<sup>8</sup> Including supplier credits, buyer credits, credits for pre-export financing, bank guarantees and forfaiting, while excluding credits for foreign investment.

<sup>9</sup> Including all services but insurance of investment of Czech legal persons in foreign countries and insurance of a credit for the financing of investments of Czech legal persons in foreign countries.

The remarkable increase of official export support represents a measure to lubricate export financing and insurance in response to the financial and economic crises. In particular the augmentation of official export financing played an important role during the financial crisis as the commercial banking sector became rather reluctant to lend money. Thus a counterbalance to the shortage of funding was required to keep exports going. Therefore a bigger deterioration of merchandise exports and further negative effects on the Czech economy could be prevented. It was important since this economy is highly depending on exports, which account for almost 70 % of the Czech GDP. The increase in capacity of official export financing was feasible due to a share capital augmentation of ČEB from CZK 1.85 billion previous to 2007 to respectively CZK 2.0 billion in 2008, CZK 2.95 billion in 2009 and CZK 4.0 billion in 2010 (ČEB Annual Reports 2008, p. 17; 2009, p. 1; and 2010, p. 1).

The volume of new official export support commitments in the Czech Republic now exceeds that of U. K., Canada and even Japan. The Czech support-export ratio for the period 2006-2010 amounts to 2.7% and is higher than that of any G7 economy (cf. Figure 3). Thus, it can be expected that the increase of public export support will have a positive effect on export growth within next few years taking into account its medium- and long-term character. This expectation is legitimate because there is normally a positive relationship between the volume of official export support and the level of actual exports.<sup>10</sup>

Despite recent improvements with regard to official export support, the Ministry of Industry and Trade of the Czech Republic envisages an upgrade of tools for export support according to its new export strategy for the period 2012-2020. Two of the planned measures, namely an introduction of interest make up (IMU) and a possible creation of a national development aid agency, merit more attention because they can be important in view of current trends in world trade and official export support. Both of the planned tools could play an important role if it comes down to a harder competition on official export financing because IMU or e.g. untied aid are not fully regulated by the OECD Arrangement.

With introduction of IMU ČEB and EGAP would build a “full-service” official export support model offering all three main core program tools: pure cover (insurance and guarantees), direct export loans and then IMU as well. The IMU topic already came up

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<sup>10</sup> Karel Janda & Co. investigated how effective public export financing promotes export volume in the Czech Republic by applying an empirical trade gravity model and the Czech trade data from 1996-2008. They found out that the factor of economic relevance of the ČEB activity for Czech exports is 4.8, i.e. an augmentation of e.g. US\$ 1 million in official export financing would lead to an extension of exports by US\$ 4.8 million (Janda & Co., p. 315). Nevertheless, further investigations on the economic relevance of the public export support in the Czech Republic are required because the significance level of the determined correlation between the public export support and the export volume in Janda's & Co.'s research is with  $p=0.1$  quite critical.

in the Czech Republic during the financial and economic crisis and was discussed as an alternative tool to finance exports. It is probable that it would have been less effective than direct export loans provided by ČEB since the private sector lenders became generally more risk-averse at that time. Now a law amendment on introduction of IMU seems to be definitely decided (cf. Exportní strategie České republiky pro období 2012-2020<sup>11</sup>, p. 34). The main reason for the initiation of an IMU program is to help out ČEB with financing exports by integrating the commercial banking rather than a further share capital augmentation of ČEB that probably would be a costlier measure.

The possible foundation of a national institution for development aid financing (Exportní strategie České republiky pro období 2012-2020, p. 35) would offer the possibility of a secondary export support by means of tied or untied aid. Whereas tied aid is strictly regulated by the OECD Arrangement, it remains to be seen if the transparency agreement on untied aid will continue to be renewed because a hard competition on part of some emergent countries could provoke a change of mind of the participants to the OECD Arrangement. With regard to tied aid, the new list of target economies for Czech export contains several economies that are eligible for it, namely Iraq, Ukraine, Vietnam (all three of them belong to the first priority group of twelve economies), then Angola, Egypt, Ethiopia, Ghana, Moldova, Nigeria and Senegal (those economies belong to the group of 25 so called economies of interest). The disadvantage of tied aid is its higher costs.

## **Conclusion**

As a consequence of current economic shifts there is a real threat of weakening of the OECD Arrangement. China is already using its ECAs in a more competitive way than it is allowed by the OECD Arrangement and other emerging countries that are not signatories to the Arrangement could circumvent it as well. That increases the probability of matching irregular export supports and the probability of using unregulated export promoting instruments by OECD members. Extended fierce competition on export financing could soon be a reality for the Czech Republic. Therefore, the intention of the Ministry of Industry and Export of the Czech Republic to introduce IMU as another financing tool and to establish a national institution for development aid financing providing tied or untied aid as complementary tools for export support should strengthen the competitiveness of the Czech official export support model. However, a detailed analysis of IMU effectiveness as well as further research on advantages and disadvantages of tied and untied aid in the economic context of the Czech Republic are required.

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<sup>11</sup> Export Strategy of the Czech Republic for the period 2012-2020.

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# THEORETICAL INTRODUCTION TO THE ECONOMIC DIPLOMACY

Adam KRČÁL<sup>1</sup>

**Abstract:** *The purpose of this article is to give a theoretical introduction to further study of the phenomenon of Economic Diplomacy. All chapters mingle basic idea, which is a still unclear theoretical concept of Economic Diplomacy, both in Czech and in foreign conditions. There are no generally accepted definitions and clarifying them is still very complicated.*

*In the foreign literature these issues are becoming more and more common, even that this mainly in the last few years. Most authors build on several key publications and monographs. In the Czech literature there is a far less researched area, there is one important publication that gives a solid base for further research. Terms related to Economic Diplomacy are usually defined differently by different authors. The concept is often influenced by how the state treats the issue in practice.*

*In one of the last chapters, the analysis of different theoretical approaches to Economic Diplomacy is given. Most studied international relations theories are realism, international regimes and hegemonic theory. But in Economic Diplomacy one cannot forget the domestic influences. Each of these theories explains one or more aspects of Economic Diplomacy, but none can explain the phenomenon in the whole range.*

**Keywords:** Economic Diplomacy, International Relations, International Relations Theories, Diplomacy, Export Promotion, Realism, Hegemonic Theory, International Regimes, State-Centered Theories.

**JEL classification:** A12, F51, F59.

## Introduction

The Economic Diplomacy is not a very clearly defined term when we consider the Czech context.

It can represent either one of the essential elements of the diplomacy as such but we can take it also as a part of the economic policy of each state. What is also unclear is the contents of this term. Does it mean only a highly practical thing which includes the export promotion, foreign investments promotion or is it rather a theoretical term offering a variety of different theoretical approaches?

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The Economic Diplomacy is a very topical theme, especially for a small-medium economy like the Czech Republic. From the practical point of view we have to (at least in the Czech context) also add problematic questions like the institutional management of the Economic Diplomacy. On the theoretical level, there is a relatively high potential for further scientific development for this has not been so far covered in the Czech Republic.

The need for the Economic Diplomacy was caused by various reasons, one of the being the phenomenon of globalization of the World Economy. Economic relations among states are becoming more and more complicated, new actors become more powerful on the international economics playground (for example international organizations, non-governmental organizations, transnational corporations,...) and states have finally ceased to be the only decisive powers in the World Economy. The mutual relations among actors have intensified as well. At the same time, the definition and aggregation of the economic interests on the national level, especially in the democratic countries, requires more and more domestic negotiations. With the globalization processes dominating the World Economy, the classic diplomacy (dealing mostly with political and security questions) loses its role and it is the Economic Diplomacy that starts to dominate.

The article is divided into several chapters. The main purpose is to give analysis of the current development in the foreign and Czech literature. It is also very necessary to define the basic terms and explain their contents. Last but not least, the author considers very important to include a chapter on different theoretical approaches to the Economic Diplomacy.

The article develops further another article of the same author<sup>2</sup>.

## **Review of Literature**

The Economic Diplomacy as a subject of research is still a relatively new phenomenon, not in the Czech Republic but also in Europe and in the World. Not enough time has been devoted to the analysis and building of the conceptual framework of the Economic Diplomacy. There are some considerable reasons for this. Firstly, the basic terms have not been clarified and defined enough including the “Economic Diplomacy” itself.

The Economic Diplomacy has been the subject of the scientific research only since the 1980s. Since the new millennium the research has become more intensive. Thus, in the foreign literature it is able to build on a relatively robust theoretical ground of the Economic Diplomacy.

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<sup>2</sup> KRČÁL, A. Proexportní služby státu a jejich vnímání českou podnikatelskou veřejností. *Acta Oeconomica Pragensia*, 2011, Volume 19, Nr. 2, p. 28–49. ISSN 0572-3043.

## Czech Literature

The only complex Czech work concerning the Economic Diplomacy is the book by Judita Štouračová “*Ekonomická diplomacie České republiky*”<sup>3</sup>. The author made both the theoretical and practical view (her experience comes from the foreign diplomatic service). In the introductory chapter, the term is defined, the contents is described and diplomacy as such is presented together with all its dimensions and functions. She describes who are the main actors.

In the following parts of the book, which is in fact the main purpose of the book, the Economic Diplomacy of the Czech Republic is described. She gives the characteristics of the institutional management and analyses the export promotion and foreign direct investments in some specific chapters of the book. In the final chapter, the author views the Economic Diplomacy from the business point and gives the macroeconomic analysis of the Czech Republic and the World Economy.

This book is thus unique in the Czech Republic. The author managed to combine her own academic and practical experience with representing the Czech economic interests abroad. The book represents a solid base on which may other authors develop both theoretical and practical aspects of the Economic Diplomacy.

On the other hand, in the Czech environment there is the clear impact of the deficit of some profound discussion about the conceptual framework of the Economic Diplomacy. In regards with above mentioned, Judita Štouračová was forced to deal with all the theoretical questions by herself building on her own experience. There have been quite many detailed foreign theoretical works in this field since the book by Judita Štouračová was published. The book thus does not reflect other aspects of international relations (incl. diplomacy as such), international law and political economics.

If we focus on other Czech publications which deal with this topic, these cover almost exclusively only some minor aspects of the Economic Diplomacy. For example in the book “*Diplomacie v měnícím se světě*” the author gives one of possible definitions of the term Economic Diplomacy from the point of view of the diplomacy as a subject of the international relations science and says that “In present, this dimension of the diplomacy is growing steadily considering the attention and the appreciation of scientists”<sup>4</sup>. Even from the perspective of international relations the Economic Diplomacy is gaining economic the increasing attention.

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<sup>3</sup> ŠTOURAČOVÁ, J. *Ekonomická diplomacie České republiky*. Praha: Professional Publishing, 2008. ISBN 978-80-86946-71-9.

<sup>4</sup> VESELÝ, Z. a kol. *Diplomacie v měnícím se světě*. Praha: Professional Publishing, 2009. ISBN 978-80-7431-006-5, p. 21.

Other possible sources of knowledge in the field of Economic Diplomacy may be publications in the international trade<sup>5</sup>. But here it is possible to experience only narrowly understood Economic Diplomacy and the works going in this direction are devoted almost exclusively to only one aspect, namely the promotion of exports, or the promotion of incoming foreign investments.

We cannot forget the official strategic and conceptual government papers<sup>6</sup> that give again somewhat different insight into the understanding of the issue almost exclusively from purely practical economic interests of the state. Another source of information may also be varying agreements that govern the institutional management of Economic Diplomacy<sup>7</sup> and cooperation, and of course the legislative documents<sup>8</sup>.

For the above reasons it is necessary to understand the current understanding of Economic Diplomacy as a phenomenon (and perhaps also as a future comprehensive theoretical direction) and do a research of current foreign literature.

In summary, in the Czech environment for academics and experts there is still a considerably large area of Economic Diplomacy, its different dimensions and aspects of different theoretical approaches.

### **Foreign Literature**

If the Czech environment is currently relatively poor in a knowledge of Economic Diplomacy, the reflection of Economic Diplomacy in foreign literature is developing quite dynamically. To a large extent, however, it is true that also abroad the concept of the Economic Diplomacy is still unclear and the subject of controversy by various authors. The most valuable (and complex) foreign contributions were published in the new millennium.

First, we should mention a very comprehensive book by authors Nicholas Bayne and Stephen Woolcock<sup>9</sup>. Currently (01/2012) the third edition of 2011 is available<sup>10</sup>. It is currently the most sophisticated analysis of Economic Diplomacy, from both theoretical and practical perspective. The authors deal with the conceptual framework of Economic Diplomacy, the analysis of actors, business view, the question of democracy and Economic Diplomacy, and are also engaged in territorial specificities.

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<sup>5</sup> see SVATOŠ, M. *Zahraniční obchod: teorie a praxe*. Praha: Grada, 2009. ISBN 978-80-247-2708-0 or FOJTÍKOVÁ, L. *Zahraničně obchodní politika ČR: historie a současnost (1945-2008)*. Praha: C. H. Beck, 2009. ISBN 978-80-7400-128-4.

<sup>6</sup> see for example the Export Strategy of the Czech Republic 2012-2020.

<sup>7</sup> see for example agreements between the Ministry for Foreign Affairs of the Czech Republic and the Ministry of Industry and Trade of the Czech Republic from 1998, 1999 and 2011.

<sup>8</sup> especially law Nr. 2/1969 (Competence Act).

<sup>9</sup> BAYNE, N., WOOLCOCK, S. ed. *The New Economic Diplomacy*. Surrey: Ashgate, 2007. ISBN 978-0-7546-7048-3.

<sup>10</sup> BAYNE, N., WOOLCOCK, T. ed. *The New Economic Diplomacy*. Surrey: Ashgate, 2011. ISBN 978-1-4094-2547-7.

The book also includes a number of case-studies, which show the practical application of theoretical approaches to Economic Diplomacy.

The way Bayne and Woolcock analyze the whole issue of Economic Diplomacy represents a very high added value. The authors see the Economic Diplomacy through the lens of different disciplines and different theoretical approaches that can be used to study international relations in general. Moreover, in this book, there are also different models that build on the basic theoretical approaches.

A very beneficial contribution is also represented by a special number of monothematic journal, "The Hague Journal of Diplomacy,"<sup>11</sup> which is all devoted to Economic Diplomacy. This is a collection that includes works by almost all the most important authors in the field of Economic Diplomacy (including the aforementioned Bayne and Woolcock). The book contributes to the building of the theoretical foundations, analytical framework, and also provide a number of case-studies. Just as in the above-mentioned book, this collection extends the dimension in which diplomacy can be seen not only as an economic phenomenon but also as a discipline.

Other significant foreign contributions can be also found in a journal article, "Discussion Papers in Diplomacy"<sup>12</sup>.

The current Slovak literature in its approach to Economic Diplomacy pays particular attention to macro-economic perspective, but devotes less space to the micro-economic view and links with business<sup>13</sup>. However, this different approach can be based on different understanding of concepts of Economic Diplomacy and trade diplomacy.

In addition to these publications, there are in the Czech Republic as well as abroad, countless books and articles that are focused on diplomacy, international trade, international political economy, game theory, or a general economic theory and somehow touching also Economic Diplomacy.

## **Definitions and meaning of terms**

Despite the undeniable fact that many political leaders, but also more and more scholars use the term Economic Diplomacy, a comprehensive definition of this concept is still missing.

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<sup>11</sup> The Hague Journal of Diplomacy, 2011, č. 6. ISSN 1871-1901.

<sup>12</sup> VAN VEENSTRA, M.-L., YAKOP, M., VAN BERGEIJK, P. Economic Diplomacy, the Level of Development and Trade. *Discussion Papers in Diplomacy*, Netherlands Institute of International Relations „Clingendael“ 2010, Nr. 119. ISSN 1569-2981.

<sup>13</sup> see for example LYSÁK, L. Ekonomická dimenzia diplomacie. *Hospodárska diplomacie v 21. stor. Zborník z medzinárodnej vedeckej konferencie*. Bratislava: Ekonom, 2005, p. 100-104.

## **Diplomacy**

Relatively little complicated is determining what it means diplomacy in general. "Diplomacy is in the traditional, and the most general concept conceived as a tool - a means of foreign policy to promote its interests, especially abroad.<sup>14</sup>" Naturally, there are many other definitions for the concept of diplomacy but here we get by with the first mentioned.

## **Foreign policy**

Foreign policy is not a problematic concept. There would be enough to note that this is a policy dimension that serves to promote the interests of the state abroad, and where one means of fulfilling the objectives is diplomacy (in addition to war for example).

## **Economic diplomacy**

Economic diplomacy can be understood as a certain type of (economic) general notion of diplomacy. In international economic relations of a state it is the Economic Diplomacy that has a high priority. We can even talk about the economic activities of entities that together form a foreign policy of a state, are one of the most important components of foreign policy.

Economic diplomacy can thus be (per the definition): "a specific area, a part of diplomacy and diplomatic services, respectively, focused on:

- Creation of conditions for the realization of the economic interests of the state abroad, thus fulfilling the economic dimensions of its foreign policy in relation to the involvement of national economies into the global economy, the processes of internationalization, globalization and economic integration (a broader concept, macro perspective, especially activities within multilateral diplomacy, concentration on issues of trade policy, international agreements);
- To promote trade and investment activities of national enterprises in their access to foreign markets, lobbying for their interests, to promote activities and interests of foreign investors in business in the Czech market, etc. (narrower concept micro-economic view, the prevailing activity is in bilateral diplomacy, approach in favour of business activities.)<sup>15</sup>

The above definition, therefore, combines both a macroeconomic perspective and the microeconomic perspective.

The functioning of Economic Diplomacy is needed for the effective access of the state and its institutions. "Many countries approach this task with a very professional and

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<sup>14</sup> ŠTOURAČOVÁ, J. *Ekonomická diplomacie České republiky*. Praha: Professional Publishing, 2008. ISBN 978-80-86946-71-9, p. 14.

<sup>15</sup> ŠTOURAČOVÁ, J. *Ekonomická diplomacie České republiky*. Praha: Professional Publishing, 2008. ISBN 978-80-86946-71-9, p. 23-24.

with the help of a highly functional representation of the state abroad (including professionally trained staff, whether at embassies or elsewhere) create favourable conditions for the exercise of its business in foreign markets. In addition, properly functioning state representations abroad contribute greatly to building a good brand of the country and indirectly also to create a positive image of local entrepreneurs and their products abroad. It is usual that export promotion and export promotion policy as such constitute one of the cornerstones of the entire foreign policy and one of the basic tasks of Economic Diplomacy (economic dimension of foreign policy) of the state.<sup>16</sup>

As seen from the above definition of Economic Diplomacy, it is not correct to reduce the term only to activities seeking to promote exports, encourage foreign or just to promote the state abroad.

The concept of Economic Diplomacy is to be distinguished from the concept of business diplomacy.

### **Commercial Diplomacy**

Commercial diplomacy is much more related to the micro level, and it must be understood as a set of activities aimed to support domestic exporters and discussions on issues of trade policy, particularly on the basis of bilateral relations.

Despite the above clarification of the concepts there is no precise definition and clear boundaries between these concepts.

### **The importance of Economic Diplomacy**

The importance of the economic dimension of foreign relations has been high since the beginning of the history of civilized states. However, not until the 20th century (particularly in the second half) with the collapse of the bipolar world and the rapidly growing importance of the phenomenon of globalization, has the Economic Diplomacy become truly a key phenomenon.

As the mutual interdependence between countries is growing (on a global scale), and with the increase in the importance of multinational corporations more and more countries are forced to reassess the content of its foreign policy, and gradually give preference to economic aspects at the expense of so-called classical diplomacy (especially political, security issues, human rights, ...). Similarly, the importance of multilateral diplomacy is growing, which is especially true just in economic matters. Globalization enforces the common rules of international trade, international financial transactions, etc. Even these aspects in some way relegate traditional emphasis on diplomacy and bilateral relations on the sidelines. There is a so-called economization of foreign policy.

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<sup>16</sup> KRČÁL, A. Proexportní služby státu a jejich vnímání českou podnikatelskou veřejností. *Acta Oeconomica Pragensia*, 2011, roč. 19, č. 2, p. 28–49. ISSN 0572-3043.

Significant is the fact that Economic Diplomacy is not just a subject of academic research, but it is especially an everyday reality in which every state operates in the world (but also non-state actors).

In recent decades, it is also shown that increasing international dependence raises the need to reflect the dimensions of Economic Diplomacy. If still in the first half of the 20th century the Economic Diplomacy had almost exclusively only an international dimension, in the second half of this century it is already clearly evident that there is an increasing importance of domestic economic dimension of diplomacy. Globalisation is forcing more and more individual states to incorporate to its domestic political decisions aspects of Economic Diplomacy. Meanwhile, Economic Diplomacy has become more sensitive to developments in the markets in general. As markets have globalized, it is clear that Economic Diplomacy has no chance to succeed where markets offer better solutions.

For the main groups of actors, Economic Diplomacy is concerned with most of what governments do. However, the Economic Diplomacy involves a number of non-state actors.

### **Theoretical Approaches to the Economic Diplomacy**

The question of how Economic Diplomacy is viewed from different theoretical directions, is placed in this chapter. It is also to be noted that there is no single theory of Economic Diplomacy, and most theories that are concerned with this issue, must necessarily make certain simplifying assumptions. All these theoretical approaches also consider decision-making processes more important rather than research institutions and structures that make decisions.

According to a realistic theory of international relations the greatest emphasis is placed on the relative economic power of individual states (as key stakeholders). Hegemonic stability theory argues that the cooperation in the economic sphere will only occur when there is a dominant state, which ensures that this happens. Regime theory pays particular attention to looking at how states cooperate, whether in formal or informal processes rather or not.

Alongside with the system of theories, in which rather dominates the international element (see above), there are also theories that deal with more aspects of domestic Economic Diplomacy in an attempt to explain how domestic decision-making processes affect the international behaviour of states. For example, the societal theory is seen as an outcome of interaction between different interest groups, where government representatives play (the officials) role as negotiators. These interest groups can then obtain the international as well as the cross-border dimension. State-centered theory emphasizes the role of institutional structures and relations particularly



between different branches of government. Equally important is the relationship between the government and Parliament.

The theory of individuals deals with the importance of an individual on the final form of politics. Even these theories also have both domestic and international dimension.

These major theories of international relations can then deliver a number of specific models that could better explain the phenomenon of Economic Diplomacy as, for example, constructivist models, a model of the two-level game by professor Putnam, or the model of professor Odell focused on bargaining and markets.

The study of theoretical approaches to Economic Diplomacy can run into several "frictions", with which the theory is trying to cope in different ways. The first one is the tension between economic and political level, especially between international economics and international politics. Ideally, each state is able to consistently distinguish between economic issues from political ones. The reality is, however, different as states are political entities rather than economic. Both levels must therefore be necessarily intersected. Another controversial point is the relationship between domestic and international pressures, especially with regard to the formation of economic policy. This relationship is complicated by domestic decision-making processes. In the Economic Diplomacy there is often, at the national level, a problem with views of various ministries and there is no clear indication which one has got the leading role<sup>17</sup>. On the other hand, in the political issues of diplomacy it is the Ministry of Foreign Affairs which dominate in this field in most countries. With so many more economic issues gaining the international dimension there is a real need to involve in the decision making process more and more government departments and agencies. It is obvious that the first step of Economic Diplomacy should be the negotiation of joint action on domestic soil. The third important point is the relationship between government and other forces in important issues. This reflects mainly the effect of financial institutions, investors and traders. Even this effect is related to increasing globalization, which increasingly reduces the influence of national law (important in classical diplomacy). Likewise, there are many issues in Economic Diplomacy, where a large role is played by international NGOs, such as in the fields of environment, poverty, etc.

The cyclicity of Economic Diplomacy can be a very interesting aspect as well<sup>18</sup>. Economic Diplomacy and its tools in fact come to the fore especially when acceleration in the globalization process is not accompanied by the appropriate

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<sup>17</sup> see also KRČÁL, A. Proexportní služby státu a jejich vnímání českou podnikatelskou veřejností. *Acta Oeconomica Pragensia*, 2011, Vol. 19, Nr. 2, p. 28–49. ISSN 0572-3043.

<sup>18</sup> see also OKANO-HEIJMANS, M. Conceptualizing Economic Diplomacy: The Crossroads of International Relations, Economics, IPE and Diplomatic Studies. *The Hague Journal of Diplomacy*, 2011, Nr. 6. ISSN 1871-1901, p. 7-36.

generally accepted rules of behaviour. In other words, the government proceed to the use of economic instruments to meet their foreign policy goals when the legitimacy and power of existing structures in the international cooperation has decreased.

## **Conclusion**

The purpose of the work was to give a theoretical introduction to further study of the phenomenon of Economic Diplomacy. All chapters mingled basic idea, which is a still unclear theoretical concept of Economic Diplomacy, both in Czech and in foreign conditions. There are no generally accepted definitions and clarifying them is still very complicated.

However, by becoming a very hot topic in the practical level of international economic relations, the need for solid theoretical anchor also increases. The practice significantly precedes theory.

It can be concluded that in the foreign literature these issues are becoming more and more common, even that this mainly in the last few years. Most authors build on several key publications and monographs. In the Czech literature there is a far less researched area, there is one important publication that gives a solid base for further research.

Terms related to Economic Diplomacy are usually defined differently by different authors. The concept is often influenced by how the state treats the issue in practice.

The analysis of different theoretical approaches to Economic Diplomacy is a very important aspect of research. Most studied international relations theories are realism, international regimes and hegemonic theory. But in Economic Diplomacy one cannot forget the domestic influences. It is therefore necessary to include the relevant theoretical aspects and look at Economic Diplomacy by this prism, namely the effects arising from state-centered theory, theory of social impact and influence of individuals and ideology. Each of these theories explains one or more aspects of Economic Diplomacy, but none can explain the phenomenon in the whole range. There is a considerable scope for enhancing existing research.

This study will be followed in the future by a work that will further examine what dimensions can Economic Diplomacy have in different countries, and will therefore constitute a bridge over the gap between theoretical concepts and practice.

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# LES EFFETS DE LA LÉGISLATION MISE EN PLACE PAR LA COMMUNAUTÉ (UNION) EUROPÉENNE SUR LA PERFORMANCE RÉCENTE DU CHEMIN DE FER

Vít HINČICA<sup>1</sup>

**Résumé:** Cet article traite des conséquences de la politique communautaire concernant le transport ferroviaire ainsi que de l'évolution récente du transport de marchandises et de passagers par rail. En particulier, le texte suivant met en interaction la législation préparée par la Communauté (Union) Européenne, dès que celle-ci commença à promouvoir la politique commune des transports, et la performance du chemin de fer pendant la même période. En effet, aujourd'hui, il est souvent possible d'écouter des opinions disant que le chemin de fer européen se trouve dans une période de redressement ou il est même à nouveau en plein essor. Le but de cet article est donc d'apprendre quelle est la réalité.

**Mots clés:** législation communautaire, politique commune des transports, chemin de fer.

**Classification JEL:** R42, R48.

## Introduction

Juste après la seconde guerre mondiale, le transport ferroviaire est entré dans une grande période de décadence. Les chiffres des passagers ainsi que des marchandises transportés ont commencé à diminuer. L'automobile d'une part, et l'avion d'autre part sont les deux moyens de transport principaux qui ont entraîné le déclin significatif de la performance du train qui a été enregistrable, jusqu'à il y a peu, pendant plusieurs décennies. L'automobile comme une alternative moins coûteuse, confortable et arrivant directement à la maison, et l'avion comme le moyen du transport le plus rapide et attractif. Le chemin de fer, qui n'était pas au centre des intérêts de la société de plus en plus riche, ne pouvait pas lutter contre la perte de sa position, son infrastructure étant sous-développée ou endommagée gravement par la guerre, et le matériel roulant obsolète.

Néanmoins, le déséquilibre croissant entre les différents modes de transport ne fut pas bénéfique pour le futur de l'Europe. Voici pourquoi, déjà en 1957, les six états signataires du Traité de Rome<sup>2</sup> qui créait la Communauté économique européenne

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<sup>2</sup> A noter qu'il y en a eu deux, la seconde constituant l'Euratom.

(CEE) ont décidé, entre autres, de construire « une politique commune des transports ». Cependant, la volonté des Etats membres de CEE de travailler sur cette politique n'a pas du tout correspondu à leurs efforts enregistrés dans les autres domaines concernés par le Traité de Rome, ce qui a obligé le Parlement européen, en 1983, d'intenter une action devant la Cour de justice des Communautés européennes (ci-après « Cour »). La Cour par son arrêt du 22 mai 1985 a tenu le Conseil pour responsable du non-accomplissement des obligations stipulées dans le Traité de Rome (Cour, 1985, p. 1583).

A partir de ce moment-là, nous témoignons un brusque bouleversement dans l'attitude de toute la Communauté. Seulement un mois après la décision de la Cour, le Livre blanc sur l'achèvement du marché intérieur, rédigé par la Commission européenne en juin 1985, parle de la « nécessité de la création du progrès rapide » en matière des transports (Commission des Communautés européennes, 1985, p. 28). Le Livre a noté que les transports représentaient 7% du PIB communautaire et que « la constitution d'un marché libre dans ce secteur aurait des incidences économiques importantes pour l'industrie et le commerce » (Commission des Communautés européennes, 1985, p. 28). Le Conseil, par conséquent, a répondu à ce Livre cinq mois plus tard en établissant la liste des buts clés à achever avant le 1<sup>er</sup> janvier 1993, n'excluant aucun moyen de transport.

En 1986, l'Acte unique européen a apporté une première révision profonde des Traités de Rome et aussitôt accéléré le processus de décision sur les questions liées aux transports aérien et maritime. Ainsi, le chemin vers un marché unique du transport s'est vu beaucoup plus faciliter qu'auparavant.

Par le Traité de Maastricht de 1992, des bases politiques, institutionnelles et budgétaires pour la politique commune du transport ont été consolidées. C'est aussi cette année que la Commission européenne entama la publication irrégulière des Livres blancs ou verts qui sont exclusivement consacrés aux transports.

Ces livres ne pouvaient pas négliger la triste situation du transport ferroviaire dont le rôle parmi les autres modes de transport n'avait cessé de diminuer le long des décennies écoulées. Il était surprenant que ni les deux chocs pétroliers des années 1970, ni la congestion du trafic routier chaque fois plus accentuée n'aient pas su changer la mentalité des Européens d'une manière plus visible même si « le Vieux continent » jouissait de vastes réseaux ferroviaires. L'introduction des premières lignes à grand vitesse et des trains pendulaires dans un petit nombre des pays a uniquement aidé à sauver ou soutenir seulement certains segments du marché ferroviaire mais n'a pas incarné une solution globale car la majorité des citoyens et des entreprises européennes ont encore toujours préféré ne pas bénéficier des avantages du transport par rail, ce qui est bien cachés dans les statistiques.

Voilà ce qu'on appelle la distorsion du marché. Le transport ferroviaire n'attirait pas assez de clients parce que le marché des transports présentait des entraves importantes qui ont changé les préférences des agents économiques. Le train était généralement cher, peu confortable, lent, offrant des services peu satisfaisants. Toutefois, la responsabilité ne reposait pas sur le train-même comme un mode de transport a priori inefficace et inflexible mais plutôt sur les états qui n'ont pas voulu investir trop dans les infrastructures ferroviaires depuis années et en plus préféré de fermer leurs réseaux à la concurrence.

### **Vers un marché libre et une revitalisation complexe du rail**

Au début des années quatre-vingt dix, quand le marché unique ferroviaire était toujours plutôt un vœu pieux par voie officielle qu'une réalité qui s'approche, la Communauté européenne (CE)<sup>3</sup>, dans le cadre de la politique commune des transports, a commencé à combattre le recul du chemin de fer.

En 1991, la directive 91/440/CEE relative au développement des chemins de fer communautaire a apparu, ayant plusieurs objectifs dont deux peuvent être jugés comme cruciaux. En premier lieu, la directive a ordonné que les Etats doivent réaliser une stricte séparation comptable entre l'infrastructure et l'exploitation qui s'effectue sur cette infrastructure. La gestion de l'infrastructure pouvait encore demeurer en mains d'un opérateur ferroviaire mais à condition que les opérations financières liées à l'usage de l'infrastructure et à la provision des services ferroviaires ne se mélangent plus et soient strictement séparées. Le principe de la transparence a été désormais introduit dans l'espace ferroviaire de la Communauté. En deuxième lieu, la directive a visé à l'ouverture du marché ferroviaire pour les opérateurs du transport international combiné<sup>4</sup> à compter de 1993.

Avant l'expiration de cette date, la Communauté a dû reconnaître que son intention d'amener à son espace ferroviaire un vent positif à travers de l'ouverture pilote du chemin de fer à des opérateurs du transport combiné international et par l'imposition de certains principes ne va pas être suffisante et que d'autres mesures doivent être adoptées. Cette prévision s'est réalisée encore plus vite que prévue : presque la moitié des états membres n'ont pas adopté la directive dans toutes ses dispositions dans le délai prescrit (Commission européenne, 1996, p. 44). Il y a trois raisons principales qui peuvent expliquer cette situation : le manque d'instructions précises pour une bonne exécution des dispositions de la directive, un délai très bref pour l'adoption de toutes les dispositions et une résistance de la part des états membres qui protégeaient leurs

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<sup>3</sup> La CEE n'existait plus depuis 1992.

<sup>4</sup> Sous le terme « transport combiné », l'Union européenne comprend: « Transport intermodal dont les parcours principaux, en Europe, s'effectuent par rail, voies navigables ou mer et dont les parcours initiaux et/ou terminaux, par route, sont les plus courts possible. » Source : UN/ECE (2001). Terminologie en transports combiné, p. 20.

intérêts politiques et économiques (à titre d'exemple, dans cette époque-là, le nombre des employés dans les compagnies ferroviaires publics étaient beaucoup plus élevé qu'aujourd'hui).

Jusqu'à 1996, la Communauté avait déjà adopté trois autres directives relatives aux licences ferroviaires (95/19/CE), à la répartition des capacités d'infrastructure ferroviaire, la tarification de l'infrastructure et la certification en matière de sécurité (95/19/CE), et à l'interopérabilité du système ferroviaire transeuropéen<sup>5</sup> à grand vitesse (96/48/CE).

En 1996, la décision du Parlement et du Conseil 1692/96/EC a conçu les grandes directives pour le développement du réseau de transport transeuropéen auxquelles une liste des projets prioritaires, approuvés par la session du Conseil de l'Europe à Essen en 1994, a été adjointe. Sur quatorze projets présentés, dix ont concerné le transport ferroviaire. Ce nombre n'aurait jamais été si haut si la Communauté n'avait pas décidé de faire du chemin de fer un élément actif du transport multimodal et combiné.

Même si le transport par rail a pu regarder un grand progrès législatif entre 1991–1996, peu de choses ont changé dans la pratique pendant cette période. La Communauté a compris que le chemin de fer représentait un environnement conservé et très compliqué (surtout du point de vue technique) qui exigeait plus de temps pour être réformé qu'originellement prévu. C'est pourquoi la Communauté a décidé de lancer une stratégie intégrale pour relancer la création du marché unique ferroviaire. La nécessité et les procédés d'une telle stratégie ont été discutés dans Le livre blanc de 1996 intitulé « Une stratégie pour revitaliser les chemins de fer communautaires ».

La détermination de la Communauté d'exécuter ses objectifs s'est révélée extrêmement forte. En 1998, la Commission présente le premier « paquet ferroviaire » qui a eu à renforcer la réforme de tout le secteur ferroviaire et faire avancer la libéralisation du fret ferroviaire. Comme son contenu a suscité de grands débats entre les Etats membres, il fallait trois ans pour qu'il passe par toute la procédure législative.

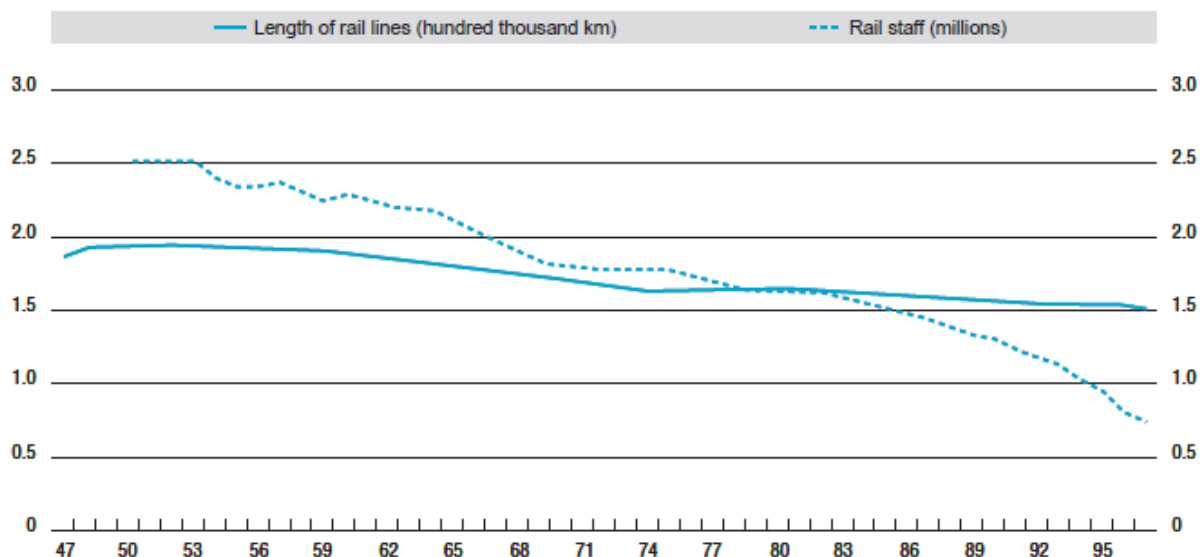
Le premier paquet ferroviaire s'est composé de trois directives : 2001/12/CE, 2001/13/CE et 2001/14/CE. La directive 2001/12/CE a modifié la directive 91/440/CEE qui demeure la pierre angulaire de la réforme du chemin de fer jusqu'à ces jours.

Graphique 1 – La décadence du chemin de fer en courbes: La longueur des lignes ferroviaires et le niveau des effectifs depuis 1945 dans l'UE-15

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<sup>5</sup> Ce système transeuropéen a été défini par la même directive dans son appendice.





*Source: European Conference of Ministers of Transport (2001, p. 25)*

Même si le paquet a été désigné pour ouvrir le marché du fret ferroviaire seulement sur le réseau transeuropéen, il a signifié une grande et première révolution pour tout le chemin de fer européen.

Quant aux autres deux directives du premier paquet, la directive 2001/13/CE a modifié la directive 95/18/CE sur la distribution des licences, tandis que la directive 2001/14/CE sur la répartition des capacités d'infrastructure ferroviaire, la tarification de l'infrastructure ferroviaire et la certification en matière de sécurité a substitué la directive 95/19/CE qui n'était plus conforme à de circonstances récentes.

La directive 2001/16/CE a été publiée en même moment que le premier paquet mais elle n'y est pas attachée. Elle impose des conditions pour la création de l'interopérabilité du système ferroviaire transeuropéen conventionnel. Conjointement avec la directive 96/48/CE, elle discute les « spécifications techniques d'interopérabilité » (STI), les « objectifs de sécurité communs » (OSC) et les « méthodes de sécurité communes » (MSC).

Le deuxième paquet ferroviaire, dont la venue a été annoncée en 2001, fut approuvé en 2004. Il a été composé de trois directives et un règlement : 2004/49/CE, 2004/50/CE, 2004/51/CE et (CE) n° 881/2004. La directive 2004/49/CE a notamment réagi au fait que les dispositions sur la sécurité parues dans les directives 91/440/CEE et 2001/13/CE ont été trouvées insuffisantes. La directive 2004/50/CE a procédé à la modification des directives 96/48/CE et 2001/16/CE dans le but d'inciter l'harmonisation des règles nationales sans laquelle l'interopérabilité ne peut pas être viable. La directive 2004/51/CE est la deuxième modification de la directive 91/440/CEE. Le règlement n° 881/2004 a institué l'Agence ferroviaire européenne

pour qu'il y ait un soutien notamment technique pendant la création d'un système ferroviaire communautaire unique.

Il faut se référer à la directive 2004/51/CE qui a fixé le 1<sup>er</sup> janvier 2007 comme la date limite pour l'ouverture totale du marché du fret ferroviaire. Désormais, n'importe quel opérateur des services ferroviaires de fret provenant de n'importe quel pays membre a le droit d'entrer sur le réseau ferré communautaire désigné par les dispositions relatives. Nous y enregistrons une anticipation de temps de plus d'un an parce que la directive 2001/12/CE avait déterminé l'horizon pour cette ouverture pour le 15 mars 2008.

Les travaux sur le troisième paquet ferroviaire ont démarré en 2004. Maintenant, c'est le transport de passagers qui s'est révélé l'enjeu pour la Communauté. Quatre documents législatifs ont été finalement approuvés : les deux directives 2007/58/CE et 2007/59/CE, et les deux règlements n. 1370/2007 et n. 1371/2007. La date la plus significative figure dans la directive 2007/58/CE amendant les directives 91/440/CE et 2001/14/CE où il est possible de lire que l'ouverture du transport ferroviaire de passagers international va s'effectuer à partir du 1<sup>er</sup> janvier 2010.

Il faut savoir que d'autres mesures, peu ou moins significatives, sont et ont toujours été intercalées entre les trois paquets pour réagir continuellement à de nouveaux changements. Cependant, l'accès aux lignes nationales pour les entreprises privées assurant le transport des passagers n'est pas encore garanti, ce qui signifie que la voie pour un espace ferroviaire unique ne peut pas se déclarer construite. Maintenant, une question se glisse. Est-ce qu'il y a eu un redressement du chemin de fer dès que l'Union Européenne exerce sa politique dans la matière des transports ?

## **Etat de la bibliographie**

Jusqu'à ces jours, plusieurs exposés et mémoires se sont occupés des impacts de la politique communautaire exercé en matière de transport ferroviaire mais la plupart d'eux proviennent des institutions communautaires. Parmi ceux qui sont indépendant de l'UE nous en avons choisi trois.

Premièrement, OCDE dans sa publication sur les effets de la libéralisation et des réformes dans le secteur des transports parue en 1997 analyse avec soin l'extension des changements structurels dans le marché de transport européen de fret entraînés par la libéralisation et les réformes structurelles du côté de l'offre, défendues par l'UE. Cette étude a remarqué que jusqu'à 1996, *« certaines initiatives de réforme aient été prises mais la compétitivité des transports internationaux ne s'est pas améliorée »*.

Une influence positive de la politique communautaire a été trouvée par Asmild, Holvad, Hougaard et Kronborg (2009) qui ont analysée l'influence des réformes ferroviaires lancées par la Commission européenne depuis la décision de la Cour en 1985 jusqu'à 2001. D'après eux, ces réformes ont eu un impact contrasté : si les

dépenses en personnel et en matériel ont chutées, l'efficacité technique a en revanche augmenté.

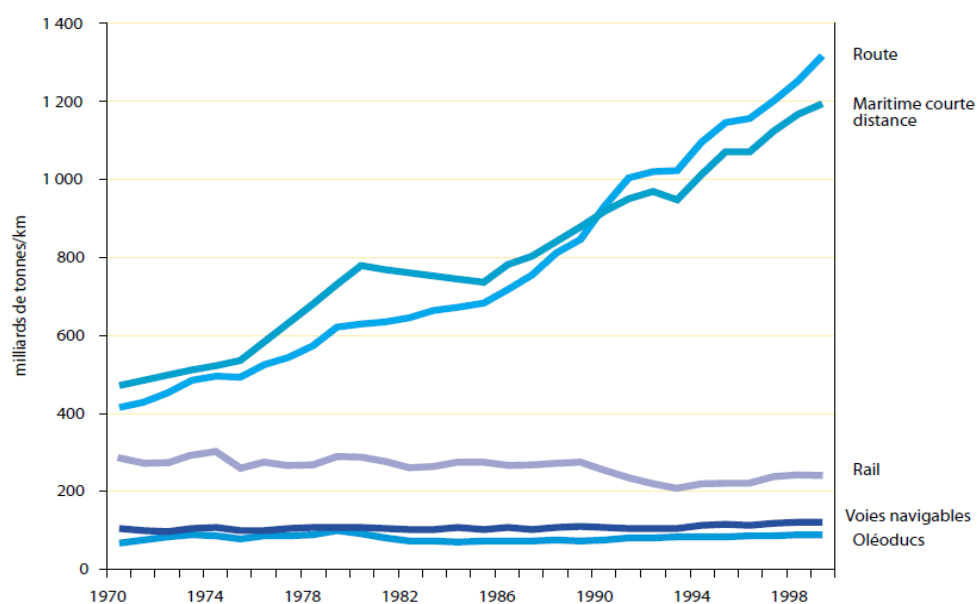
Maurer, Burgess et Hilferink (2010) sont venus avec l'intention de décrire le développement du trafic international de passagers avant sa libéralisation le 1<sup>er</sup> janvier 2010. Sur la base des données collectées et en appliquant trois approches différentes, ils ont prédit une « croissance considérable » pour le futur de ce marché. En même temps, ils ont détecté d'importants obstacles qui doivent encore être surmontés. Pourtant, les auteurs ont conclu que les premiers gains de la libéralisation sont des effets favorisant la compétition.

### Une voie solide à suivre?

Dans cet article, nous aimerions enrichir cette discussion en comparant les performances du chemin de fer avant le lancement des réformes ferroviaires et la situation qui est venue après. Deux perspectives ont été prises. La première concerne seulement chemin de fer et la deuxième montre la situation vis-à-vis les autres modes de transports. Les données sont prises d'Eurostat.

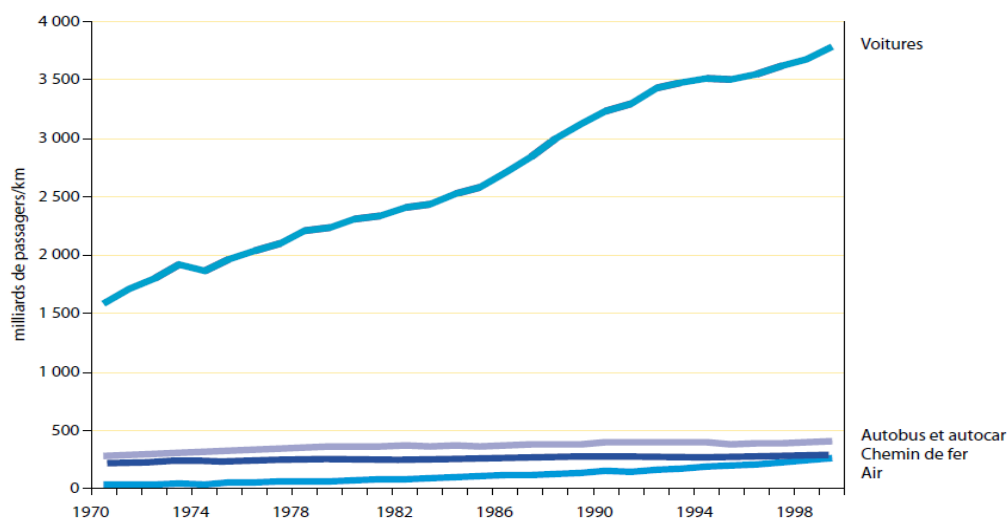
Les graphiques 1 et 2 présentés ci-dessous montrent que les deux principaux compétiteurs du rail, l'air et la voiture, ont continué à renforcer leurs positions au cours des dernières décennies du siècle passé dans le transport de passagers ainsi que de marchandises.

Graphique 2 – Transport de marchandises — Évolution du trafic par mode de transport EU-15 en milliard de tonnes/km (1970–1999)



Source: Commission européenne (2001, p. 26).

Graphique 3 – Transport de passagers – Évolution du trafic par mode de transport EU-15 en milliard de tonnes/km (1970–1999)



NB: Passager/kilomètre: transport d'un passager sur un kilomètre.

Source: Commission européenne (2001, p. 25).

Dans une certaine mesure, les graphiques peuvent inciter à penser que le chemin de fer n'ait passé par aucune crise et seulement gardé sa part stable. Certes, les volumes n'ont pas connu des fluctuations importantes mais une telle « stabilité » a provoqué son déclin constant dans la répartition modale. Les tableaux 1 et 2 présentant la répartition modale en matière du fret et passagers transportés en apportent la preuve.

Tableau 1: Répartition modale dans le transport de marchandises

Année	Voiture	Chemin de fer	Voies navigables intérieures	Oléoducs
1970	48,6	31,7	12,3	7,4
1975	54,5	26,7	10,6	8,2
1980	57,4	24,9	9,8	7,9
1985	61,3	23,7	8,9	6,1
1990	67,5	18,9	8,3	5,3
1994	71,7	14,9	7,7	5,6

Source: Commission européenne (2011, p. 42).

Il est évident que le chemin de fer, en tant qu'un mode utilisé pour le transport des marchandises et passagers, n'a pas cessé de perdre de son importance parmi les autres modes de transports même si en termes de valeurs absolues (mesurées en tonnes-kilomètres) il a aussi enregistré quelques augmentations interannuelles (Eurostat, 2012).

Tableau 2: Répartition modale dans le transport de passagers

Année	Voiture	Bus	Chemin de fer	Air
1970	75,1	12,5	10,3	2,1
1975	75,8	12,0	9,5	2,7
1980	76,9	11,4	8,5	3,2
1985	77,0	10,5	8,1	4,4
1990	79,0	9,0	6,9	5,1
1994	79,7	8,3	6,2	5,8

Source: European Commission (2011, p. 43).

### Les performances du chemin de fer pendant la réalisation de la politique commune des transports

L'année 1994, où les tableaux présentés jusqu'à ce point finissent, a déjà connu l'existence d'un premier acte législatif entré en vigueur. Pour cela, le début des années quatre-vingt dix peut être pris comme une véritable frontière séparant deux phases différentes dans l'histoire du chemin de fer européen.

Tableau 4: Répartition modale dans le transport de marchandises

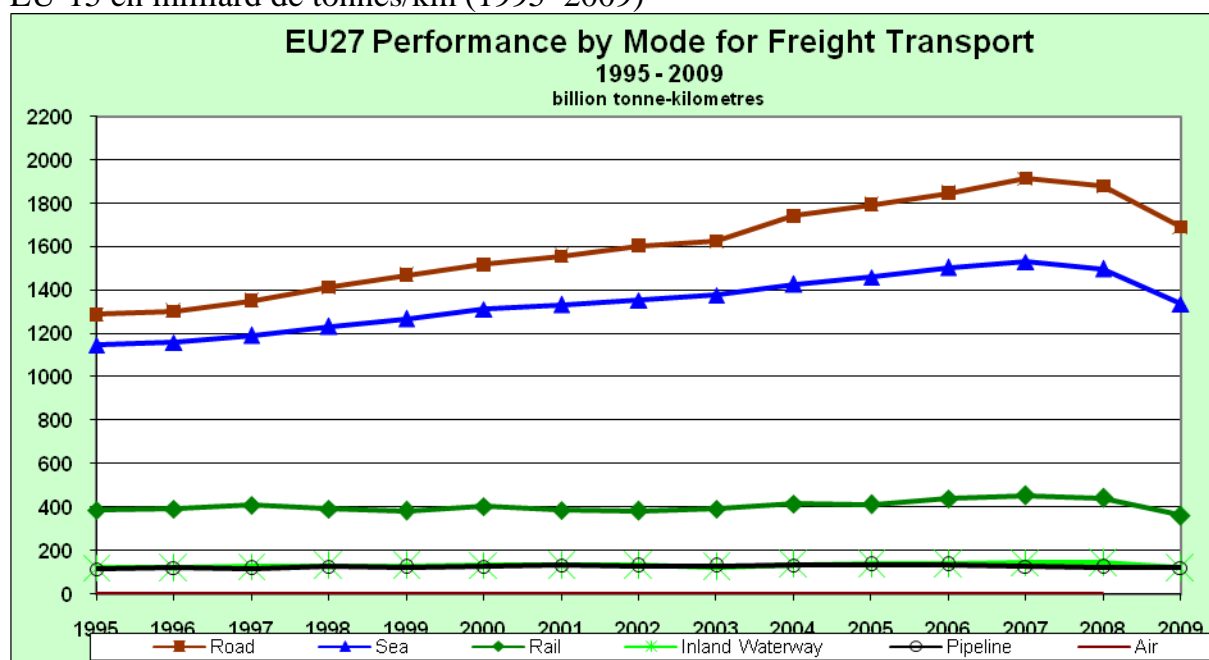
Année	Voiture	Chemin de fer	Voies Navigables	Oléoducs	Mer	Air
1995	42,1	12,6	4,0	3,8	37,5	0,1
1996	42,1	12,7	3,9	3,9	37,5	0,1
1997	42,2	12,8	4,0	3,7	37,3	0,1
1998	42,9	11,9	4,0	3,8	37,4	0,1
1999	43,5	11,4	3,8	3,7	37,6	0,1
2000	43,4	11,5	3,8	3,6	37,5	0,1
2001	43,9	10,9	3,7	3,8	37,6	0,1
2002	44,5	10,6	3,7	3,6	37,6	0,1
2003	44,5	10,7	3,4	3,6	37,7	0,1
2004	45,2	10,8	3,5	3,4	37,0	0,1
2005	45,5	10,5	3,5	3,4	37,0	0,1
2006	45,4	10,8	3,4	3,3	37,0	0,1
2007	45,9	10,9	3,5	3,1	36,7	0,1
2008	46,0	10,8	3,5	3,0	36,6	0,1
2009	46,6	10,0	3,3	3,3	36,8	0,1

Source: Eurostat (2012).

Mais il est à constater que malgré l'attention croissante que la Communauté a prêtée au chemin de fer durant les deux dernières décennies, la situation de ce mode de

transport a peu changé. Le tableau ci-dessous présente la part baissant du chemin de fer entre les années 1995 et 2009. La graphique y ajouté montre ses performances en transport de fret pendant la même période du temps. A différence des statistiques antérieures où seulement 15 pays figuraient, celles-ci comprennent les 27 membres actuels de l'UE.

Graphique 5 – Transport de marchandises – Évolution du trafic par mode de transport EU-15 en milliard de tonnes/km (1995–2009)



Source: Eurostat (2012).

Pour le transport de voyageurs, nous manquons des statistiques actuelles et les données les plus récentes ne sont que des estimations. Les statistiques qui sont disponibles en Eurostat indiquent une évolution d'avant-crise mesuré en passagers-kilomètres légèrement positive mais pas dans tous les Etats. La part du chemin de fer parmi les autres modes de transport devait également imperceptiblement augmenter (Eurostat, 2012).

Le résultat qui peut être déduit est le suivant: plus de vingt ans du travail systématique visant à la promotion du chemin de fer n'ont pas apporté l'augmentation de son importance si bien c'était le vœu et même quelque fois l'objectif fixé dans plusieurs livres blancs et d'autres documents importants de la Communauté.

## Le dysfonctionnement de la politique commune des transports?

Il est impératif de présenter les raisons qui nous permettraient d'expliquer cette tendance. Une fois la législation mise en vigueur, les effets souhaités ne sont pas de tout garantis. En effet, le succès de la politique menée par la Communauté ne se base pas sur une simple adoption des directives, résolutions ou d'autres règles. D'une part parce que les Etats présentent certaines différences dans leurs réseaux ferroviaires que le cœur de l'UE, Bruxelles, devrait respecter, d'autre part parce qu'il faut premièrement assurer une collaboration fluide entre tous les acteurs à tous les niveaux. L'UE n'a pas toujours su bien prendre en compte ces deux facteurs. A titre d'exemple, il suffit de mentionner que plusieurs procédures contre différents pays ont dû être lancées pour que la réforme de l'espace ferroviaire avance, ce qui a beaucoup retardé des efforts communautaires. De plus, des objectifs fixés, ou mieux dit, des délais pour satisfaire à ces objectifs n'ont pas souvent été les plus favorables pour tous les pays membres. Un tel décalage entre le plan et la réalité a donné lieu à la réflexion sur la viabilité et faisabilité rapides des objectifs, c'est-à-dire, que des modifications des actes déjà en vigueur sont devenues inévitables.

Il est souvent et incorrectement présumé que la réforme du transport par rail équivaut à la libéralisation. Si c'était vrai, il serait possible de conclure que la politique de la Communauté a échoué, et ses principes manquent de sens. Toutefois, la libéralisation ne suffit pas à elle seule à remédier à tous les maux. Ce constat est particulièrement vrai dans le cas du transport ferroviaire. Elle a surtout permis aux nouveaux opérateurs d'être dans les conditions d'égalité avec les anciens monopoles publics. Il s'agit d'une décision importante, mais qui devrait être complétée par d'autres mesures. De surcroît, cette libéralisation du rail reste, à bien des égards, inachevée. Cette posture est aussi maintenue par Eisenkopf (2006) qui, entre autres, tient à que « l'accès libre sans autres réformes régulatrices ou structurelles ne signifie pas automatiquement plus de concurrence sur voies ferrées et plus de compétitivité du même secteur ferroviaire ». Se sont notamment les marchés intérieurs des services ferroviaires qui à cause de nombreuses entraves considérables restent encore presque partout resserrés si non complètement fermés à la concurrence (Commission européenne, 2011, p. 12). Par conséquent, les effets de la libéralisation déjà promue ne sont que marginaux, surtout dans le transport des passagers.

Les entraves que la Communauté a dû attaquer pour que le chemin de fer devienne plus efficace et attractif pour les usagers finaux sont de nature différente mais la plupart d'entre elles sont liées aux questions techniques et technologiques. En effet, il est connu que le chemin de fer est un mode de transport où ces deux aspects sont très hétérogènes non seulement parmi les pays mais aussi au sein des pays-mêmes. Il suffit de dire qu'en Europe, quatre systèmes d'alimentation électrique principaux et d'autres moins importants sont utilisés, des dizaines de signalisations y sont répandus, trois écartements (1 435 mm, 1 524 mm, 1 668 mm) y jouent un rôle stratégique et d'autres les complètent. Pour cela, à la différence des autres moyens de transport, chez le

chemin de fer les particularités entre les matériaux roulants et les infrastructures ferroviaires y sont beaucoup plus prépondérants qu'ailleurs et, par conséquence, elles se profilent comme une question plus compliquée. Cela se traduit dans un processus ample et long de rédaction et définition des normes techniques de caractère unique et universel. Il est donc naturel que des rectifications et de nouvelles dispositions sont adoptées. Le facteur économique ne doit pas y être oublié parce qu'une adaptation des véhicules ainsi que de l'infrastructure pour l'assurance d'un passage fluide du trafic entre les pays membre exige d'énormes investissements. Une des conséquences est la prolongation de temps nécessaire pour une bonne exécution de la réforme.

Enfin, la réforme du chemin de fer communautaire peut fonctionner pourvu qu'il y ait des institutions dans chaque Etat membre qui veillent à un bon suivi des normes imposés et contrôlent que les obligations et droits de tous les acteurs intervenant dans l'espace ferroviare soient respectés. Certes, le fondement de telles institutions est aussi un processus en voie de développement.

## **Conclusion**

La réforme du chemin de fer est en marche depuis vingt ans. Pourtant, les résultats désirés se font attendre. En autres mots, il n'est pas toujours encore du bon temps pour juger si elle a réussi ou non. Il est légitime de supposer qu'elle a aidé à arrêter le déclin de la part du chemin de fer parmi les autres moyens de transport et qu'elle a apporté quelque de positif mais comme il y a autant de facteurs qui influent sur les performances récentes de ce mode de transport, il serait probablement précipité de donner une conclusion définitive, parce que nous ne disposons pas d'un nombre suffisant d'études indépendantes qui nous permettrait de nous créer une image objective.

Cependant, nous pouvons bien observer que l'environnement ferroviaire de l'UE est déjà inondé par des dizaines des normes, donc il faut se demander si les effets des réformes ne seraient pas plus bénéfiques si elles étaient conçues plus simplement. En effet, plus il y a de législation, de règles et de recommandations imposées, plus il y a de nécessité de les amender et de les mettre à jour.

## **Remerciements**

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# IS IT POSSIBLE TO SUCCEED IN A HIGHLY COMPETITIVE MARKET?

Magda NEUWIRTHOVÁ<sup>1</sup>

**Abstract:** *In this case study the author describes the commercial relations between the Czech Republic and Slovenia. Author also characterizes the factors for the successful entry of Czech companies to the Slovenian market, which is highly competitive. Author further introduces the significant multicultural aspects which need to be maintained for successful entry. The author deals with SLEPT analysis, which author analyzes in detail the social, legal, economic, political and technical factors affecting the business cooperation of the Czech Republic and Slovenia. This analysis is supplemented by the author of mentality factors that are considered as particular important in today's multicultural business market. This study results in recommendations to the Czech companies on how to enter to the Slovenian market and avoid any possible complications.*

**Keywords:** trade, multicultural environment, mentality.

**JEL classification:** F14.

## Introduction

In this report Author describes in case study format Slovenia as a country suitable for the entry of foreign companies even despite its highly competitive environment.

Slovenia is the smallest country in the European Union with a highly saturated market in which practically all global importers are represented. To find a strategic niche in the market is extremely difficult. Despite these factors, the Czech Republic has succeeded in this market.

Author has divided this study into three sections. The first section addresses the commercial relations between the Czech Republic and Slovenia.

In the second section author has conducted a SLEPT analysis, which author has expanded to include M – mentality. Author considers understanding the mentality of the nation in a question (aside from offering a competitive product) of a key condition for commercial success in the Slovenian market.

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In the third section author gives instructions on how to succeed in the highly competitive and saturated Slovenian market.

The data for this study have been derived from public available sources and from conversations with employer at the diplomatic offices in Ljubljana, as well as from author's travels to Slovenia.

## **Commercial relations between the Czech Republic and Slovenia**

### **History of mutual cooperation**

The Czech Republic and Slovenia have a long history of cooperation. It reaches as far as King Samo's Empire (7th century) during cooperation with the Yugoslavians in the struggle against the Avars. Under the Premyslid Otakar II we acquired many lands of modern-day Slovenia. Carniola was administered by Petr Vok of the Rosenberg family. From Carniola and Styria also originate the houses of Schwarzenberg, Eggenberg, Auersperg, and so forth.

In the 16th century Czechs and Slovenians lived together as part of the Habsburg monarchy. This cohabitation lasted until 1918. The Czechs and Slovenians united not only their common political positions of disenfranchised ethnic communities within the Habsburg monarchy, but also their awareness of their Slavic heritage and the effort to assert their cultural and political emancipation in the Danubian empire.<sup>2</sup>

### **The mutual cooperation of eminent personalities**

Under the reign of Charles IV in the 14th century, the sculptor and builder's school of Peter Parler operated in the Northeast of modern-day Slovenia in the city of Ptuj and its surroundings. As an example, a Gothic cathedral from the smelter of Peter Parler can be found in the town of Ptujška Gora. At the end of the 16th century the Czech Republic was home to the travels of the musical composer Jacobus Gallus Carnolius (1550-1591), who founded European polyphonic music at the court of the Emperor Rudolph II in Prague. In Slovenia the Czech forest warden and inventor (of the ship propeller) Josef Ressel lived and died (1793-1857). On the other hand the Slovenian architect Jože Plečnik (1872-1957) worked in Prague. Plečnik was invited by President Masaryk to reconstruct the interiors and gardens of the Prague Castle and the presidential summer residence in Láň. He also bequeathed to Prague the Church of the Sacred Heart of Jesus in Vinohrady, as an example.<sup>3</sup>

### **Competition with the Czech Republic in terms of territory**

As mentioned in the previous sections, the Slovenian market is highly competitive and practically saturated. There are entrenched companies both from neighbouring Austria

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<sup>2</sup> [www.Libri.cz/cesko-slovinske-vztahy](http://www.Libri.cz/cesko-slovinske-vztahy), 2011

<sup>3</sup> [www.slovinsko.orbion.cz/stat/pruvodce/cesko-slovinske-vztahy](http://www.slovinsko.orbion.cz/stat/pruvodce/cesko-slovinske-vztahy), 2011

and from Germany and Great Britain. The primary competitor of the Czech Republic is Austria, whereas Austrian companies are much more flexible, particularly as regards the “personal motivation” of the given Austrian partners.

### **Current commercial cooperation**

After the breakup of Yugoslavia Slovenia drew on the fact that companies creating products of high added value remained in its territory– primarily in the fields of pharmaceuticals (LEK and KRKA) and electrotechnical companies (for example Gorenje). These together with TPCA, which transports automotive parts to the Czech Republic, create the backbone of Slovenian export to the Czech Republic.

In comparison the Czech Republic exports primarily consumer cars (Škoda Mladá Boleslav and Hyundai) and cellulose pulp for the collectively owned paper manufacturer in Krško.

As a result of savings measures of the Ministry of Foreign Affairs, the office of commercial advisor was terminated in the diplomatic office in Ljubljana. And with the high level of personal engagement of the ambassador Petr Voznica, who had adopted this agenda as his own, Czech export to this country has reflected an increasing trend.

Table 1 Commercial exchange between the Czech Republic and Slovenia in the years 2006 - 2011 (in thousands of EUR)

Year	2006	2007	2008	2009	2010	1/8/2011
<b>Export CR</b>	384,999	497,322	563,794	446,531	528,104	387,086
<b>Import CR</b>	381,162	439,945	458,881	345,369	401,121	301,420
<b>Revenue</b>	766,161	937,264	1,022,675	791,900	929,225	688,506
<b>Balance</b>	3,837	57,377	104,913	101,162	126,983	85,666

Source: *www.businessinfo.cz (modified)*

In the year 2008 over one hundred thousand commercial subjects were registered in Slovenia. The most notable are: Elan, Gorenje, Krka, REVOZ and Triglav.<sup>4</sup>

In the year 2010 Slovenia represented the 23rd most significant trade outlet for Czech export. In the year 2010 it was in 29th place for import. The revenues for mutual commerce between the Czech Republic and Slovenia have achieved the value of EUR 929.2 million. This represents an increase of 19.1% in comparison with the year 2009.

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<sup>4</sup> Slovinsko: stručná historie států [Slovenia: The Concise History of a Nation], Hladký, Ladislav., Libri Praha r. 2010, s.172, ISBN 978-80-7277-463-0

In 2010 Czech companies exported to Slovenia five times more goods than in the previous year. This export altogether achieved EUR 528.1 million.<sup>5</sup>

Table 2 Share of individual groups of goods on the total export of the Czech Republic to Slovenia 2007-2011 (in thousands of EUR)

SITC 1	2007	2008	2009	2010	1-7/2011*
<b>0 Food and livestock</b>	15,126	18,146	16,509	17,858	10,040
<b>1 Beverage and tobacco</b>	1,367	2,233	2,543	14,052	8,341
<b>2 Inedible raw materials, not including fuel</b>	51,987	55,885	47,801	60,708	39,618
<b>3 Mineral fuels, lubricants</b>	13,928	17,231	11,527	13,728	2,820
<b>4 Animal and vegetable oils and fats</b>	1,720	1,567	1,856	3,422	542
<b>5 Chemicals</b>	44,750	57,468	50,981	57,835	38,351
<b>6 Assorted market goods</b>	167,560	155,549	97,947	120,368	75,314
<b>7 Machines and transport devices</b>	165,875	216,979	171,597	190,583	135,492
<b>8 Industrial consumer goods</b>	35,325	39,150	39,953	49,627	31,607
<b>9 Commodities and subjects of trade</b>	40	89	89	103	63

Source: *www.businessinfo.cz (modified)*

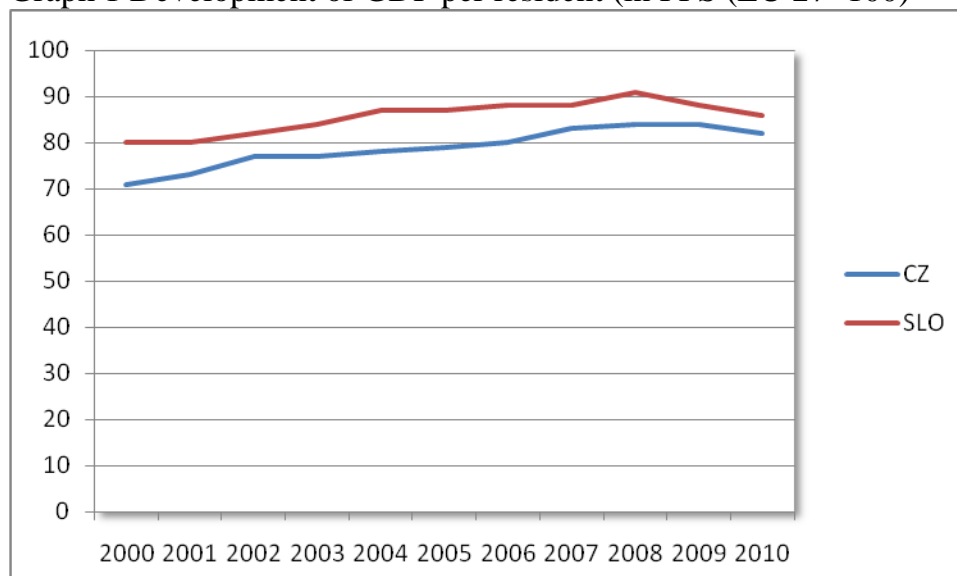
Table 3 Share of individual groups of goods according to SITC on the total import to the Czech Republic from Slovenia 2007-2011 (in thousands of EUR)

SITC 1	2007	2008	2009	2010	1-7/2011*
<b>0 Food and livestock</b>	2,474	2,620	3,153	5,006	2,711
<b>1 Beverage and tobacco</b>	451	540	531	356	240
<b>2 Inedible raw materials, not including fuel</b>	5,823	5,055	3,190	3,024	2,712
<b>3 Mineral fuels, lubricants</b>	1,213	235	522	88	741
<b>4 Animal and vegetable oils and fats</b>	6	53	0	31	-
<b>5 Chemicals</b>	102,639	119,738	117,897	127,165	81,840
<b>6 Assorted market goods</b>	167,978	156,236	98,808	137,060	94,607
<b>7 Machines and transport devices</b>	123,724	135,269	82,805	88,788	57,670
<b>8 Industrial consumer goods</b>	35,499	38,988	32,177	40,158	23,677
<b>9 Commodities and subjects of trade</b>	0	-	110	363	299

Source: *Czech Statistical Office*

<sup>5</sup> [www.komora.cz/zpravodajstvi-a-media/aktuality-4](http://www.komora.cz/zpravodajstvi-a-media/aktuality-4), 2011-11-10

Graph 1 Development of GDP per resident (in PPS (EU 27=100))



*Source of data: Eurostat*

At present time there is a decrease in purchasing power in Slovenia and in the Czech Republic. In order to the stronger decrease in Slovenia, Czech exporters, who focus particularly on consumer goods, must deal with enormous price pressure while maintaining quality.

## **SLEPT analysis**

### **Social factors**

The Republic of Slovenia is a Central European Alpine nation. It is situated on the dividing line between Central Europe and the Northern Mediterranean. It has an area of 20,273 km<sup>2</sup>.

From 1991 to 2006 the currency was the Slovenian Tolar. Since 1st January 2007 Slovenia is a member of the Euro zone and its currency is the Euro.

It had almost 2 million residents (1,964,036) along with the last census in the year 2002. The composition of its population is 83% Slovenian, 1.83% Serbian, 1.81% Croatian, 1.1% Bosnian.<sup>6</sup> There is a large number of mixed marriages among nations of the former Yugoslavia, which is a result of the fact that Slovenia was a part of Yugoslavia. From the perspective of religion, 57.8% of the population considers themselves Roman Catholic, 0.8% Evangelical, 2.3% Orthodox and 2.4% Muslim.<sup>7</sup> The official language is Slovenian. In areas with Hungarian and Italian minorities

<sup>6</sup> Statistical Office of the Republic of Slovenia, Življenjepis 2008, /cit. 9.5.2011/

<sup>7</sup> Slovinsko: stručná historie států [Slovenia: A Concise History of the Nation], Hladký, Ladislav., Libri Praha r. 2010, s. 135-136, ISBN 978-80-7277-463-0

there are Hungarian and Italian spoken. 69.8 % of the population is in the productive age group. The average age is 40.7 years.<sup>8</sup>

Figure 1 Map of the Republic of Slovenia



### Legal factors

The form of government is the Republic of Slovenia with a democratic parliament arranged into separate legislative, executive and judiciary branches. The government is represented to the outside world by a president with limited authority. He is elected through direct voting for the tenure of 5 years. The president of the Republic of Slovenia, Danilo Turk, is also the commander in chief of the armed forces. Parliament has legislative power. It is an imperfect bicameral type of government (the National Assembly, or Državni zbor, and the National Council, or Državni svet) with significant dominance by the lower chamber (the National Assembly).

<sup>8</sup> CIA World Factbook, 20. 11. 2011

The highest body of executive power is the Government of the Slovenian Republic. From the perspective of the laws and constitution, the government acts as the executive authority of Parliament, however which is not so clear-cut in practice.<sup>9</sup> The Judiciary is composed of the Constitutional Court and the Supreme Court, under which are the high courts and higher, labour, and social courts.<sup>10</sup>

Slovenia is a member of the European Union and has fully adopted European legislation. Slovenia is a member of the OSCE, UN, WTO, EEA, NATO, and the Council of Europe. It has been a member of the European Union since 1st May 2004 and a member of the Euro Zone since 1st January 2007. It also belongs to the European Union Customs Union, the Schengen Area and the OECD (since 21st July 2010).

### **Economic factors**

Its declaration of independence in the year 1991 brought with it the loss of the Yugoslavian market, which incurred significant problems for the Slovenian economy. Industrial production decreased to its value in the year 1977, unemployment increased, and average wages dropped to half. This grave situation culminated in the year 1993. A certain stability was achieved only in the years 1995-2008, when economic growth achieved approximately 4%. In the year 2009 the amount of the Gross Domestic Product (GDP) per head reached EUR 17,331, (a decrease compared to 18,400 in the year 2008), unemployment was 5.9% and inflation 0.0%. The average wage in the year 2009 amounted to less than EUR 1,439.<sup>11</sup> More than 65% of GDP is composed of services, 32% is represented by industry.

In Slovenia 32% of the workforce is employed in industry. Industry accounts for 34% of GDP. The most important branches of industry are: metallurgical industry, chemical, electrotechnical and electronics, food, paper, textiles, clothing and leather industries.<sup>12</sup>

Agriculture is characterised by a large number of farms. These maintain an average of 6.5 hectares of land. Approximately 64% of arable land is divided among farms up to 15 hectares in size. This sector of course has a low level of productivity.<sup>13</sup>

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<sup>9</sup> Politický systém Slovinska [The Political System of Slovenia], Cabada, Ladislav., Sociologické nakladatelství Praha 2005, ISBN 80-86429-37-7

<sup>10</sup> European Commission, Organisation of justice – Slovenia, REV 2007 – 12- 11, /citation 24 December 2010/

<sup>11</sup> Government of the Republic of Slovenia, Economy c2010, /cit. 2011-05-12/

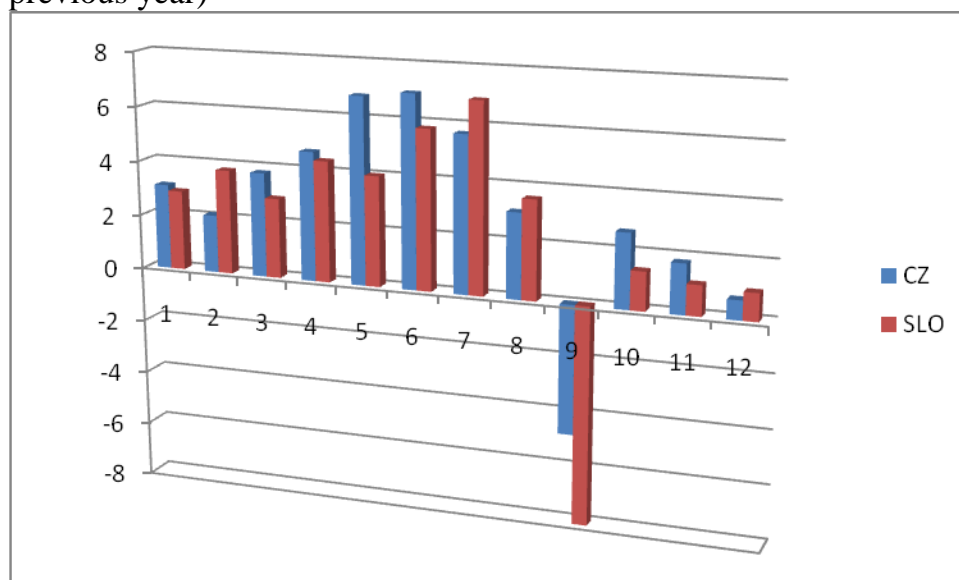
<sup>12</sup> Diplomatic Office Ljubljana, Slovenia: Zahraničně-politická orientace [Foreign-political orientation], Rev. 2011-05-03, /cit. 2011-05-12/

<sup>13</sup> Statistical Office of the Republic of Slovenia, 2010, /cit. 2011-05-12/



The Republic of Slovenia has four international airports: the largest civil airport Ljubljana Jože Pučnik and Maribor Edvard Rusjan airports, a small airport in Sečovelje near Portorož and a military airport in Cerklje or Krki.<sup>14</sup>

Graph 2 Speed of GDP growth 2001 - 2012- volume (percent change compared to previous year)<sup>15</sup>



*Source: Eurostat - modified*

From this graph, in which author compares the growth of the GDP of the Czech Republic and Slovenia, we can see that the crisis of 2009 dealt a far more serious blow to Slovenia and at the same time its recovery is far more gradual.

In Slovenia the full privatization of industry has taken place. The majority of large industrial companies (even shareholding corporations) are owned in a decisive majority by the state (in some cases through an intermediary – e.g. via pension funds) and the state always has the last word.

As a cautionary tale we can use the attempt at privatization of the Mercator retail chain. In 2005 the chairman of the board at the time, Zoran Jankovič, proposed the privatization of this company through sale to certain multinational retail chains. On the basis he had to leave the company, since the government stated that Mercator is a company whose objective is first and foremost to protect the products of Slovenian manufacturers and Slovenian businesses.<sup>16</sup>

<sup>14</sup> Airports in Slovenia c2009, /cit. 2011-05-12/

<sup>15</sup> years 2011 and 2012 are forecasts according to Eurostat

<sup>16</sup> Mekina B., Interview with Zoran Jankovič, available on [www.mladina.si/tehdnik/200738/clanek/slo-posel\\_in\\_politika\\_borut:mekina](http://www.mladina.si/tehdnik/200738/clanek/slo-posel_in_politika_borut:mekina)

For the second time Slovenia tried last year to sell shares of this company as part of a public auction where the decisive criteria was been the price. The highest offer was submitted by the Croatian company Agrokor (owner of the Konzum retail chain). Afterward the Slovenian government cancelled the auction. Among the lobbies it was clearly stated that they simply would not sell the family silver to the Croatians (with an emphasis on the traditionally poor relations between the two countries).

### **Political factors**

Slovenia became an independent sovereign state on 25th June 1991, one of the first countries of the former Yugoslavia. The European Community recognized it 15th January 1992 and the Czech and Slovak Federal Republic on 16th January 1992.<sup>17</sup> The Ambassador Extraordinary and Plenipotentiary of the Republic of Slovenia in the Czech Republic since February 2011 is Smiljana Knez.<sup>18</sup> The Czech ambassador in Ljubljana is Petr Voznica.

From the political perspective Slovenia is a multiparty system: Social Democrats (SD), Slovenian Democratic Party (Slovinská demokratická strana, SDS), ZARES – New Politics, Democratic Party of Pensioners of Slovenia (DeSUS), and Liberal Democracy of Slovenia (LDS).<sup>19</sup>

On the political stage Slovenia has also been shaken by corruption scandals, most recently the prosecution of the former premier Borut Pahor for accepting bribes in the cause of the purchase of Pandur armoured transports.

In the area of foreign politics Slovenia has one great problem, and that is its dispute with Croatia over access to the sea in the area of the Gulf of Piran.

Since 1995 Slovenia unilaterally claims 3/5 of this gulf. On the basis of this dispute, Slovenia blocked accession discussions between Croatia and the European Union.

Keith Miles, Chairman of the British Slovene Society and advisor to the prime minister of the Slovenian government Janez Janša openly threatened Croatia with military action in an interview for the Croatian magazine Globus<sup>20</sup>.

In July 2009 an assassination attempt occurred on the Slovenian Prime Minister Borut Pahor. This criminal act was fortunately discovered in time by the Slovenian police<sup>21</sup>.

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<sup>17</sup> Fifteen years of Slovenia's International recognition, Trekman, Borut., News 2007-01-14, /cit. 2009-12-10/

<sup>18</sup> Foreign Embassies in the Czech Republic: Reception of the leading diplomatic missions by the president of the republic /cit. 2011 -05-21/

<sup>19</sup> Politické strany moderní Evropy [Political Parties of Modern Europe], Strmiska, Maxmilián., Praha Portál 2005, ISBN 80-7367-038-0

<sup>20</sup> Slovenija ima pravo vojno riješiti spor, GLOBUS, Br. 971, 17. 7. 2009

<sup>21</sup> <http://www.balkanijum.tv/srpski/vesti/29119.shtml>, 18. 08. 2009

The perpetrator was a Croatian war veteran armed with five bombs who allegedly suffered from psychological problems.

In the Croatian media possible scenarios of military conflict with Slovenia have been played out<sup>22</sup>. The situation is highly sensitive. Neither the European Union nor NATO wish authors to be drawn into the dispute.

The new Croatian premier of the time, Jadranec Kosor, was able under international pressures to arrange for Slovenia to agree that the problem should be submitted for international arbitration and that Slovenia would accept the outcome of such arbitration. The author however assumes (on the basis of her knowledge of the actual state of affairs in Slovenia) that this problem will yet strongly resonate not merely in Slovenian domestic politics and that the Slovenian government will want to take advantage of it in order to deflect attention from domestic issues.

### **Technical factors**

Slovenia is on a very advanced technological level. It draws on the fact that in its territory it has always had the headquarters of companies which were on an advanced level even within Europe – for example, pharmaceutical companies who have their own Research and Development. A range of other companies who are suppliers to the automotive industry in Europe are also on a very high level. At the present time a certain attrition of brain power has been taking place – particularly university graduates lacking positions in the small Slovenian market.

### **Mentality factors**

Slovenia has always been a special enclave within a territory, both during the days of the Austro-Hungarian Empire, during the days of Yugoslavia, and even to this day. Particularly from the time of the Austro-Hungarian Empire a certain sympathy toward Austria has remained with the Slovenians.

The traditional division of roles in the former Yugoslavia under Tito (who was a Croatian, but who categorically favoured the Serbians) was as follows: the Serbians had the governmental, political and military functions in their hands; foreign commerce was in the hands of the Slovenians; the Croats occupied middle management; and the Bosnians and Macedonians only held labour professions.

Within the countries of the former Yugoslavia Slovenians are not the most popular, as they helped the Serbians to break up Yugoslavia and now have an ongoing tendency to act as the leaders of the countries of the territory of the former Yugoslavia.

They also suffer from the complex that due to their small size and population no one much communicates with them.

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<sup>22</sup> Rat Slovenije i Hrvatske, GLOBUS, Br. 971, 17.7.2009

The priority of every Slovenian is his or her own family. They place education on a high level. The mostly spoken language of foreign languages is English.

Important formal meetings take place directly in the company. Afterward as a rule a less formal lunch in a restaurant follows, where they will very often open unresolved topics from the meeting. Lunch takes place between 12:00 pm and 3:00 pm, or as a late lunch, which tends to be between 3:00 pm and 5:00 pm and which often lasts into the evening.

The diet of the Slovenians differs slightly from the diet of the other former Yugoslavian nations. As a clear relic of the Austro-Hungarian Empire the Slovenians love meat and butcher products. They often receive cabbage and potatoes as a side dish. Slovenians drink alcohol without discrimination, but with business partners they often drink wine. They are very hospitable.

Younger Slovenians have fallen on harsh social politics particularly in recent times (the most common are namely the issue of housing). For this reason there are currently frequent strikes and protests.

Time is for the Slovenian a somewhat relative concept. If you have not agreed to an exact time, you will always have enough time. They come late to meetings and you must constantly remind them to finish a task. At the same time Slovenian bureaucracy “is derived from the Austro-Hungarian tradition” and during encounters with it one has to arm themselves with considerable patience.

## **Conclusion**

It is necessary to realize that Slovenia is a small country where everyone “de facto” knows each other. For successful entry to the Slovenian market it is necessary to prefer the use of a local representative who is well oriented in local circles and who is capable of significantly helping with entry. It is necessary, however, to maintain an influence on the final price, in order that no unnecessary markups shall occur.

An essential condition is a quality product, its certification, and references for the company in question, especially from Western Europe.

During meetings in Slovenia (such as in all former Yugoslavian countries), the image of the foreign company and its representatives has a great importance. This starts with the brand of car, watch, suit, etc. Non-adherence to this principle may cause the Slovenians to fail to consider the representative of the company trustworthy.

It is necessary to rely on the fact that Slovenians are very good negotiators and are well oriented in the production parameters and prices offered by the competition. It is entirely common that a topic you consider to be closed shall be opened again for them to attempt to negotiate once more.

Also companies can be very successful during participation in collective projects. Afterward, however, it is very important to solve questions from the start with legal authority and responsibility.

During meetings with the Slovenians it is appropriate to avoid any topic which could in any way affect their national pride.

The Slovenian market is highly competitive and significantly saturated. Manufacturers of quality goods which have very competitive prices have a great chance of succeeding in Slovenia. At the same time, it is critical to accept the key specifics in the area of multiculturalism mentioned in this study. In this alone a company can achieve success on this strict market.

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# KONKURENCESCHOPNOST PRACOVNÍ SÍLY V AUTOMOBILOVÉM PRŮMYSLU ZEMÍ STŘEDNÍ A VÝCHODNÍ EVROPY<sup>1</sup>

Lukáš MOHELSKÝ<sup>2</sup>

**Abstrakt:** Automobilový průmysl je jedním z dlouhodobých pilířů evropské ekonomiky s výrazným vlivem na zaměstnanost na celém kontinentu. V posledních letech dochází k zásadním změnám jeho geografické struktury, z nichž těží zejména region střední a východní Evropy, který zahrnuje Českou republiku, Maďarsko, Polsko a Slovensko. Hlavní příčinou těchto přesunů není růst místní poptávky po automobilech, ale nákladová optimalizace výrobního procesu, která vede k přesouvání výrobních lokalit ze západoevropských zemí na východ. Klíčovou roli přitom hraje konkurenceschopnost pracovní síly. Na základě provedené analýzy bylo prokázáno, že všechny čtyři sledované země dosahují v této oblasti konkurenční výhody, když poměr hrubé přidané hodnoty a nákladů na zaměstnance zde trvale přesahuje tentýž ukazatel v Německu, jež je hlavním centrem automobilové produkce na evropském kontinentu.

**Abstract:** The automotive industry is one of the long-term pillars of the European economy with significant impact on the employment throughout the continent. In the recent years there has been a substantial geographical movement of the automotive production to the benefit of the Central and Eastern European region, which consists of the Czech Republic, Hungary, Poland and Slovakia. The main reason of this shift is not the growth of the local demand for automobiles, but the costs optimization of the production process, which leads to the relocation of the production from the Western part of the European continent to its Eastern counterpart. The competitiveness of the labor force plays one of the main roles in this relocation. The conducted analysis confirmed that the Central and Eastern European countries have been benefiting from the labor competitiveness advantage, as the share of the gross value added per employee and the average personnel costs per employee in the Czech Republic, Hungary, Poland and Slovakia has been surpassing the same indicator of Germany during the whole analyzed period.

**Klíčová slova:** automobilový průmysl, pracovní síla, konkurenceschopnost, střední a východní Evropa.

**Klasifikace JEL:** E24, F14 J30, J31.

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## Úvod

Evropa je v současné době největším výrobcem automobilů a automobilových komponentů na světě a zároveň světadílem s největším vozovým parkem a velice náročnými zákazníky. Výrobci automobilů na území Evropy jsou navíc světovými lídry ve vývoji inovativních řešení v oblasti ekologie a bezpečnosti, čímž se významně podílí na rozvoji konceptů trvale udržitelné mobility (ACEA, 2011).

V rámci Evropské unie je automobilový sektor nejdůležitějším zaměstnavatelem pro více než 15 milionů domácností, když více jak dva miliony osob pracují přímo ve výrobě vozů a jejich komponentů, a dalších 13 milionů potom v těsně navazujících odvětvích jako je prodej automobilů nebo jejich servis (ACEA, 2011). Automobilový průmysl je proto právem považován za páteř zdejší ekonomiky a pilíř jejího růstu (Eurostat, 2011a - 2011b).

Struktura evropského automobilového průmyslu a význam jednotlivých zemí ovšem v posledních letech prochází obdobím výrazných změn. Tradiční, historicky dominantní centra tohoto odvětví ztrácí svůj relativní podíl, který naopak získávají nové lokality zejména ve střední a východní části Evropy<sup>3</sup>.

Jeden z nejdůležitějších faktorů, které hrají roli při výběru nového výrobního místa či relokaci toho stávajícího, představuje konkurenceschopnost místní pracovní síly, jelikož například náklady na výrobu nářadí či dostupnost potřebných technologií jsou ve všech zemích evropského kontinentu velice podobné.

Cílem tohoto článku je prostřednictvím srovnání hrubé přidané hodnoty a průměrných nákladů na zaměstnance stručně zanalyzovat konkurenceschopnost pracovní síly v automobilovém průmyslu v zemích Evropské unie se zaměřením na region střední a východní Evropy. Mezi hlavní výstupy patří nejen přehled o současném stavu konkurenceschopnosti napříč všemi dvaceti sedmi členskými státy EU, ale také zhodnocení dlouhodobé udržitelnosti konkurenční výhody v zemích střední a východní Evropy, které je provedeno na základě srovnání s Německem, jež je trvale nejdůležitějším výrobcem automobilů a jejich komponentů na kontinentu.

## Struktura článku

Článek je strukturován do několika na sebe logicky navazujících oddílů, jež se zaměřují na analýzu vstupních proměnných pro hodnocení konkurenceschopnosti pracovní síly. V první části je uveden přehled průměrných personálních nákladů na zaměstnance, který tak nabízí pohled na nákladovou stránku produkce automobilů a jejich komponentů napříč všemi zeměmi Evropské unie. V druhé části je analogicky zpracován přehled produktivity pracovní síly, který se obecně zachycuje pomocí

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<sup>3</sup> Regionem střední a východní Evropa se v průběhu celého článku rozumí Česká republika, Maďarsko, Polsko a Slovensko. Tento region bude dále označován také zkratkou SVE.



celkové přidané hodnoty rozpočítané na množství vstupu. Sledovanou proměnnou je v tomto případě úroveň hrubé přidané hodnoty na jednoho zaměstnance. Oba tyto ukazatele – průměrné personální náklady na zaměstnance a hrubá přidaná hodnota na zaměstnance – jsou v hlavní části tohoto článku využity k sestavení indexu konkurenceschopnosti pracovní síly, který zachycuje konkurenční (ne)výhodu jednotlivých zemí při produkci automobilů a jejich komponentů. Prostor je věnován také vývoji tohoto indikátoru v zemích střední a východní Evropy a v Německu, jež může sloužit jako pohled na dlouhodobou udržitelnost současného stavu. V závěru jsou ve stručnosti zmíněny také vybrané výzvy, kterým pracovní síla ve střední a východní Evropě i celé Evropské unii čelí či brzy čelit bude.

### **Zdroje použitých dat**

Spolehlivá data umožňující celosvětové srovnání vývoje automobilového průmyslu nejsou v současné době k dispozici. Problémem je jak definice automobilového průmyslu, tak častá obměna mezinárodních klasifikací či aplikace odlišných standardů v různých zemích. Situace na evropském kontinentu je díky respektované pozici statistického úřadu Eurostat v tomto ohledu přeci jen lepší. Hlavním zdrojem informací v této kapitole jsou tzv. Structural Business Statistics (SBS), které jsou obsáhlou databází indikátorů vývoje průmyslu, obchodu a služeb v několika posledních dekadách a které jsou každoročně zveřejňovány prostřednictvím Eurostat. Tato databáze využívá klasifikaci ekonomických činností NACE<sup>4</sup>, která umožňuje sledovat vývoj relevantních proměnných nejen na úrovni průmyslu jako celku, ale také dle jednotlivých oborů, tedy i automobilového odvětví (Eurostat, 2012a).

Provedená analýza pokrývá období od roku 2001 do roku 2008, přičemž se při celoevropských srovnáních zaměřuje na rok 2008, jenž v tuto chvíli obsahuje poslední dostupná data pro všech dvacet sedm zemí Evropské unie. Až do roku 2007 byly pro srovnání použity statistiky za odvětví výroby motorových vozidel, přívěsů a návěsů, tedy kategorie DM34 z NACE Rev. 1 a Rev. 1.1, které byly v letech 2008 až 2010 doplněny statistikami kategorie C29 z NACE Rev. 2, jež má shodný název. Tyto obory tak jsou chápány jako automobilový průmysl (Eurostat, 2008b).<sup>5</sup> Údaje z SBS jsou dle potřeby doplňovány z jiných pramenů, například z dat Organizace spojených národů (OSN, 2011a – 2011c).

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<sup>4</sup> Nomenclature générale des Activités économiques dans les Communautés Européennes

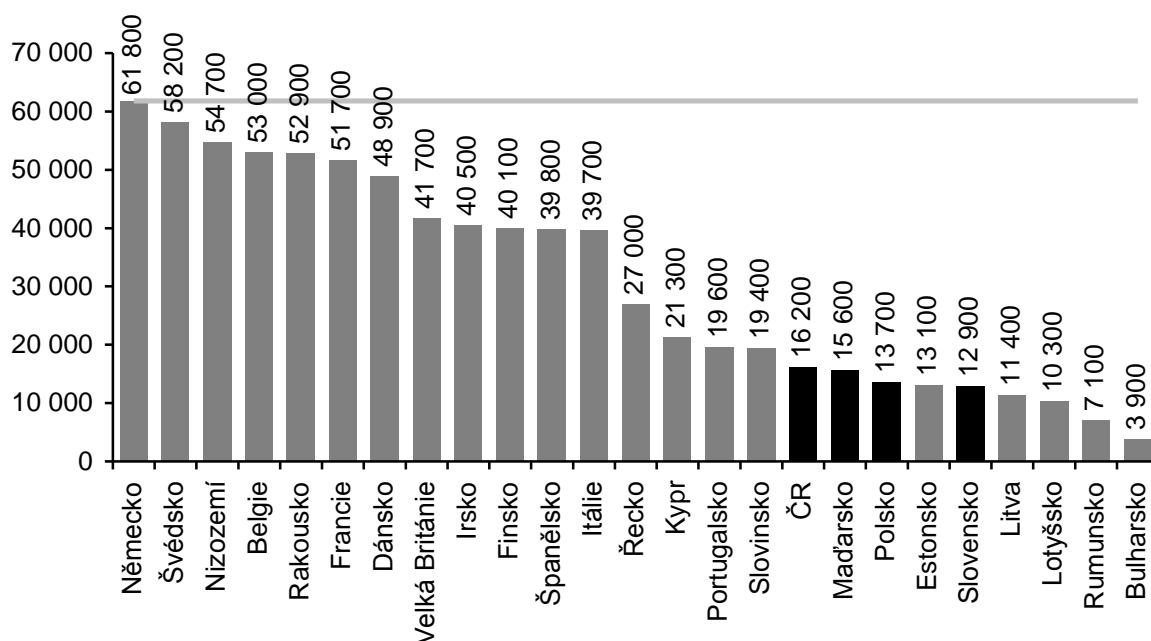
<sup>5</sup> Kategorie DM34 z NACE Rev. 1 a Rev. 1.1 a C29 z NACE Rev. 2 sice nejsou zcela identické, nicméně rozdíly mezi nimi jsou pouze marginální, a jejich vliv je proto zanedbáván.

## Náklady na pracovní sílu

Srovnání průměrných personálních nákladů na zaměstnance<sup>6</sup> poskytuje souhrnný přehled o nákladové úrovni pracovní síly v automobilovém sektoru napříč zeměmi Evropské unie. Za předpokladu zcela shodné úrovně všech ostatních relevantních proměnných budou racionálně uvažující společnosti dlouhodobě preferovat země s nižšími náklady na úkor států, kde cena pracovní síly dosahuje vyšších hodnot.<sup>7</sup>

Celoevropské srovnání dokládá velice odlišnou výši nákladů na pracovní sílu v jednotlivých zemích EU. Může být lehce překvapivé, že lídrem srovnání, tedy zemí s nejvyššími náklady na pracovní sílu v automobilovém průmyslu, je Německo, které je zároveň jedním z nejdůležitějších center tohoto odvětví nejen v evropském, ale i v celosvětovém měřítku, a které zaměstnává nejvyšší počet lidí v automobilovém sektoru ze všech evropských zemí.

Graf 2: Průměrné personální náklady na zaměstnance v automobilovém průmyslu ve vybraných zemích EU, průměr za rok 2008<sup>8</sup>



Zdroj: Eurostat (2011c - 2011d).

<sup>6</sup> Přeloženo autorem z anglického „average personnel costs per employee“. Tento překlad bude používán i v následujícím textu.

<sup>7</sup> Je vhodné podotknout, že ryze personální náklady představují pouze část z celkových nákladů, když jejich podíl na celkových příjmech se v případě automobilových producentů pohybuje kolem pěti procent (Vacek, 2002a). Tato úroveň nicméně poskytuje dostatečný prostor pro dosažení důležité konkurenční výhody.

<sup>8</sup> Lucembursko a Malta jsou vynechány z důvodu nedostupnosti relevantních dat. V případě Francie, Řecka a Nizozemí se jedná o stav roku 2007.

Nové členské země, jež do Evropské unie vstoupily v letech 2004 a 2007, dosahují v tomto ohledu konkurenční výhody, když místní personální náklady na zaměstnance dosahují výrazně nižších hodnot než v západoevropských zemích. Nejdražší pracovní síla ze všech dvanácti nových členů EU je na Kypru, kde dosahuje přibližně jedné třetiny německé úrovně, a nejlevnější v Bulharsku, na jehož území nedosahují personální náklady ani šesti procent těch německých (!).

V zemích střední a východní Evropy se průměrné náklady na pracovní sílu v automobilovém průmyslu v roce 2008 pohybovaly mezi 13 tisíci eur na Slovensku a 16 tisíci eur v České republice, což odpovídá přibližně jedné čtvrtině německé úrovně. Všechny čtyři země regionu SVE tak mohou těžit z výrazně nižších personálních nákladů než Německo, které leží v jejich těsném geografickém sousedství, což představuje významnou konkurenční výhodu.

### **Produktivita pracovní síly**

Produktivita pracovní síly je společně s multi-faktorovou produktivitou a produktivitou kapitálu jedním z nejdůležitějších ukazatelů konkurenceschopnosti každé země. Jedná se totiž o komplexní ukazatel, jenž úzce souvisí s několika dalšími ekonomickými a společenskými indikátory, jako jsou například ekonomický růst nebo životní standard. Sledováním vývoje produktivity práce (a proměnných, jež do kalkulace tohoto ukazatele vstupují) lze vysvětlit fundamentální ekonomické principy, které jsou nezbytné pro dosažení ekonomického růstu a společenského rozvoje (OECD, 2008).

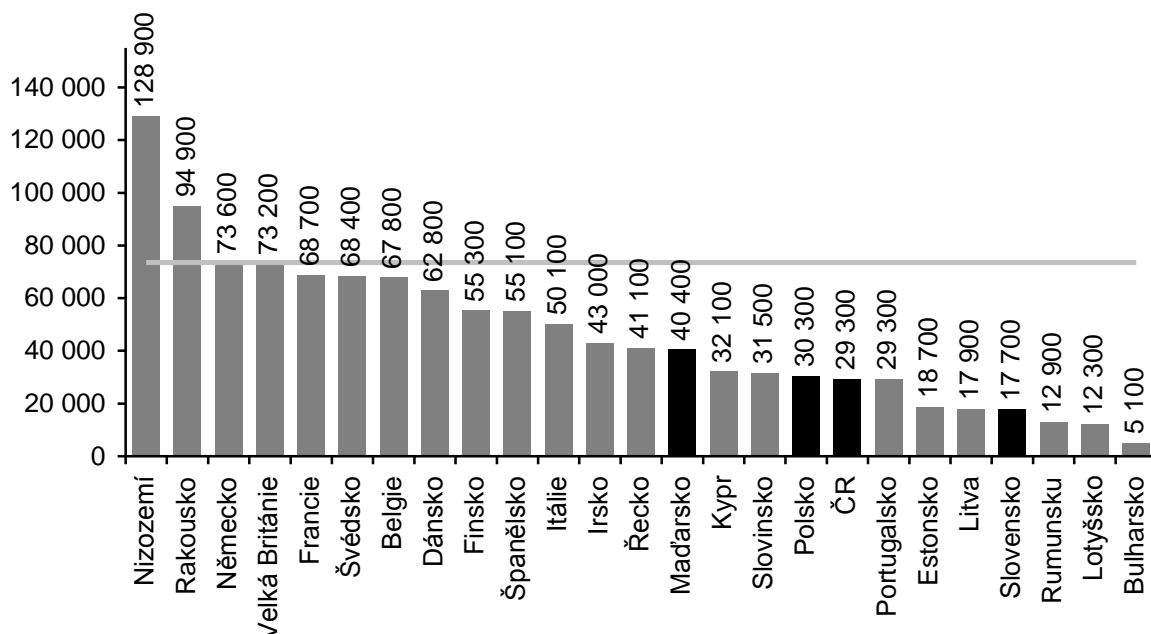
V tomto článku je produktivita pracovní síly kalkulována pomocí podílu mezi výstupem (tedy úrovní hrubé přidané hodnoty) a vstupem (tedy celkovým počtem pracovníků), což obecně odpovídá doporučeným přístupům k jejímu měření (European Central Bank, 2006; OECD, 2008). Výsledkem tohoto výpočtu pak je hrubá přidaná hodnota na jednoho zaměstnance<sup>9</sup>.

Vedoucí pozice celoevropského srovnání v případě produktivity pracovní síly v automobilovém průmyslu dosáhlo v roce 2008 Nizozemí, které těží z toho, že zde některé automobilové koncerny mají umístěny svá sídla, ze kterých přinejmenším formálně řídí své celoevropské či celosvětové aktivity. Pořadí na následujících příčkách již do jisté míry koresponduje s podílem jednotlivých zemí na evropské automobilové výrobě, když třetí místo obsadilo Německo, čtvrtou příčku Velká Británie a šesté místo Francie, tedy země patřící k největším producentům automobilů a jejich komponentů na evropském kontinentu.

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<sup>9</sup> Přeloženo autorem z anglického „gross value added per employee“. Tento překlad bude používán i v následujícím textu.

Graf 3: Průměrná hrubá přidaná hodnota na zaměstnance v automobilovém průmyslu ve vybraných zemích EU, průměr za rok 2008<sup>10</sup>



Zdroj: Eurostat (2011e – 2011f).

Pokud je stejně jako v předchozím případě úroveň produktivity pracovní síly v Německu považována za celoevropský benchmark o hodnotě 100 %, dosahuje pouze Nizozemí a Rakousko vyšší úrovně hrubé přidané hodnoty na zaměstnance. Přestože rozdíl mezi patnácti „starými“ a dvanácti „novými“ členskými státy Evropské unie není v případě produktivity tak výrazný jako u nákladů na pracovní sílu, jsou téměř všechny nové členské země seřazeny na konci celoevropského pořadí. Nejlépe postavené Maďarsko, které dosahuje produktivity práce na úrovni 55 % německé hodnoty, se umísťuje na čtrnácté příčce evropské tabulky. Následující skupina zemí, kterou tvoří Kypr, Slovinsko, Polsko, Česká republika a Portugalsko, dokázala v roce 2008 dosáhnout pracovní produktivity na úrovni přibližně 30 tisíc euro, tedy asi 40 % německého benchmarku. Produktivita Slovenska je pak ještě výrazně nižší, když dosahuje cca 25 % německé úrovně.

### Konkurenceschopnost pracovní síly

Analýza průměrných personálních nákladů a hrubé přidané hodnoty na zaměstnance poskytla přehled o stavu těchto proměnných v jednotlivých zemích Evropské unie. Ani jeden z těchto indikátorů ovšem nemá samostatně dostatečnou vypovídací schopnost ohledně hodnocení konkurenceschopnosti. Vysoké náklady na pracovní sílu jsou totiž

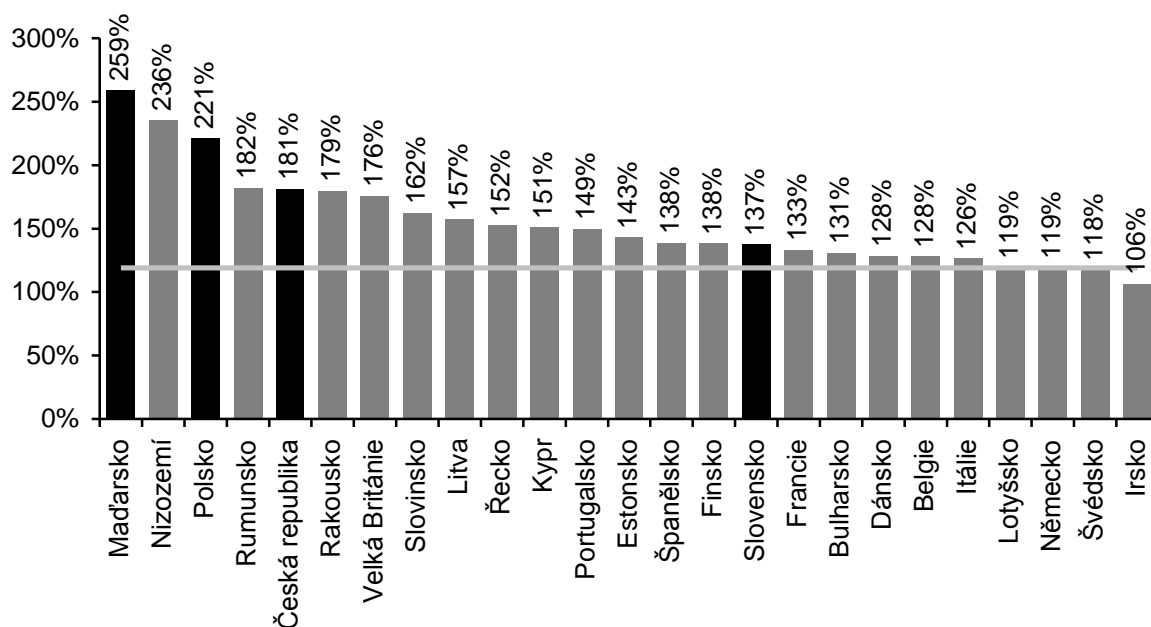
<sup>10</sup> Lucembursko a Malta jsou vynechány z důvodu nedostupnosti relevantních dat. V případě Francie, Řecka a Nizozemí se jedná o stav roku 2007.

obvykle spojeny s její vysokou produktivitou a obráceně. Teprve kombinací obou ukazatelů lze získat relevantní pohled na konkurenceschopnost pracovní síly ve střední a východní Evropě (Collignon, 2012; Havlik, 2005; OECD, 2001b; Tisa, 2006).

Konkurenceschopnost pracovní síly byla pro účely tohoto článku nadefinována jako podíl výstupu (tedy hrubé přidané hodnoty na zaměstnance) a nákladů (tedy průměrných personálních nákladů na zaměstnance). Tento ukazatel poskytuje do značné míry objektivně srovnatelný přehled o skutečné konkurenceschopnosti napříč zeměmi s výrazně odlišnými vstupními parametry, jelikož eliminuje vliv absolutní výše nákladů na pracovní sílu a její produktivity.

První příčku celoevropského srovnání konkurenceschopnosti pracovní síly v automobilovém průmyslu obsadilo Maďarsko, kde v roce 2008 každý zaměstnanec vytvořil hrubou přidanou hodnotu překračující o více než 150 % s ním spojené personální náklady. Jen těsně za Maďarskem se umísťují také Polsko (třetí pozice) a Česká republika (pátá pozice), a region střední a východní Evropy jako celek tak prokázal, proč je pro společnosti působící v automobilovém průmyslu atraktivní. Pouze Slovensko se ve sledovaném roce ocitlo v druhé polovině evropského pořadí, když ještě o rok dříve obsadilo druhou příčku hned za Maďarskem.

Graf 4: Relativní konkurenceschopnost pracovní síly v automobilovém průmyslu ve vybraných zemích EU, průměr za rok 2008<sup>11</sup>



Zdroj: Eurostat (2011c – 2011f).

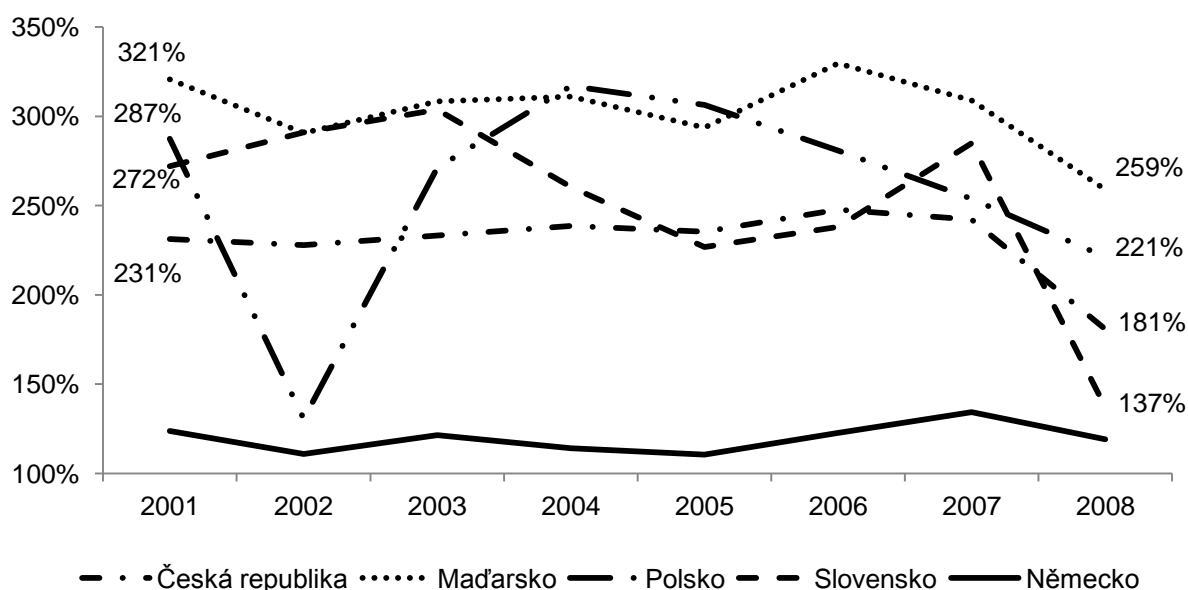
<sup>11</sup> Lucembursko a Malta jsou vynechány z důvodu nedostupnosti relevantních dat. V případě Francie, Řecka a Nizozemí se jedná o stav roku 2007.

Postavení Německa na konci evropského pořadí konkurenceschopnosti pracovní síly odhaluje jeden z klíčových nedostatků tohoto ukazatele. Jeho výpočet je založen pouze na dvou vstupních proměnných – tedy na nákladech na pracovní sílu a její produktivitě, přičemž nebere ohled na žádné další faktory, které mohou být pro stanovení celkové konkurenceschopnosti pracovní síly velice důležité.<sup>12</sup>

### Dlouhodobá udržitelnost konkurenceschopnosti

Vývoj konkurenceschopnosti pracovní síly v zemích střední a východní Evropy do značné míry koresponduje s celkovou situací místního automobilového průmyslu. Z tohoto důvodu došlo v Polsku v roce 2002 a na Slovensku v roce 2005 k výraznému poklesu sledovaného indexu. V roce 2008 pak všechny země střední a východní Evropy zaznamenaly výrazné snížení konkurenceschopnosti pracovní síly, jež bylo způsobeno dopady ekonomické recese do zdejšího automobilového průmyslu.

Graf 5: Relativní konkurenceschopnost pracovní síly v automobilovém průmyslu v zemích střední a východní Evropy, vývoj mezi roky 2001 a 2008<sup>13</sup>



Zdroj: Eurostat (2011c - 2011f).

Pozitivním výsledkem provedené analýzy je, vyjma roku 2008, dlouhodobě stabilní vývoj konkurenceschopnosti pracovní síly v České republice a v Maďarsku. Polsko vykázalo kromě propadu v roce 2002 také velice vysoké hodnoty sledovaného indexu,

<sup>12</sup> Mezi tyto faktory patří například úroveň vzdělanosti, zkušenosti s daným průmyslovým oborem nebo technologická vyspělost.

<sup>13</sup> Hodnota v České republice za rok 2003 je průměrem let 2002 a 2004. Hodnota v Polsku za rok 2002 je průměrem let 2001 a 2003.

který nicméně od roku 2004 prochází trvalým poklesem. Jeho hlavním důvodem je porovnatelně rychlejší růst personálních nákladů ve srovnání s pomaleji se zvyšující úrovní pracovní produktivity. Podobným vývojem procházelo od roku 2001 také Slovensko, jehož konkurenceschopnost vykazovala z dlouhodobého pohledu mírný pokles, jež byl v roce 2008 zakončen strmým propadem.

Ve všech letech sledovaného období dokázaly země střední a východní Evropy dosáhnout vyšších hodnot konkurenceschopnosti pracovní síly než Německo. Tento fakt je důkazem atraktivity celého regionu, a do značné míry tak odpovídá na otázku, proč na evropském kontinentu dochází k přesunu automobilového průmyslu, z něž nejvíce těží právě Česká republika, Maďarsko, Polsko a Slovensko.

### **Pracovní síla jako konkurenční výhoda zemí střední a východní Evropy**

V rámci automobilového průmyslu evropského kontinentu, jakožto geograficky kompaktního a politicko-ekonomicky propojeného celku, vznikají v posledních letech nová regionální výrobní centra, jejichž cílem je zásobovat trhy všech zemí Evropské unie. Jedním z hlavních důvodů vzniku těchto center jsou konkurenční výhody, jichž vybrané státy Evropské unie dosahují. Jednu z klíčových rolí při tomto přesunu automobilového průmyslu v rámci evropského kontinentu hraje konkurenceschopnost místní pracovní síly. Hlavním cílem tohoto článku proto bylo zanalyzovat aktuální stav zmiňované konkurenceschopnosti mezi dvaceti sedmi zeměmi Evropské unie.

Konkurenceschopnost pracovní síly, která byla definována jako podíl průměrné přidané hodnoty a průměrných nákladů na jednoho zaměstnance, poskytuje díky své definici do značné míry objektivní přehled o konkurenčních (ne)výhodách jednotlivých zemí, které se vyznačují výrazně odlišnými vstupními parametry. První místo celoevropského srovnání obsadilo Maďarsko, přičemž jen těsně za ním se umístilo Polsko (třetí pozice) a Česká republika (pátá pozice). Pouze Slovensko se ve sledovaném roce ocitlo v druhé polovině evropského pořadí, když jeho umístění bylo ovlivněno prudkým poklesem místního automobilového průmyslu v daném roce. Region střední a východní Evropy jako celek tak prokázal, proč je pro společnosti působící v automobilovém průmyslu atraktivní.

Z pohledu dlouhodobého vývoje konkurenční výhody zemí střední a východní Evropy a její udržitelnosti je pozitivní, že všechny zdejší státy dokázaly v celém sledovaném období dosáhnout vyšších hodnot konkurenceschopnosti pracovní síly, než jakou zaznamenalo Německo, jež je největším producentem automobilů a jejich komponentů na evropském kontinentu. Tento výsledek potvrzuje atraktivitu celého regionu a do značné míry odpovídá na otázku, proč se automobilová produkce v rámci kontinentu stěhuje v posledních letech právě do střední a východní Evropy.

Pracovní síla na území střední a východní Evropy i v celé Evropské unii stojí v současné době před řadou výzev, jejichž zvládnutí může hrát klíčovou roli

v budoucím směřování místních ekonomik. Mezi tyto výzvy patří například stagnace počtu obyvatel, kvalita vzdělávacího systému, změna demografické struktury či očekávaný pokles absolutního počtu pracovní síly. Všechny tyto fenomény mohou významně ovlivnit konkurenceschopnost jednotlivých zemí, a jejich zvládnutí je proto nezbytnou podmínkou dalšího úspěšného rozvoje celého kontinentu.

Při interpretaci výsledků musí být přihlédnuto k premisám, z nichž provedená analýza vychází. Z důvodu omezení komplexity byla konkurenceschopnost pracovní síly sledována na základě dvou proměnných, čímž došlo k vyřazení řady dalších faktorů, které mohou hrát významnou roli. Konkurenceschopnost zemí střední a východní Evropy byla srovnávána zejména s vývojem téhož ukazatele v Německu, což je opět do značné míry zjednodušující pohled, který nebere v potaz situaci v dalších státech. Jako vstupní data byly přitom použity souhrnné údaje za celé automobilové odvětví na úrovni jednotlivých států, což nezohledňuje vliv regionálních či jakýchkoli jiných vnitrostátních specifik. Dále je možné kriticky hodnotit také proces celé analýzy a kvalitu vstupních dat, přestože pochází z obecně respektované databáze Eurostat.

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# BUSINESS CHALLENGES IN CONTAINER TRANSPORT: CUSTOMER SERVICE AND REPOSITIONING MANAGEMENT IN CENTRAL AND EASTERN EUROPE

Petr KOLÁŘ<sup>1</sup>

**Abstract:** *The objective of the forthcoming research is to analyze the global shipping lines' and multimodal transport operators' (MTOs) perception of their customers in Central and Eastern Europe (CEE) region of the European Union (EU) and the implications the global container transport challenges have for the market in the Czech Republic in particular. The research will be conducted by evaluating the shipping lines' attitudes towards the current and future changes in the CEE container shipping market. To obtain the data necessary for an informed analysis, the open interviews will be made and questionnaires will be distributed to the shipping lines' top managers in the Czech Republic being the hinterland of the North Sea and the Adriatic Sea ports. Due to the concentration of container activity within a relatively small number of shipping lines present in the country's market, the approach of the validation will be case study based. The research will offer an important disaggregate approach in the qualitative analysis of the global shipping lines' services in the CEE region.*

**Keywords:** container, port, repositioning, shipping line.

**JEL classification:** L91, L92, O18.

## Introduction

In the course of their research in recent years, the researchers of the academia such as Institute of Transport and Maritime Management – University of Antwerp (ITMMA; Cullinane et al. 2006, De Langen 2007; Notteboom 2002), Hofstra University (Rodrigue et al. 2008, Slack et al. 1996), Dalhousie University, Halifax (Brooks et al. 2007) National University of Singapore (Tongzon 1995), National Technical University of Athens (Psaraftis 2005) or informal network of maritime economists called Port Performance Research Network (Pallis et al. 2008) identified a serious gap in the volume of research devoted to the container transport inefficiencies in both

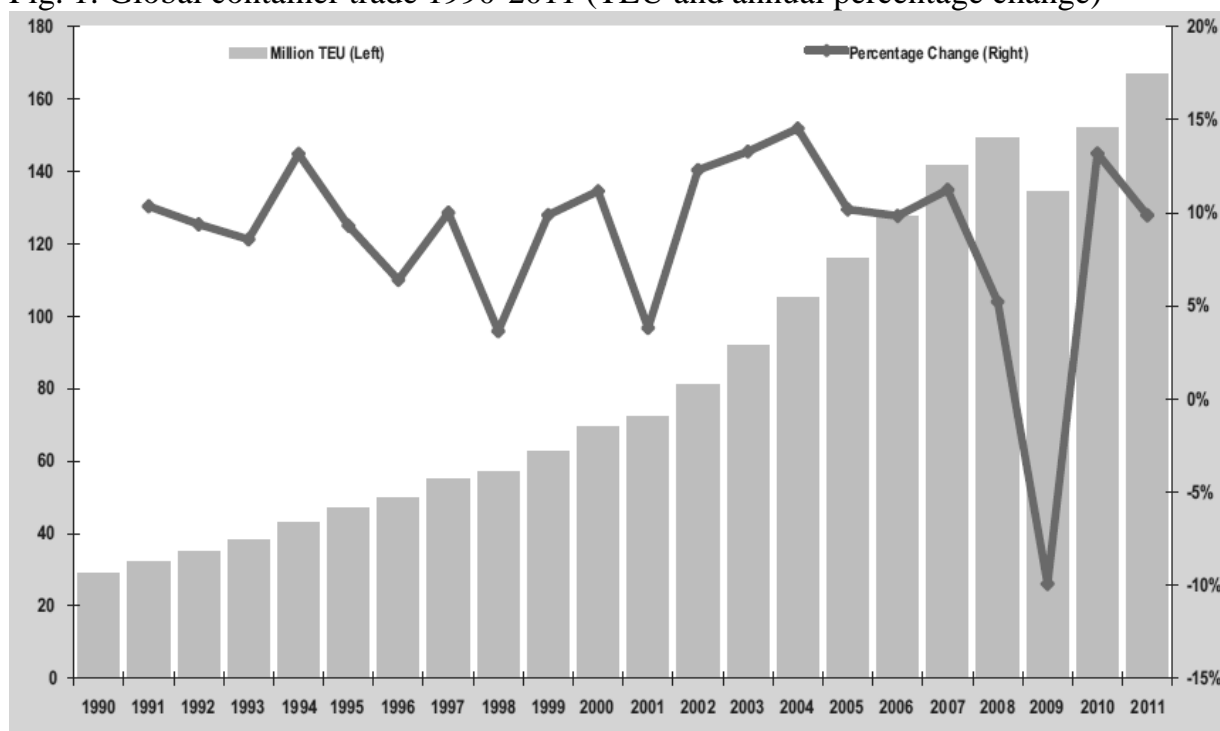
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fields, maritime leg and the hinterland. This research intends to fill a part of this very large gap from the perspective of CEE region, the land-lock Czech Republic in particular.

Due to the global financial crisis and the corresponding reduction in transportation demand and container traffic turnover in 2008-2009, the motivation for developing long-run solutions within the container shipping industry to the current problems has been postponed. However, the necessity of solving these inefficiencies remains. For illustration, the container shipping dropped dramatically by more than 20 per cent in terms of TEU<sup>2</sup> shipped in 2009 (UNCTAD 2012) and recovered with the increase by 22 per cent in 2010, see Figure 1.

Fig. 1: Global container trade 1990-2011 (TEU and annual percentage change)



Source: UNCTAD (2012, pp. 22).

The shipping lines and MTOs are aware of the rising problems, trying to solve the container transport issues by taking mid-term measures including development of hinterland container yards, container depots and inland repositioning hubs, increasing the number of ports-of-call (multi-ports-of-call strategy), promoting an increase in

<sup>2</sup> A Twenty-foot Equivalent Unit represents the volume of a 20-foot-long container (6.1m length).

door-to-door transport, applying the concept of slow steaming and forcing reductions of containers in the container yards. Currently, most shipping companies improvise to withstand the global trade volatility with no feasible long-term strategies related to the equipment management (Shintani et al. 2010).

A combination of shippers' requirements for frequent services at low rates and the aim of the shipping lines (carriers) to reduce costs by achieving economies of scale with the introduction of new higher capacity vessels lead to the negative financial outcome for the maritime transport industry. Moreover, increase in the oversupply of deployed container vessels capacity, strong market competition and rising fuel prices represent the issues the global shipping industry and the customers have to face. The efficient management of empty container repositioning is one of the most complex challenges concerning freight distribution with increasing importance in the CEE region.

It is important to stress e.g. in 2007, maritime shipping accounted for approximately 90 per cent of global trade if counting the volumes and 70 per cent if focusing on the cargo's value (Rodrigue et al. 2009)<sup>3</sup>. Containerisation in terms of international trade in goods has been the main driver for the changing global transport environment in past twenty years (Notteboom 2004). Roughly 16 per cent of seaborne cargo was containerized in 2010 resulting in increasing importance of container shipping industry for a lot of countries, land-lock ones as well. For instance, The United Nations publish each year the Liner Shipping Connectivity Index (LSCI), which indicates, how intensively each country is "connected" to international containerized cargo main routes (UNCTAD 2011). Liner Shipping Connectivity Index (LSCI) aims at describing a country's level of integration into the international shipping networks by measuring liner shipping connectivity. LSCI can be considered a proxy of the accessibility to international trade by country. In general, the higher the index, the more convenient it is to access a high capacity and frequency global freight transport system and therefore to participate both effectively and efficiently in international trade. In other words, LSCI measures trade facilitation. It reflects the strategies of container shipping lines seeking to maximize revenue through market coverage and the range of services offered (Rodrigue et al. 2009).

When deciding about whether to outsource the manufacturing of a certain product to a distant place, transport costs in relation to the value of the goods are considered and compared to the costs resulting from the production within the area of consumption (Tsamboulas et al. 2007). For certain industries, the costs of transporting cargo in a

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<sup>3</sup> The remaining 10 per cent generated by remaining modes of transport (air, railroads, inland waterways transport and road haulage).

maritime container from the place of production to the place of consumption are relatively marginal (e.g. high-tech machinery industry), for other industries they might make the decision for or against the production outsourcing more complex (e.g. automotive industry, clothing, electronics and pharmaceutical production). From a business perspective, the container is perceived as not only a standardized transport unit, but as a unit for the synchronization of input and output batches of production and flow-management warehousing unit in terms of distribution and logistics (Rodrigue et al. 2009).

## **Methodology**

To obtain the data necessary for an informed analysis shipping lines' and MTOs' web pages together with shipping lines' regional top managers responsible for customer service policy and equipment planning will be selected as data resources. It must be stressed this paper itself is conceptual only since the research data are not available yet.

The forthcoming research will use qualitative case-based methodology. The comparative case study approach is selected as an appropriate method focusing on a field research and it is motivated by goals of defining new theories or contributing to incomplete theories in a given field (Eisenhardt 1989, Woodside et al. 2003).

Shipping lines' representatives and top management were identified as the appropriate units of comparison. With customer service policy and equipment planning being the subject of the study, the shipping lines within the study were selected fulfilling two criteria:

- Significant shipping line's share (by twenty-foot-equivalent (TEU) volume) in international container traffic containing the target location (the Czech Republic) as origin or destination of trade routes including maritime leg.
- Existence of shipping line's subsidiary or agent office in the Czech Republic<sup>4</sup>.

The survey questionnaire applied in this study will be distributed to shipping lines' and MTOs' representatives. In addition, the open interviews will be made.

The interviewed companies may include Maersk Line, MSC, Hapag-Lloyd, HANJIN, CMA-CGM, COSCO and Yang Ming, which represented around 59 per cent of the TEU-based import and export market of the Czech Republic and Slovakia in 2011. The fact that the 87 per cent containers imported to the Czech Republic and Slovakia originate in Asia and only 37 per cent of the export containers is going to Far East

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<sup>4</sup> Usually for the market of the Czech Republic and Slovakia.

(Hafen Hamburg e. V. interview March 2012) leads to the increasing challenge for shipping lines to plan local and regional allocation of the equipment in those countries and CEE region as a whole.

Despite representing a significant share of marine container traffic for the Czech Republic, there is no intention to generalise the results found due to the limited sample size in the study for CEE region. The empirical survey related to the research is targeted at answering questions in the area of customer service and equipment planning policy development strategies:

- Do the shipping lines include the existence of regional container imbalances in CEE region into their equipment (container) planning strategy?
- Does the internal set up by shipping lines make a holistic approach towards the issue of regional differences in container imbalances difficult and if so how?
- In which way and what extend are customer requirements reflected in terms of equipment (container) planning policy?

### **Container transport in Central and Eastern Europe**

According to the Organization for Economic Cooperation and Development (OECD), Central and Eastern Europe consist of the countries of Albania, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Romania, Slovakia and Slovenia (OECD 2012).

The research will be focused on several countries in CEE region only (Czech Republic and Slovakia). Conducting research on transport structures and container flows of eleven countries would exceed the frame of the study. Moreover, since all European countries have, based on history development, their geographic location and current economical developments, different trade and transport characteristics, any degree of generalization would have been misleading.

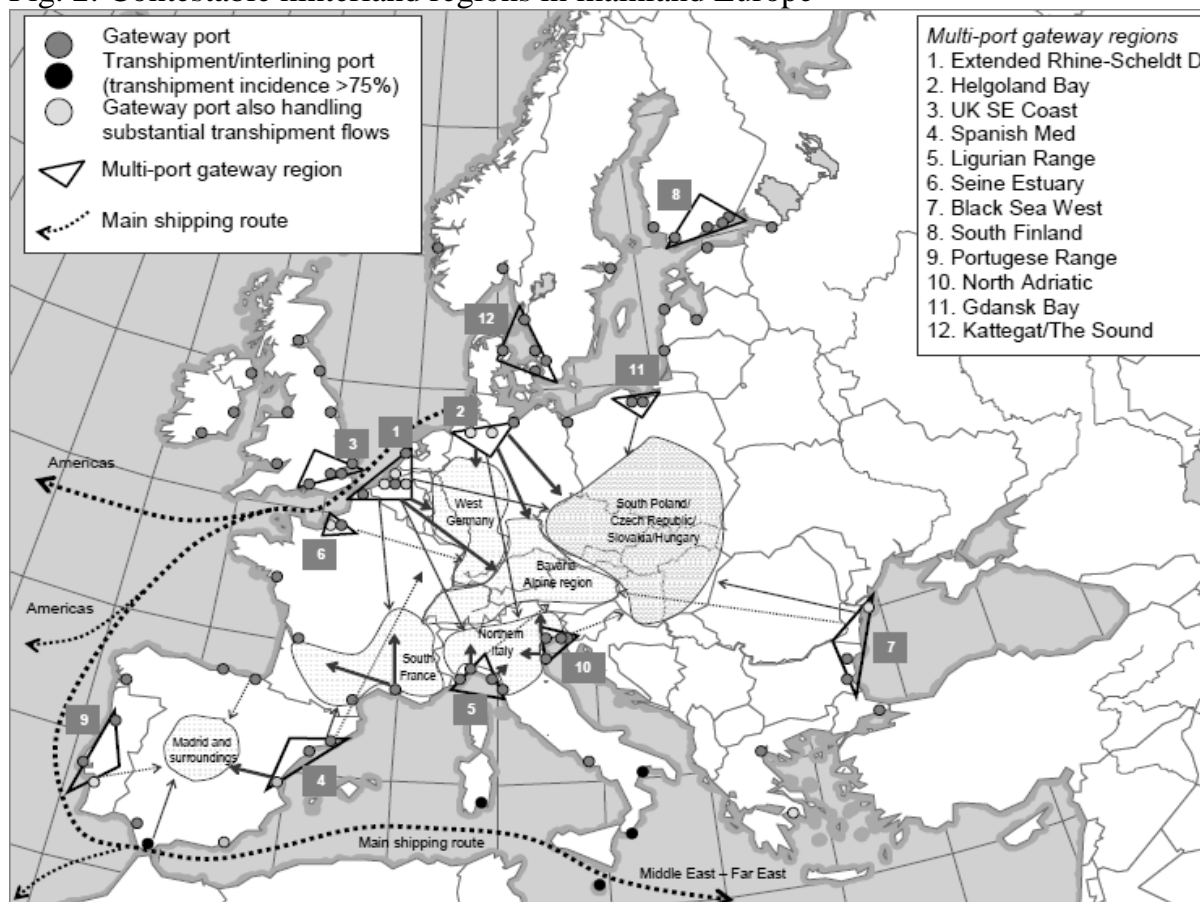
Two different port clusters relevant for imports and exports from CEE countries can be identified. On the one hand, there are the most important European ports within so called North Sea Range between Le Havre in France and Hamburg in Germany. On the other hand, several of the North Adriatic ports have to be considered too, for illustration, see Figure 2.

Despite the services improvement of the North Adriatic ports such as Koper, Venice, Trieste, or Rijeka, both in respect of modernization and handled volumes, the ports of the North Sea Range still dominate European container port system including CEE hinterland region. The ports of Antwerp, Bremerhaven (including Bremen), Hamburg,

Le Havre, Rotterdam and Zeebrugge handled a combined number of 35.7 million TEU, representing 48 per cent of the container turnover of the EU in 2010. For 2011, the number of TEU handled by the North Sea Range ports was at 40.3 million TEU, which is almost equal to the number of TEU handled by these ports prior to the economic crisis in 2008-2009 (Containerisation International 2011).

It is essential to mention almost 10 per cent of the container cargo traffic handled in the North Sea Range ports is generated in CEE region with Poland and Russia having a significant share. The strongest economy in the EU (by GDP total) Germany, exports and imports more than 95 per cent of its containerized trade via the ports between Hamburg and Le Havre (Notteboom 2009).

Fig. 2: Contestable hinterland regions in mainland Europe



Source: Notteboom (2009, pp. 59).

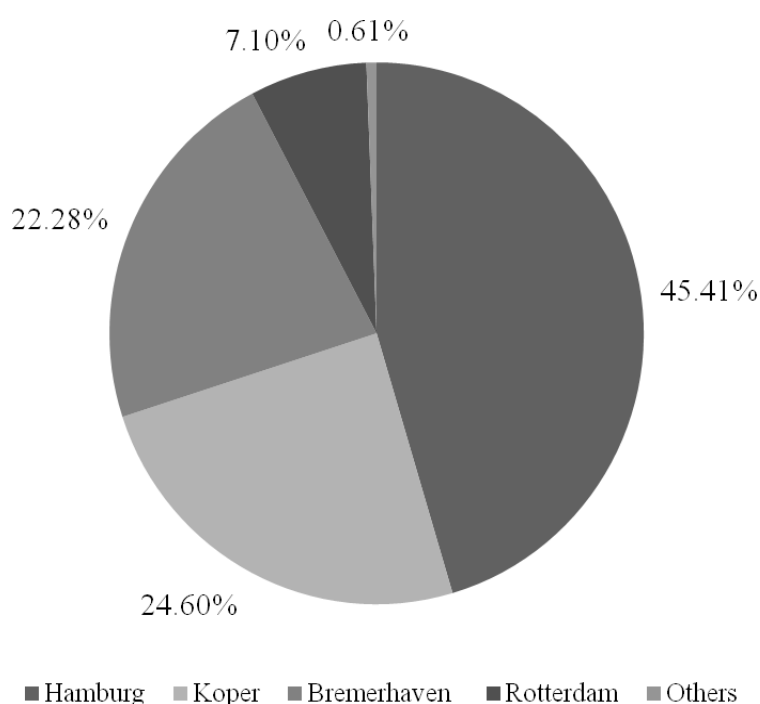
Based on their geographic location, not all ports in the North Adriatic region and North Sea Range can be considered as relevant for the container trade of the specific regions in the Czech Republic and Slovakia. Though some trades might be realized via



port of Koper, Trieste and Rijeka. Nevertheless, with a combined annual volume of 1.1 million TEU in 2010, they represented only 1.4 per cent of the EU's overall container traffic.

In case of the Czech Republic and Slovakia<sup>5</sup>, only four ports have a significant market share in terms of exported and imported containerised cargo. Port of Hamburg dominates with more than 45 per cent share, followed by Koper Bremerhaven, Rotterdam, see Figure 3 (data for 2011, Port of Hamburg 2012).

Fig. 3: Key European Container Ports for containerized cargo of the Czech Republic and Slovakia (origin or destination located overseas)



Source: *Hafen Hamburg e.V. – Port of Hamburg (2012); Port of Rotterdam (2012).*

In case of the maritime shipping, both countries are characterised with more containerised cargo being imported than exported (despite the fact both countries are export oriented economies). For instance, 508, 612 TEU were imported and exported

<sup>5</sup> Since transport statistics reports by most ports still treat the area of former Czechoslovakia as one market, this study will not distinguish between the two countries either, unless otherwise specified. It is impossible to find the data for these two countries since they are not monitored by national statistics and/or authorities. In addition, it is in some cases not possible to obtain information for each country separately, the transport import and export patterns of both EU members are relatively similar.

to and from the Czech Republic and Slovakia with 64 per cent import containers compared to 36 per cent for exports in 2011 (Hafen Hamburg Marketing e.V. presentation on April 2012 at Association of Forwarding and Logistics of the Czech Republic Maritime Club seminar).

### **Container Transport Challenges and Issues**

Shipping lines and the MTO's apply globally different strategies when trying to reduce the most severe container transport long-term challenges (Theofanis et al. 2008) of:

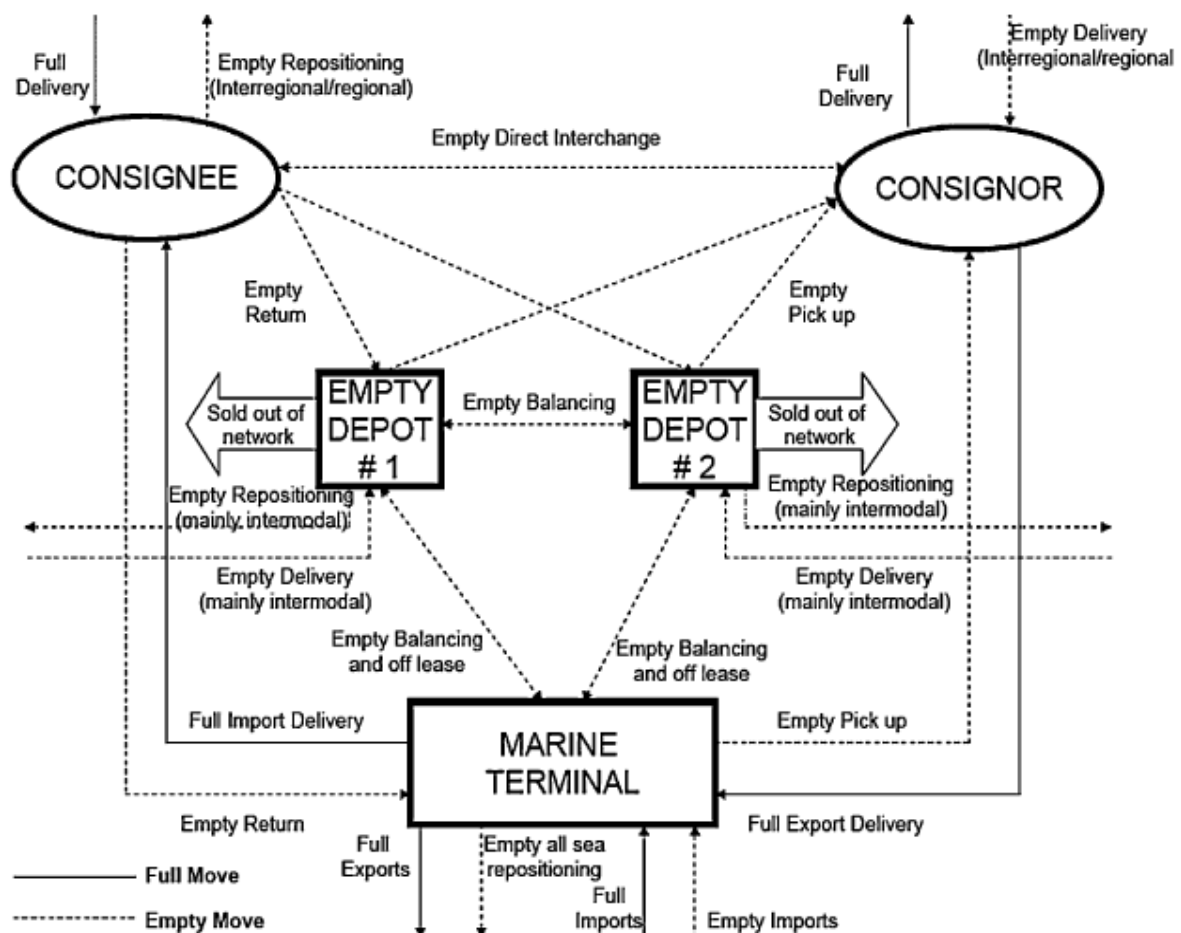
- International trade imbalances.
- Fleet deployment and its oversupply.
- Empty containers repositioning.
- Hinterland connectivity and infrastructure limitations.

Based on the limited scope of this conceptual paper, only the issues of imbalances and repositioning will be characterized in detail. There are three key container traffic routes found in seaborne trade globally; Transpacific (Far East Asia – North America), Far-East Asia – Europe and Transatlantic (Europe – North America). Far-East Asia – Europe route plays the key role for European exports and imports originating overseas with increasing imbalance ratio. In 2009, on Far-East Asia – Europe, 11.4 million TEU were imported from Asia to Europe (so called Westbound traffic) and 5.5 million TEU on Eastbound traffic route (Europe – Far East Asia; ratio 2.1 to 1). Stuffed containers are unloaded in Europe with insufficient volume of cargo being loaded in Europe and exported to Far East destinations. From the perspective of import oriented Slovakia and the Czech Republic (in terms of container traffic), empty containers constantly have to be moved out (repositioned) of Czech and Slovak container terminals as export volumes do not equal the volume of imports. Moreover, different trade parties (operators, freight forwarders as shippers or consignees, importers and exporters) and commodities result in the use of different containers, generate even more problems connected to trade imbalances.

Directly to the trade imbalances, the management of empty containers is linked; repositioning in other words. The number of available containers (for loading) is limited and the purchase of new units is expensive. Therefore, international companies (exporters and importers) search for capacities to export goods from Far-East Asia to other parts of the world. Shipping lines as the service providers have to reconsider global strategies with local implications in order to reduce the lack of equipment under acceptable conditions (repositioning costs; Lopez 2003, Shintani et al. 2007). Shipping lines are required to reposition empty containers from low containerised cargo export

areas (e.g. Europe) to high containerised cargo export areas (e.g. Far East Asia) in order to meet customer requirements and make profit. It is estimated that around 1.5 million TEU are idle in inland depots and ports globally, waiting for the cargo or empty repositioning (Theofanis et al. 2008). A lot of European exporters and carriers report a lack of empty equipment in certain regions. The numbers stress the importance of the efficient equipment management strategies for the container shipping within maritime routes and the hinterland movements.

Fig. 4: Empty container: repositioning at regional and local level



Source: adopted from Theofanis et al. (2008, pp. 60).

The international container management includes movements within of relatively wide geographic area, for example within Europe. For repositioning at this level, short sea shipping and multimodal transport options can be considered as the solution. Regional

repositioning management focuses on the imbalances between individual importers, exporters and marine terminals unlike local repositioning management that tries to balance container movements between ports and inland depots (Theofanis et al. 2008).

Illustrated in Figure 4, it can be seen easily how complex the empty and full containers movements and its management may be even within a country. There are many repositioning options for the shipping lines to choose from. One of the key factors in terms of the cost-effective and efficient decision making is represented by the volume of information shared with the customers (exporters, importers – shippers/consignors and consignees) in their business planning and the ability of the shipping lines to react flexibly on the shipper's (customer's) requirements.

### **Anticipated Results**

By answering the research questions and their analysis, the forthcoming research aims to have a practical and applicability relevance to the container management in the CEE region with the real business implications. The research outcome should identify and highlight inefficiencies of processes related to the strategies of shipping lines in terms of customer service policy and container repositioning management in CEE region.

### **Conclusions**

Firstly, efficient transport solutions are the key for an international trade development. The costs of transporting semi-knocked down and finished goods have impact on the geographic framework of production, distribution and consumption processes and the final price of products for the customer. The constant development of global transport chains applying global strategies with local and regional adjustments together with constant care for the customers by shipping lines and MTOs have a significant influence on reducing the costs of moving cargo between different origins and destinations.

Whilst the survey results will yield important insight related to customer service and equipment planning policy of leading shipping lines in the Czech Republic, it would not be appropriate to just generalise the results due to sample size restrictions. Similarly, the restricted sample size and qualitative nature of the data do not enable the identification of robust indicators of statistical significance. Rather, it will be more appropriate to discuss the survey results and the motivation of managers' responses on a case-by-case basis.

Ultimately, the survey results are intended to illustrate local differences in customer service and equipment planning policy; there is no intention within this study to provide global implications for the container industry either.

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# TRANSFER PRICING LEGISLATION APPLIED IN THE CZECH REPUBLIC

Daniela BALUCHOVÁ<sup>1</sup>

**Abstract:** *The globalization process has encouraged multinational companies to benefit from cost savings and tax optimization by increasing an intra-trade. Survey performed by Ernst & Young (2010) was chosen in order to confront the international trends in transfer pricing with the Czech jurisdiction. The objective of paper is to apply the trends revealing from the survey on the case of the Czech transfer pricing environment.*

**Keywords:** transfer pricing, tax audits, multinational companies, tax evasion.

**JEL classification:** F21, F23, H25, H26, G39.

## Introduction

The attention of tax authorities paid to transfer pricing issues revealing from the need to increase tax collection and so to increase the income flow to state budget. In the same time, tax authorities as well as international organizations around the world have enforced an intensive cooperation with regard to transfer pricing issues.

The objective of paper is to apply the trends revealing from the survey to the Czech transfer pricing situation.

The article is organized as follows: Section I briefly provides key findings of the survey made by Ernst & Young in 2010. Section II applies the global trends in transfer pricing on the case of the Czech Republic. Finally, there is a concluding section.

## Current trends related to transfer pricing issues<sup>2</sup>

According to the survey prepared by Ernst & Young in 2010 on transfer pricing, the following 6 trends can be observed:

1. Transfer pricing as absolutely critical;

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<sup>2</sup> This chapter is based on the information and findings published in Ernst & Young: 2010 Global transfer pricing survey. Top six trends in transfer pricing.

2. Rules are in flux;
3. Rising audit risk;
4. Trend in controversy management;
5. More attention paid to documentation; and
6. Tax and efficient supply chain management.

### **Transfer pricing as absolutely critical**

According to the Ernst & Young survey 2010, more than 30 % of tax managers in parent companies assign to transfer pricing the absolutely critical importance in the next two years.

Figure 1

Most important tax issues for tax directors (parents)



*Source: Ernst & Young Survey 2010*

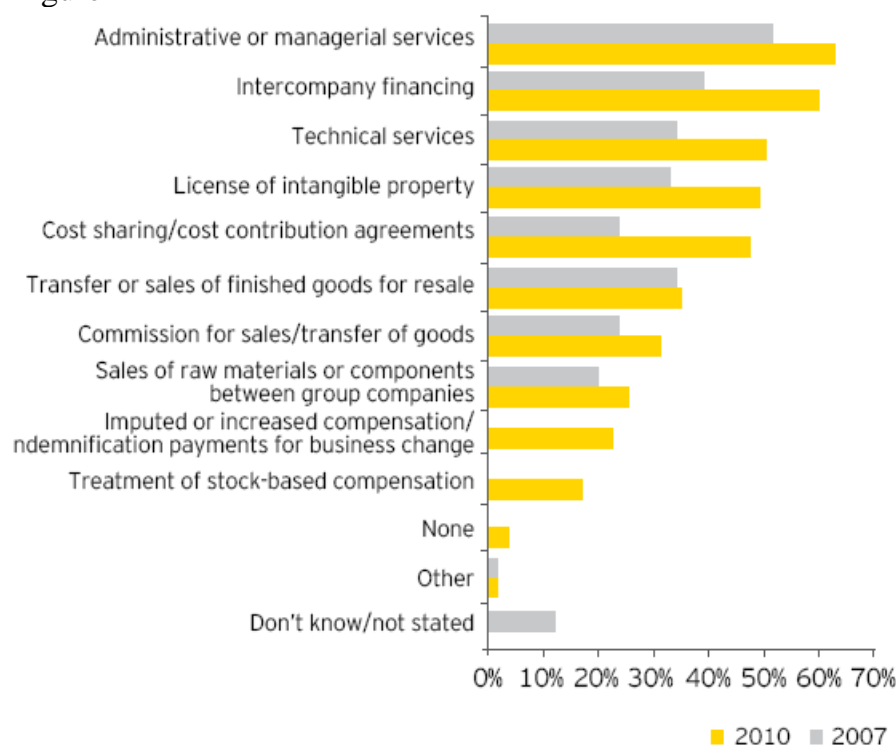
The findings resulting from the survey confirm that the reviews of intercompany financing transactions increased dramatically from 7% in 2007 to 42% in 2010. According to parent respondents, there are three main areas potentially subjected to transfer pricing review:

- Services;
- Financing;
- Intangible transactions.



Out of them, administrative and management service transactions as well as intercompany financing are viewed as the transactions most susceptible to dispute with tax administrators, following by intercompany financing, technical services and license of intangible property.

Figure 2



Source: Ernst & Young Survey 2010

### Rules are in flux

Transfer pricing regulations and resulting practice are in flux all over the world. Since there is no absolute rule regarding transfer pricing, companies have an opportunity to benefit from tax competition at international scale.

### Audit risk and imposition of penalties on rise

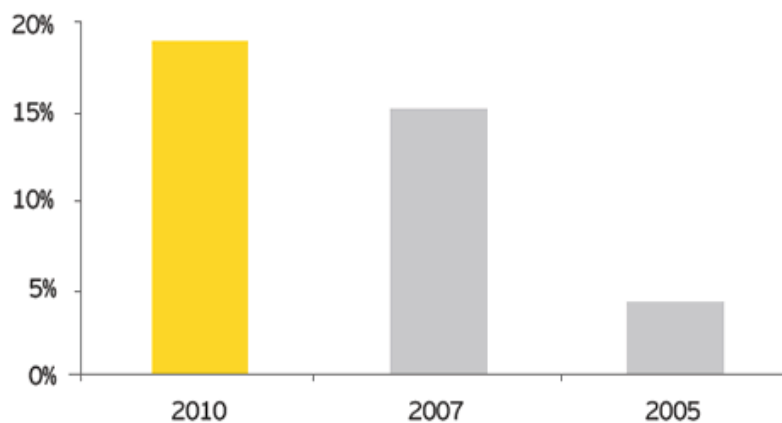
Tax audits focusing on transfer pricing are increasing in significance, intrusiveness and its scope.

The survey provided by Ernst & Young in 2010 regarding transfer pricing audits and related imposition of penalties shows among other things that:

- 66% of respondents have undergone an audit in the 2010 compared with only 52% in the 2007 Survey.
- 1 in 5 audit adjustments triggered a material penalty, compared with 1 in 25 in 2005.
- Parent respondents report that tax authorities requested access to intercompany agreements and operational personnel in 73% and 41% of examinations, respectively.
- 68% of parent respondents indicate their transfer pricing policy was examined by tax authorities, up from 52% in the 2007 Survey.

Figure 3

Percentage of adjustments resulting in penalties (parents)



Source: Ernst & Young Survey 2010

Increasing number of respondents are experiencing the transfer pricing audits at global scale. However, the range of countries in which tax audits occur is shifting, with the dramatically increase of transfer pricing audits performed in emerging countries. The increasing pressure on governments to raise revenues of state budget is likely to lead to more frequent and more sophisticated tax audits presented in all markets. The increasing imposition of penalties is related to the current need to raise tax revenues and so to maintain state budget in balance. The trend towards increased penalties is expected to continue.

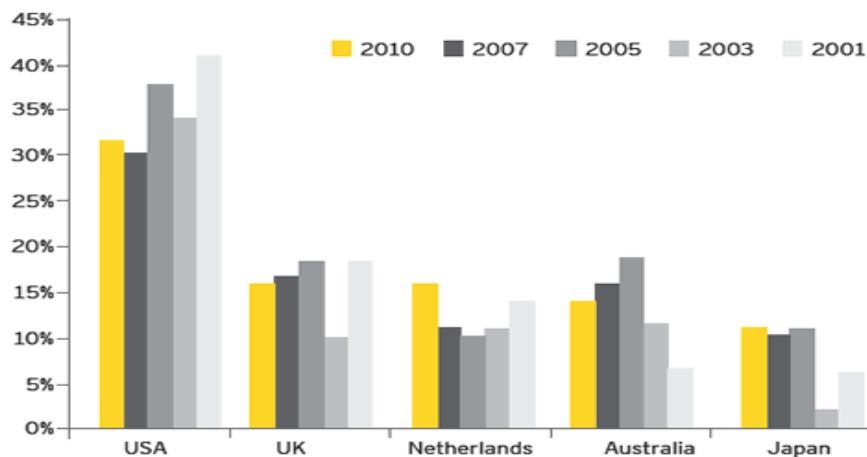
## Trend in controversy management

In general, there are three main options for resolving transfer pricing disputes:

1. Advance pricing agreements (APAs);
2. Competent authority relief (through the Mutual Agreement Procedure provision of the relevant treaty); and
3. Litigation.

Figure 4

Top five jurisdictions in which an APA has been used (parents)



Source: Ernst & Young Survey 2010

Since the 2007 Survey, using of binding arbitration has increased as an additional mechanism. Based on the results of survey performed, although only 23% of parent respondents indicate using APAs as a controversy management tool, the level of satisfaction with the APA process among users is high. 90% indicate that they would seek an APA in the future. The number of countries in which parent respondents have discussed APAs is wide (29 countries). Nevertheless, the principal APA jurisdictions are countries with well-developed transfer pricing regimes, such as the United States, the United Kingdom, the Netherlands, Australia and Japan.

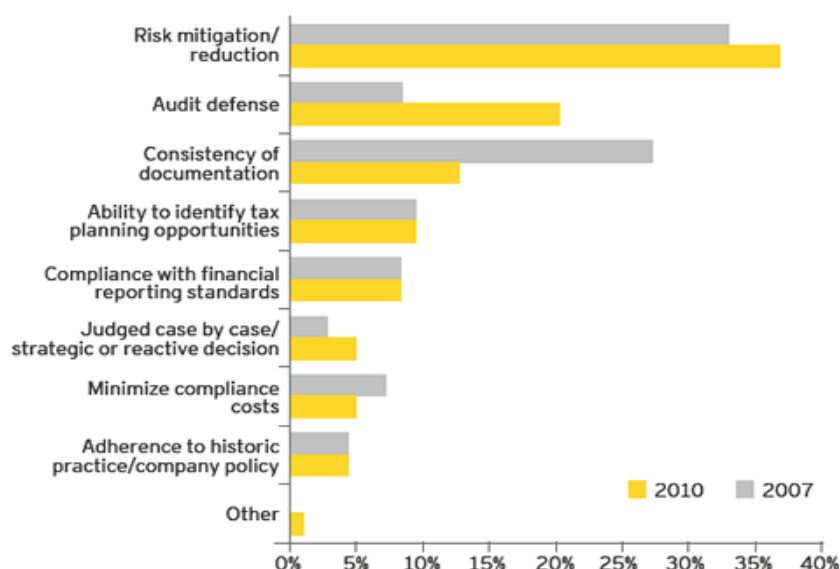
## More attention paid to documentation

The importance of transfer pricing documentation is increasing. 75% of parent respondents viewed documentation more important in 2010 than two years ago. The principal motivation for the compilation of transfer pricing documentation is related to risk reduction. 36 per cent of respondents identified risk mitigation as their primary

motivation in preparing documentation. On the other hand the number of respondents referring the audit defense as their primary motivation has more than doubled from 2007 to 2010.

Figure 5

Top priority in preparing transfer pricing documentation(parents)



Source: Ernst &Young Survey 2010

### Tax and efficient supply chain

Restructuring activities are subjected to scrutiny. Assuming that companies are willing to achieve greater efficiency and economies of scale in all areas of business activity - tax alike, number of transfer pricing developments are facing challenges to companies that are restructuring their businesses. At the same time, restructuring activities and changes in business have raised reinvigorated attention of relevant tax authorities. Accordingly, the OECD has issued its Chapter IX focusing on business restructurings.

## **Transfer pricing survey applied in the case of the Czech Republic<sup>3</sup>**

### **Transfer pricing as absolutely critical**

Transfer pricing legislation applied in the Czech Republic has a non-binding character. Nevertheless in some cases, the companies are facing relatively high pressure from Czech tax authorities, especially when dealing with large entities, companies granting investment incentives and companies realizing tax losses, because there are considered susceptible to potential tax evasion.

Accordingly, companies enjoying a tax holiday are targeted to transfer pricing review. In this regard, apart from general conditions there are special conditions defined in Section 35a of ITA. Among them, companies that have received the investment incentives in the form of tax relief are strictly obliged to comply with the arm's length principle:

*“The entity does not increase its base for calculating tax relief through business transactions with related parties that do not correspond with the arm's length principle and will result in the decrease in the tax base of related party.”*

### **Rules are in flux**

The Czech Republic as a member of the OECD applies its principles and follows its recommendations. In regard to transfer pricing, the OECD issued in 1995 the OECD Guidelines, which were updated in July 2010. Nevertheless, the OECD Guidelines has not been legally binding for the Czech Republic yet.

Transfer pricing issue is presented in the Czech tax legislation as:

- The implementation of international provisions to Czech tax legislations, including:
  - OECD Guidelines;
  - Double tax treaties;
  - Arbitration Convention;
- The provisions adopted by relevant authorities in compliance with international legal sources resulting from the membership of the Czech Republic in various organizations:

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<sup>3</sup> This chapter is resulting from the findings and author's opinion presented in the papers: (a) The relationship between transfer pricing and the system of investment incentives - Case of the Czech Republic (2012) and (b) Transfer pricing legislation in the context of the Czech Republic (2012).

- Section 23 (7) of Act No. 586/1992 Coll., on Income Tax as amended (hereinafter “ITA”);
- Decrees issued by Ministry of Finance, including:
  - Decree D – 332 regarding transfer pricing issues in respect of international standards;
  - Decree No. D – 333 regarding advance pricing agreements in respect of Section 38nc of the ITA;
  - Decree No. D – 334 regarding the scope of transfer pricing documentation;
- Decree D-6;
- Section 92 (3) of the Tax Code;
- Section 38nc of the ITA related to binding rule (APA);
- Section 35a of ITA related to drawing of investment incentives.

The basic rule for pricing of the related-party transactions is defined in Section 23 (7) of ITA. In compliance with this provision, related parties must respect the arm’s length principle:

*“Where prices applied between related parties differ from prices agreed between independent entities in common business relations under the same or similar terms (conditions), without such difference being properly documented, the tax administrator (financial office) shall adjust the taxpayer’s tax base by the ascertained difference.”*

The implementation of the transfer pricing principles defined by the OECD Guidelines to the Czech tax system was undertaken in the Ministry’s of Finance Decree No. D-332 provided guidance to taxpayers on how the Czech tax authorities will approach the transfer pricing issues. Nevertheless, Decree D-332 has not been legally binding in the Czech Republic yet.

### **Rising audit risk**

The number of tax audits related to transfer pricing issue has been gradually increasing. In addition to higher frequency of tax audit performed, tax inspections have become more sophisticated. Specialized tax audit have been performed since 2000 including the inspection of companies with high turnover, organizations involved in unusual and specific areas, subjects whose control is extremely time-consuming and technically demanding, and entities involved in the major supply chains etc. In 2009 the financial offices focusing on specific tax audit imposed additional tax in the

amount of CZK 736 million in comparison with CZK 240 million assessed in previous year. In 2010, the number of tax audit focused on transfer pricing arrangement nearly doubled compared to a previous year (Table 1). Moreover, Special Financial Authority (Speciální finanční úřad, further "SFU") was established in January, 2012 in order to avoid tax evasions.

Table 1 Tax audit focused on transfer pricing issues

Tax audit focused on transfer pricing issues (CZK)				
Year	No. of tax audit	Increase in tax base	Decrease in tax loss	Additional tax
2008	123	156 442 000	103 757 000	58 163 000
2009	139	148 969 000	801 471 000	50 439 000
2010	221	365 307 000	64 856 000	90 998 000

Source: General Financial Directorate

In case that there are discrepancies in transfer pricing set-up challenging by relevant tax administration, additional tax and severe penalties may be imposed. Apart from penalty imposed, interests on late payment are additionally applied. In this regard, they are recipients of investment incentives who face very significant transfer pricing risk exposure. Breaching special condition defined in the Section 35a of ITA related to drawing of a tax relief may result in a retroactive withdrawal of the entire investment incentives, and an imposition of a related penalty for all the periods the tax relief have originally been granted.

### **Trend in controversy management**

Since January 2006, Czech taxpayers are entitled to discuss with tax authorities regarding pricing methodology. Generally, the decision on the method of transfer pricing between related parties is effective for three tax periods following the day when the decision was issued.

At present, Czech taxpayers are more willing to take advantage from advance pricing agreements.

### **More attention paid to documentation**

Under Section 92 (3) of the Tax Code, in filling tax returns Czech taxpayers are requested to prove documentary evidence on the conformity of the transfer prices

applied in its related-party transactions to the arm's length principle. For this purpose Decree No. D-334 was issued in order to provide recommendations for taxpayers on the scope of transfer pricing documentation in accordance with the principles defined in the OECD Guidelines, as well as pursuant to the Code of Conduct issued by the EU JTPF.<sup>4</sup> Although neighboring countries like Poland and Slovakia have already introduced transfer pricing documentations rules, the Decree D-334 has not been legally binding in the Czech Republic yet. Nevertheless transfer pricing documentation is viewed as essential instrument in communication with Czech tax authorities especially in case of initiation of tax audit.

### **Tax and efficient supply chain management**

As mentioned above, the specialized tax inspections in the Czech Republic are focused on specific areas or entities susceptible to potential tax evasion or tax shelters. In this regard, changes in business structure are very likely to be viewed as target area for scrutiny in the Czech Republic as well.

### **Conclusion**

Transfer pricing as a key instrument for tax optimization is considered as the most controversial due to its thin linkage with potential tax evasion. Since there is no absolute rule regarding transfer pricing, companies have an opportunity to benefit from tax competition at international scale. Therefore tax authorities around the world have adopted various measures to avoid a deliberate profit transfer among jurisdiction with different determination of tax liability. In this regard, the increasing number of transfer pricing audits has been recorded.

According to the survey provided by Ernst & Young in 2010, the prevailing trends in the transfer pricing are: critical importance of transfer pricing in related party transactions, inconsistency in the application of transfer pricing rules, increase in transfer pricing risks and related imposition of penalties, increased attention of multinational companies to instruments determined for the defense of pricing methodology (ie., transfer pricing documentation and APAs) and reinvigorated scrutiny of restructuring activities.

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<sup>4</sup> Following the negotiations with the EU Joint Transfer Pricing Forum, the Code of Conduct was accepted by the EU Council on 27 July 2006. EU JTPF is a consultation body set up by the European Commission, consisting of the representatives of the member states' tax authorities and the business sector. The primary aim of the EU JTPF is the harmonization of the common market with respect to transfer pricing issues.



In this context, there is positive relation between the global transfer pricing development and the trends observed in the Czech Republic. Tax authorities in the Czech Republic are very likely to step up the pace of higher assessment of additional tax and related penalties by increasing and specializing the tax audits focused on transfer pricing issue. Large entities, companies granting investment incentives or entities realizing a tax loss refer as a key target for specialized tax inspections due to potential tax evasion. Furthermore, the approach of Czech tax administration towards specific tax issues becomes more sophisticated in terms of international exchange of information, simultaneous tax audits, and availability of databases as well as acquired knowledge.

Nevertheless the Czech tax legislation regarding transfer pricing is still vague and ambiguous especially for companies participating in investment incentive program primarily intended to attract foreign direct investments. Moreover transfer pricing documentation has not been legally binding yet, although neighboring countries have already adopted it.

### **Acknowledgement**

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# SELECTED ASPECTS OF ECONOMIC CONVERGENCE IN THE CZECH REPUBLIC - CHANGES IN COMMITMENT TO ADOPT THE SINGLE CURRENCY AND PARTICIPATION IN FINANCIAL SOLIDARITY SYSTEMS WITHIN THE EU

Ota MELCHER<sup>1</sup>

**Abstract:** *Recently we have witnessed substantial changes in the convergence trends within the new EU member states. Convergence however remains a key process underpinning the European integration framework. The trend has been recently abrupt by the impacts of the crisis and after couple of years of relatively stable progression one could observe unprecedented developments. The Czech Republic as a small and open economy is very sensitive to external shocks and fluctuations of export demand. These variables have significant impact on economic performance in general. In more restricted way they affect several macroeconomic variables generating the pace of convergence towards a reference entity. This paper tries to show selected aspects of real and nominal convergence in recent years and give a general outlook of future developments. It also discusses the changing nature of the commitment to join the euro area, which is inherently interconnected with the process of convergence. In the context of fiscal crises within the EU, it finally deals with consequences of EU financial solidarity and prospective membership in single currency area.*

**Keywords:** convergence, integration, euro adoption commitment, ESM.

**JEL classification:** E60, F55.

## Introduction

In the EU the concept of convergence is generally discussed within the process of European integration. Integration can generally be understood as the process of creating higher-order system of individual units at a lower level, in other words, grouping these units into the system, eventually systems at a higher level. The integrated unit can then be understood as a system with no barriers to economic transactions between states or regions. Due to the longer time horizon and the complexity of the integration the process is usually divided into several parts. These

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are periods of time, in which different types of quantitative and qualitative convergence take place in integrating entities.<sup>2</sup>

The aim of the third stage of European integration process is to complete construction of the Economic and Monetary Union and the member states' transition to a common currency union. The accession of the EU member states to a common currency, besides the compatibility of their legislation with the Treaty<sup>3</sup> and the Statute of the European System of Central Banks and the European Central Bank (ECB), is also conditional on achieving a high degree of sustainable convergence.

Member states outside the euro area are obliged to take steps to join the single currency, unless they are exempted from doing so.<sup>4</sup> However we have recently witness significant alterations in the commitment to adopt euro as the financial solidarity system is being established within the EU. There are major consequences for member states outside the euro area, above all stemming from the prospective membership in European Stability Mechanism after joining the euro. There are also other instruments of internal financial assistance and it is important to distinguish among their nature and resulting obligations. While this is going to be a key issue in later parts of the paper, we should firstly look at the current position of the Czech Republic in selected areas of convergence process.

## **Convergence Criteria**

Evaluation of the degree of nominal convergence from the perspective of the European institutions is based on four convergence criteria<sup>5</sup>:

1. Criterion of price stability (inflation).
2. Criterion of long-term sustainability of public finances assessed by the government deficit and government debt.
3. Criterion of exchange rate stability assessed on the basis of exchange rate movements within the margins in ERM II system for two years without devaluation.

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<sup>2</sup> Baldwin and Wyplosz, 2006.

<sup>3</sup> Article 130 a 131 of the Treaty on the functioning of the EU (Treaty).

<sup>4</sup> The United Kingdom and Denmark negotiated exemptions. Sweden turned down the Euro in 2003 referendum and has circumvented the obligations since then by not complying with the accession requirements.

<sup>5</sup> The criteria are referred to in article 140 of the Treaty and further specified in the Protocol on convergence criteria attached to the Treaty. These are criteria of nominal convergence, so called Maastricht criteria.

#### 4. Long term interest rates criterion.

In connection with EU membership, the Czech Republic is obliged to take steps to ensure that it is ready for the next phase of economic integration i.e. to join the common currency as soon as possible. However setting the date of entry into the euro area is at the discretion of the

Member state only and is strongly dependent on the degree of preparedness, the degree of sustainable convergence respectively. With regard to the above mentioned criteria it should also be noted that prospective failure to comply has no direct implications for the Czech Republic. The exception is the criterion of sustainability of public finances, in case of which the failure of a member state to comply initiates the Excessive Deficit Procedure (EDP)<sup>6</sup>.

The procedure against the Czech Republic has been re-launched<sup>7</sup> in December 2009 on the basis of expected excess over the reference value for the government deficit in 2009. The procedure has not been brought to an end yet due to breaching the limit on government deficits in the years 2010 and 2011. The Council recommended reducing government deficit below 3% of GDP by 2013 in a credible and sustainable way.<sup>8</sup>

#### **Comparison of real economic convergence**

The process of economic convergence of the Czech Republic and other new EU member states is characterized by several common features. These include in particular an increased pace of GDP growth and the associated gradual increase in price levels.

In the long term perspective there are several generally known characteristics of the convergence of the Czech economy. First being relatively low price level is (see Table 1), second the appreciation trend of nominal and real exchange rate and the associated rising GDP per capita in purchasing power parity (Table 2). In particular, long-term real appreciation of the Czech koruna (CZK) plays a crucial role in the convergence process. However given moderate growth of unit labour costs and increasing share in export markets, the increase in real exchange rate does not represent a risk of external

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<sup>6</sup> The procedure is described in details in the Stability and Growth Pact (SGP) and enclosed Code of Conduct for the SGP.

<sup>7</sup> The Czech Republic was subject to EDP from 2004 until 2008. See [http://ec.europa.eu/economy\\_finance/economic\\_governance/sgp/deficit/countries/czech\\_republic\\_en.htm](http://ec.europa.eu/economy_finance/economic_governance/sgp/deficit/countries/czech_republic_en.htm).

<sup>8</sup> Council of the European Union 15755/09. COUNCIL RECOMMENDATION to the Czech Republic with a view to bringing an end to the situation of an excessive government deficit

imbalance. Such trend might rather reflect an improving living standards and catching up with advanced economies (Melcher 2012). At the same time it can be assumed that the outlined pace of real convergence will be slowing with further economic growth and rather nominal convergence will occur (Vintrová 2007).

Table 1 Price levels for selected countries, 1995-2010 (EA16=100)

	<b>CZ</b>	<b>EE</b>	<b>LV</b>	<b>LT</b>	<b>HU</b>	<b>PL</b>	<b>SI</b>	<b>SK</b>
<b>1995</b>	39,0	39,1	36,3	29,1	41,1	44,6	70,5	37,3
<b>1996</b>	41,1	45,0	40,2	34,2	41,6	47,5	68,1	37,9
<b>1997</b>	43,0	49,2	46,3	41,8	44,9	50,1	70,1	40,3
<b>1998</b>	46,5	53,0	48,2	44,7	44,8	52,5	72,6	41,0
<b>1999</b>	45,7	56,1	51,3	46,1	46,4	51,0	73,0	39,9
<b>2000</b>	48,1	57,1	58,7	52,5	49,2	57,8	72,7	44,4
<b>2001</b>	49,8	60,9	58,8	53,9	52,8	64,5	73,6	43,2
<b>2002</b>	56,9	60,6	56,8	54,0	57,2	61,0	74,1	44,6
<b>2003</b>	53,0	60,3	52,9	50,8	56,7	52,9	74,1	49,3
<b>2004</b>	53,8	61,3	54,5	51,9	60,2	51,7	73,3	53,3
<b>2005</b>	57,0	63,4	55,9	53,8	62,2	59,9	74,5	54,3
<b>2006</b>	60,2	67,2	59,7	56,2	59,5	61,3	75,3	56,9
<b>2007</b>	61,6	72,5	65,7	59,2	65,8	60,9	77,9	62,4
<b>2008</b>	69,8	75,1	72,2	63,7	67,0	66,8	79,5	67,2
<b>2009</b>	66,0	72,3	69,3	62,5	60,7	54,6	79,6	68,3
<b>2010</b>	69,1	72,1	66,5	60,9	62,9	60,1	80,6	68,3

*Note: CZ – Czech Republic, EE – Estonia, LV – Latvia, LT – Lithuania, HU – Hungary, PL- Poland, SI – Slovenia, SK – Slovakia, EA – euro area = 100. Source: Eurostat, Comparative price levels.*

The literature highlights the vital interdependence of nominal and real convergence (Čihák and Holub 2001, Mandel and Tomšík 2008). One-sided focus on nominal convergence does not allow to fully uncover this relationship, what more, it is considered a deficiency. Given the scope of the paper, however, there will not be enough space for detailed elaboration on theoretical underpinnings of economic convergence concepts and the issue of optimal monetary policy regime. Emphasis will be placed only on the fundamental relations of real convergence and subsequent evaluation of Maastricht criteria, i.e. criteria of nominal convergence.

Table 2 GDP per capita in PPP, 1995-2010 (EA16=100)

	<b>CZ</b>	<b>EE</b>	<b>LV</b>	<b>LT</b>	<b>HU</b>	<b>PL</b>	<b>SI</b>	<b>SK</b>
<b>1995</b>	67,5	31,6	27,2	31,6	44,7	37,7	65,8	41,2
<b>1996</b>	69,0	33,6	28,3	32,7	45,1	39,8	67,3	44,2
<b>1997</b>	67,3	37,2	31,0	34,5	46,0	41,6	69,0	45,1
<b>1998</b>	64,6	37,2	31,9	35,4	47,8	42,5	69,9	46,0
<b>1999</b>	63,7	37,2	31,9	34,5	47,8	43,4	71,7	45,1
<b>2000</b>	63,4	40,2	32,1	35,7	48,2	42,9	71,4	44,6
<b>2001</b>	65,2	41,1	33,9	37,5	51,8	42,9	71,4	46,4
<b>2002</b>	65,8	45,0	36,9	39,6	55,0	43,2	73,9	48,6
<b>2003</b>	70,0	50,0	39,1	44,5	57,3	44,5	76,4	50,0
<b>2004</b>	71,6	52,3	42,2	46,8	57,8	46,8	79,8	52,3
<b>2005</b>	72,5	56,9	44,0	48,6	57,8	46,8	79,8	55,0
<b>2006</b>	73,4	60,6	46,8	51,4	57,8	47,7	80,7	57,8
<b>2007</b>	76,1	64,2	51,4	54,1	56,9	49,5	80,7	62,4
<b>2008</b>	77,1	63,3	51,4	56,0	58,7	51,4	83,5	66,1
<b>2009</b>	78,7	59,3	48,1	50,9	59,3	56,5	81,5	67,6
<b>2010</b>	75,9	59,3	48,1	53,7	58,3	57,4	79,6	68,5

*Note: CZ – Czech Republic, EE – Estonia, LV – Latvia, LT – Lithuania, HU – Hungary, PL- Poland, SI – Slovenia, SK – Slovakia, EA – euro area = 100. Source: Eurostat, GDP per capita in Purchasing Power Standards.*

Although the literature offers a wide range of variables to construct the definition of real convergence, we will work for the purpose of this paper only with the process of convergence of the level of GDP per capita in PPP and comparative price levels (see tables above). As such we abstract from the process of general cohesion of individual regions within the integration process<sup>9</sup> and the issue of synchronization of economic cycles with reference entity.

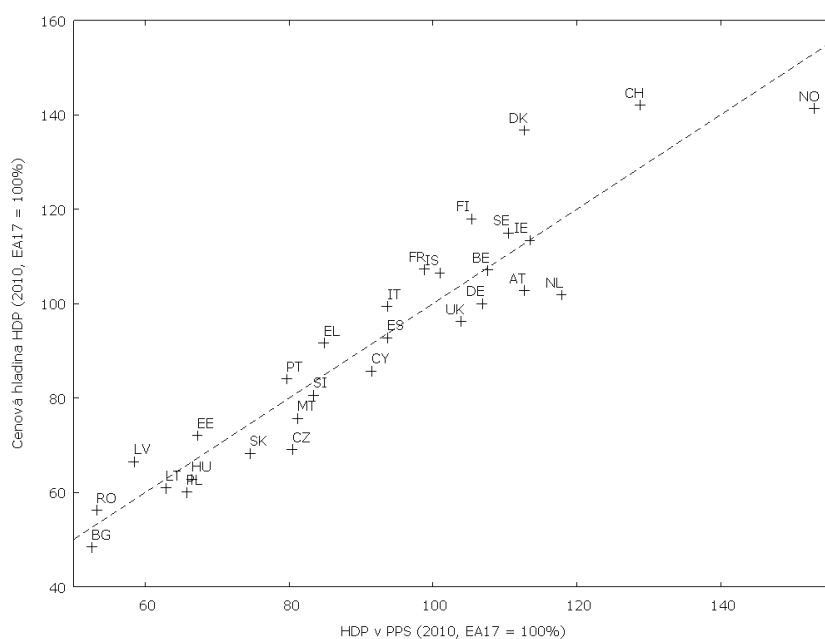
It is generally known that in the case of real convergence a very strong positive relationship between price level and the GDP per capita in purchasing power parity can be observed (Holub and Král 2006, Slavík 2007). It reflects the degree of economic convergence and the possible ways of its further deepening. This occurs with either growth of comparable price levels or with the growth of GDP per capita in

<sup>9</sup> The concept of European institutions, in particular the European Commission.



PPP. The first process can then be identified with long-term appreciation of real exchange rate. The close relationship of these variables is confirmed by many international comparisons, as such it is not characteristic only for the European Union member states.

Figure 1 comparable price level and the GDP per capita in PPP, 2010



*Note: BE – Belgium, BG – Bulgaria, CZ – Czech Republic, DK – Denmark, DE – Germany, EE – Estonia, IE – Ireland, EL – Greece, ES – Spain, FR – France, IT – Italy, CY – Cyprus, LV – Latvia, LT – Lithuania, HU – Hungary, MT – Malta, NL – Netherlands, AT – Austria, PL – Poland, PT – Portugal, RO – Romania, SI – Slovenia, SK – Slovakia, FI – Finland, SE – Sweden, UK – United Kingdom, IS – Island, NO – Norway, CH – Switzerland. Regression on data of 29 countries, 2010. Source: Eurostat, own calculations.*

The comparison of the degree of real economic convergence of selected countries can be obtained from an analysis of tables above, i.e. the relationship of comparable price levels and GDP per capita in PPP as observed in Figure 1. Graphical representation of this relationship demonstrates the aforementioned strong positive correlation of these variables. The regression line gives a clear evidence of empirical relationship. In the case of converging economies it points out a trend of moving closer to the developed economies in terms of both the comparable price levels and the GDP per capita in PPP.

## Evaluation of the Maastricht criteria<sup>10</sup>

The nominal convergence can also be approached in several ways. For the purpose of the paper we will focus on the convergence criteria laid down in the primary law of the EU, i.e. the Maastricht convergence criteria, compliance with which is one of the essential conditions for accession to the monetary union. The assessment of the compliance with these criteria by the Czech Republic and other new member states is currently complicated by the fiscal crisis in the reference entity, i.e. in the euro area. This complication mainly refers to the criteria of price stability and long-term interest rates. The calculation of the benchmark for interest rate criterion, in its strict application, covers for the years 2011 to 2014, Greece and Ireland, thus greatly indebted countries.

Regarding the criterion on **price stability**, the Czech Republic over the period observed<sup>11</sup> failed to meet the reference value based on the three best results<sup>12</sup> only in 2008 and that was due to the impact of the global surge in energy and food prices and administrative measures of the government. In the context of post-crisis development and domestic recession. In 2009 the Czech Republic recorded disinflation, which peaked in mid-2010 and fulfilled the criterion with considerable buffer. Since mid-2010 there was a gradual increase in prices, but without inflationary pressures from the domestic economy.

The assumption for future price developments until the end of the period is influenced by the expected administrative measures, in particular the planned increase in VAT from 14% to 15% and from 20% to 21% in 2013.<sup>13</sup> It is then expected that in 2012 the compliance with the price criteria would be threatened. For the rest of the period meeting the criterion is expected. This may be however further complicated by pro-inflationary government action in relation to the risk of another recession.

In relation to exceeding the reference value for the government deficit the Czech Republic currently does not meet the criterion of sustainability of public finances. Similarly, it was the case of 2009 and 2010. Hence the excessive deficit procedure was initiated with the Czech Republic based on the expected breaching of threshold of the

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<sup>10</sup> Ministry of Finance and the Czech National Bank documents on assessment of the fulfilment of the Maastricht Convergence Criteria. Versions dating from 2005 to 2011.

<sup>11</sup> Period 2008 – 2014. Period t-3 to t+3 in accordance with national strategic documents..

<sup>12</sup> The first indent of Article 140(1) of the Treaty requires “the achievement of a high degree of price stability; this will be apparent from a rate of inflation which is close to that of, at most, the three best performing Member States in terms of price stability”.

<sup>13</sup> Reduced VAT has also been increased in 2012 from 10% to 14%.

deficit in 2009, as mentioned in the introduction of the paper. A significant drop in foreign demand and the related slowdown in economic growth, which led to an unexpected loss of state revenues contributed to deterioration in the state of the economy in 2009. At the same time the extraordinary expenses related to support measures to revive economic growth and mitigating the impact of the crisis had negative impact on the performance.<sup>14</sup>

Table 3 Harmonized index of consumer prices (average for last 12 months vs. average for previous 12 months as of end of period, growth in %)

	2008	2009	2010	8/2011	2011	2012	2013	2014
<b>Average for 3 EU countries with lowest inflation*</b>	2.6	0.0	0.9	1.3	1.6	1.1	1.4	1.4
<b>Reference value</b>	4.1	1.5	2.4	2.8	3.1	2.6	2.9	2.9
<b>Czech Republic</b>	6.3	0.6	1.2	1.9	2.2	3.4	1.6	2.1

*Source: Ministry of finance. Outlook taken from programmes submitted within the SGP implementation.*

In accordance with the recommendations of the European institutions<sup>15</sup>, the government adopted in 2010 measures to reduce the deficit compared to 2009. These included regulation of wages in public administration or increase of the ceiling for the payment of social security. In 2011, the government took further measures to reduce investment and operating costs of public institutions and continued in fiscal consolidation. In the future, the government anticipates a further improvement of the balance as deficit reduction path outlined in the Convergence Programme of April 2012 (see Figure 2). The deficit value well the reference limit of 3%, i.e. in line with EU legislation, is expected to be reached in 2013. In its policy statement, the government also set a target of a balanced budget in 2016, its manifestation however seems, in the current context of the European economy, at least threatened. The sharp slowdown in economic growth in turn would lead to losses in state revenues and would adversely affect the development of public finances.<sup>16</sup>

As far as the overall public sector debt is concerned and as an integral part in assessing the sustainability of public finances, the Czech Republic had not problems with complying with the criteria so far. One of the important factors in this area is the low initial level of government debt, which was reaching around 15% of GDP in the late

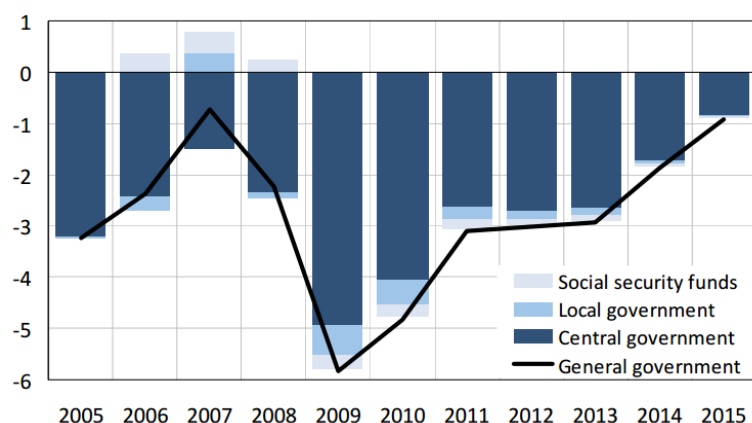
<sup>14</sup> Measures implemented within 2009 and 2010 fiscal stimuli.

<sup>15</sup> See note no. 7.

<sup>16</sup> European Commission spring forecast 2012.

1990s. The increase occurs in the periods of 2001-2003<sup>17</sup> but especially after 2009 in the context of post-crisis economic downturn. It is assumed that its maximum should be reached in 2013 at around 45% of GDP and the debt is expected to stabilize there and drop afterwards.<sup>18</sup> Although this level of debt performance is still within the criteria with a sufficient reserve, it is about time to start looking more closely at the debt dynamics.<sup>19</sup>

Figure 2 Government Balance by Sub-sectors



*Note: Years 2011–2012 notification, years 2013–2015 outlook. Source: Convergence program 2012, Ministry of Finance.*

The assessment of the performance related to the criterion on **exchange rate stability** is not feasible, because the Czech Republic has not yet entered the ERM II exchange rate regime and neither has set the central parity of the CZK against the euro, which would serve as a benchmark to evaluate the fluctuation of the currency.<sup>20</sup> Joining the monetary union is subject to a minimum period of two years of the national currency functioning in this mode and complying with provided fluctuation margins. In no case there shall be to devaluation of the national currency against the currency of another country.

<sup>17</sup> Attributed to a significant cost of subsidies to transformation institutions, which were associated with restructuring and privatization of the banking and industrial sectors in the 1990s (Melcher 2012).

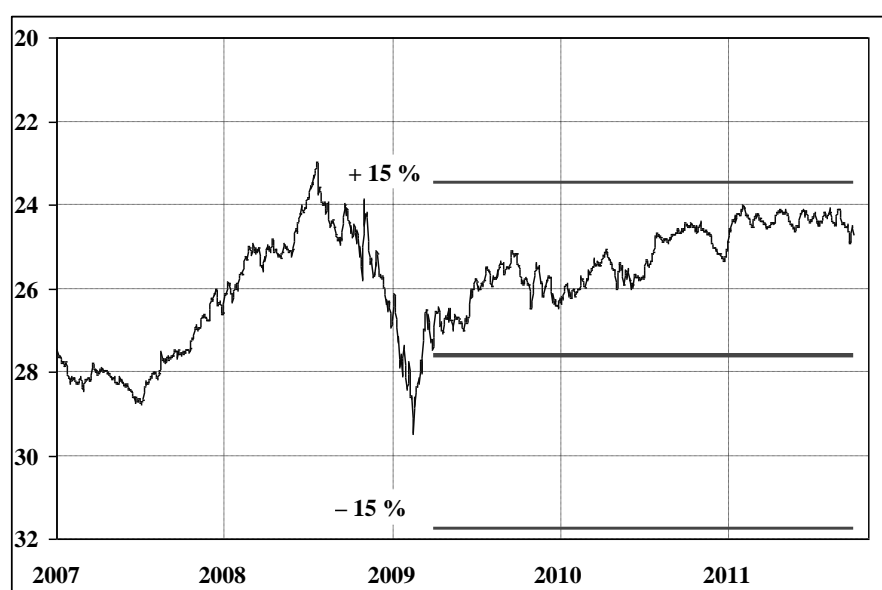
<sup>18</sup> Convergence Programme 2012

<sup>19</sup> For further information on structure and development of the State Debt please see Appendix.

<sup>20</sup> Setting the "simulation" parity is based on the current value of the exchange rate, a quarterly average before hypothetical entrance to the ERM II (1.1.2012).

As stated above, the CZK has a long-term appreciation trend against the euro. In 2008, however, the impact of economic and financial crisis has meant a weakening of investor confidence in the CZK and the trend of strengthening the national currency was discontinued (Figure 3). Similarly this was the case for other countries in Central and Eastern Europe, above all for Polish zloty.<sup>21</sup> After this depreciation the long term trend of appreciation came back and continues until today as seen in figure 3. It is characterized by higher volatility in the context of the uncertain development of the global economy.

Figure 3 Nominal exchange rate – EEU/CZK



*Source: Ministry of Finance, Czech National Bank.*

The **long-term interest rates** are the last observed variable of nominal convergence. Currently the Czech Republic performs well despite considerable uncertainty in financial markets. So far no obvious hazards that would preclude the fulfilment of this criterion in the period are apparent. The condition is however maintaining current level of financial market confidence in the medium-term consolidation and long-term sustainability of Czech public finances. There has been a gradual long-term interest rates convergence recorded in the pre-crisis period within the euro area, however, in connection with the debt crisis one could witness a significant increase in differentiation of the rates lately.<sup>22</sup> They begin to diverge mainly due to lack of fiscal

<sup>21</sup> EDRC report 2010, OECD.

<sup>22</sup> ECB Annual Report 2011.

discipline over the past decade. This has been contributed by the fact that the framework for budgetary surveillance was not strict enough and has often been interpreted with significant benevolence. It is therefore no surprise that at present the rules laid down in the Stability and Growth Pact<sup>23</sup> are respected in only three euro area states currently.<sup>24</sup>

In response to the deteriorating situation in the euro area member states approved changes in macroeconomic and financial surveillance frameworks. Since 2008 the European Commission has presented several proposals aiming at restoring economic growth and confidence on the markets. Primarily it has been dealing with tightening up the budgetary surveillance under the Stability and Growth Pact in light of poor budgetary performance of most member states preceding the crisis. Correspondingly numerous measures have been designed for identifying key variables of financial stability to allow for enhanced monitoring and supervision of financial markets. Nevertheless these initiatives, though undoubtedly appropriate, do not fully provide for addressing the conundrum of low growth potential of many European countries. There was also a stability mechanism established for the euro area countries. There are however significant implications of such mechanism for both current and future members. As such previously unforeseen financial obligations associated with the membership are discussed below.

### **Commitment to adopt the euro and mechanisms of financial solidarity**

In response to the problems of the euro area there are quite significant changes taking place in the institutional setting. The future shape of economic/political organization of monetary union can change perspective on the economic benefits and costs arising from the accession to monetary union and adoption of a common currency. Changes occur in the field of fiscal and macroeconomic surveillance and coordination of these policies. With effect from December 2011 the fiscal supervision has been tightened and new macroeconomic surveillance procedure focused on imbalances has been introduced. Also there is a strong pressure on growth enhancing fiscal consolidation and prevention of breaching reference levels for the government deficit and debt.

In this context, we have witnessed in recent period intense negotiations at the highest level on measures to mitigate the impact of the debt crisis in the euro area, the entire

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<sup>23</sup> The Stability and Growth Pact (SGP) is a rule-based framework for the coordination of national fiscal policies in the economic and monetary union. Its primary aim is to ensure sound budgeting and sustainability of public finances.

<sup>24</sup> Estonia, Finland and Luxembourg (and Sweden as the only country from non-euro area states). [http://ec.europa.eu/economy\\_finance/economic\\_governance/sgp/deficit/index\\_en.htm](http://ec.europa.eu/economy_finance/economic_governance/sgp/deficit/index_en.htm)

EU respectively. The result of the meeting of Heads of State and Government of the euro area on 21 July 2011 brought a significant shift in the current system of mutual financial solidarity within the EU. The summit, among other things, attributed the European Stability Mechanism (hereinafter referred to as "ESM")<sup>25</sup> three new tools that significantly expand its powers and allow for greater intervention in the market mechanisms. These are<sup>26</sup>:

1. conditional preventive assistance
2. loans to support the financial institutions and countries without a corrective economic program
3. purchase of bonds of affected countries in the secondary markets.

Above all, it was decided to transfer new loans to Greece to the temporary European financial stability facility (EFSF), substantial extending of the maturity of new loans has been approved to Greece, Ireland and Portugal, and there have been guarantees given to Greek bonds, which will be held the private sector, by EFSF bonds. It follows that the obligations of a temporary mechanism EFSF will with high probability at least partially be transferred to a permanent mechanism ESM. The Czech Republic would thus, after joining the euro area and subsequent accession to the ESM, gained an obligation to repay capital to ESM and guarantee by its share the obligations of countries which were transferred from the EFSF mechanism. The accession to monetary union in the future is coupled with participation in the ESM, although it is an implicit assumption that has not yet been officially established.

The phase in of rescue mechanisms for the euro area thus brings about new and previously unforeseen financial obligations to the current and future euro area members. As mentioned above, in the event of future accession into the euro area, the Czech Republic would also take part in the ESM, and as such become a co-financier. According to current estimates, it would be necessary to repay the capital amount of approximately 32 billion CZK<sup>27</sup> within five years from entry into the ESM, while in other years, the final contract (i.e. the paid up capital and capital upon request) of the Czech Republic would amount to about 350 billion CZK<sup>28</sup>.

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<sup>25</sup> The ESM is expected to be launched in July 2012 after Member states representing 90% of the capital commitments have ratified it.

<sup>26</sup> Statement by the Heads of state or Government of the Euro Area and EU Institutions [http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/ec/123978.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/123978.pdf)

<sup>27</sup> Approximately 0,9% of GDP.

<sup>28</sup> Approximately 9,5% of GDP.

The above changes in fact lead to further expansion of the scope of our commitment to join the common currency in the future. Yet the Czech Republic was not present at meetings determining the new obligations, neither to peer review of budgetary policies in the years preceding the economic crisis within the Eurogroup, i.e. the euro area countries summit. As such it could not affect in any way the mutual process of budgetary surveillance within the euro area. It therefore has every right to respond to the above changes and to choose the optimal strategy for the accession to the euro area. It should be noted that the new approach can be applied without the need to request a permanent exemption from the common currency.

The extension of the mechanism can be considered as a consequence of post crisis development and transformation of economic and financial conditions of our accession to the EU in 2004. The institutions of the European Union and the euro area should naturally respond to these developments. However the ESM's members are only the euro area countries and those should bear full responsibility for liabilities. It is not in the interest of any non-euro area countries to prevent the ratification process<sup>29</sup> from smooth functioning. This might spur the fragility on financial markets. This is all the more valid in the context of the Czech Republic, where the current government has still not fixed the date of adoption of a common currency and the issue is not included among its priorities. It is not in the interest of the Czech Republic to risk future labelling as a country that deepened the crisis of euro area by protracting the ratification process.

At the same time, the government naturally responds to change in circumstances and chooses the optimal strategy for accession to the euro area. Undoubtedly it has an option to influence eventual adoption of a common currency by political, economic and legal instruments. The conditions of entry into the euro area and the ESM may however alter significantly henceforth. For this reason it is necessary to continuously evaluate the situation.

### **EFSM and EFSF**

In the context of changing the system of financial solidarity within the EU it is necessary to distinguish the European financial stabilization mechanism (EFSM) from the European Financial Stability Facility (EFSF), which was mentioned above and which works as an intergovernmental agreement between the euro area countries.

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<sup>29</sup> Revision of article 136 of the Treaty referring to establishment of the ESM.



The point to emphasize is that the Czech Republic participates in the EFSM which is based on a Council regulation<sup>30</sup> establishing a European financial stabilization mechanism. The regulation is based on the Treaty<sup>31</sup> which allows member states to provide, under certain conditions, financial assistance to individual members.<sup>32</sup> The total amount of EFSM resources in each year is limited by the amount of the margin (difference) between the ceiling on own resources of the EU budget (1.24% of EU GNI) and the amount of payments of current Financial Perspective 2007 to 2013, while the total volume of resources provided must not exceed 60 billion EUR. These funds are generated by the European Commission issuing securities that are subsequently placed on the financial markets. These securities are assessed with the highest possible rating due to the EU budget guarantee. This allows the European Commission to generate required amount of resources to the requesting member states for low interest rates and with long periods of maturity.

Each specific decision to provide financial assistance is then based on the regulation establishing the EFSM.<sup>33</sup> In these decisions, among other things, it is stated that the character of guarantees provided by the Union budget will enable the Commission to operate debt if Ireland, respectively Portugal defaulted. In order to fulfil its obligations, the Commission may temporarily draw on cash resources while servicing the debt. In this case, the article of the Council regulation<sup>34</sup> implementing the decision<sup>35</sup> on the system of EU own resources is applied.

In other words we can say that it is the EU budget, which provides guarantees for loans to member states rather than individual member states. In addition it is provided that in case of default by the debtor countries, the Commission will pay their debts from the EU budget and these will then be due to the system of own resources of the Union claimed at the member states.

In the current financial perspective the Czech Republic participates in the budget own resources with approximately 1.22% and it would asked to contribute such share of total amount outstanding to the EU budget in case of insolvency of the debtor countries.<sup>36</sup> It can also be assumed that the country in difficulty in this case will not be able to contribute its respective share and this will thus be divided among other

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<sup>30</sup> Regulation 407/2010 from 11 May 2010.

<sup>31</sup> Article 122 of the Treaty.

<sup>32</sup> Only Ireland and Portugal have been assisted from this mechanism.

<sup>33</sup> Council decision 17211/10 for Ireland and 9776/11 for Portugal.

<sup>34</sup> 1150/2000

<sup>35</sup> 436/2007

<sup>36</sup> 1,22% of 60 billion EUR maximum, which gives around 18 billion CZK.

member states, i.e. all other contribution will increase slightly, including the Czech one.

In connection with the act on budgetary rules<sup>37</sup>, which states that "the Czech Republic provides state guarantees, only if provided by a special law", it is necessary to emphasize that from the acts in question - to support Ireland and Portugal - it is explicitly evident that the guarantor is the EU budget, not the Czech Republic.

The relevant Acts also show that individual decisions to grant assistance from EFSM mobilize resources of the EU budget only up to the amount, which the member states, including the Czech Republic, through their parliaments had previously committed to respect, i.e. committed to provide if needed for policy purposes stemming from the EU decision<sup>38</sup> on the system of own resources. The Czech Republic can be requested "only" to replenish funds to the EU budget up to the level, which was committed before the EU accession and after ratified within the revision of the decision<sup>39</sup> by the Parliament<sup>40</sup>. This was the condition of the approval of decision on the own resources system in accordance with the constitutional provisions of member states.<sup>41</sup> Thus, the Parliament in this matter has already decided.

The participation in financial assistance from the EFSM does not have the form of state guarantee under the act on budgetary rules, but the form of own resources replenishment arising from the EU budget decision<sup>42</sup> on the system resources.

The fulfilment of the promise has no direct impact on the state budget. In the event of debtor state default vis-à-vis the EFSM and the European Commission's request to provide funds, it would undergo the same way as if the Czech Republic made the annual contributions to the EU budget. These contributions are item of the budget chapter General Cash Administration (GCA).

## Conclusions

Given the above described developments in the Czech Republic's preparations for adopting the euro, fiscal problems in the euro area and unstable conditions on financial markets, striving to adopt the euro at present does not seem to be the optimal policy. At the same time further expansion of the scope of our commitment to adopt a

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<sup>37</sup> 218/2000, 27 June 2000, § 73.

<sup>38</sup> 436/2007

<sup>39</sup> 436/2007.

<sup>40</sup> Required ratification of this decision in accordance with constitutional rules was approved by the Parliament by supplementing § 11a into the act 218/2000 by endorsing the act 26/2008.

<sup>41</sup> Requested by article 311 of the Treaty.

<sup>42</sup> 436/2007.

common currency in the future is under the way. It is thus first necessary to complete the consolidation of public finances, to ensure their sustainability and support the stabilization of the situation on financial markets. We can therefore expect that the Czech Republic in the observed period will not seek to set a date for euro entry, or to join the ERM II exchange rate regime. However convergence to the economic performance of Western Europe remains the long-term goal.

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## Appendix

### State debt – Development and Structure, 2005-2011

	2005	2006	2007	2008	2009	2010	2011
<b>STATE DEBT IN TOTAL</b>	<b>691,2</b>	<b>802,5</b>	<b>892,3</b>	<b>999,8</b>	<b>1 178,2</b>	<b>1 344,1</b>	<b>1 499,4</b>
<b>Domestic Debt</b>	<b>581,8</b>	<b>680,9</b>	<b>769,3</b>	<b>814,3</b>	<b>926,7</b>	<b>1 036,3</b>	<b>1 182,2</b>
Treasury bills	94,2	89,6	82,2	78,7	88,2	113,3	162,6
Savings government bonds	0,0	0,0	0,0	0,0	0,0	0,0	20,4
Treasury bonds	487,5	588,9	687,1	735,6	838,5	923,0	999,1
Other sources	0,0	2,4	0,0	0,0	0,0	0,0	0,0
<b>Foreign Debt</b>	<b>109,4</b>	<b>121,6</b>	<b>123,0</b>	<b>185,5</b>	<b>251,5</b>	<b>307,8</b>	<b>317,2</b>
Foreign bonds issues	78,9	84,1	83,7	137,9	193,0	240,3	245,7
Loans from EIB	29,7	36,7	38,7	46,8	57,9	67,2	71,3
Promissory notes	0,8	0,8	0,6	0,8	0,6	0,3	0,1

*Source: Ministry of Finance*

# BRAND POSITIONING AS AN ELEMENT SETTING DIRECTIONS AND CREATING SYNERGIES IN MARKETING MIX

Květa OLŠANOVÁ<sup>1</sup>

**Abstract:** Brands are viewed as one of the most valued intangible assets the company has. Brand positioning is one of the tools brand managers use to coordinate the effort of marketing department with other parts of the firm influencing brand performance. This paper describes the process of creating brand positioning statement. It outlines how proper positioning influences the elements of the marketing mix using examples of successful global brands.

**Keywords:** brands, brand positioning, global brands, marketing mix.

**JEL classification:** M30, M31, M37.

## Introduction

This article is focused on explaining the role of brand positioning in brand building viewed from the angle of day-to-day practice at multinational FMCG companies and is primarily expected to serve as a useful source of information for educational purposes as well as for practitioners who are responsible for companies' brand marketing.

Brand positioning is a straightforward tool for formulation of what is actually differentiating the brand in the minds of the consumers. There are several rules that need to be followed for each of the building element of the positioning statement in order to maximize the effect of the brand positioning process. The positioning statement needs to be written with respect to the competitive environment the brand operates and competes. The point of difference capturing brand's uniqueness should be based on the brand promise from the benefits hierarchy described as „Benefit Ladder“, supported by relevant reason why from the lower level of the ladder. The brand positioning elements are then projected to all elements of the marketing mix in order to maximize its impact on brand performance.

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Global brands ranked at the top of the most valued world's brands put a lot of efforts in development of the right positioning, keeping it up-to-date and consistent across all brand's activities. The costs of leaving the positioning signature in the mind of their consumers in relatively short period are hardly calculable and are supportable just by the biggest TNC's. What local smaller companies can and should do is to become familiar with the brand positioning principles and ensure continuous consistent building of their brand footprint regardless of the lower disposable investments. Penetration of the brand positioning statement vertically across the organization as well as to different parts of the marketing mix pays back in consistent brand image and increased brand value.

### **The Need for Brand Positioning**

The word „positioning” was first used by Ries and Trout in 1969 in an article in *Industrial Marketing* (Keegan & Schlegelmilch, 1999, p. 378) describing a strategy for 'staking out turf' or 'filling a slot' in the mind of target customers. There are several strategies suggested for positioning products or services: positioning by attribute or benefit, quality/price, use/application, use/user and two for global products high-tech/high touch. This article is focused at explanation of the role of brand positioning of successful brands viewed from different angles of marketing mix and secondarily at explaining a pragmatic route for developing brand positioning.

Product and service strategies are being affected by the increased globalization – of consumer tastes, communications, technological advances and the concentration of business activity. In this context contemporary brand positioning should be perceived as synergy tool that is used by successful transnational corporations (TNC's) as well as by smaller companies in order to maximize the benefits from the brand building process. Consistent positioning significantly contributes to cumulative brand value. Globalization changes approach to many aspects of companies and brands existence. Positioning is one of the few exemptions where globalization enhances its role in building brand assets. “Brand positioning sets the direction of marketing activities and programs – what the brand should and should not do with its marketing.” (Keller & Lehmann, *Brands and Branding: Research Findings and Future Priorities*, 2006)

Brand value as currently measured by Interbrands<sup>2</sup> is composed of (i) the financial performance of the branded products or services, (ii) the role of brand in the purchase decision process which means the position of demand for a branded product or service that exceeds what the demand would be for the same product or service if it were unbranded and (iii) brand strength measuring the ability of the brand to secure the

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<sup>2</sup> [www.interbrands.com](http://www.interbrands.com)

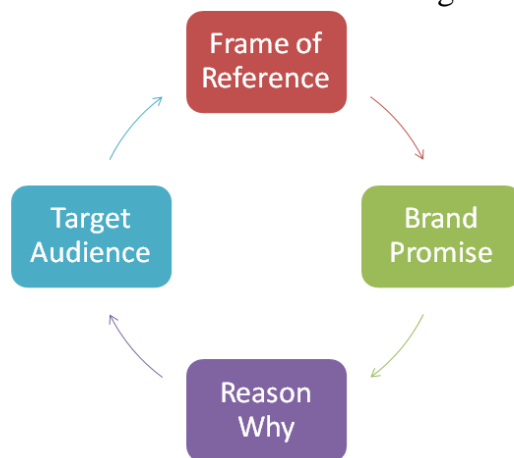
delivery of expected future earnings. North American brands are ranked among top 100 with 50 brands in total value of USD 797.8 Billion, followed by Germany with ten brands in cumulative value of USD 108.4 Bio. Every year there are some changes in the top brands - in 2010 Mexican brand Corona joined the top, in 2011 it was Taiwan telecommunication brand HTC. Top brands are led by Coca-Cola, IBM, Microsoft, Google, GE, McDonald's, Intel, Apple, Disney and HP.

The most significant increase in brand value in 2011 was reported for Apple, Amazon and Google. All the top risers demonstrate an importance of the added value in services and individuality of the needs they serve. All of them dispose with clear positioning consistent over an extended period of time. Originality, uniqueness and personal relations with the consumer needs are differentiators of the top valued brands. The differentiation is based on fragments of brand positioning and contributes to its value because one of the value components is the difference between demand for the product with and without branding. In this context branding stands for added value sourced from consistent and long-term execution of the branding strategy in line with its positioning.

### How to write a positioning statement?

Brand positioning is, in a simple way, what the product stands for and how it differs from existing and potential competition by designing an identity which clarifies the value of the product. „Selecting an appropriate positioning can make the difference between success and failure. It determines what the organization tells the market about the product, whom it tells and how it tells it“. (Trott, 2012, p. 392)

Figure 1 The Elements of Brand Positioning Statement

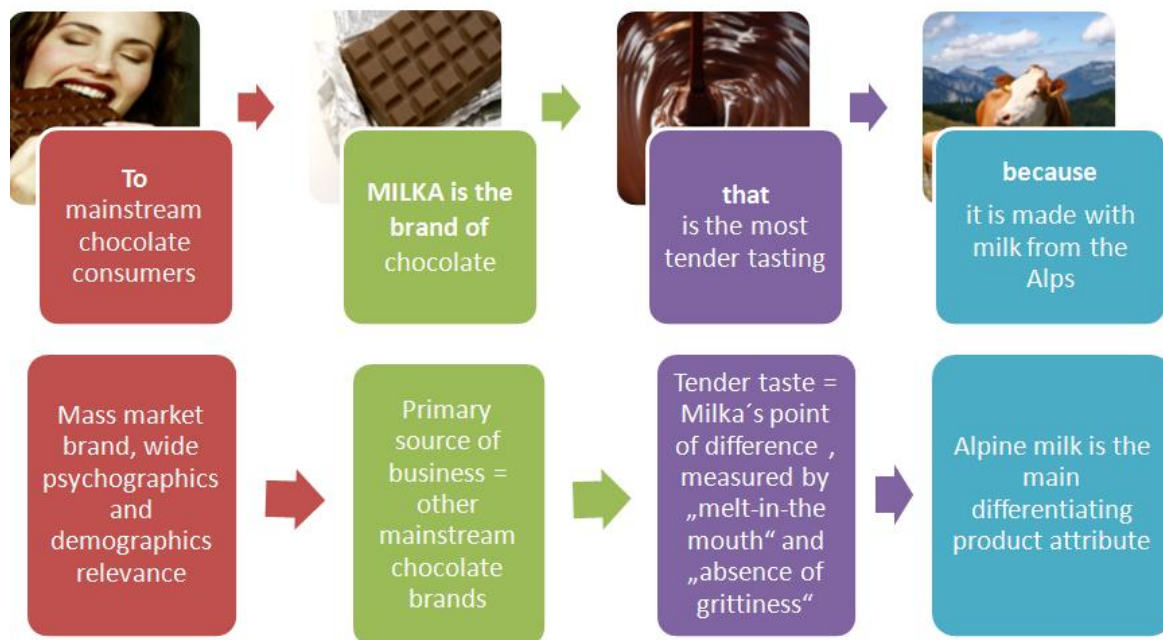


Source: Own drawing based on (Tybout & Calkins, 2005, p. 12).

For writing positioning statement the classic brand positioning model (Keller, Sternthal, & Tybout, Three Questions You Need to Ask About Your Brand, 2002) is used focusing on how to guide integrated marketing to maximize competitive advantage. Brand positioning statement is formulated via this template (see also Figure 1): „To .....(Target Audience).....brand X.....is the brand of.....(Frame of Reference).....that.....(Brand Promise,).....because .....(Reason Why).“

Figure 2 illustrates brand positioning statement of Milka brand based on chocolate tenderness resulting from the Alpine milk as key product differentiator and its point of difference.

Figure 2 Milka Brand Positioning Statement



Source: Own drawing.

### Frame of Reference

Brand positioning starts with establishing a frame of reference (FoR). FoR captures the largest set of substitutes for the brand where we can still capture a meaningful point of difference. In other words - the FoR describes what is the brand's realistic source of business. It is important to ensure that the selected FoR is (i) broad enough to allow for growth potential, (ii) is consistent with how consumers instinctively think and feel about the brand, (iii) reflects the question - who will be competitors in this FoR and how will



they respond and (iv) would be acceptable by the trade partners. „Choosing the proper frame is important because it dictates the types of associations that will function as points of parity and points of difference“ (Keller, Sternthal, & Tybout, Three Questions You Need to Ask About Your Brand, 2002).

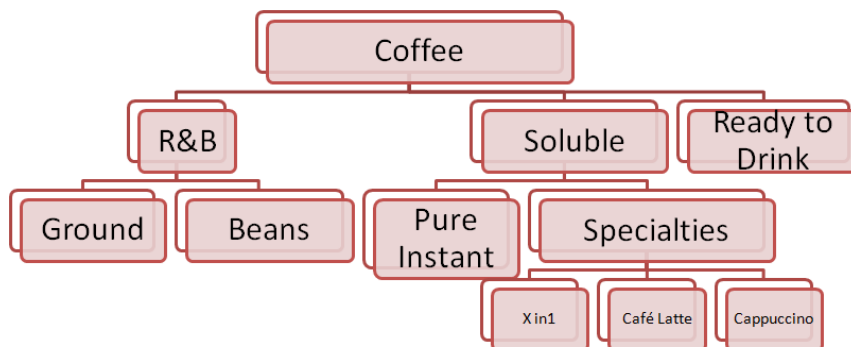
One variable that strongly influences the frame of reference is stage of the brand in product life cycle. New entrants to the market tend to select the most obvious category where the strongest competitors operate. As the brand gets more matured it may face new opportunities (or potential threats) in extending the FoR – instant soups’ FoR, for example, could be extended to „ready-to-made“ food like frozen pizza or quick lunch boxes.

Figure 3 Frame of Reference



Source: Own drawing.

Figure 4 Frame of Reference II



Source: Own drawing.

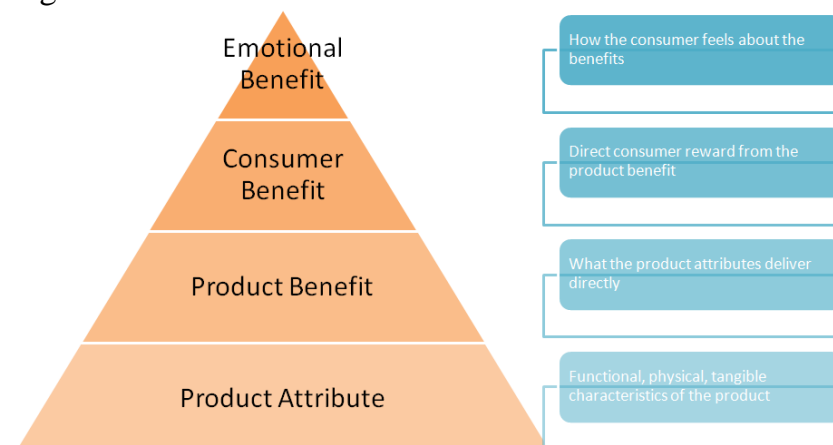
When searching the best frame for a new coffee brand with the main differentiator described as „the most stimulating effect“ the frame of reference could be any coffee or extended to coffee and tea or going further to any stimulating beverage or even further to any thirst quenching beverage, as illustrated on Figure 3. Figure 4 provides more detailed view to coffee category. Frame of reference for pure soluble coffee brand Nescafé Espresso, as an example, would not cover just pure soluble coffee. It is extended to the whole coffee category where the product benefit, e.g. espresso taste in an instant, is relevant for its target audience.

## Brand Promise

Brand promise is the key differentiator of the brand because only the perception of superiority or difference drives the preference in consumer choice. „Competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value.“ (Porter, Harvard Business Review’s must reads on strategy, 2011, p. 8)

Brand promise is created based on the set of benefits delivered by the brand and appealing to the consumers. This is the most challenging exercise of the brand positioning development. Deep analyses of the brand benefits and construction of benefit ladder precedes the brand promise definition (see Figure 5 for benefit ladder composition). After that is successfully done it should be decided which of the benefits is the most appealing and relevant to his target audience as a brand promise. The benefit at one step lower level of the ladder usually serves as reason to believe (or reason why) in brand positioning statement.

Figure 5 Benefit Ladder

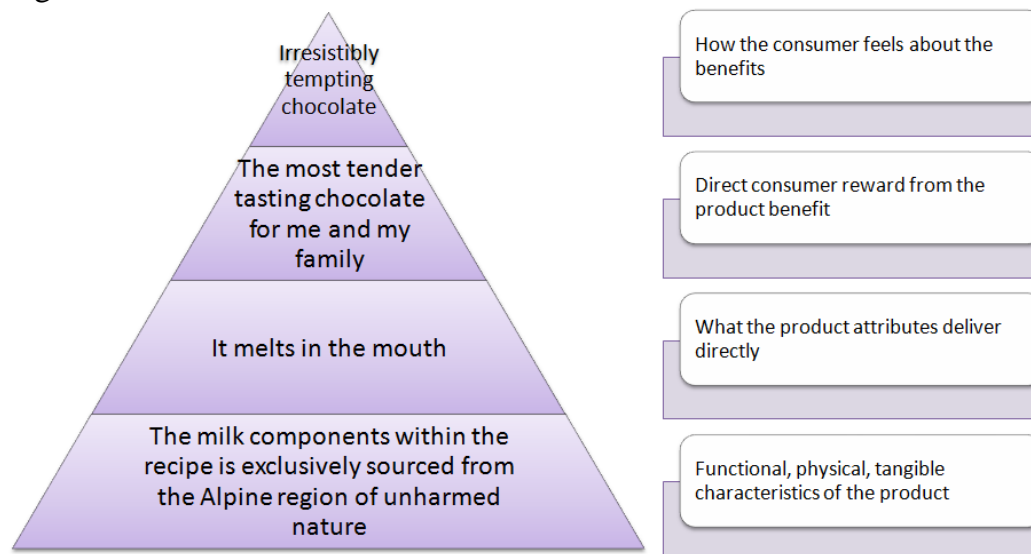


Source: own drawing.

The process of finding truly differentiating brand benefits is very complex. In practice it often includes testing via at least qualitative methods like focus groups or in-depth interviews with sample of TA because a mistake at this stage affects brand performance for longer period and takes a lot of effort to re-position it. Very often companies use studies combining quantitative data with qualitative image data resulting in diagrams called brand or perceptual maps showing the locations of each product against the attributes and relative to the preferred level. (Trott, 2012, p. 391).

The benefit ladder supporting brand positioning statement of Milka chocolate brand (shown in Figure 2) is drafted in Figure 6.

Figure 6 Milka Benefit Ladder



Source: own drawing.

According to M. Porter the positioning emerges from three distinct sources, which are not mutually exclusive and often overlap (Porter, Harvard Business Review's must reads on strategy, 2011, pp. 11, 12, 13):

- (i) Positioning can be based on producing a subset of an industry's products or services , e.g. *variety-based positioning*. A variety-based positioning can serve a wide array of customers but for most it will meet only a subset of their needs.
- (ii) *Needs-based positioning* arising when there are groups of customers with different needs and when a tailored set of activities can serve those needs best. A critical element of needs-based positioning is that the best set of activities to satisfy

different needs also differs. It ignores or meets only partially the more idiosyncratic needs of particular customer groups.

- (iii) *Access-based positioning* – segments customers who are accessible in different ways. Although their needs are similar to those of other customers, the best configuration of activities to reach them is different. Access is function of customer geography or customer scale – or of anything that requires different set of activities to reach customers in the best way.

„Positioning is always a function of difference on the demand, or customer, side.“ (Porter, Harvard Business Review’s must reads on strategy, 2011, p. 16). Point of difference must be single-minded, unique, compelling and believable (Milka – the most tender tasting chocolate). POD should be tested against those four attributes prior to finalization of the CDS.

### **Reason Why**

Reason why is a rational behind the brand promise. This is typically the benefit from the lower part of the benefit ladder than the brand promise. The measurement for believability of the brand positioning itself is usually the relation between brand promise and reason to believe which should be consequent. The brand promise connected with reason why is the key differentiator known as point of difference.

### **Target Audience (TA)**

TA must be a real group of consumers, the largest segment that can be concisely described in term of its interest in our point of difference (pod). Target audience in brand positioning statement means the best potential consumers and should be consistent enough to be able to positively react to our pod.

It can be described either generally in terms of demographics, personality, lifestyle, psychographics or more situation specific, e.g. towards consumption of the brand, heavy/medium/light users, loyalty patterns, competitor usage or buying situation.

For global brands the definition of its target audience is challenging in terms of level of adaptation and is often subject to discussion. The multicultural strategy „think global, act local“ often deals with different segments and TA characteristics. When McDonald’s enters developing market with lower disposable income it is perceived as luxury family dinner (vs. mainstream fast food in the U.S). The point of difference is consistent but the targeting must reflect perception of the premium. Similarly Kronung in Germany has always been targeted to mainstream coffee consumer while Czech, Slovak, Polish and other CEE markets targeted premium coffee users.

Recent study conducted by E. D. Nijssen and S.P.Douglas (Nijssen & Douglas, 2011, p. 128) recommends that marketing managers include measures of world-mindedness and ethnocentrism in segmentation and advertising studies because cultural influences are increasingly significant in consumer perception and choice decisions. This study proved that local consumer culture positioning does not appeal to world-minded consumers or to consumers with mixed orientations while it appeals to consumers with ethnocentric attitudes who are likely to reject a foreign or global positioning. In this case the emphasis on product quality and authenticity might mitigate this attitude. Viewed from the perspective of the brand positioning statement this requires proper segmentation of the consumers before selecting the target audience and going down on benefit ladder in case the company decides to sell globally positioned and perceived brands to ethnocentric audience. The rationality of the brand promise from lower parts of the ladder should be strong enough for fulfilling consumer needs without stressing its global or foreign positioning.

### **Creating Synergies in Marketing Mix**

„The main role of the brand positioning is: (i) better identification of the product which allows consumer to better find the product on highly competitive shelf and (ii) differentiation as it allows emphasizing the competitive difference“ (Machková, 2009, p. 98). The role of the brand positioning is spread over to different parts of a firm as a direction setter.

The establishment and maintenance of a consistent product positioning for a brand and its pervasiveness across all elements of the marketing mix is an essential component of marketing success. As it creates and communicates a sustainable competitive advantage based on perceived superiority and differentiates the brand from competitors significantly and desirably so that the consumers perceive a clear choice and develop repeated preferences. „Everything matters and the competitive advantage comes from the way the company’s activities fit and reinforce one another“ (Porter, Harvard Business Review’s must reads on strategy, 2011, p. 21) . If one of the elements of the mix neglects brand positioning it results in pointless devaluation of the potential added value.

The final product of the positioning process, e.g. the final positioning statement should be therefore well readable from all parts of the marketing mix in order to achieve consistency across the whole brand foundation and therefore utilize synergies:

### **Product policy – consumer needs and wants**

The objective of the product policy is to develop a product in line with the target audience’s consumer needs and wants. Consumer’s expectations are delivered through 3

basic dimensions of the product: (i) essential product characteristics (physical properties, chemical composition, performance, taste, size..), (ii) product services (guarantees, service, consultancy, transportation service, financing, payment and delivery methods, insurance) and symbolic values (country of origin image, corporate image, style, ..) (Machková, 2009, p. 121). Those values and attributes are typically part of the benefit ladder which serves as bases for development of the brand promise in positioning statement.

To give a straightforward example of a synergy between positioning and product policy I will use packaging as it turns out as one of the most important part of the product policy in nowadays life of FMCG brands at multinational key accounts. “In a typical supermarket which offers 15 to 17 thousands SKU’s, typical customer passes 300 products per minute and 53% of purchases are made impulsively.” (Kotler, Wong, Saunders, & Armstrong, 2007, p. 629). Packaging is one of the key purchase drivers at the point of sale.

Milka is an example of fulfilling consumer needs and wants consistently with its brand positioning. The core Milka business is chocolate tablets. However significantly more profitable are its extensions to desserts, seasonal or biscuits. Product “I Love Milka” is Milka’ subbrand with separate brand positioning statement. The main difference compared to tablets positioning illustrated in Figure 2 is in fulfilling gifting consumer needs while the key differentiators remain the same. The statement is: “To small gift buyers, I LOVE MILKA is the brand of chocolate pralines that is the most tender tasting small gift because it is made with Milka chocolate in a heart shape“ Different shape meeting the expectation of the consumer buying a small gift is differentiating the product while it keeps the core product benefits and attributes of Alpine milk and tender taste.

### **Pricing policy – cost to the consumer**

This fundament is a real challenge for the companies to follow especially with countries with highly developed retail sector in terms of presence of multinational key accounts. In the Czech Republic in 2010 almost 40%<sup>3</sup> of the sales value was sold through promotion and the trend seems to continue. There are some categories where consumers expect promotion and wait with purchase until some of the multinational key accounts offer the best price. The top categories in terms of value sold through promotions are: panty diapers (63,6%), shower gels (59,9%) and soft drinks (54,3%)<sup>4</sup>. Coffee category in this

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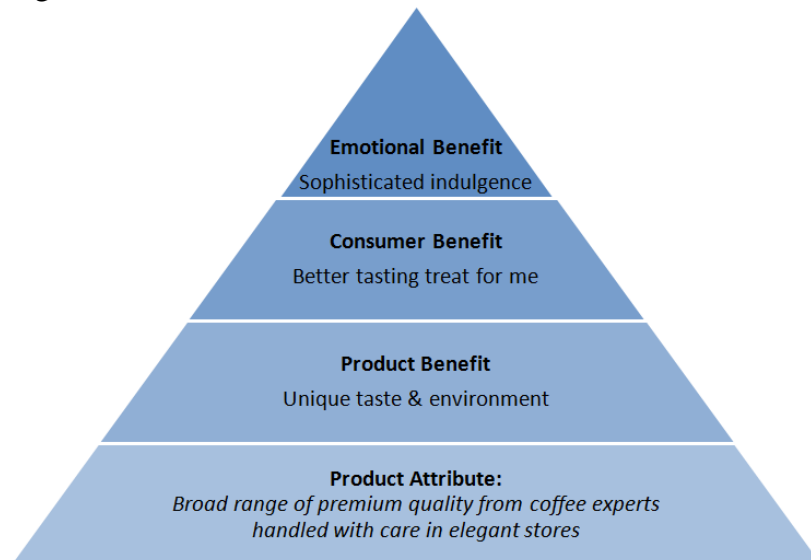
<sup>3</sup> Scantrack, Food and Drug audited categories, KAI HM SM Scan, MAT ending June2010, Nielsen

<sup>4</sup> Scantrack, Food and Drug audited categories, KAI HM SM Scan, MAT ending June2010, Nielsen

respect ranks in the middle of the range, e.g. almost 50% of its sales value was sold in promotions. In many FMCG categories this trend contributes to squeezing of the premium segment in favor of mainstream & value brands.

A good example of positioning consistency in pricing is Starbucks coffee. Their added value has always been outside of „value for money“ concept and they are very strict on following their pricing strategies across different segments and markets. Currently they have more than 16 thousand coffee shops around the globe where they sell coffee at significant price premium compared to local roast&ground coffee leaders in retail as well as compared to their peer restaurant chains. Their claim „Perfect Cup of Coffee“ embraces Starbucks' positioning and its consumer benefits from the ladder and express brand promise from the benefit ladder visualized at Figure 7, e.g. consumer benefit („Better tasting treat for me“) supported by product benefit as a strategic reason why („Unique Taste & Environment“).

Figure 7 Starbucks Benefit Ladder



*Source: own draft.*

Starbucks was facing financial and development challenges at the end of the last decade which overcame and continues its expansion to Asia/Pacific (2011/12 China, India) as well as Europe (February 2012 Oslo), America (2011/12 Costa Rica). This year Starbucks

was amongst the top risers in BrandZ™ Top 100 Most Valuable Global Brands<sup>5</sup> as it grew by 43% vs. 2011 to USD 17,072 Mio ranked 42 in top 100.

### **Distribution policy – convenience**

Distribution policy has often its roots in brand positioning through frame of reference, which captures the largest set of substitutes or the realistic source of business where the brand could still capture a meaningful point of difference. The frame is supposed to be widely acceptable by the consumers as well as by the trade partners.

Kraft Foods' brand of powdered beverage Tang was launched to Czech and Slovak markets at the beginning of '00. The product is powder beverage with different fruit flavors, tasting as natural fruit juice. Consumer research showed that the category of powder beverages (PD) has some negative connotations due to presence of the artificial ingredients as known from the „past socialistic regime“ brand „Vitacit“. Moreover, the category of powder beverages itself was too small to be considered as frame of reference due to small source of business potential. Therefore the potential set of substitutes, e.g. the frame included both syrups and juices and it was then reflected in trade strategy. At the beginning Kraft focused on juices. A couple of years after Tang launch the juices category overspent Tang in media expenditures and its market shares started to decrease. Moreover the gain&loss analyses proved that the syrups and powdered beverages are substitutes. Kraft's trade policy reflected the shift in its planograms through placing Tang to syrups category.

Starbuck's distribution policy is about bringing convenience to consumers in different parts of the world. Convenience is the differentiating attribute. Recently they have opened a new shop in Amsterdam with innovative approach to design. They emphasized the Dutch tradition in design and atmosphere of the coffee house but they kept on being very consistent with their positioning. Engaging local environmental designer Liz Muller and connecting design with Dutch history brought the concept and positioning of the brand closer to its consumers.

### **Communication policy**

Communication is the most natural and the most visible outcome of the brand positioning as the brand positioning statement is an integral part of the copy development strategy

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<sup>5</sup> [http://www.millwardbrown.com/BrandZ/Top\\_100\\_Global\\_Brands/Top\\_Risers.aspx](http://www.millwardbrown.com/BrandZ/Top_100_Global_Brands/Top_Risers.aspx), May 22, 2012



serving as part of the brief to the advertising agency. Agency team should firstly think broadly about the advertising or branding idea based on the brand positioning. Once it is obvious that the idea is strong, broad and convicting enough to bring the brand promise to the minds of the consumers the creative department can develop different executions dramatizing the idea using a language and visuals well understandable by the brand's target audience. The success factor of the good branding idea is the campaignability and ability to express the idea through different communication channels.

## **Conclusion**

Brand positioning is usually written as part of the copy development process and serves as a briefing tool to the advertising agencies. Therefore it is most typically perceived is one of the tools brand managers have for ensuring consistency across the integrated marketing communication of the brand. This article was primarily focused on emphasizing its extended role as coordinating element to different parts of the marketing mix. Several examples were used for demonstrating successful penetration of the positioning to product, distribution, pricing and communication policies. Theoretically there are no obstacles for doing so, in practice successful examples are not so common. Disregarding it should be perceived as missed opportunity for both the organization and the brand itself caused by lack of basic marketing intelligence across the company.

Additionally the article introduced simple instructions for the actual development of the brand positioning statement including the hierarchy of benefits visualized through the benefit ladder.

Consistent approach and respect to brand positioning brings significant added value through setting clear directions for anyone in the organization and creating synergies in marketing mix.

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# THE EVOLUTION OF HEALTHCARE MANAGERS' ROLE: A COMPARISON FRANCE/UNITED KINGDOM

Sophie RANDON<sup>1</sup>

**Abstract:** *Nursing shortage is a worldwide problem throughout countries and job satisfaction is recognized to be related with staff retention. In France, the last hospital reforms are changing the healthcare managers' role which have an important role on nurses' job satisfaction. The aim of this study is to investigate the consequences of the evolution of healthcare managers' role. This study shows that the evolution of healthcare managers' role can be dangerous toward their relation with the staff and suggests some future research on the influence of nurse managers' backgrounds on the style of leadership and on nurses' job satisfaction.*

**Keywords:** Healthcare managers' role, job satisfaction, nurses, international comparison.

Nursing shortage is a worldwide problem throughout countries (Hayes & al., 2010; Lu & al., 2005). More than 70% of expense of NHS concern human resources. Therefore the optimal use of workforces is a key problem. Job satisfaction is recognized to be related with turnover rate, staff retention and intention to leave in particular in the international nursing literature (Hayes & al., 2010; Lu & al., 2005; Caers & al., 2008 ; Van Saane, 2003 ; Irvine & Evans, 1995 ; Blegen, 1993 ; Coomber & Barriball, 2007)). Several researchers noticed that "job satisfaction is a critical challenge for healthcare organization" (Zangaro, et al., 2007 p. 445) because labor costs are high and shortages are widespread in this sector. According to Adams & Bond (2000, p. 537), "the United Kingdom (UK) government's White Paper *Working Together* (Health, 1999) is the first national policy document to lay down specific requirements for the development of a range of human resource management (HRM) policies within the NHS". To modernized health service, the NHS Plan consider workforce planning and effective approaches to recruitment, retention and motivation of nurses as key elements (Coomber, et al., 2007). One of the important facet of HRM is nurses' job satisfaction. In France nurses' job satisfaction is a major concern too for healthcare organizations as illustrate it the "Manuel de certification des établissements de santé" of the Haute Autorité de Santé (HAS) which consider to measure staff's job

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satisfaction. Thus, nurses' job satisfaction is considered as an important concern for the different authorities.

Some authors notice the importance of the healthcare managers' role in the improvement of nurses' job satisfaction (Hayes & al., 2010; Adams & Bond, 2000). Adams & Bond (2000) advocate that NHS managers create conditions to facilitate intra-professional team-work amongst nurses and inter-professional teamwork with medical colleagues. According to Hayes et al. (2010, p.812), "these managers are highly influential in establishing and maintaining positive working relationships, appropriate workloads, ensuring sufficient support from allied health staff, improving nurse-physician relationships, improving on-the-job orientation, supporting paid continuing education and the general harmony of the [...] ward environment". Moreover, healthcare managers could improve nurses' job satisfaction but they could also influence this phenomenon. Indeed, the literature shows that communication with supervisor (Lu, et al., 2005), supervisor support (Lu, et al., 2005) or team-building skills of ward leader (Adams, et al., 2000) are predictors of nurse job satisfaction. Zangaro & Soecken (2007) advice for future researchers to test the hypothesis with the manager leadership style as a variable that mediates the relationship between some predictors of job satisfaction like autonomy and job satisfaction. In France, the last hospital reforms and the new technologies are changing the healthcare managers' role. The implementation of new management systems has lead to more and more predictors of tensions, contradictions and paradoxes (Le "tournant gestionnaire" des établissements de santé et son impact sur la santé au travail : le cas d'un centre de soins de suite malade de "gestionniste", 2009). We are witnessing a new governance of the institutions with increased procedures which disrupts the role of the healthcare managers. Kirkpatrick and al. (2011: 501) notice that it is useful for future research to engage a comparative analysis, "looking both at systems where the opportunities for clinical professions to successfully contest the jurisdiction of management have been lower (the UK, for instance) or even higher". The aim of this study is to explore the consequences of the evolution of healthcare managers' role from a nursing role to a management role. The case of UK represents "an early starter in the drive to strengthen management in health services" (Kirkpatrick, et al., 2011 p. 491). That's why this study focuses on healthcare managers' role in the United Kingdom and compares it with the evolution of healthcare managers' role in France with the aims to highlight the dangers and the strong points of this evolution, in particular on nurses' job satisfaction.

## **Background**

### **The evolution of healthcare managers' role in France**

In France, Chantal de Singly (2009) considers the missions of hospital managers as composed of 4 different scope of activities: team building and organization management, transverse mission or project responsibilities, expertise and training.

She notices also the stronger and stronger importance of the healthcare managers in quality management with the central role of management in the certification of establishments. Coulon (2010) notices that the notion of quality of care has changed, nowadays healthcare manager must understand quality of care from a nursing professional point of view as well as from a manager point of view. She emphasizes the importance for hospital managers to have more span of control to obtain a real ability to decide. In French hospitals, to become healthcare manager, people need to have a minimum of length of service to cross the competitive examination. In addition they must have qualifications from universities or, more often, from specialized professional schools. However the author notices that the trainings for healthcare managers are not adapted to the task of the future managers and she proposes to standardize trainings intended for healthcare managers. Furthermore she proposes to develop lifelong learning for healthcare managers who are already working. That's why, France is thinking about the development of systematic management training for the healthcare managers (Yahiel, et al., 2010).

Chantal de Singly (2009) distinguishes different kind of managers: managers with direct team responsibilities, managers with indirect team responsibilities, but also, expert managers and training managers, who are in charge of the procedures, budget management or technical solutions. The last hospital reforms in France increase the place of procedures which lead to think that the number of managers will decrease. Indeed, the author noticed that a more structured and standardized work decrease the number of managers in industry for instance, each people managing themselves.

Literature on nurses' job satisfaction shows the importance of communication with the supervisor (Blegen, 1993) and feed-back (Irvine, et al., 1995). yet, intermediate managers deal more with downward communication than communication towards Direction (Le "tournant gestionnaire" des établissements de santé et son impact sur la santé au travail : le cas d'un centre de soins de suite malade de "gestionnaire", 2009). Moreover, healthcare managers realize an invisible work while in hospitals it is acts which are valued (De Singly, 2009; Detchessahar & Grevin, 2009). Detchessahar & Grevin (2009) emphasize the first negative consequences about the evolution of the role of the healthcare managers in France with the rise of their administrative/management role and their absence more and more important toward teams and nursing work. These have consequences on communication as it doesn't

allow discussion about the activity and their contradictions, the lack of supervisor support and the absence of managerial role. Nursing staff denounce the evolutions of the position of healthcare managers who from a position of “nursing managers” have become today “administrative/management managers”. These observations are worrisome towards the literature about nurses’ job satisfaction which notices the importance of communication with supervisors (Blegen, 1993), supervisory relationship and leadership (Irvine, et al., 1995) on nurses’ job satisfaction. In return, the development of a management policy allows the establishments to have more resources and leeway.

### **The role of healthcare manager in the United-Kingdom**

There are different kinds of managers within NHS: *General Managers* who “organize the delivery of healthcare to everyone who needs it”, *Estates and facilities Managers* who “manage buildings, support services and other environments where healthcare is delivered”, *Practice Managers* who “manage the overall running of GP surgeries”, *Information Managers* who “use information and IT to make help ?, monitor performance and set priorities”, *Financial Managers* who “manage budgets and decide on resource allocation”, *Clinical Managers* who “manage the delivery of clinical care and treatment and *Human Resources or Personnel Managers* who “provide career management, training and support for staff”<sup>2</sup>. This study focuses on General Managers, Practice Managers and Clinical Managers.

The evolution of healthcare managers ‘role in UK comes with the creation of a ‘performance culture’ which become important in the role of the manager (Bolton, 2005). Now in UK, “senior nurses are not only asked to do their best for patients but also to achieve this within financial controls” (Bolton, 2005 p. 6) in particular for ward and clinical nurse managers. Bolton (2005) emphasizes that “some aspects of the management role are welcomed” by senior nurses but “the same nurses also show a critical appreciation that beyond the vision of nurses as empowered managers are tight budgetary controls and performance measures and targets” (Bolton, 2005 p. 6).

After having seen the role of healthcare managers in France and in UK, this study will compare these two roles thanks to a qualitative method described below.

### **Methods**

Data of this study were collected as part of qualitative study composed by semi-structured interviews realized next to nurses and healthcare managers who work in non-profit establishments in France and in UK in 2011. Much of the qualitative data presented here were drawn from informal conversations where nurses and healthcare managers talked openly about the role of healthcare managers and from analysis of

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<sup>2</sup> <http://www.nhscareers.nhs.uk/> consulted on 19<sup>th</sup>, July 2011.

different documents like official reports and articles. Data were been analyzed with a manual thematic analysis.

*Sample for semi-structured interviews:* In UK, the sample of this study (n=8; 3 nurses, 3 healthcare managers, 1 doctor, 1 medical director) is composed by heterogeneous kind of healthcare managers and healthcare professionals (nurse managers, line manager, professional leadership, doctors, nurses) in different establishments of primary care (GP surgery, Mental health center) with the aim of having different points of view about the role of healthcare managers in UK. The French sample (n= 8; 4 nurses, 3 healthcare managers and 1 senior healthcare manager) is also composed by different kind of healthcare professionals in one private non-profit healthcare establishment and one public hospital.

## **Results**

The results from the analysis of the interviews next to healthcare professionals in France and in United Kingdom can be decomposed in different themes which studied below.

### **The importance of the quality**

In France and in UK, the part of quality is more and more important in the healthcare managers' missions and it has consequences on nurses' work, in particular with an increase of administrative task in nursing jobs.

The analysis of the interviews realized in UK shows the importance of quality in the missions of healthcare managers.

*Quality is another important aspect in my role. To insure a quality of patient care. The quality of safety of patient.* (UK Healthcare manager -CUK)

*It's important, financially and clinically to the patient, to make sure our target* (UK Healthcare manager – CUK)

In France, the report of Chantal de Singly (2009) about the evolution of hospital managers emphasize that the quality become very important in the mission of hospital managers with the central role of management in the certification of establishment. In the interviews of this study, this observation is confirmed.

*We are, as a senior manager, in charge of the quality of care* [French] (French senior healthcare manager-AFR)

Some managers have the feeling that this importance of quality is a constraint for nurses.

*I believe that there are many more administrative constraints, of traceability and that it is, I believe in a lot of job* [French] (French healthcare manager-AFR)

*The traceability, we are ok but at the moments we spend more time filing in papers than looking after patients. I caricature maybe little but... [French] (French healthcare manager-AFR)*

### **The influence of managers' background**

Healthcare managers' background in France is a nursing background contrary to in UK where there are also healthcare managers with non-clinical background. These two kinds of background are questioned. In France, it is management training which is judged like inappropriate to make a good managers and in UK, it is the part too important of management in the healthcare manager profile which is source of dissatisfaction of nurses.

In UK, healthcare managers mustn't have a specific background. Generally, nurses think that their manager is far of the nursing work and they don't know the real constraints of their job and their nursing problems.

*Sometimes my manager says "no, we can't do that." Which is fine if...if they give you a reason why. But most of the time, they don't. You know, people who have no clinical expertise and tell you "no, you can't do that." So that's frustrating (UK nurse – CUK)*

In contrast, some people think that a nursing background isn't efficient to be a manager.

*In National Health Services, a lot of the management [...], the background is the nursing [...]. The question is how much managerial skills they have, that's the question. (UK medical director – AUK)*

In France, healthcare managers must have a nursing background and a specific training generally provided by professional schools. This background of healthcare managers is also questioned as illustrated by the report of Chantal de Singly (2009) and the report of Yahiel and Mounier (2010). A common training from university should be set up according to Yahiel and Mounier (2010). This training would be focused on the health management.

### **An office taken away**

In France and in UK, healthcare managers begin to be less and less present in the wards either because their offices are moved next to Direction departments or because they are always in meeting.

In one of the GP surgery studied in this study in UK, the office of the healthcare manager is not in the same floor as the nursing team. No English nurses in this study complain about the removal of their manager but this observation shows the physical but also mental separation between healthcare managers and the nursing work.



In their case study, Detchessahar & Grevin (2009) noticed that the nurse managers' office has been moved in the same floor than Direction this shows the physical but also mental separation between healthcare managers and nursing work. In France, healthcare managers begin to be more and more absent from their office when their office is on the ward. Nurses complain that their healthcare manager is never present in the ward and is always in meeting.

*Because me, now, I am... I am on the field but I'm not in the same... I can't talk about level... I'm not in the same... in the same context [French] (French healthcare senior manager – AFR)*

Generally, the direct supervisors stay close to their teams but it is not the same thing with the hierarchy above.

*There is no recognition at all from the high hierarchy, even of our skills... [...] However in the ward, there is no problem of recognition. Well, maybe because of my experience ... [French] (French nurse – BFR)*

### **The leadership style**

The different style of leadership between French and UK healthcare managers can be explained by the difference of healthcare managers' background. Indeed, in the UK a nursing background isn't required to be a healthcare manager while in France it is compulsory for healthcare managers to have a nursing background.

The interviews in UK give these results.

*I include my staff in the majority of decisions but [...] for decisions about service positions, security decisions or financial decisions [...] when we need to make a quick decisions [...] and sometimes it is not appropriate to include the staff (UK healthcare manager – BUK)*

*We have an action plan. And everyone's names are in the action plan [...] I have to do management meetings. It is a face-to-face meeting as a group sharing action plans and supporting each other. [...] Initially, there were some resistances [...] but I think because they know there is no choice. As an organization we have to do these targets and we can't go away [...] so they do their best. (UK healthcare manager – CUK)*

The interviews show that most of French healthcare managers use a participative leadership while most of healthcare managers in UK are more directives.

*What I do personally is a participative management, me I am very rarely directive I need to be pushed to be directive [French] (French healthcare manager – AFR)*

*It is the team who...who intervenes ... who puts close the name and it is my way of making, of working with the schedule anyway [...] But no, no... I... I let them just*

*the autonomy, the autonomy I protect it [...] Yes, yes... it is necessary to be participative. Yes, yes, that works very well like that [French] (French healthcare manager – CFR)*

### **Implication towards nurses' job satisfaction**

Contrary to UK with the annual NHS staff survey, in France there is no national staff survey on nurses' job satisfaction. But healthcare managers make actions to improve job satisfaction of their staff and have thinking on the subject to reduce turnover and absenteeism in spite of the fact that healthcare managers don't have official targets about this contrary to UK healthcare managers.

In UK, the implication on healthcare managers on nurses' job satisfaction is not homogenous inside the profession. Some managers tell that they have the feeling to be implicated in their staff job satisfaction. They feel to have a role to improve job satisfaction.

*As a professional leader, it is my responsibility to ensure that the result of the survey we take improves, we do an annual survey on the trust staff well-being [...] my role is to make any... any problem to come out ...(UK Healthcare - CUK)*

Other managers don't have the feeling of having the power to improve this. They think that they can't change things.

In France, for the moment, there is not national staff survey on job satisfaction but a study about it is being made. It calls CLARTE and it plans an indicator about job satisfaction which will be followed every year or every two years.

Therefore, French healthcare managers are not particularly implicated in the following and in the improvement on nurses' job satisfaction. Except that, they do different actions to facilitate the life of their staff not to improve the job satisfaction rate but just to make nurses happy to go working and to reduce turnover.

*If a nurse asks me not to work one day in particular, I am going to make everything so that she can [French] (French healthcare manager – AFR)*

*We feel that we have to work in depth this aspect, because the society evolves because ... because people ... young people who arrive on the labor market, they have maybe also things to say, [...]... maybe we need to adapt another organization [...] [French] (Senior healthcare manager – AFR)*

*We also need to work to facilitate the nurse the work-life with childcare center, accommodations, things like that... [French] (Senior healthcare manager – AFR)*

But nurses' job constraints don't allow a total satisfaction of nurses.

*I am not completely satisfied every day, I think that we could do better [French] (French nurse – CFR)*

## Focus on the budget

Although budget constraints are more and more present in France, nurses don't feel the budget management from their managers like a constraint of their job in contrast to UK. In UK, many nurses complain about the budget constraints. In France, nurses feel indirect effects of the management budget but not direct effects. This difference can be explained by the performance culture which developed by healthcare managers in UK and which is not as developed in France. Once again, this difference of mind can be the consequences of healthcare managers' background.

According to interviews, managing the budget is the main role of healthcare managers in the UK. It is the major point which comes out from the interviews.

*We need to, we need to make a profit [...] we need to stain profits so...we manage to do that.* (UK Healthcare manager- AUK)

*My role, I think, it's just to listen to everybody complaints, and trying to keep everybody happy and working... efficiently* (UK Healthcare manager - AUK)

*We have to be quite professional, I think... It is a business, I think.* (UK Healthcare manager - AUK)

The importance of budget management in healthcare managers 'mission is one of the origin of UK nurses' job dissatisfaction. They understand the importance of managing the budget but they don't see it as being the main mission of a healthcare manager and a healthcare system in general. Most of UK nurses declare that one of the main constraints of their job is the financial constraint.

[About the importance too big of the budget in the role of healthcare manager by the nurses]

*It is a common complaint. The staff that I manage often accuses me of the same thing... I think because as clinical manager, you are often close to opposition [...] we have a budget, we have to provide service in that budget.* (UK Healthcare manager – CUK)

*Main constraints of my job are finances as they are limited.* (UK nurse – CUK)

## Discussion

The small size of the samples of this study (in UK, n=8 and in France, n=8) doesn't allow generalizing its results. And yet, this study allows a best comprehension of the evolution of healthcare managers' role in France and allows a comparison between healthcare managers from two countries which have some common points but also a lot of differences. It highlights the dangers of the evolution of healthcare managers' role from a nursing role to a management role thanks to a comparison between two countries.

Table 1 Description of the healthcare systems in UK and in France

	<i>United Kingdom</i>	<i>France</i>
<b>Different kind of establishments</b>	There are three kinds of health care organisations, the NHS (public), private companies (such as BUPA or Nuffield), and charities/voluntary organizations.	Three kinds of healthcare establishments can be distinguished: public establishments, private non-profit establishments and private profit establishments.
<b>Delegation towards nursing professionals</b>	With the intention to control healthcare expenses, UK has created the function of “nurse practioners” which substitute for junior doctors who are more expensive.	The HPST laws allow that some medical practices are delegated to nurses but, for the moment, just one protocol of cooperation between healthcare professionals has been signed and it is too early to study these new nurses.
<b>Financial system</b>	The NHS is a public healthcare system financed mainly by tax (82% of budget). The private insurance covers only a low part of the population. It is a “Beveridge” system with a national healthcare system.	The access to the coverage of the care by the Social Security is connected to the professional activity but there are a lot of exceptions. The system is manly finance by contributions. It is a Bismark system.

It is not easy to compare UK nurses and French nurses. First of all, the two samples are composed by nurses and nurse managers who work in different kind of establishment and in particular for the UK sample, some interviews have been made with nurses and healthcare managers who work in GP surgery. This kind of establishment doesn't exist in France. These different kinds of establishments don't have the same organization and don't work in the same way. Moreover, the role of “nurse practioners” doesn't exist in France although the HPST law allows the possibility to delegate some tasks from medical professionals to nursing professionals. The first protocol of cooperation between healthcare professionals in France signed on July 13<sup>th</sup>, 2011. This protocol allows nurses to practice some oncologic medical acts in place of medical oncologists. We are witnessing the appearance of a new form of professionals nursing in France. But in this study, none of these new nursing professional have been interviewed in contrast with UK. To finish, UK healthcare system and French healthcare system are two very different systems with different financial system which are not easy to compare. Despite the differences between these two healthcare systems, the study shows that the evolution of healthcare managers' role in the two countries has the same negative consequences in France and in UK towards nurses' job satisfaction in particular with a removal of healthcare managers of

nursing teams and nursing works. The two healthcare systems are described in the table below.

Despite the results found by this study which make thinking that English nurses suffer of a lack of support from their managers, the last results from the annual NHS staff survey shows that 62% of NHS staff in UK are satisfied from the support they received from colleagues and from their immediate manager, it is a little better than in 2009 with 61%. However ambulance staff are generally less satisfied, with less than half (48%) satisfied with support received from their immediate manager. The results of NHS staff survey contradict the results of this study. This contradiction can be the result of the fact that the sample of the national NHS staff survey is composed by all NHS staff and not only by population of nurses. Moreover, nurses interviewed here work in a little structure like GP surgery or little health centers. The establishments studied by the NHS staff survey are bigger than those studied here.

To finish, a useful starting point here would be to engage a longitudinal research about the evolution of healthcare managers' role, looking at the evolution of nurses' job satisfaction with the evolution of this role.

## **Conclusion**

This study shows that the evolution of healthcare managers' role can be dangerous toward their relation with the staff. In UK, although the last NHS staff survey indicates that more of half the staff is satisfied with the support they received from their immediate manager, the analyze of the interviews show that this results can be brought some reservations. Indeed, in the interviews, most of nurses complain about the lack of support of their managers. The evolution of healthcare managers' role takes managers away from their teams. This observation is valid in UK but also in France, although the situation is not as critical in France as in UK. Indeed, in this study, French nurses don't complain a lot about the lack of support from their manager and don't have the feeling that they are taking away from their teams. But some French nurses and some French healthcare managers begin to find that healthcare managers are too often absent from the ward and are too often in meetings.

The focus on budget is a real problem for nurses in UK and in particular, for their job satisfaction. Healthcare managers are confronted to multiple roles as described by Bolton (2005) who writes "*senior nurses do not switch themselves on and off as either nurses or managers, but glide from one performance to another, sometimes sincere, sometimes cynical, but at all times an element of self is present [...]*In other words, whilst acknowledging the 'minor traffic rules' required for their management role (Goffman, 1967), the nurses also follow the traffic rules involved in other roles they must enact – traffic rules which guide them and inform them in the presentation of self" (Bolton, 2005 p. 20). In France also, healthcare managers is taken between two

logic systems, market logic and hospital care logic (Le cadre de santé entre logiques d'utilité et logiques de soins hospitaliers, 2010). These multiple roles have consequences on the style of leadership used by the manager and on a nurses' job satisfaction. This point would be developed in a future research.

One finding of this study is the importance of the health care manager background for nurses and for the relationship between healthcare managers and their teams. Finally, the results of this study is an useful starting point to engage a future research about the influence of healthcare managers' background on nurses' job satisfaction and on style of leadership.

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# FACTORS INFLUENCING THE LEVEL OF COMMITMENT ON FOREIGN MARKETS OF SMALL AND MEDIUM-SIZED FIRMS

Noémie DOMINGUEZ<sup>1</sup>

**Abstract:** *International entry modes decision is of major importance, especially in the case of small and medium-sized organisations, as it may considerably impact firms' performance (Lu & Beamish, 2001). If they used to be seen as fragile firms suffering from environmental changes, constraint in their internationalisation by their lack of resources, the growing part of SMEs using massively high-commitment entry modes abroad call for new observations and analysis. Through the analysis of 15 articles taken from the international business field, this literature review aims to highlight the main drivers and inhibitors explaining SMEs' choice of an equity-based vs. non-equity based mode.*

**Keywords:** entry mode choice, equity mode, SMEs.

## Introduction

International entry modes constitute the third most researched field in the international business literature (Werner, 2002). This renewed interest can be explained by the strategic importance of the decision and its potential impact on firms' survival and performance. Accounting for more than 95% of the firms and 70% of employment in the world (OECD, 2012), small and medium-sized enterprises (SMEs) are considered to be of strategic importance for both emerging and mature economies, as they are vector of sustainable economic growth on the long run. However, despite this importance, they suffered from scant interest. Entry mode decisions have mainly been analysed from the point of view of large, mature westerners firms, and small firms received far less interest. Even if their characteristics dramatically differ, can theories of large firms be applied to SMEs? The question deserves to be asked, and, on this point, the literature remains unclear. Furthermore, as suggested by Nakos and Brouthers (2002, p. 58), "*the majority of international entrepreneurship studies have examined the decision to internationalise, and not the reasons that SMEs select a particular mode of entry*". We propose to analyse the factors impacting the degree of resources commitment on foreign markets through a literature review. We will focus on the identification of the main internal and external drivers and inhibitors of SMEs' decision to use equity-based over non-equity modes of entry. This article is structured as follow. First, we will get attached to define the concepts of entry modes and small and medium-sized enterprises. Then, the presentation of the

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methodology will be followed by an examination of the main theoretical streams used by academic to study the international entry mode selection and highlight the main internal and external determinants.

## **Conceptual framework**

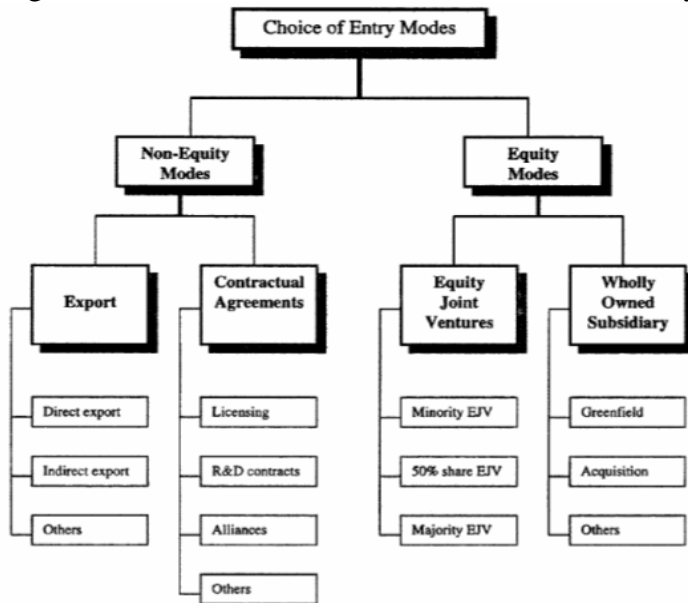
The literature related to the life, activities and characteristics of SMEs has been dramatically growing over the last three decades. If they have traditionally been seen as small fragile companies highly dependent towards MNEs, scholars now agree that this vision is too simplistic and reducer. Academics often pointed out the critical impact of both internal and external factors in SMEs' expansion strategies, due to the characteristics of those firms: resource constraints, risk avoidance and resource commitment under uncertainty (Erramilli & D'Souza, 1993), dependence, lack of international experience and internal control mechanisms to manage foreign operations (Brouthers & Nakos, 2004), higher exposure to environmental and behavioural risks, critical size, risks and uncertainty avoidance (Oviatt & McDougall, 1994) etc. Nonetheless, the emergence of new types of ventures and behaviours towards international markets compelled researchers to claim for a renewal in the analysis of SMEs' internationalisation processes.

## **Entry mode choice**

International entry mode choice can be considered as a major strategic decision, as it may significantly impact firms' performance (Lu & Beamish, 2001). Sharma and Erramilli (2004, p. 2) summed up various definitions available in the international business (IB) literature, and conclude that an entry mode is *“a structural arrangement that allows a firm to implement its product market strategy in a host country either by carrying out only the marketing operations (i.e., via export modes), or both production and marketing operations there by itself or in partnership with others (contractual modes, joint ventures, wholly owned operations)”*.

The analyse of entry modes by Pan and Tse (2000) reveals that those choices can be viewed as a dichotomous decision between equity and non-equity modes, based on the degree of financial and human resources available for the firm's internationalisation as well as the level of control, risks and expected profit returns. According to them, *“entry modes can be viewed as two major categories of equity-based modes (wholly owned operations and equity joint ventures) and non-equity-based modes (contractual agreements and exports)”* (Pan & Tse, 2000, p. 537). They argue that equity mode provides the higher rates of control and returns but increases the exposure to risks as it requires major commitment of resources. On the contrary, non-equity mode will limit the firm's exposure to risks by minimising its involvement abroad, but the control of foreign activities and returns will be rather low. Therefore, entry mode selection can be seen as a micro-level decision depending on the amount of resources the firm is ready to commit for a certain level of risk. Figure 1 presents the hierarchical classification suggested by Pan and Tse (2000).

Figure 1 The hierarchical model of choice of entry modes



Source: Pan & Tse (2000, p. 538)

Exporting is the less resource-intensive mode of entry in which the firm sells goods domestically produced to overseas clients, either directly to the final customer (direct export) or through intermediaries (indirect export). This strategy allows the SME expand its markets and remain flexible without establishing any foreign subsidiaries, but involves potential difficulties to customise products, high transport and tariffs costs, few control and returns.

Contractual agreements refer to contracts in which one or more party (competitors or not) agrees to share its expertise and technological knowledge with another in return for financial compensations for a given time. They include licensing, R&D contracts and alliances.

Joint-ventures are used to enter into a foreign market by joining with foreign firms to produce or sell a product or services abroad (Kotler & Armstrong, 1994). Firms agree to share both commitment, operational control, risks and returns to benefit from partner's knowledge or access to foreign markets with legal restrictions on foreign ownership. They, however, have to assume the risk of opportunistic behaviour and share their technological advantage with partners.

Wholly-owned subsidiaries, the most resource-intensive mode of entry, refer to structures where a parent company owns at least 95% of the subsidiary stock. The firm can either set up a completely new structure (greenfield investment) or acquire an established foreign firm in the target country (acquisition). This strategy allows the parent firm to exert full control over its strategic assets, avoid the risk of dissemination of the proprietary know-how and realise economies of scale. However, it is the most costly way of servicing foreign market, and contains several risks. Firms using acquisition strategy may have to face with important

organisational cultural chocks when firms setting up a new subsidiary may have to face with difficulties to adapt to their new environment. For the the purpose of this study, we will focus only on equity modes of entry, ie. equity joint ventures (JV) and wholly-owned subsidiaries (WOS). The foreign entry strategy then appears to be a hierarchical and firm-specific decision driven either by firm-specific, industry-specific and country-specific factors.

### **A growing interest in the internationalisation process of small firms**

The internationalisation process of the firm has mainly been explained observing large, mature western corporations and extending the results to the whole business world. Since then, we can argue that this generalisation potentially hides the existence, weight and influence of a set of variables - eg. firm characteristics or sectorial particularities - on the behaviour of small firms. In deed, as shown by Laghzaoui (2009), geographical expansion of small firms appears to be a complex, multiform and heterogeneous process, leading SMEs to act quite differently on their markets due to the particularities existing among those firms in terms of activities (manufacturing vs. services), size (micro vs. small vs. medium), ownership structure (family owned vs. partnership, independence vs. affiliates), resources and competencies (tangibles and intangibles) or experience. Nakos and Brouthers (2002) highlighted the absence of consensus in the IB literature relative to the relevance of theories of large firm entry mode choice for SMEs. If scholars like Erramilli and D'Souza (1993) or Laghzaoui (2009) assert that, as SMEs differ from their larger competitors, their entry mode choice may also differ, academics like Ripollés et al. (2011) suggest the contrary, arguing that SMEs often manage to by-pass difficulties ensuing from to their characteristics to go global - a smaller size can, for example, enable them to be more flexible, reactive and operate on lucrative niche markets. Since it is quite unclear whether classical theories and constructs developed through large corporations can be applied to SMEs, and in order to have a better understanding of the main drivers of SMEs commitment in foreign markets, we propose to review what are the main factors influencing the selection of equity modes of entry in the specific context of small organisations.

### **Methodology**

In order to provide a review of the various factors influencing the choice of an equity-mode of entry by SMEs, we started by listing the main key words and synonymous for “SME” and “equity modes” available in the literature, in both French and English languages. Using the EBSCO database, 25 articles linking relevantly those concepts and published between 1992 and 2012 were isolated. Only empirical researches published in reviews listed in the latest CNRS/AERES classification were taken into consideration. In accordance with those criteria, we reduced the sample to 15 empirical works. Each article has been analysed separately to collect information concerning:

1. the purpose of the research
2. the main theories mobilised

3. hypothesis or propositions formulated
4. explaining factors taken into account
5. measures and sample characteristics (size, sector of activity, geographic location, data collection methods)
6. independent, dependant and control variables considered
7. tests performed and main results

It is interesting to notice that, even if the interest for SMEs is increasing for more than 30 years, “*there is [still] no generally accepted definition of a small and medium-sized firm*” (Lu and Beamish, 2001, p. 571). The Anglo-Saxon entrepreneurship literature generally relies on the definition provided by the American Small Business Administration (SMEs are autonomous enterprises with fewer than 500 employees), when the European researchers tend to retain the definition provided by the European Union (enterprises under 250 employees and 50 million € annual turnover). The table 1 bellow illustrates the great diversity of samples, geographical and industrial scope available in the literature. The plurality of terms used to qualify SMEs (start-ups, international new ventures, micro-multinationals) traduces the existence of differences among small firms in terms of strategy, age, speed and paths of internationalisation. Oviatt and McDougall (1994, p.49) define an international new venture (INV) as a “*business organisation that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries*”. Theses start-ups differ dramatically from traditional SMEs by their proactive international strategies, observable through a significant commitment of resources (tangible and intangibles) in more than one nation, from their creation. According to Dimitratos et al. (2004), the specificity of micro-Multinationals (mMNEs) lies in their tendency to adopt more advanced market servicing modes to control and manage value-adding activities across international markets. In other words, if INVs and mMNEs tend to internationalise widely and without following any gradualist approach, they differ in terms of ownership requirements: contrary to INVs, mMNEs feel concerned about assets ownership and will commit higher resources to foreign market in order to gain more control.

This table brings out the apparent predominance of European firms (11 Europeans, 2 US and 1 Taiwanese) belonging to ICT and high-tech industries (especially software) in the analysis of small firms’ expansion strategies. Some of those studies are focusing only on one geographic area (eg. Japan) or sector (eg. ICT) when others are considering activities or international markets as a whole. If scholars used to pay more attention to American manufacturing firms in the past, the tendency has been dragging onto services firms, natives from developed economies with small domestic markets, like Finland. The apparent heterogeneity in the delimitation of SMEs’ boundaries however raises matters of comparison and generalisation of the results, leading us to analyse with particular attention the findings of those studies.

Table 1 Empirical studies on SMEs' choice of equity entry-mode

<b>Authors</b>	<b>Sample characteristics</b>	<b>SMEs' criteria of definition</b>
Agarwal & Ramaswami (1992)	285 entries (13 exportations, 91 joint-ventures, 64 sole ventures, 91 "no involvement") made by 97 US leasing firms in the UK, Brazil and Japan	Total sales volume
Erramilli & D'Souza (1993)	54 small and 87 large US service firms engaged in international operations in the advertising, computer services, engineering and architecture, management consulting, hospitals, accounting services, hotels, restaurants and banking sectors.	Sales revenue by sector, in accordance with the classification of the US Small Business Administration
Brouthers, Brouthers & Werner (1996)	106 market entries made by US computer software SMEs operating in foreign markets (58% using independent modes, 25% through cooperation and 17% through independent modes)	Worldwide sales
Burgel & Murray (2000)	547 market entries (227 via distributors, 199 via export, 60 via agents, 27 sales JV, 15 wholly-owned sales subsidiaries, 9 licences and 10 other forms) made by 246 British High-tech Start-ups between 1987-1996	Number of employees (at least 3) and years of existence (under 10 year)
Nakos & Brouthers (2002)	139 entries made by 133 Greek services and manufacturing SMEs involved in 13 countries in Central and Eastern Europe	Number of employees (less than 500)
Kuo & Li (2003)	665 Taiwanese industrial SMEs having invested abroad between 1989-1996	Number of employees and capital (under 200 employees and 60M \$NT)
Brouthers & Nakos (2004)	419 Dutch and 450 Greek industrial SMEs involved in 14 countries in Central and Eastern Europe, including Bulgaria, Albania, Russia, Poland, Romania, Czech Republic and Ukraine.	Number of employees (less than 500)
Ibeh, Johnson, Dimitratos & Slow (2004)	204 Scottish manufacturing and services micro-multinationals expanding abroad via overseas offices (42,6%), foreign subsidiaries (29,9%), overseas manufacturing (22,5%), international licensing (21,3%) and international franchising (4,9%) between 1999-2000	Number of employees (less than 240)
Ojala A. & Tyrvaenen P. (2006)	8 Finnish software firms having their headquarters in Finland and operating in the Japanese market	Number of employees (less than 500)
De Clerq & Bosma (2008)	106 nascent and 243 existing Belgian and Dutch firms planning to (or having already) enter foreign markets	Nascent: in the process of being set up, not yet operational Existing: operational for more than 3 months

Saarenketo, Puumalainen, Kyläheiko & Kuivalainen (2008)	366 Finnish SMEs providing value-added services in the ICT sector (content providers and software providers for service-platform and management systems)	Number of employees (less than 500)
Ripollés & Blesa (2011)	135 Spanish INVs involved in international activities since their inception	Age (under 7 years old) Export rate (>25% of the annual sales) Independence (not a subsidiary or affiliate)
Ripollés, Blesa & Monferrer (2011)	135 Spanish INVs involved in international activities since their inception	Age (under 7 years old) Export rate (>25% of the annual sales) Independence (not a subsidiary or affiliate)
Schwens, Eiche & Kabst (2011)	227 German SMEs internationally actives	Number of employees (less than 500)
Musso & Francioni (2012)	221 Italian manufacturing SMEs belonging to the industrial districts of Marche and internationally proactive	Number of employees (6 to 250)

As we previously said, the IB literature is unclear concerning the relevance of classical theories to explain the choice of equity modes of entry in the case of SMEs. Their resources and competencies scarcity, lack of international experience and risk avoidance should theoretically lead them to opt for low-commitment entry modes (export, contractual agreements). However, as shown in the last World Investment Report published by the UNCTAD (2011), SMEs investing abroad in a growing phenomenon that needs to be taken into account. From then on, a deeper analysis is required in order to highlight the main factors influencing the decision to invest abroad.

## **Factors influencing the entry mode selection in the literature**

### **Main theoretical streams**

Researches on SMEs' entry mode selection essentially rely on five traditional and two new theoretical streams: the internationalisation theory, transaction-costs theory, eclectic paradigm, resource-based view, knowledge-based view, FDI theory and institutional theory.

The *internationalisation theory* was used in 6 of the retained articles. This construct posits that entry to foreign markets is a stepwise process, beginning with psychically close countries to more distant ones. Geographic expansion is made of four phases of gradual commitments and risk exposure (no regular exports, regular exports through agents, sales through subsidiaries, and overseas production), in which experiential learning and confidence are two of the key variables. Knowledge is an incremental process increasing firm's confidence and allowing a progression through the steps and markets.

The *transaction costs theory (TCT)* appears in 4 entry mode studies. This approach focuses on the predominant role of control and risks on the selection of a particular entry mode. As shown by Anderson and Gatignon (1986, p.3), “*entry mode choice are viewed as a tradeoff between control and the cost of resource commitments, often under conditions of considerable risk and uncertainty*”. Firms are supposed to choose between the modes based on how efficient a structure will be in comparison with an alternative one, ie. balancing the advantage of integration with the additional costs of control. (Brouthers & Nakos, 2004).

Table 2 Purpose of the researches and main theories mobilised

Authors	Purpose of the research	Theories
Agarwal & Ramaswami (1992)	Examine the independent and joint influences of ownership, locational and internalisation factors on the choice of an entry mode	Eclectic theory
Erramilli & D’Souza (1993)	Examine the selection of foreign markets and FDI modes by small service firms and compare it to those made by large firms	Resource-based view
Brouthers, Brouthers & Werner (1996)	Extend the relationship between Dunning’s OLI framework and entry-mode selection in the case of high-tech SMEs	Eclectic theory
Burgel O. & Murray (2000)	Analyse various mode of entry to understand the primary reasons guiding those choices in the case of high-tech start-ups	Transaction costs theory Internationalisation theory
Nakos & Brouthers (2002)	Determine if Dunning’s OLI paradigm can be used to explain SMEs entry mode selection	Eclectic theory
Kuo & Li (2003)	Examine the factors motivating SMEs to go and invest abroad (FDI)	FDI theory Eclectic theory
Brouthers & Nakos (2004)	Test the relevance of the transaction costs theory to explain the international expansion of SMEs	Transaction costs theory
Ibeh, Johnson, Dimitratos & Slow (2004)	Analyse mMNES’ behaviours concerning the choice of entry mode, sectoral distribution, foreign market selection and targeting decisions	Internationalisation theory FDI theory
Ojala & Tyrvaïnen (2006)	Explore the impact of the business model on SMEs’ entry mode choice in the case of software firms	Transaction costs theory Internationalisation theory
De Clercq & Bosma (2008)	Outline the factors related to firm’s decision to go global and those favouring the choice of high-commitment vs. low-investment entry mode.	Theory of planned behaviour Internationalisation theory
Saarenketo, Puimalainen, Kyläheiko & Kuivalainen (2008)	Explore the internationalisation of ICT SMEs and the influence of knowledge determinants on the choice of entry mode and market concentration/diversification.	Knowledge-based view Internationalisation theory
Ripollés & Blesa (2011)	Examine the influence of marketing capabilities on the decision of INVs to use high-commitment entry modes in international markets	Resource-based view
Ripollés, Blesa & Monferrer (2011)	Explore the role of international market orientation as a motivator of the decision to opt for high resource commitment entry mode in the case of INVs	Resource-based view Internationalisation theory Transaction costs theory
Schwens, Eiche & Kabst (2011)	Investigate the role of informal institutional distance and formal institutional risk of the host country as moderators on the SME entry mode choice	Institutional theory

Musso & Francioni (2012)	Examine the internationalisation of SMEs in regard to the international market selection and entry mode selection processes	Resource-based view
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The *eclectic paradigm* was utilised 4 times in our sample. This theoretical framework aims to explain the selection of entry modes under the influence of three determinant factors: ownership, location and internalisation advantages. Ownership advantages refer to the firm-specific resources (or capabilities) allowing the firm to gain a competitive advantage. Location advantages partially dictate the commitment of resource and need of control, as they are closely linked to the host market's growth potential and environmental stability. Internalisation advantages refer to the concern to reduce both coordination and transaction costs. The interaction of those three factors will indicate the most efficient strategy to enter a new market.

The *resource-based view (RVB)* was used 4 times. The logic behind this theory is that, to gain a sustainable competitive advantage, firms must have valuable, rare, non-substitutable, inimitable resources and capabilities, and demonstrate the ability to combine them to fully exploit their potential. Companies will tend to commit higher level of resources when their competitive advantage is associated with capabilities valuable to customers, highly tacit, hardly codifiable or transferable without running the risk to loose capabilities' value (Ripollés & Blesa, 2011).

The *foreign direct investment (FDI) theory* relies on Hymer's theory of imperfect markets. According to him, market imperfections create spaces exploited by firms (particularly those possessing intangible assets) through FDI to gain competitive advantages. Two articles of our sample refer to this theory.

The most recent approaches, the *institutional theory* and *knowledge-based view*, were both used in one article only. The institutional approach aims to analyse the impact of the institutional context, defined by particular local embedded rules, norms and values on social actors' behaviours and strategies, as it may indeed dramatically challenge firms' entry mode choice. The knowledge-based view refers to the ability of individuals from a particular organisation to share knowledge in order to gain a competitive advantage. The action of sharing and accessing to new knowledge is seen as a major determinant to enhance firm's capabilities and performance. The originality of those streams resides on their use of theories from other fields of research - like sociology or anthropology - to get new vision on the phenomenon and, then, get a wider explanation of international commitment.

In our sample, 7 of 15 articles are analysing the entry mode choice patterning two or three theories. This is line with the findings of Canabal and White III (2008) and Laghzaoui (2009, p. 53), arguing that "*SMEs' internationalisation process, known for its nature multiform (Leonidou et al., 2002), even idiosyncratic, cannot be correctly explained through a unique theoretical stream. However, once combined together, the different approaches offer a relatively complete understanding of the phenomenon*". Essentially built during the



70's analysing large, mature westerners multinationals, those theoretical constructs do not manage to fully explain the behaviour of small firms, but give an interesting first insight of what are the main influencing factors. In deed, the relative eclectic set of theories used to analyse SMEs' entry mode choice reflects the great variety of micro and macro determinants influencing the firm: control, risk, resources, returns, learning, institutions and market conditions indeed appear to be key variables to those analyses. To deeper our comprehension of the reasons why SMEs may prefer a hierarchical structure rather than a market one, we need to identify both internal and external factors affecting the selection of an equity mode of entry.

### **Internal factors influencing the choice of an equity-mode of entry**

A review of the firm-specific factors identified in the IB literature highlights the preeminent roles of size, multinational experience, product differentiation, innovation, entrepreneurial and organisational characteristics on the choice of a hierarchical mode.

#### ***Size and multinational experience***

Small sized has mainly been measured through sales volume and/or number of employees, and multinational experience through the number of years the firm has been doing business abroad or number of countries the firm has been operating on. Observing the foreign entry strategies of US leasing firms in the UK, Brazil and Japan, Agarwal and Ramaswami (1992) concluded that size and multinational experience act as a barrier for small firms. Equity modes - joint ventures and sole ventures - are essentially used by large and experimented organisations as they have more resources to commit and experience to fully exploit their potential. If small and less multinational firms remain interested in expanding into high potential markets, they are constraint by their limited resources (Burgel & Murray, 2000). Erramilli and D'Souza (1993) precise that small size decreases the probability to use an equity mode as this type of entry is financially too risky for SMEs. Those findings have been partially challenged by Nakos and Brouthers (2002), Ibeh et al (2004) and Musso and Francioni (2012) that found no effect of size and/or multinational experience on the selection of an equity mode. The effect of size and multinational experience on the level of commitment is still unclear and seems to be sectorial dependant: when it was traditionally shown to exert a negative impact in the case of small service firms (Agarwal & Ramaswami, 1992; Erramilli & D'Souza, 1993; Burgel & Murray, 2000), recent finding shown that it appears to have no effect on manufacturing SMEs (Nakos & Brouthers, 2002; Ibeh et al. 2004; Musso & Francioni, 2012).

#### ***Resources, capabilities and assets specificity***

The lack of tangible and intangible resources is one of the most traditional cited characteristic of SMEs in the entrepreneurship literature, as it "*distinguishes the strategic behaviour of small firms from that of large firms*" (Erramilli & D'Souza, 1993) and may act as a barrier to entry for small organisations. Those theoretical findings are hardly supported in our samples. Ripollés et al. (2011), in line with Ibeh et al. (2004), could not identify a

direct impact of resource scarcity on the choice between equity and non-equity mode of entry, one of the reasons being that SMEs now manage to fill their lack of tangible resources using intangible, strategic and specific resources like marketing capabilities, social and/or business networks etc. *“INVs can use their social networks to obtain the resources they need to rapidly increase their activities in international markets”* (Ripollés et al.; 2011, p. 15). Researchers used to consider traditional SMEs as suffering from resource shortages, but new findings are coming to moderate the impact of this variable on the level of commitment, especially in the case of firms going global from inception (INVs). As shown by Ripollés et al. (2011, p. 12), *“the lack of tangible resources does not condition the choice of entry mode used by INVs; their choice appears to be motivated by the possession of a set of intangible resources (Gleason & Wiggenhorn, 2007), such as the development of an international market orientation”*. In other words, authors pointed out the role of age and early expansion as variables allowing the INV to by-pass its resources scarcity, and influencing the decision to invest abroad. In their study of Finnish ICT SMEs going global, Saarenketo et al. (2008) nonetheless shown that small firms requiring high asset specific-investments perceived FDI as an option financially impossible to consider. Authors claim that higher asset specificity is associated with firm making less direct investments in foreign markets and preferring inexpensive cooperative modes that legally protects their products/services abroad. Interestingly, Saarenketo et al (2008) challenge Brouthers and Nakos’ findings (2004), who observed that highly-specific assets were positively associated with the choice of an equity mode of entry. They argue that the costs of protecting know-how from competitors, and the financial losses in case of dissemination could considerably affect the performance of the organisation. The firm may in those cases be incited to internalise operations in order to gain control and protect its competitive advantage. In resonance with our findings concerning the impact of size and experience on the entry mode selection, the decision to use equity seems to be linked with the sector in which the firm operate. Service high-tech firms tend to be more sensitive than their manufacturing counterparts regarding to the role of resources and asset specificity on the level of foreign commitment.

### ***Product differentiation and innovation***

Product differentiation refers to the capacity of the firm to develop creative products, adapted to local markets or customers’ needs, and is often linked with the innovative capabilities of the firm.(measured in terms of R&D intensity or perceived technological newness). The ability to differentiate products has a positive impact on the probability to select an equity mode of entry. Nakos and Brouthers (2002) found that Greek SMEs producing differentiated products dedicated to central and eastern European markets tended to prefer equity modes to protect the proprietary nature of SMEs’ innovations. Those results are consistent with Brouthers et al (1996), Burgel and Murray (2000), Saarenketo et al. (2008) and complete the results of Erramilli and D’Souza (1993): SMEs will tend to prefer integrated modes when they have unique products or when their products / services are not

(or hardly) exportable. SMEs will then favour investment modes due to the difficulties to transfer efficiently tacit knowledge to a potential foreign partner, and due to the need to keep control over strategic knowledge assets (Schwens et al., 2011). Kuo and Li (2000) go farther in the analysis, specifying that innovative capacities increases SMEs' probability to select an equity mode due to higher amount of resources available for internationalisation. Those results challenge Agarwall and Ramaswami's findings (1992), as they did not support this positive relationship and found no direct effect of the ability to differentiate product on the choice between market and hierarchical mode of foreign entry.

### ***Entrepreneurial orientations***

Entrepreneurial orientation refers to the methods, practices and decision-making strategies used by managers to act entrepreneurially, and can be defined as *"the extent to which the firm innovates, acts proactively and takes risks. [...] Innovativeness, proactiveness and risk-taking are the main dimensions of entrepreneurial orientation"* (Ripollés et al., 2011, p.4). In this context, entrepreneurial orientations appear to be closely linked to the entrepreneur's characteristics. Observing the international commitment made by nascent and existing INVs, De Clercq and Bosma (2008) found a positive relationship between equity mode choice and entrepreneur's characteristics: the entrepreneur's positive attitude towards risks, associated with his opportunistic behaviour in international markets, facilitates the adoption of highly-involving entry modes. The founder or founder team will act proactively on foreign market by taking the wider range of opportunities that are offered to them, eg. the possibility to benefit from managers' personal/professional networks, their previous international experience etc. SMEs with strong entrepreneurial orientation are then more likely to use equity modes of entry (Ripollés et al., 2011).

The table 3 bellow resumes the main internal factors influencing positively or negatively the preference for an equity mode of entry.

Table 3 Internal factors influencing the choice of hierarchical entry modes

Authors	Factors	Influence on the choice of equity modes
Agarwal & Ramaswami (1992)	Size	Negative impact: Large and experimented firms prefer joint-venture or sole venture as they have more resources to commit and experience to fully exploit their potential.
	Multinational experience	
Erramilli & D'Souza (1993)	Ability to differentiate products	No effect on the choice between equity and non-equity
	Size	Negative impact: small size decreases the probability to realise an FDI (too risky)
	Non-exportability of SMEs' services	Positive impact: SMEs are more likely to invest abroad when their services are not (or hardly) exportable

Authors	Factors	Influence on the choice of equity modes
Brouthers, Brouthers & Werner (1996)	Ownership advantages •global maturity (size and experience) •need for product differentiation •service and technological intensity	Positive impact: SMEs tend to prefer equity modes when: - they are large and experimented - they have unique products and/or high technological intensity
Burgel & Murray (2000)	Size Newness of technology	Negative impact: start-ups are constraints by their limited resources
	Client-specific customisation International experience of managers R&D intensity Existing domestic sales mode	Positive impact due to the difficulties to transfer efficiently tacit knowledge to a potential foreign partner, the need to keep control over strategic knowledge assets, the experience developed in the domestic market and the possibility to benefit from managers' personal and professional networks.
Nakos & Brouthers (2002)	Need for product differentiation	Positive impact: SMEs having differentiated products are more likely to use equity modes
	Size	No effect on the choice between equity and non-equity
Kuo & Li (2003)	R&D intensity Size Export ratios	Positive impact: larger size, massive export ratios and innovative capacities increases SMEs' probability to select an equity mode due to higher amount of resources available for internationalisation
Brouthers & Nakos (2004)	Assets specificity Internal control systems and mechanisms	Positive impact on the probability to select an equity mode: high assets specific-investments and efficient internal control are positively associated with high-commitments.
	Nationality	Influences the choice of the mode (equity vs. non-equity)
Ibeh, Johnson, Dimitratos & Slow (2004)	Size International experience Resources	No effect on the choice between equity and non-equity
Ojala & Tyrväinen (2006)	Product strategy (client-specific customisation)	Positive impact: selling semi-standardised products increases the probability to use equity mode.
De Clercq & Bosma (2008)	Size of the management team Growth orientations Entrepreneur's characteristics	Positive impact on the probability to select an equity mode, due to the entrepreneur's positive attitude towards risks and and opportunistic behaviour in international markets, the possibility to benefit from managers' personal/professional networks and their previous international experience.
Saarenketo, Puimalainen, Kyläheiko & Kuivalainen (2008)	Knowledge appropriability (tacit)	Positive impact due to the need to protect proprietary knowledge and keep control over strategic knowledge assets
	Assets specificity	Negative impact: SMEs with higher asset specific-investments prefer non-equity modes
Ripollés & Blesa (2011)	Marketing capabilities: •networking capability •outside-in capability •spanning capability	Positive impact due to the difficulty to transfer marketing capabilities without losing value, to the need to protect the INV from the risk of appropriation associated with low commitment entry modes (indirect exports or licensing)
Ripollés, Blesa & Monferrer (2011)	Entrepreneurial orientation •innovation •pro-activeness •risk assumption	Positive impact: SMEs with strong entrepreneurial orientation are more likely to use equity modes of entry

Authors	Factors	Influence on the choice of equity modes
	Lack of resources	No effect on the level of international commitment: INVs are not constraints in their choice by their tangible resources (rely on intangible resources instead).
Schwens, Eiche & Kabst (2011)	Firm-specific factors <ul style="list-style-type: none"> <li>•International experience</li> <li>•Proprietary know-how</li> <li>•Strategic importance of an international activity</li> </ul>	Positive impact of firm-specific factors on the probability to select an equity mode, especially in case of high institutional risks and distance, and when SMEs have to face with risks of opportunistic behaviour from local partners.
Musso & Francioni (2012)	Organisational culture	Positive impact: need to maintain a competitive advantage on the long run
	Size International experience Cultural distance	No effect on the choice between equity and non-equity

### External factors influencing the choice of an equity-mode of entry

Several external factors have been identified in the literature as key determinants to explain the selection of a hierarchical mode of entry. In link with Dunning's eclectic theory, various location-specific and internalisation variables seem to affect the firm's foreign commitment: market attractiveness (market demand and investment risk), contractual risk, production factors.

#### *Market demand*

Market demand reflects the current and potential demand on a particular market, and is clearly influenced by firm's market growth expectations and perception of local competitive intensity (Nakos & Brouthers, 2002). Testing the adequation of the OLI paradigm to explain the level of SMEs' foreign commitment, Brouthers et al. (1996) claim that small organisations tend to prefer equity when entering similar markets to their home country and/or facing an important current and future local market demand. Kuo and Li (2003) and Ibeh et al (2004) both complemented this study, arguing that this positive relationship between market potential and the probability to invest abroad ensue from SMEs' needs to ensure access to lucrative markets (avoid trade barriers) on the long run and improve the speed and quality of their services abroad. Agarwal and Ramaswami (1992) assert that a high market potential increases the tendency to select high-commitment entry modes as they are expected to provide greater long-term profitability through the achievement of economies of scale (lower marginal cost of production) and / or the opportunity to establish long-term market presence. Interestingly, recent works pointed out the fact that market potential may not be a key determinant anymore. Analysing the behaviour of Italian firms operating abroad and belonging to the same industrial district, Musso and Francioni (2012) found that market attractiveness had no effect on the choice between equity and non-equity modes. Authors were able to show that the behaviour of those manufacturers were essentially influenced by their organisational culture and size of their domestic market.

### ***Investment risk***

The investment risk can be defined as the “uncertainty over the continuation of present economic and political conditions and government policies which are critical to the survival and profitability of a firm's operations in that country” (Agarwal & Ramaswami, 1992, p.4). Unstable environmental conditions have been identified as inhibitors in a firm's decision to use an investment mode. As shown by Nakos and Brouthers (2002) in the case of SMEs entering into turbulent emerging markets, legal restrictions on equity ownership and environmental uncertainties decrease the probability to use an equity mode. SMEs are consequently more likely to use non-equity modes of entry to reduce or shift risks to local organisations (Brouthers & Nakos, 2004). Identically to market demand, recent works partially invalidate this negative influence. Saarenketo et al. (2008) could not associate external uncertainty with the probability to invest abroad. They argue that, even if uncertainty generally leads to market concentration, it does not seem to be related to modes of entry in the particular case of ICT firms, as companies consider their capabilities to be generic or easily adaptable to the changing environment. Small firms are traditionally reluctant to take risks, but may accept to take some until they reach a certain “tolerance” level. In other words, SMEs may refuse to realise an FDI even if it said to be the most efficient solution, as it could dramatically increase the level of cumulative risk. Evaluating the impact of both formal institutional risk and informal institutional distance on modes of entry, Schwens et al. (2011) found a positive relationship between those elements: the higher the institutional risks and distance, the greater the probability to select a high-commitment mode of entry. In environments characterised by high formal institutional risk, SMEs with high proprietary know-how tend to internalise transactions in order to secure knowledge from expropriation. Those results show that the decision of the firm to use equity modes of entry does not only rely on the formal institutional risk of the host country, but has to be considered under the influence of two other factors: the informal institutional distance and the risk for opportunistic behaviour of local partners.

### ***Contractual risks and opportunistic behaviours***

Contractual risks are an aggregate of three different potential sources of cost, directly ensuing from Dunning's internalisation advantages. They refer to “*the relative costs of making and enforcing a contract, the risk of disseminating proprietary know-how, and the costs of controlling and monitoring product/service quality*” (Nakos & Brouthers; 2002, p.53). In this context, opportunism from local partners has a preminent role. Using the eclectic paradigm and the inter-relationship existing among the OLI factors to examine the choice of foreign market entry modes of U.S. equipment leasing firms, Agarwal and Ramaswami (1992) were able to find positive relationship between contractual risks and modes of entry: high market potential and contractual risks increase the tendency to enter using joint ventures or sole ventures. According to them, this behaviour can be explained by the fact that SMEs place premium on retaining control over valuable assets and skills. In line with those findings, Schwens et al. (2011) found that high contractual risks were

positively associated with high-commitment entry modes, as local opportunistic behaviours may increase the risks of dissemination of proprietary know-how and the costs of controlling and monitoring product/service quality. Firms may, in this case, decide to use equity modes to legitimate their authority and monitor and control their assets more effectively (Nakos & Brouthers, 2002). Saarenketo et al.(2008) however noticed that in the case of Finnish SMEs acting as software content providers, the risk of opportunistic behaviour had no effect of on the firm's decision, as high-commitments entry strategies were not financially sustainable for those SMEs.

### ***Production factors***

International expansion strategies often take its origins in the wish to reduce production costs in order to be more competitive. Observing the internationalisation of US software SMEs, Brouthers et al. (1996) concluded that production costs were positively associated with high-commitment modes of entry. SMEs are motivated to invest in emerging economies to gain the low cost production advantage and introduce technically older or more stable products in these less demanding markets when technologies are not changing too rapidly. Kuo and Li (2003) concur with those findings: lower labour costs, as well as the need to follow a major client, positively impact the choice of equity vs. non-equity, as it may reduce SMEs' risk exposure. In their study of US service firms going global, Erramilli and D'Souza (1993) demonstrated that the capital intensity of the industry had a negative impact on the selection of investment modes: high capital intensity decreases SMES's probability to realise an FDI as this strategy is perceived as being too risky. Table 4 below summarise the main external factors, identified in the articles, having an influence on the selection of a particular entry strategy.

Table 4 External factors influencing the choice of hierarchical entry modes

<b>Authors</b>	<b>Factors</b>	<b>Influence on the choice of equity modes</b>
Agarwall & Ramaswami (1992)	Market potential Contractual risks	Positive impact: a high market potential and high contractual risks increase the tendency to enter using joint ventures or sole ventures. SMEs place premium on retaining control over valuable assets and skills
	Investment risk	Negative impact: SMEs will prefer exporting modes to decrease the risk of investment loss
Erramilli & D'Souza (1993)	Capital intensity of the industry	Negative impact: high capital intensity decreases the probability to realise an FDI (too risky)

Authors	Factors	Influence on the choice of equity modes
Brouthers, Brouthers & Werner (1996)	Locational Advantage <ul style="list-style-type: none"> <li>•market demand</li> <li>•production costs (speed of technological change)</li> <li>•cultural differences (similar to the US)</li> <li>•market infrastructure (similar to the US)</li> </ul>	Locational advantages are positively associated with high-commitment modes of entry. SMEs will tend to prefer integrated modes when <ul style="list-style-type: none"> <li>•entering similar markets to their home country</li> <li>•facing an important (current and future) local market demand</li> </ul>
Nakos & Brouthers (2002)	Legal restrictions Environmental uncertainty	Negative impact: legal restrictions on equity ownership and environmental uncertainties decreases the probability to use an equity mode
	Market potential Contractual risks	Positive impact: SMEs perceiving high growth potential and/or high contractual risks in foreign markets are more likely to use equity modes
	Industry	Influences the choice of the mode: service firms are more likely to use non-equity mode than their manufacturing counterparts
Kuo & Li (2003)	Labour forces Expanding market Trade barriers avoidance Follow a major client	Positive impact: lower labour costs, small size of the domestic market and the need to follow a major client positively impact the choice of equity vs. non-equity (reduce SMEs' risk exposure)
Brouthers & Nakos (2004)	Environmental uncertainty	Negative impact: strong environmental uncertainties decreases the probability to use an equity mode
Ibeh, Johnson, Dimitratos & Slow (2004)	Market potential	Positive impact: need to ensure access to lucrative markets on the long run and improve the speed and quality of services abroad
Saarenketo, Puumalainen, Kyläheiko & Kuivalainen (2008)	Degree of uncertainty Risks of competitors' opportunistic behaviour	No effect on the choice between equity and non-equity: FDI is a financial solution impossible to handle for many SMEs.
Schwens, Eiche & Kabst (2011)	Formal institutional risk Informal institutional distance Risk of opportunistic behaviour from a local partner	Positive impact: the higher the risks and distance, the greater the probability to select an equity mode of entry
Musso & Francioni (2012)	Country-specific factors <ul style="list-style-type: none"> <li>•Market attractiveness</li> <li>•Domestic competition</li> <li>•Export promotion</li> </ul>	No effect on the choice between equity and non-equity
	Locational factor <ul style="list-style-type: none"> <li>•Belonging to an industrial district</li> </ul>	



The identification of both internal and external factors influencing the strategy to enter foreign markets through investment modes allows us to have a better understanding of what may be the drivers and inhibitors of the decision to invest abroad.

## Conclusion

Entry modes and strategies are one of the major topic in nowadays IB literature. If they have always been analysed from the point of view of large, mature westerners firms, entry mode decisions by small firms received scant interest. The aim of this paper was to realise a literature review of the main factors influencing SMEs' decision to use equity-based modes over non-equity, to have a better understanding of what may be the key determinants and inhibitors of this decision. The IB literature emphasises the lack of resources and competencies as the major barrier preventing SMEs to use investment modes, but we shown that this view was too deterministic, facing with the great organisational heterogeneity existing between those firms. An analysis of the main theoretical streams used in the articles of our sample shown that academic generally based their work using traditional approaches like the internationalisation theory, transaction-costs theory, eclectic paradigm and resource-based view. In this context, it appears that the expansion strategy is a firm-specific decision where managers have to hierarchise their priorities: control, resources, risk, return on investment, learning capacities, confidence firm-specific and location-specific factors. However, new theories - knowledge-based view and institutional theory - are getting more complex, combining several theoretical approaches from various fields - like economics, sociology etc. - to get a deeper understanding of SMEs' internationalisation. This tendency is in line with the words of Jones and Coviello (2004), affirming that *"the choice of entry modes "is too complex and too broad in scope to be accomodated by any one model or any one perspective" (Jones & Coviello; 2004, p.497). "Traditional models are still valid at some level of complementary models, but they need to be extended with new insights" (Laanti et al.; 2007, p. 3)" (Ripollés et al.; 2011, p. 3).*

Several internal factors were identified to influence the choice of an equity-based mode over non-equity. If firm's size, experience and resources are often cited as being determinant on the expansion strategy, we could not find any consensus in the literature. Consistent with the RBV theory, it seems that SMEs can overpass their tangible weaknesses relying on strong and unique intangible resources, gaining this way a sustainable competitive advantage. Zucchella and Scabini (2007, p. 23) conclude that *"the ownership and development of unique and idiosyncratic assets and capabilities might explain successful growth abroad"*. Small organisations will be more likely to invest abroad when they are strongly strategic oriented (entrepreneurial orientation) and/or possess the ability to differentiate their product, one of the reasons being that SMEs are, by nature, risk takers. The entrepreneur's positive attitude towards risks, his willingness to take exploit various opportunities, the innovativeness - and flexibility - of the firm and its efforts to adapt its

products to customers needs are four major drivers of the decision to commit resources abroad.

SMEs are also incited to expand abroad by a set of external factors. In accordance with Dunning's eclectic paradigm, firms are motivated by a set of location-specific and internalisation-linked determinants. The analysis of the local market attractiveness, one of the key variable explaining international expansion in the IB literature, shown contrasted results. If firms are more inclined to use equity-based modes when market demand is high, they tend to prefer exporting modes when investment risks are important, as they need to reduce the risk of potential losses. In the same vein, academics were able to show that local production costs were positively associated with high-commitment modes of entry. SMEs are motivated to invest abroad to gain the low cost production advantage, access to important resources or reduce its risk exposure by following a major client. Interestingly, it appears the contractual risks positively impact the decision to commit resources abroad, as opportunistic behaviours may increase the risks of dissemination and coordination costs. External factors tend to receive a growing attention as they can exert a strong influence on the entry mode choice. The specificities of a foreign market, the environmental and institutional uncertainties play a critical role in the decision to choose equity vs. non-equity modes. As shown by Zucchella and Scabini (2007, p.23), *"the environmental changes, which can be both external and internal to the firm, originate new opportunities that the entrepreneur might exploit to develop successful and innovative outcomes"*. In their study, Javalgi et al. (2010) observed that northern American FDI in Mexico have been increasing as foreign firms tend to use Mexico as a gateway to access Latin american countries. If local market conditions do not incite US and Canadian firms to directly invest in Latin America, institutional changes and favourable economic conditions - liberalisation, free trade agreements, cultural similarities, high growth potential etc. - seem to legitimate the decision to access to those markets in a stepwise manner. Further researches on international entry modes should then focus on those location-specific factors, the existence and implementation of gateway strategies by SMEs.

The examination of samples characteristics used by academics highlighted the absence of consensus relative to SMEs' criteria of definition, the predominance of ICT SMEs from mature economies and the exclusion of small SMEs from the researches, whereas FDI from and in direction of emerging economies are dramatically increasing (UNTCAD, 2011). This claims for greater samples heterogeneity, the inclusion of smallest SMEs and SMEs from mature and emerging economies to analyse and compare their behaviour towards internationalisation. This literature review pointed out the non-inclusion of timing in studies of SMEs' international expansion. In line with the words of Agarwal and Ramaswami (1992), further researches should analyse the decision process on a dynamic perspective, using longitudinal studies to get a more complete understanding on how is the decision made and what are the consequences on the organisation. Including the timing dimension in the study of SMEs' internationalisation will also permit academics to assess the impact of an FDI decision on the post-entry strategies of the firms, the evolution of their behaviour on

their domestic and foreign markets. Consistent with the conclusions of Ripollés and Blesa (2011), we argue that understanding the role of the age of internationalisation on the level of foreign commitment through longitudinal studies could deepen our comprehension of the phenomenon on a long term basis. This type of analysis could also be strengthened by the observation of the role of successful and unsuccessful experiences on the level of future commitment. In other words, the study of international expansion strategies used by SMEs need to be considered in a broader perspective, integrating wider ranges of internal and external factors like managerial willingness to use FDI, the innovativeness of the firm, competencies of the management team, sources of behavioural and environmental uncertainties etc. The impact of both formal and informal institutions and networks on the level of foreign commitments, especially in the context of emerging markets, is of growing importance. Future researches should then finally focus on analysing the role of the institutional framework and networking on the decision process to commit resources abroad.

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# L'EXPORTATION DES MOYENNES ENTREPRISES DE NICHE: UN PROCESSUS ARYTHMÉ

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**Résumé:** *Combinant les travaux portant sur les stratégies d'exportation de la PME et sur l'approche par les marchés de niche, cet article montre que l'exportation de la PME sur des marchés de niche s'opère selon un processus arythmé, que les modèles traditionnels d'internationalisation ne prennent que partiellement en considération. L'étude exploratoire menée en Rhône-Alpes laisse à penser que le processus d'exportation de la PME de niche suit deux phases. La vitesse est irrégulière entre ses deux phases. L'exportation commence dans un premier temps, dans les pays géographiquement et/ou culturellement proches, puis elle se poursuit sur des marchés éloignés situés dans la même zone géographique. L'entreprise a besoin de redéployer ses ressources pour attaquer de nouveaux marchés.*

**Mots clés:** exportation, PME, marché de niche, internationalisation.

De manière générale, la concurrence est extrêmement vive sur les marchés extérieurs, mais la taille insuffisante du marché national oblige beaucoup d'entreprises à avoir une stratégie de croissance à l'international. Cette stratégie a fait l'objet de nombreuses études empiriques (Johanson et Wiedersheim-Paul, 1975; Bill, 1995, Jolly et al, 1992; Bloodgood et al., 1996, etc.). En revanche, assez peu d'études se sont intéressées aux PME qui opèrent sur des marchés de niche et qui se développent à l'international. L'enquête Oseo/Ubifrance (2009) a montré que les entreprises innovantes, doivent, en permanence, se démarquer des concurrents en affirmant un positionnement de niche et en "conservant toujours une longueur d'avance" en termes d'innovation. Mais cela se vérifie aussi bien sur le marché national qu'à l'étranger. Plus spécifiquement, concernant l'exportation, l'étude révèle que les principales motivations des entreprises innovantes pour exporter sont de se développer sur une niche dont le marché est mondial ou d'accroître au-delà des frontières nationales la taille du marché d'origine devenu trop étroit pour assurer la pérennité de l'entreprise. La combinaison de ces deux motivations a retenu notre intérêt pour l'étude du développement à l'international

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des PME de niche ou plus précisément pour comprendre comment et pourquoi une PME de niche choisit-elle, de pénétrer un marché étranger ? Soulignons que le concept de niche est surtout développé en marketing et en stratégie et peu d'informations sur le processus d'exportation des PME de niche est disponible. L'objectif de cette recherche est de comprendre comment le processus d'exportation se déroule dans les entreprises de taille moyenne situées sur un marché de niche.

L'élaboration de différents modèles théoriques, parfois opposables, (modèles expérientiels comme le modèle d'Uppsala versus approches « International New Ventures ») rendant compte du développement international de l'entreprise, indique que selon les caractéristiques de l'entreprise et les déterminants de l'internationalisation, le processus de développement à l'international est très différent d'une entreprise à une autre. Nous souhaitons donc à partir de l'analyse du processus d'internationalisation de trois cas de PME de niche, faire ressortir les spécificités de ce processus et voir s'il s'insère davantage dans les modèles expérientiels ou dans les approches des firmes « born global ».

Ainsi, à travers cet article, nous souhaitons prolonger les travaux sur le développement international de la PME en nous focalisant sur l'étude des exportations de la PME de niche. Dans une première partie, nous préciserons quelles sont les principales caractéristiques de la PME de niche, en quoi elle se distingue de la PME innovante et constitue un objet de recherche particulier. Nous présenterons une revue de la littérature sur le champ de recherche de l'internationalisation des entreprises et la prise en compte du temps dans le cadre des stratégies d'internationalisation des PME. Dans cette optique, afin d'étudier les choix de développement sur un marché étranger, l'approche expérientielle développée dans le modèle d'Uppsala et les approches de firmes « nées globales », que nous allons expliciter, fournissent deux cadres théoriques bien adaptés pour insister sur la temporalité. Puis, dans une deuxième partie à partir de trois cas de PME de niche, nous ferons ressortir les différences et les similitudes de leur processus d'exportation sur les marchés étrangers. Dans une dernière partie nous discuterons des éléments obtenus et qui permettent de dire si la PME de niche relève plutôt d'une approche expérientielle ou au contraire d'une approche « International New Venture » et comment peut-on qualifier leur processus de développement à l'international.

### **Définition de l'objet d'étude, la PME de niche et de l'ancrage théorique**

Il nous faut définir notre objet de recherche, la PME de niche qui diffère un tant soit peu des PME innovantes mais qui est souvent assimilées à celles-ci dès lors que l'on définit la niche de manière restrictive comme une niche technologique. C'est pourquoi nous partirons de la définition de la PME innovante et de la niche pour mieux cerner les caractéristiques de ces entreprises.

## La PME de niche

Dans le prolongement de plusieurs études empiriques qui ont démontré que les entreprises innovantes, ou souvent positionnées sur des niches technologiques très spécialisées, réussissent leur conquête des marchés étrangers de façon plus rapide que les autres PME (Mc Dougall, 1989; Knight et Cavusgil, 1996; Madsen et Servais, 1997; Moen et Servais, 2002; Andersson et Wictor, 2003; Bell, 2007), nous cherchons à identifier comment se déroule le processus d'exportation de la PME de niche. Est-il rapide ? régulier ? Soulignons que chez tous ces auteurs, il existe parfois une certaine confusion entre PME innovantes (entreprises technologiques) et PME sur des marchés de niche.

Tout d'abord, il nous paraît important de préciser, conformément aux données de l'INSEE, comment définir la PME. Il s'agit d'une organisation de moins de 250 salariés travaillant à temps complet et réalisant un chiffre d'affaires annuel inférieur à 50 millions d'euros (INSEE, 2010). La taille relativement restreinte de ces entités, la nature de leurs activités (marchés de niche), et le peu de ressources disponibles rendent les PME particulièrement attentives aux opportunités de développement à l'international et à la sélection de ces dernières. L'innovation leur confère un avantage compétitif pour aborder les marchés étrangers.

Qu'entend-on par entreprise innovante au sens large ? Une entreprise est qualifiée *innovante* si elle a réalisé **au moins une des cinq mesures** suivantes au cours des **trois dernières années**<sup>3</sup> :

- 1) financé des frais de recherche et développement (interne ou externe) ou recruté du personnel de R&D ;
- 2) acquis une licence d'exploitation d'un procédé ou d'une technologie ;
- 3) déposé un brevet, une marque, un dessin ou un modèle ;
- 4) développé pour le compte de tiers un produit ou procédé (prestation) nouveau ou significativement amélioré ;
- 5) commercialisé un nouveau produit, bien ou service, (hors simple revente de produits nouveaux achetés à d'autres entreprises et hors modifications esthétiques ou de conditionnement de produits précédemment existants) ou utilisé un nouveau procédé (ou méthode) de production, de commercialisation ou d'organisation. De plus, aucun produit ou procédé analogue n'était déjà commercialisé ou utilisé par des concurrents.

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<sup>3</sup> Il s'agit de la définition établie par OSEO en 2008 pour les besoins de son Enquête Semestrielle de Conjoncture, à partir de son expertise en matière d'innovation et en s'inspirant des définitions usuellement utilisées, notamment dans les enquêtes communautaires sur l'innovation (CIS).

De ces éléments, il ressort que la qualification *entreprise innovante* au sens large est indépendante de la taille de l'entreprise mesurée par l'effectif salarié et de son ancienneté. Ainsi, cette définition ne concerne pas exclusivement les PME, ni des entreprises récentes appelées parfois « gazelles », mais en revanche elle met en évidence, les possibilités qui existe pour l'entreprise de développer un avantage compétitif dès lors qu'elle possède un brevet, une marque, un dessin ou un modèle (point 3) qui lui confère un avantage spécifique par rapport à ses concurrents, ou qu'elle commercialise un produit ou un procédé que ses concurrents n'ont pas (point 5). Dès lors nous considérerons qu'une entreprise ayant réalisé une de ces deux mesures est sur une niche.

Les niches sont des marchés de petite taille, même si elles ne sont pas exclusivement « réservées » aux PME, cependant, par nature, ces dernières sont plus enclines à avoir une approche plus pragmatique, et de fait sont souvent sur des marchés « protégés », soit par leur caractère géographique, soit par une approche très ciblée que nous qualifierons d'approche de marché de niche. Comme le souligne **Bruno Bizalio**,<sup>4</sup> « *les grands groupes et les ETI commencent à s'y intéresser, car les marchés de niches sont indiscutablement des relais de croissance profitables* ». Pour cet auteur, les marchés de niche sont sécurisants et valorisants: la PME peut plus facilement avoir une position forte sur un marché de petite taille, avoir une offre plus fine quand la concurrence est moindre et quand elle connaît mieux les attentes de ses clients. Soulignons que lorsque le terme « marché de niche » est utilisé, il s'agit bien souvent de mettre en avant le caractère positif d'une démarche et du positionnement d'une entreprise. Car être sur une niche présente de nombreux avantages : La niche permet à une entreprise de se différencier par l'offre de produit ou une gamme de produits que peu (ou pas) d'entreprises peuvent produire. De même un processus opérationnel original permet à ces entreprises de renforcer leur position sur ces marchés (Baum et Oliver, 1996; Carroll 1984, 1985). Avec les avancées technologiques, l'appartenance à un réseau global, le marché de niche devient international rapidement (Knight et Cavusgil, 1996). En outre, il existe souvent des barrières à l'entrée limitant la concurrence; les variations en volume sont moindres que sur des marchés plus concurrencés ; la pression sur les prix est plus faible ce qui permet d'avoir de meilleures marges ; le nombre d'intervenants est réduit ; les besoins des clients peuvent être mieux identifiés. Ainsi nous proposons la définition suivante : **les PME de niche sont des entreprises innovantes, de par leur produit ou leur procédé et qui se trouvent sur un segment de marché protégé.**

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<sup>4</sup> **Bruno Bizalio** (IEP, MBA de l'INSEAD), ancien directeur adjoint de la stratégie de DMC et ancien directeur Stratégie et Développement de Marie Brizard, a créé en 2005 le cabinet BM&S (<http://www.bms-conseil.com/> & [contact@bms-conseil.com](mailto:contact@bms-conseil.com)) qui, avec près de 70 interventions sur des marchés de niche, a capitalisé une expertise reconnue sur ces marchés. Il publie dans la presse économique spécialisée (L'Usine Nouvelle, La Revue d'intelligence économique).



### **Ancrage théorique: l'opposition entre l'approche expérientielle et l'approche « International New Ventures »**

Il nous semble pertinent maintenant de nous appuyer sur deux modèles d'internationalisation des entreprises afin d'introduire la temporalité. Selon Jones & Coviello (2005, p. 290), « *incorporer le temps en tant que dimension conceptuelle majeure est essentiel pour comprendre l'internationalisation entrepreneuriale* ».

L'opposition entre le modèle d'Uppsala et le modèle des entreprises « *born globals* » indique que le processus de développement sur les marchés internationaux n'est pas uniforme pour les entreprises et qu'une partie de la controverse porte sur le rôle dévolu au temps.

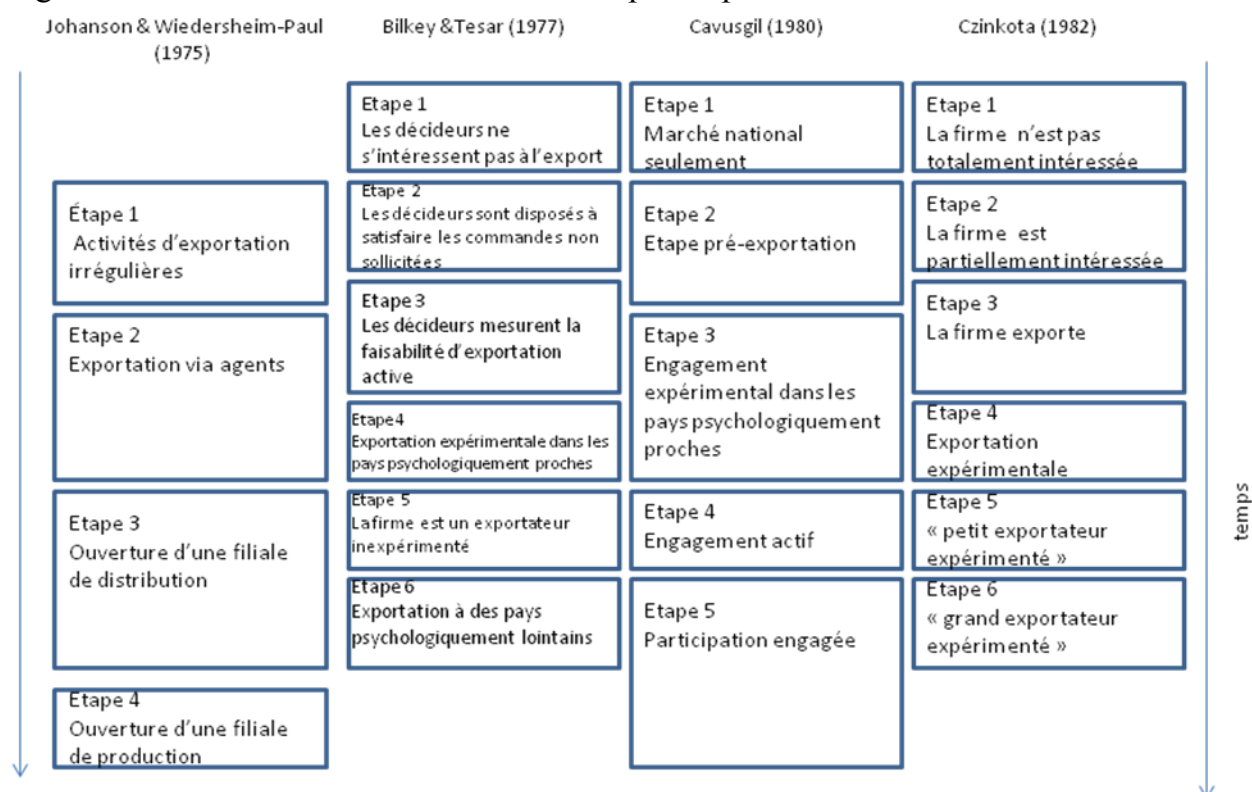
#### ***Le modèle d'Uppsala***

La perspective d'apprentissage expérientielle inclut le modèle d'Uppsala (Johanson et Wiedersheim-Paul, 1975; Johanson et Vahne, 1997 et 2009) et le modèle d'Innovation (Bilkey et Tresar, 1977). Dans ces modèles, l'internationalisation est perçue comme un processus incrémental. L'entreprise accumule graduellement de l'expérience et des connaissances.

Dans le modèle d'Uppsala, l'entreprise commence l'internationalisation par des exportations irrégulières et opportunistes (le mode d'entrée considéré comme le moins risqué) vers les marchés les plus proches géographiquement ou qui ont la « distance psychique » *i.e.*, dont les caractéristiques (culturelles, sociales, économiques, institutionnelles, ...) sont identiques ou proches de celles de son marché local. L'intérêt de commencer par des exportations vers des pays proches s'explique par le fait que la distance plus courte réduit les coûts de transport. Comme les pays sont situés dans le même fuseau horaire, il est aussi plus facile de coordonner les activités et les entreprises peuvent ainsi gagner du temps (Vermuelen et Barkema, 2002). Les pays de la même région sont également susceptibles de faire partie des mêmes blocs commerciaux et bénéficient de la baisse des droits de douane et autres mesures protectionnistes. Puis grâce aux expériences acquises sur ces marchés, l'entreprise essaie de conquérir des marchés plus éloignés. Conjointement elle emploie des agents indépendants issus de pays voisins. L'étape suivante concerne l'ouverture d'une succursale ou d'une filiale de distribution puis ensuite une filiale de production. A chaque nouvelle étape de l'internationalisation, l'entreprise s'engage de plus en plus à l'international et est prête à consacrer plus de ressources à cette activité. Dans la nouvelle version du modèle, Johanson et Vahlne (2009) soulignent l'importance des réseaux et des opportunités. Dès lors, le pays retenu par l'entreprise pour asseoir son développement à l'international est le pays qui offre le plus d'opportunités tant pour l'entreprise que pour ses partenaires. Le processus d'apprentissage est toujours au cœur de ce modèle mais cette fois le réseau d'affaires est reconnu comme une source de connaissances, d'informations et d'opportunités.

L'approche progressive propre à ce modèle permet également à la firme de mieux appréhender le marché étranger et d'en minimiser le risque (Johanson & Vahlne, 1990). C'est pourquoi de nombreux modèles ont été développés sur la base de cette approche, de l'internationalisation incrémentale par étapes. (Bilkey et Tesar 1977, Cavusgil 1980, Czinkota 1982). Bien que le nombre d'étapes varie, la notion de distance psychique demeure cruciale. (voir figure1).

Figure 1 L'internationalisation incrémentale par étapes



Source: Andersen, 1993.

Dans le modèle d'Innovation de Bilkey et Treasar (1977), puis Cavusgil (1980) chaque stade de l'internationalisation correspond à une innovation pour une entreprise stimulée par des forces externes (« push ») ou internes (« pull ») qui provoquent un changement interne et le passage d'une étape d'internationalisation à la suivante.

Cette approche a subi de nombreuses critiques. Cannon et Willis (1981) font valoir que certains exportateurs qui étaient passifs à un moment peuvent soudainement devenir actifs. Les entreprises peuvent sauter des étapes et accélérer le processus d'internationalisation. Reid (1981) conclut que les modèles existants sont trop déterministes. Pour cet auteur, l'internationalisation dépend avant tout des circonstances qui prévalent et des ressources existantes. Il soutient donc que les modèles d'internationalisation sont contingents et spécifiques à chaque entreprise.

Comme le notent, Tapia Moore et Meschi (2010), « certaines études empiriques (Eriksson, et al, 2001; Vermeulen & Barkema, 2002; Sharma & Blomstermo, 2003; Cellard-Verdier, 2008) ont souligné la pertinence d'introduire des variables de rythme, de vitesse et de régularité temporelle dans l'analyse de l'internationalisation. » La temporalité de l'internationalisation se définit par rapport à la rapidité, à la régularité et à l'historique de l'entrée des firmes sur les différents marchés étrangers (Tapia Moore et Meschi, 2010). Plus spécifiquement, la « vitesse » reflète la cadence (lente ou rapide) d'internationalisation et renvoie au temps moyen entre chaque expansion de la firme dans un nouveau marché étranger (Tapia Moore et Meschi, 2010). La vitesse interpelle de nombreux auteurs, en particulier le lien qui peut y avoir entre la connaissance d'un marché et la vitesse de l'opération d'exportation ou d'implantation. Vermeulen et Barkema (2002) suggèrent que le rythme de développement de l'internationalisation a un impact sur la réussite économique des entreprises. Une internationalisation trop rapide ne permet pas à l'entreprise de bénéficier de l'effet d'apprentissage d'un marché qu'elle pourrait avoir si le processus était plus lent. A terme, le manque d'expérience explique les mauvaises performances à l'export que l'entreprise réalise sur les marchés. Sharma & Blomstermo, (2003, p. 61), indiquent « l'expérience d'un marché [ou la connaissance expérientielle résultante] ne peut être acquise que grâce à un long processus d'apprentissage ». Kumar (1984) quant à lui, constate que les entreprises multinationales se développent sur les marchés étrangers rapidement, ce qui laisse là encore, peu de temps à ces organisations pour acquérir assez d'expérience de l'étranger, l'assimiler, et l'appliquer à des fins commerciales. Mais, contrairement à la firme multinationale, la PME est plus ouverte et plus flexible et peut saisir davantage d'opportunités (Luo and all, 2005). La moindre information peut être rapidement exploitée et sa réactivité est plus forte pour se positionner sur de nouveaux marchés. C'est probablement une des raisons qui expliquent que l'on ait davantage de PME « born global » que de FMN.

### ***Le modèle des entreprises « born global » ou entreprise à internationalisation rapide***

Depuis les années quatre-vingt-dix les chercheurs ont constaté l'apparition de PME à internationalisation rapide, certains parlent de « born global firms» (McKinsey et al., 1993; Madsen et Servais, 1997), ou « d'International New Ventures » (McDougall et al., 1994; Oviatt et McDougall, 1994; Fan et Phan, 2007) ou encore de « knowledge-intensive firms » (Bell, 1995; Boter et Holmquist, 1996; Coviello, 1994; Jones, 1999), caractérisées par des entrepreneurs très actifs. Les dirigeants de ces entreprises ont une vision internationale du développement dès la conception (Jolly et al, 1992; McKinsey et al, 1993; Bloodgood et al., 1996). Oviatt & McDougall (1994, p. 49), indiquent qu'il s'agit d'organisations « qui dès leur naissance, cherchent à retirer un avantage concurrentiel significatif de l'exploitation de ressources et de la vente de biens dans de multiples pays ». Dans ce processus d'internationalisation, la distance psychique et le

degré d'aversion au risque ne sont plus les critères déterminants de sélection et d'approche des marchés étrangers. Ces entreprises sont une source de valeur ajoutée importante souvent grâce aux innovations de processus ou technologiques (Knight et Cavusgil, 1996).

Dès lors, une expansion internationale rapide constitue-t-elle une spécificité des PME de niche ? En fait, tant que les entreprises peuvent exploiter leur avantage sur le marché de niche, elles y restent puis, suite à la saturation de ce marché étroit, elles sont obligées de trouver de nouveaux marchés une fois que leur avantage disparaît ; cet avantage peut être un avantage technologique, ou un avantage lié à une forme d'organisation particulière.

Ainsi, compte tenu des spécificités des PME de niche (positionnées sur un marché abrité étroit, possédant un avantage compétitif en matière de produit ou procédé) est-ce que ces entreprises s'apparentent-elles plutôt à des entreprises « born global » ou au contraire mettent-elles en œuvre un processus d'engagement croissant sur les marchés extérieurs ?

La revue de la littérature présentée ci-dessus a permis d'exposer l'ancrage théorique de notre recherche. Dans le but de l'approfondir, une enquête empirique s'est avérée nécessaire. Pour cela, nous avons choisi d'étudier 3 PME de niche de moins de 300 salariés, ayant à leur tête un propriétaire-dirigeant.

## **Méthodologie**

Notre recherche peut être qualifiée d'exploration hybride. Selon Thiétart (2003) « *l'exploration hybride est une voie qui permet d'enrichir ou d'approfondir des connaissances antérieures* ». En revanche, l'objet de recherche (moyenne entreprise de niche technologique) est nouveau. La difficulté réside en effet dans le repérage de PME de niche, et non pas de PME innovantes au sens large, et qui ont développé une activité à l'international significative. C'est pourquoi notre choix s'est porté sur l'étude de 3 PME. Nous avons choisi trois entreprises selon les critères suivants :

- 1) Des entreprises moyennes selon la définition de l'UE dont la taille n'excède pas 250 personnes et dont le capital n'excède pas 50 millions d'euros, et les actifs du bilan ne sont pas supérieurs à 43 millions d'euros.
- 2) Des entreprises industrielles qui ont une activité au niveau international, dont le chiffre d'affaires à l'export (CAE) est au moins supérieur à 50%
- 3) Des entreprises créées avant 1990. L'environnement s'est modifié dans le courant des années 1990 (ouverture des marchés à l'Est) avec notamment une amélioration des flux d'informations en provenance des marchés étrangers, et une réduction des dépenses de transport et de communication.

- 4) Des entreprises qui se situent sur un marché de niche. Il s'agit d'entreprises moyennes qui possèdent un savoir-faire technologique et un design spécifique et pour lesquelles, les produits vendus sont destinés à des segments étroits de marché ; à ce titre nous considérerons qu'il s'agit d'entreprises de niche.
- 5) Des entreprises ancrées sur le même territoire (le département de la Loire) qui n'est pas une région frontalière et pour lesquelles nous avons pu conduire plusieurs entretiens approfondis.

### **Justification de l'approche méthodologique**

Notre choix méthodologique s'est orienté vers une **approche qualitative** et la **mobilisation de la méthode des cas**, « *analyse spatiale et temporelle d'un phénomène complexe par les conditions, les événements, les acteurs et les implications* » (Wacheux 1996). En effet, dans une étude préalable (Damier, 2011) nous avons constaté que les dirigeants étaient très réticents à développer des éléments qui révèlent leur stratégie et que par conséquent, il allait être difficile d'obtenir un grand nombre de questionnaires exploitables sur des sujets relativement confidentiels, ce qui a motivé le choix de notre approche.

Maintenant, le choix de **l'étude de trois cas** peut interpeller le lecteur. M. Hlady-Rispal (2002), justifie le choix de l'étude d'un cas unique, notamment lorsque le chercheur souhaite révéler un phénomène, non exceptionnel, mais qui n'est pas encore accessible à la communauté scientifique. Le développement à l'international d'une PME de niche reste encore peu étudié, et mérite ce regard exploratoire. Mais en même temps, M. Hlady Rispal souligne que tout phénomène observé au travers d'un cas unique a potentiellement une portée générale. Or en présentant 3 cas d'entreprises différents, nous voulons voir si il existe ou non un processus identique pour les PME de niche avant de parler de cas à portée générale.

### **Présentation de l'étude et caractéristiques des entreprises étudiées**

Le recueil d'informations a été effectué par des entretiens d'une durée moyenne de 2 h 30 sur le site de l'entreprise et en direct avec les dirigeants (responsables du département export et un directeur financier). Chaque entretien a été enregistré avec leur accord et retranscrit intégralement. Nous avons aussi complété les informations obtenues par des entretiens téléphoniques et en consultant des données secondaires (articles de presse, site web d'entreprises). A la demande des dirigeants, les noms des entreprises ne sont pas donnés, nous les appellerons TEX, CHIM et PLAST. Les trois entreprises sont situées sur des niches de marché. Elles se différencient de trois manières : elles offrent, à la fois, d'une part, des produits de niches technologiques très spécialisées, d'autre part, la valeur ajoutée du produit est créée par le design français, et enfin elles affichent une étiquette « made in France ».

Tableau 1 Caractéristiques des entreprises en 2010

	Activité	Effectif	Chiffre d'affaires	C.A. export
Cas 1. TEX	Industrie textile Produits : tissus pour confection	200	7 M€	70%
Cas 2. CHIM	Industrie chimique Produits : d'hygiène et de nettoyage	95	13 M€	88%
Cas 3. PLAST	Industrie Produits : emballage plastique	230	14 M€	61%

*Les caractéristiques principales des 3 entreprises interrogées sont décrites ci-après:*

- Entreprises manufacturières, indépendantes financièrement et gérées par un propriétaire dirigeant,
- Effectif compris entre 95 et 230 salariés
- Age des entreprises compris entre 26 et 47 ans,
- Age des responsables export que nous avons interviewés allant de 40 à 46 ans, ayant tous une formation supérieure (Bac +5)

Nous avons également construit **des grilles de lecture**, qui permettent d'élaborer un cadre de référence pour analyser le processus d'exportation de la PME de niche afin d'exploiter, voir de protéger son avantage sur le marché étranger ciblé.

### **Présentation des résultats**

Nous allons voir les points communs à ces 3 entreprises, puis ce qui les différencie.

#### *Points communs à chacune des trois entreprises*

Aucune des trois entreprises ne fait l'objet d'un apprentissage à proprement parler expérientiel de l'international. Le processus d'internationalisation des trois entreprises étudiées ne peut pas être qualifié d'incrémental, même si les trois entreprises ont commencé la conquête des marchés étrangers par les marchés voisins. **L'entreprise TEX** a connu deux phases d'internationalisation : la première au milieu des années quatre-vingt-dix où elle exporte vers les pays voisins et ensuite la deuxième 2003-2004 où elle exporte vers des pays plus éloignés. Nous notons que le mode d'entrée sur les marchés internationaux reste inchangé : il est réalisé grâce à l'emploi d'un agent indépendant. La tentative d'ouverture d'une filiale après plus de 10 ans d'expérience à l'international s'est avérée être un échec. **L'entreprise CHIM** a sauté toutes les étapes de l'internationalisation du modèle d'Uppsala et a commencé l'internationalisation par l'ouverture d'une filiale. Quand cette filiale a fait faillite, l'entreprise s'est tournée vers

l'exportation directe et indirecte et même si l'entreprise coopère avec 45 pays et possède quarante ans d'expérience à l'international, elle ne veut pas passer à un autre mode d'entrée. Le processus d'internationalisation de **l'entreprise PLAST** a été très rapide. Elle est présente dans 5 pays après 4 ans d'exploitation. Même si la filiale a été créée après 8 ans d'expérience à l'international, les motivations n'étaient pas liées à l'apprentissage expérientiel mais plutôt à l'accessibilité à de nouveaux marchés et à la spécificité du produit. *« Nous avons dû ouvrir une filiale car nos coûts de transport devenaient trop importants, nous transportons beaucoup de vide et nos marges sont très faibles »* souligne le directeur financier.

**Dans les 3 cas, le mode d'entrée** le plus répandu est l'exportation directe et indirecte. L'entreprise commence par rechercher des clients potentiels ou/et des agents sur place. Même si les agents sont souvent choisis *« au feeling », parmi des candidats qui viennent vers le stand de l'entreprise au salon »* comme dit le responsable export de l'entreprise TEX. L'exportation directe et indirecte est un mode d'entrée considéré comme moins risqué que l'implantation. D'où le fait que la distance géographique ou psychique ne soit pas un frein dans la deuxième phase. *« Si on se plante tant pis, les coûts ne sont pas si élevés, les agents sont rémunérés sur la provision des ventes, ça nous coûte donc le prix des échantillons envoyés, mais nous apprenons chaque jour »* dit le responsable export de l'entreprise TEX.

Les entreprises TEX et CHIM ne souhaitent pas consciemment passer à un autre mode d'entrée. Elles n'envisagent pas d'ouvrir une filiale de production de leurs « activités clé » car le transfert de technologie vers la filiale pourrait s'avérer trop coûteux (au niveau du contrôle) ou risqué (difficile de garantir une qualité à distance). Ces entreprises profitant aussi de la renommée conférée par le label *« made in France »*, la délocalisation pourrait donc menacer leur réputation. Comme le directeur export de CHIM l'évoque : *« nous avons essayé de produire en Asie mais chaque fois les produits fabriqués avaient un contenu chimique différent. Notre produit est connu grâce à notre qualité, nous ne pouvons pas nous permettre la moindre erreur »* ou comme le reconnaît le directeur d'export de TEX *« notre technologie de tissage est très compliquée, c'est une technique traditionnelle acquise depuis des décennies, il est impossible de l'apprendre aux Chinois à court terme et s'ils apprennent ils peuvent nous recopier, par la suite rapidement »*. Cette démarche peut être répandue dans les PME françaises situées sur une niche de marché.

Le manque de ressources financières qui conduit à une certaine forme d'opportunisme dans la sélection des marchés et qui peut expliquer le besoin qu'a l'entreprise de réunir des ressources financières suffisantes pour pénétrer de nouveaux marchés.

Le manque de ressources financières oblige le responsable de l'export de CHIM à optimiser ses opérations *« J'ai pris ma valise avec les produits et j'ai attaqué une zone géographique. Quand je suis parti au Maghreb j'ai fait cinq pays voisins d'affilée, j'ai*

*fait la même chose en Asie, j'ai commencé par la Thaïlande et j'ai fini par la Malaisie, ça coûte beaucoup moins cher à l'entreprise. »* L'entreprise essaie d'utiliser ses propres ressources, par exemple *« la femme du directeur commercial était Slovaque donc grâce à elle nous avons développé le marché de la Slovaquie et de la République Tchèque »* dit le directeur export de l'entreprise TEX. Le manque de ressources ou une affectation inadéquate peuvent être une cause de l'échec d'un développement sur un marché étranger. Selon le directeur export, son entreprise TEX n'avait pas assez de moyens, ni d'expérience dans le secteur de la confection, et sur le territoire chinois pour réussir son implantation en Chine. *« Les ressources financières et humaines accordées à cette opération étaient trop restreintes et la distance culturelle a aggravé la situation ».*

L'importance des aides extérieures : Les trois entreprises ont souligné l'importance des ressources externes, surtout des aides de l'Etat destinée aux entreprises exportatrices. TEX reconnaît obtenir régulièrement des aides de la Chambre de Commerce et d'Industrie, d'UBI France et de la Coface.

L'importance des réseaux d'affaires français : les membres des réseaux d'affaires sont mobilisés pour le développement à l'international des trois PME. Nos cas confirment donc l'importance des réseaux d'affaires comme le soulignent différents travaux : Johanson et Vahlne , 2009 ; Etude OSEO/Ubifrance par exemple. Selon le directeur export de l'entreprise TEX *« tout le monde se connaît dans ce milieu donc les agents se connaissent entre eux et ce sont souvent eux qui nous donnent les contacts d'autres agents »*. Le directeur de CHIM a aussi reconnu que le *« network »* des collègues qui sont dans le même secteur l'aide beaucoup dans la prise de décision : *« Nous nous transmettons les infos, l'expérience et les contacts. Il faut être à l'international pour faire partie des réseaux »*. Les réseaux bancaires, juridiques (cabinet d'avocat franco-étranger) et les institutions publiques (chambres de commerce, Ambassades de France, missions économiques) jouent un rôle très important dans le processus d'internationalisation. Comme dit le directeur financier de PLAST *« la concurrence est féroce dans ce secteur, par conséquent il n'y a pas beaucoup de coopération entre les professionnels du même métier. Mais, en Europe tout est facile, nous avons notre réseau français, surtout le cabinet d'avocat franco-espagnol ou franco-polonais, nous avons nos banques sur place »*. En outre, le réseau personnel du dirigeant est comme dans beaucoup d'entreprise sollicité également : Comme le souligne le directeur d'export de CHIM *« Même si je vérifie mes informations et les contacts récupérés pendant mes voyages auprès de l'Ambassade de France ou dans mon réseau, la réussite dépend souvent « des gens » et des relations que j'ai réussi à établir pendant ces contacts en face à face. »*



### Différences entre les 3 cas

#### ***L'élaboration de la stratégie: basée sur les caractéristiques des produits destinés au marché de niche.***

Comme l'évoque le directeur de l'entreprise CHIM « notre stratégie d'internationalisation n'a pas été posée sur le papier mais je suis les études sectorielles, notamment de la Food and Agriculture Organization... mais tout le monde suit ces statistiques et fait les études de la même façon, les résultats sont évidents, le plus gros marché c'est les Etats-Unis sauf que tout le monde va là-bas, le marché est saturé... Moi je vais dans les endroits qui ne sont pas connus, qui ne sont pas pris en compte dans les statistiques à cause de la petite taille du marché. J'ai découvert la Lybie de cette façon ».

Les dirigeants de PLAST procèdent de façon différente, ils préparent la stratégie de sélection des marchés à partir des études de cabinets d'experts. La nature de la niche, l'emballage, qui à l'unité permet une marge très faible, peut expliquer que l'entreprise soit donc à la recherche de débouchés très importants ; Or, n'étant pas réellement sur une niche de produit, mais plus de procédé, la concurrence dans ce secteur est plus importante et la niche permet à davantage de concurrents de s'y installer.

#### ***Saisir des opportunités ou planifier une stratégie***

Le directeur export de CHIM reconnaît que son réseau à l'international a été créé grâce au hasard, à l'initiative et aux rencontres pendant les salons internationaux. « *Le premier agent commercial en Asie, je l'ai trouvé grâce à un coup de téléphone. Mon client anglais a commencé à vendre ses produits en Asie, il m'a appelé et demandé si je ne veux pas le suivre, il m'a même proposé une personne sur place. L'autre fois c'était mon ancien employé qui m'a contacté, il s'est marié en Allemagne et m'a proposé d'être mon agent* ».

En revanche, en accord avec sa stratégie, l'entreprise PLAST ne laisse pour sa part rien au hasard, tout est planifié et vérifié. L'entreprise PLAST pourrait presque être considérée comme une entreprise à internationalisation rapide, elle est présente dans 5 pays après 4 ans d'existence depuis sa création. Cependant il est difficile de considérer cette entreprise comme « *born global* » car elle fait partie d'un groupe qui existe depuis 1968, sa création étant le fruit de la réflexion des dirigeants du groupe qui ont transmis le savoir-faire et qui ont établi la stratégie de cette filiale dans le but de maximiser les profits. Cette entreprise a été créée avec une vocation internationale (au point que la dimension internationale fait partie intégrante de tous les services et que le département export n'existe pas), mais elle profite toujours de l'expérience et des ressources du groupe.

## Nos conclusions par rapport à la revue de la littérature

Pour chacune d'elle, nous pouvons à chaque fois distinguer deux phases pour l'exportation :

1. Une première expérience obtenue dans des pays limitrophes.
2. Puis un nouveau développement dans des « blocs » culturels ou géographiques de pays qui s'explique par la recherche d'opportunités en fonction du produit ; Dès lors, peu importe la distance géographique et psychique du pays d'accueil (voir les figures 1, 2 et 3)

Figure 1 L'internationalisation par blocs de pays: cas TEX

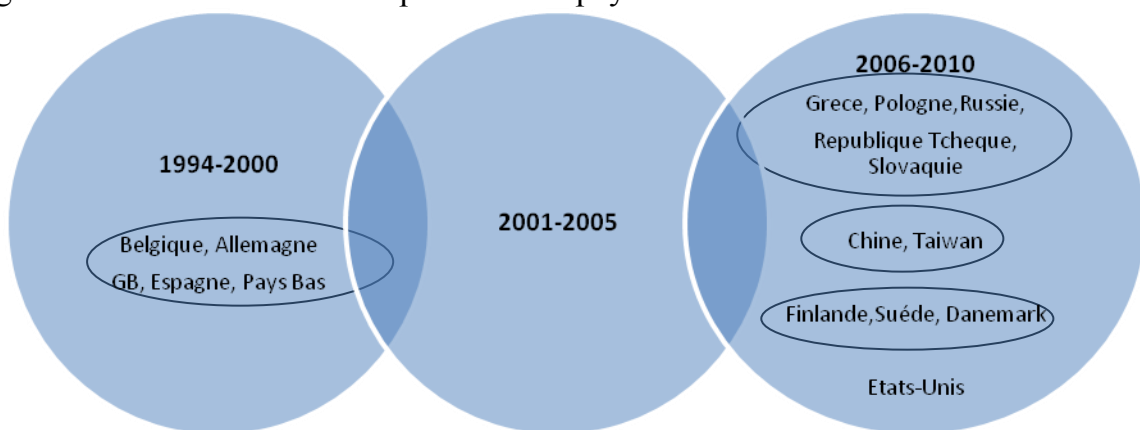
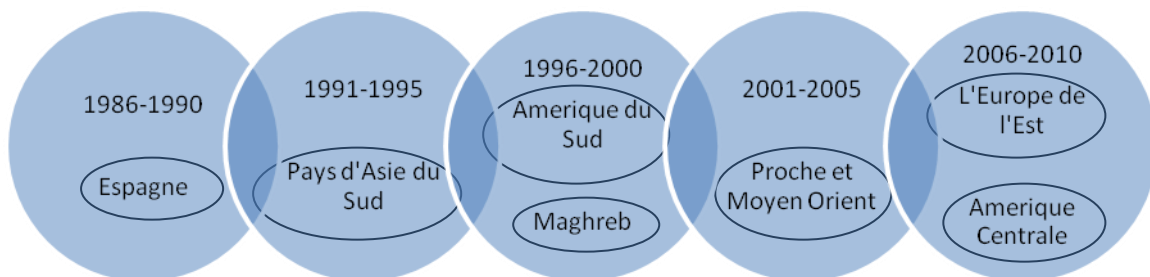


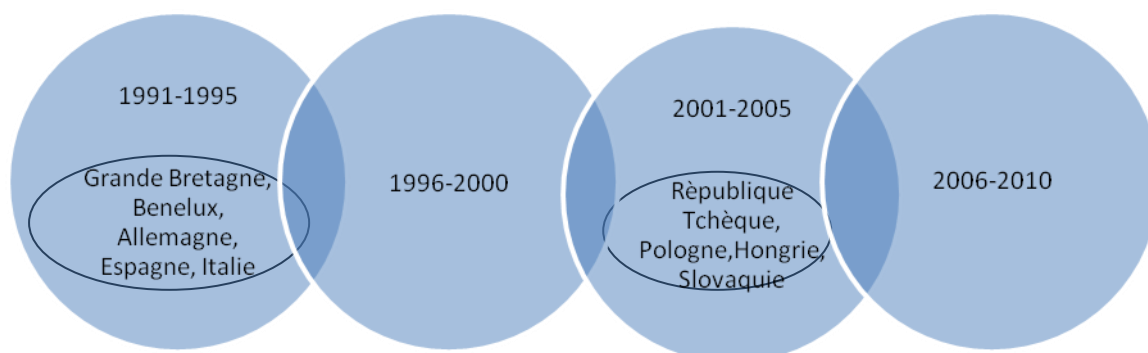
Figure 2 L'internationalisation par blocs de pays: cas CHIM



Il en découle que dans la première phase, l'internationalisation suivrait un processus qui démarre par l'entrée de la PME sur des marchés étrangers perçus comme peu ou pas risqués. En d'autres termes, et pour reprendre la terminologie de Johanson & Vahlne (1990), la PME va cibler et approcher des marchés étrangers présentant une

faible « *distance psychique* », c'est-à-dire des marchés qui ressemblent à son marché local.

Figure 3 L'internationalisation par blocs de pays: cas PLAST



Elle se développe à l'international sur « *des marchés qu'elle peut plus facilement comprendre* » (Johanson & Vahlne, 1990, p. 13). Mais contrairement à de nombreuses entreprises, si la PME de niche acquiert ainsi de l'expérience, et produit des connaissances « *expérientielles* », ce ne sont pas celles-ci qui vont lui permettre de réduire les risques sur des marchés futurs. La deuxième phase d'internationalisation correspond davantage à de l'opportunisme et le mode de pénétration des nouveaux marchés consiste là encore à réduire les risques avec des exportations et non une implantation.

En outre, la vitesse est différente de celle que l'on trouve dans les modèles d'internationalisation incrémentale par étapes. La PME de niche a besoin de rassembler ses ressources afin d'attaquer de nouveaux marchés plus éloignés ; le processus d'exportation peut-être relativement rapide dans la première étape, puis elle attend que le marché soit saturé ou qu'une nouvelle opportunité s'offre à elle, pour se lancer dans une deuxième étape qui va lui permettre d'exporter sur des marchés éloignés. Il nous semble qu'elle tire au maximum profit de l'expérience acquise sur un premier marché, proche ou lointain, en exportant sur des marchés limitrophes à celui-ci, ce qui lui permet de ne pas trop disperser ses ressources et de les concentrer sur la même zone. Elle reste à l'affût de nouveaux marchés, principalement ceux qui sont délaissés par les firmes multinationales. C'est pourquoi nous les retrouverons principalement sur des marchés étroits dans des pays à demande relativement faible. Elle semble chercher un créneau à l'export et en tirent un maximum de profit.

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# LES USAGES EN MATIÈRE DE TECHNOLOGIES DE L'INFORMATION ET DE LA COMMUNICATION DES PETITES ET MOYENNES INDUSTRIES FRANÇAISES & LEUR DÉVELOPPEMENT À L'INTERNATIONAL

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**Abstract:** *This article deals with the specificity of Small and Medium Sized Industrial Enterprises, which want to develop worldwide. In other words, we compare the use of ICT by national & international industrial enterprises. We have developed a long survey for French Small and Medium Sized Industrial enterprises (except Paris) and we have asked them to express there are a relationship between the use of ICT and the degree of internationalization of enterprises. The survey gives us a lot of information on the different tools used by industrial enterprises. Among these tools, and we focus more closely on the e-commerce tools.*

**Keywords:** Small and Medium Sized Enterprises, International Management, Strategy of Internationalization, Information and Communication Technologies.

## Introduction

Notre article s'intéresse aux usages des Petites et Moyennes Industries françaises (PMI) qui vont à l'international. Plus spécifiquement, ce papier concerne les usages et les pratiques en matière de technologies de l'information et de la Communication (TIC) des entreprises du secteur de l'Industrie et plus particulièrement celles qui se développent à l'international. Nous comparons alors les usages TIC des Petites et Moyennes Industries Internationales (PM2I) qui souhaitent se développer et conquérir de nouvelles parts de marché dans le Monde par rapport à celles qui restent sur un marché local, régional ou national. Il est évident que les TIC ont profondément bouleversé les stratégies des entreprises tant dans le domaine de la production que de la commercialisation (voir les recherches dans le domaine de la logistique, etc.). Comme le rappelle Mayrhofer (2011), à la suite de Berger (2006), « *les technologies de l'Information et de la Communication facilitent cette organisation modulaire [de la production] qui permet de répartir les différentes fonctions à travers le monde* ». Cette étude s'appuie donc sur une enquête réalisée dans le cadre du projet de recherche appelé DISCOTEC,<sup>4</sup> financé par l'ANR, l'Agence Nationale de la Recherche (ANR)

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et piloté par Bruno Moriset, responsable scientifique du projet sur une période de trois ans (2009-2011). Un questionnaire a été développé et renseigné par des entreprises industrielles de la France entière (à l'exception de Paris et de sa couronne) pour cerner leurs usages notamment internationaux en matière de TIC. La question principale de ce papier est de se demander si le degré d'internationalisation des entreprises industrielles n'induit pas un usage plus poussé en matière de TIC. En effet, cet article devrait nous permettre de spécifier les pratiques des organisations en matière de TIC. Ces entreprises industrielles se développent à l'international avec les TIC et surpasse la classique dichotomie rural/urbain.

### **État de l'art sur le management des PME/PMI Internationales et leurs spécificités**

L'internationalisation des entreprises, y compris la PME & la PMI devient une nécessité pour chercher de la croissance dans d'autres pays (Berger, 2006). Les théories traditionnelles de l'internationalisation, se sont surtout focalisées sur les Firmes Multinationales (FMNs), et elles ne rendent que partiellement compte des processus à l'œuvre pour les PME&PMI. Néanmoins quelques travaux sur les PME en font leur objet de recherche spécifique (Dana, Etemad and Wright, 1999). En étudiant de plus près ce processus, trois formes d'internationalisation des PME/PMI sont traditionnellement présentées dans la littérature telle que l'exportation, la collaboration et l'investissement direct (Lafay, 1997). Les profils d'internationalisation des entreprises sont différents, mais le secteur de l'industrie et celui des services s'engagent dans cette voie. Si l'approche collaborative (alliances, joint-ventures,...) est de plus en plus utilisée, l'exportation reste privilégiée pour les PME/PMI. Jusqu'à présent, trois nouveaux modèles se sont développés L'approche par phases, l'approche par les réseaux et l'approche de l'entrepreneurship international.

L'approche par les étapes consiste à présenter un modèle séquentiel (Melin, 1992). On parle volontiers du modèle d'Uppsala (U-Model, initié par Johanson, Wiedersheim-Paul et Vahlne (1977). le modèle d'Uppsala par étapes explique l'internationalisation des entreprises : export, puis recherche d'un agent, puis ouverture d'une filiale (Johanson & Vahlne, 2009).

L'approche par les réseaux développée par Coviello et Munro (1997) souligne l'importance des réseaux relationnels pour sélectionner des marchés étrangers ainsi que les modes d'entrée.

Enfin l'approche de l'entrepreneur international introduit la notion de Born Global, qui sont de nouvelles entreprises, à vocation immédiatement internationale. Dans le cas des PMI sous-traitantes, les donneurs d'ordre peuvent être situés dans le monde entier et il faut venir de loin les chercher.



Ces recherches ont montré une rapide internationalisation de ces PME (Knight and Cavusgil, 1996). Ici, l'entrepreneur adopte une vision globale de son développement depuis la création.

Les entreprises se développent soit de manière individuelle ou sous forme d'actions collectives avec l'appui d'organismes publics ou privés comme des chambres de commerce, des agences ou des cabinets-conseils, enfin des réseaux de dirigeants. L'action des politiques publiques n'est pas à sous-estimer puisqu'elles peuvent contribuer à créer les conditions de succès de développement des entreprises dans les pays ciblés.

Par exemple la collecte d'information peut se faire par les réseaux de dirigeants de PME et de partenaires (fournisseurs, distributeurs). Mais l'utilisation des TIC permet de mieux s'informer et de développer de nouvelles stratégies d'internationalisation et commerciales, car elles permettent potentiellement de se passer de distributeurs, donc de réduire les coûts tout en favorisant une relation directe avec les clients à l'étranger. Les TIC semblent donc jouer un rôle important pour le développement à l'international des entreprises (Faure & Heizmann, 2007a ; Faure & Pliquet, 2007b). Elles peuvent vendre aux clients directement au travers la vente en ligne, et utiliser des outils marketing (référencement, réseaux sociaux, forums, ...) à la disposition de la PMI ayant une ambition internationale. Les réseaux de télécommunications facilitent le processus d'internationalisation de la PME aussi bien que la PMI et créent de nouvelles opportunités de contacts et d'affaires à l'international (Spigarelli, 2003 ; Dellner, 1999 ; Karlsson, 1998). Les PMI collaborent au sein de réseaux publics et privés.

Les PMI constituent une part importante du développement économique, et du développement international en particulier, tant dans les pays développés que dans les pays émergents. De nombreuses recherches se sont intéressées à cet objet, encouragées par la présence montante des PMI dans les opérations internationales.

À partir de cette rapide revue de littérature, c'est que les handicaps visibles des PME/PMI en matière de taille et de moyens financiers peuvent être partiellement, voire totalement compensés par les effets-réseaux et les stratégies de rapide internationalisation. Cela suppose une approche très ouverte du management, et une confiance en les qualités de sa gamme de produits et services. Les entreprises que nous allons présenter dans la partie empirique du papier utilisent ces approches positives.

## **Problématique et hypothèses de travail**

### **Hypothèses de travail**

Dans cet article, nous travaillerons sur la problématique des usages des Petites et Moyennes Industries (PMI) qui se développent à l'international. Notre principale

proposition est de considérer que les technologies de l'information et de la communication accompagnent nécessairement le développement international des petites et moyennes industries. C'est une condition nécessaire mais certainement pas suffisante pour expliquer pour le développement de l'international des PMI. D'ailleurs nous ne cherchons pas non plus à savoir si les TIC peuvent expliquer à eux seuls le succès commercial des entreprises. Pour valider cette proposition, nous chercherons à tester l'hypothèse de travail suivante : « Les petites et moyennes industries à vocation internationale ont des usages plus avancés des technologies de l'information et de la communication (sites web, vidéoconférence, web conférences, etc.), que les petites et moyennes entreprises industrielles ayant principalement une clientèle locale, régionale ou nationale et investissent plus en matière d'e-commerce ». D'autre part, nous pouvons nous demander si les critères de situation géographique des PMI (implantation dans des territoires ruraux versus territoires urbains) n'interviennent pas non plus dans le développement à l'international des entreprises, et avec l'aide des technologies de l'information et de la communication surmontent la difficulté de l'éloignement géographique.

### **Méthodologie d'enquête**

Nous avons utilisé une approche quantitative, pour pouvoir démontrer notre hypothèse principale. Nous avons rédigé et testé un questionnaire comprenant quatre grandes parties et une soixante de questions (69 questions plus précisément) avec la collaboration de M. Thierry Morize de la société Enov Research, en charge de l'enquête téléphonique auprès de 700 Petites et Moyennes Industries (400 établissements pour l'échantillon rural et 300 établissements pour l'échantillon urbain). Ces entreprises font partie du secteur manufacturier, ayant plus de 3 salariés et comprend la fabrication de textiles, de produits en caoutchouc & en plastique, de produits métalliques (sauf machine & équipement), la fabrication de produits informatique, électronique et optique, la fabrication d'équipement électriques et la fabrication de machines et équipements. La rédaction du questionnaire auprès des entreprises industrielles rurales et urbaines et son traitement a lieu durant l'année 2011, plus précisément entre avril et octobre 2011.

### **Le choix des secteurs d'activités étudiés**

Caractéristiques des entreprises industrielles internationales. Sur les 700 Petites et Moyennes entreprises industrielles recensées, près de 357 entreprises ont une clientèle internationale, tandis que 214 entreprises sont nationales, 90 sont régionales et 37 sont locales (voir tableau n°1).

Tableau 1: Nombre d'entreprises qui ont une clientèle locale, régionale, nationale, internationale

<b>Nombre de 18. Avez-vous une clientèle ...</b>					
<b>1. Etablissement rural ou urbain</b>	Internationale?	Locale?	Nationale?	Régionale?	Total général

<b>Rural</b>	208	25	125	41	399
<b>Urbain</b>	149	12	89	49	299
<b>Total général</b>	357	37	214	90	698

Nous avons établi une typologie des PMI, à savoir si ces entreprises sont des fabricants à destination des professionnels (type B to B) ou des particuliers, consommateurs (type B to C).

Tableau 2: Degré d'internationalisation des entreprises internationales avec I: international, N: National; R: régionale; L: local

<b>Degré d'internationalisation</b>	<b>Nombre d'entreprises</b>	<b>%</b>	<b>Moyenne de Q19. Quelle est la part de vos ventes à l'exportation?</b>	<b>Max de la part de vos ventes</b>	<b>Min de la part de vos ventes</b>
<b>I</b>	48	13,45%	50,37 %	100,00	0,00
<b>IL</b>	1	0,28%	N.r.	N.r	N.r
<b>IN</b>	111	31,09%	35,92 %	98,00	0,00
<b>INL</b>	6	1,68%	41,00 %	70,00	5,00
<b>INR</b>	186	52,10%	24,46 %	85,00	0,00
<b>IR</b>	3	0,84%	47,50 %	75,00	20,00
<b>IRL</b>	2	0,56%	3,50 %	6,00	1,00
<b>Total général</b>	<b>357</b>	100,00%	<b>31,68 %</b>	<b>100,00</b>	<b>0,00</b>

Concernant le degré d'internationalisation des entreprises, nous pouvons faire le constat suivant : 48 entreprises déclarent ne se développer qu'à l'international (13,45 % de notre échantillon). Il faudrait reprendre l'analyse autour des 111 entreprises industrielles mises sur l'international (I) et le national (N) (soit 31,09 % de notre échantillon) et 186 entreprises sur l'international et le local (L). C'est plus rare qu'une entreprise cible des clients locaux et internationaux (1 entreprise) ou régionaux (3 entreprises recensées) (voir tableau n°2).

Tableau 3: Degré d'internationalisation des entreprises internationales avec I : international, N : National ; R : régional ; L : local

<b>Degré d'internationalisation</b>	<b>Nombre d'entreprises</b>	<b>%</b>	<b>Moyenne de Q19. Quelle est la part de vos ventes à l'exportation?</b>	<b>Max de la part de vos ventes</b>	<b>Min de la part de vos ventes</b>
<b>I</b>	48	13,45%	50,37 %	100,00	0,00

<b>IL</b>	1	0,28%	Nr.	Nr	Nr
<b>IN</b>	111	31,09%	35,92 %	98,00	0,00
<b>INL</b>	6	1,68%	41,00 %	70,00	5,00
<b>INR</b>	186	52,10%	24,46 %	85,00	0,00
<b>IR</b>	3	0,84%	47,50 %	75,00	20,00
<b>IRL</b>	2	0,56%	3,50 %	6,00	1,00
<b>Total général</b>	<b>357</b>	<b>100,00%</b>	<b>31,68 %</b>	<b>100,00</b>	<b>0,00</b>

## Analyse de l'échantillon

### Concernant la présence ou non d'un site web

265 entreprises internationales (soit 74 % de l'échantillon PM2I) possèdent un site web (Tableau 4).

Tableau 4 : Existence d'un site Web et d'une clientèle internationale

<b>Q22 Clientèle Internationale ou non</b>	<b>Q39- Site web (chi2 =0,003; ddl=1; p=0,957)</b>					
	<b>Non</b>	<b>%</b>	<b>Oui</b>	<b>%</b>	<b>Total</b>	<b>%</b>
Internationale	92	25,77 %	265	74,23%	357	100 %
Nationale, Régionale, Locale	89	25,95%	254	74,05%	343	100 %
Total	181		519		700	

Si maintenant nous nous intéressons plus spécifiquement aux PMI Internationales, nous pouvons voir qu'il existe une relation significative entre ces deux variables à savoir la présence d'un site web et d'un établissement international (chi2=8,106 pour une probabilité de 0,004 (tableau n°5)).

Tableau 5 : Lien entre un établissement international et un site web

<b>Q 38. Avez-vous un site Web ? (chi2=8,106 ; ddl=1 ; p=0,004)</b>						
<b>Clientèle Internationale:</b>	<b>Non</b>	<b>%</b>	<b>Oui</b>	<b>%</b>	<b>Total général</b>	<b>%</b>
Rurale	42	20,19%	166	79,81 %	208	100%
Urbaine	50	33,56%	99	66,44%	149	100%
Total Clientèle Internationale	92	25,77 %	265	74,23%	357	100%

Si nous regardons de près la répartition, nous nous apercevons que les entreprises à plus fort degré d'internationalisation auront tendance à avoir davantage de site web que les autres ( $\chi^2=5,103$  pour une probabilité de 0.078).

Tableau 6 : typologie des entreprises et site web

QA. Typologie des entreprises	Q 39- Site web ( $\chi^2=5,103$ ; ddl=2; p=0,078)					
	Oui	%	Non	%	Total	%
Pour les entreprises	160	26,45 %	445	73,55 %	605	100 %
Pour les particuliers	10	15,63 %	54	84,38 %	64	100 %
Pour les professionnels et les particuliers	11	35,48 %	20	64,52 %	31	100 %
Total	181	25,86 %	519	74,14 %	700	100 %

### Concernant les sites de commerce électronique

Peu de PMI internationales possèdent un site de commerce électronique (voir tableau n°7,  $\chi^2=1,13$ , ddl=1, p=0,29). Les sites web servent alors plus de sites vitrines pour faire valoir les produits et se faire connaître que pour proposer de la vente en ligne.

Tableau 7 : Croisement d'un site de e-commerce avec des établissements internationaux ou nationaux

Q22 Établissement International ou non (4 nsp)	Q39- Vente en ligne ( $\chi^2=1,13$ , ddl=1, p=0,29)					
	Non	%	Oui	%	Total	%
Internationale	334	93,82 %	22	6,18%	356	100 %
Nationale, Régionale, Locale	312	91,76%	28	8,24 %	340	100 %
Total	646	92,82 %	50	7,18 %	696	100 %

L'industrie est bien différente des services supérieurs où le service peut-être vendu à distance. Sur les 356 PMI interrogées, seules 22 déclarent faire du commerce électronique. Après avoir enlevé les non-réponses, nous observons que le test du Khi-Deux n'est pas significatif donc nous ne pouvons pas conclure que les deux variables sont dépendantes (voir tableau n°8).

Tableau 8 : Site pour faire de la vente en ligne

Type de clientèle Internationale (1 nsp)	Q 39. Utilisez-vous ce site pour faire de la vente en ligne ? (chi2=0,262, ddl=1, p=0,609)					
	Non	%	Oui	%	Total général	%
Rural	194	93,27 %	14	6,73 %	208	100 %
Urbain	140	94,59 %	8	5,41 %	148	100 %
Total général	334	93,82 %	22	6,18 %	356	100 %

Ce n'est pas parce que les entreprises sont entièrement tournées vers leurs clients internationaux, que les entreprises utilisent davantage le commerce électronique comme le montre le tableau n°9).

Tableau 9 : typologie des entreprises et vente en ligne

QA. Typologie des entreprises	Q39- Vente en ligne (chi2= 0,865, ddl=1, p =0,352)					
	Non	%	Oui	%	Total	%
Professionnel	560	93,18 %	41	6,82 %	601	100 %
Particulier	86	90,53 %	9	9,47%	95	100 %
Total	646	92,82 %	50	7,18 %	696	100 %

### Concernant la présence d'un intranet

Les entreprises industrielles internationales n'utilisent pas majoritairement un intranet dans les zones urbaines (53,20 % de notre échantillon contre 46,13 % qui l'utilisent). Plus de la moitié d'entre elles ne disposent pas d'un intranet. Ce résultat mériterait d'être rapproché de la taille des entreprises. En fait la petite taille de certaines entreprises ne justifie peut-être pas un intranet, car les personnels travaillent en face-à-face. Par contre un extranet avec clients et fournisseurs seraient utile (voir tableau n°10 et n°11).

Tableau 10 : Présence d'un intranet pour établissement internationaux / nationaux (512 observations valides, 181 non réponses et 3 nsp = 696 entreprises)

Q22 Etablissement International ou non NR : 181, NSP 3	Q40- Intranet (chi2 =0.003, ddl=1, p=0,954)					
	Non	%	Oui	%	Total	%
Internationale	161	61,45 %	101	38,55 %	262	100 %
Nationale, Régionale,	153	61,20 %	97	38,80 %	250	100 %

Locale						
Total	314	61,33 %	198	38,67 %	512	100 %

Tableau 11 : Présence d'un intranet dans les PMI Internationales

Type de clientèle dans les PMI Internationales	Question 40. Disposez-vous d'un intranet ? (chi2 =0.787, ddl=1, p=0.375 rural-urbain) -							
	NR	(Nsp, sr)	Non		Oui		Total général	
Rural		1	97	59,15 %	67	40,85 %	164	100,00%
Urbain		1	64	64,65 %	34	34,34 %	99	100,00%
Internationale	92	2	161	45,10 %	101	28,29 %	357	

Le test du chi2 n'est pas significatif. Cependant quand on compare les entreprises nationales et internationales, il n'existe pas de lien de dépendance entre ces deux variables, à savoir la présence d'un intranet et d'une clientèle internationale (voir tableau n°8).

Tableau 12 : Typologie des établissements et intranet

Typologie des établissements	Q40- Intranet (Chi2= 0.762, ddl=1, p=0.383)					
	Non	%	Oui	%	Total	%
Professionnels	272	62,10 %	166	37,90 %	438	100 %
Particuliers	42	56,76 %	32	43,24 %	74	100 %
Total	314	61,33 %	198	38,67 %	512	100 %

### Concernant la présence de la conférence par téléphone

Les PMI qui se développent à l'internationale, ne semblent pas plus utiliser les conférences par téléphone que les PMI nationales, puisque notre test de chi2 n'est pas significatif (Voir Tableau n°13, chi2=0,373, ddl=1, p=0,541).

Tableau 13 : Utilisation de la conférence par téléphone

Q 47. Votre entreprise utilise-t-elle la conférence par téléphone ? (chi2=0,373, ddl=1, p=0.541)						
Type de clientèle	Rural	%	Urbain	%	Total général	%
Internationale	208	58,26%	149	41,74%	357	100 %
Nationale	192	55,98%	151	44,02%	343	100%
Total	400	57,14%	300	42,86%	700	100 %

Si nous analysons plus précisément les petites et moyennes industries, qui vont à l'internationale, nous observons que les PMI rurales utilisent principalement la conférence par téléphone contrairement aux PMI installées dans les zones urbaines, puisque le Chi2 est très significatif (voir tableau n°14,  $\chi^2 = 17,341$ , ddl=1,  $p=0,0001$ ).

Tableau 14 : type d'établissement Internationaux et conférence téléphonique

Etablissement rural ou urbain se développant à l'international (1 nsp)	Q47. Votre entreprise utilise-t-elle la conférence par téléphone ? ( $\chi^2 = 17,341$ , ddl=1, $p=0,0001$ )					
	Non	%	Oui	%	Total	%
Rural	143	69,08 %	64	30,92%	207	100 %
Urbain	131	87,92%	18	12,08%	149	100 %
Total	274	76,97%	82	23,03%	356	100 %

De même, une PMI rurale utilisera plus souvent la conférence par téléphone pour appeler d'autres sites ou des clients ou partenaires qu'une PMI urbaine (voir tableau n°15,  $\chi^2 = 19,898$ , ddl=2,  $p=0,0001$ ).

Tableau 15 : Conférence par téléphone et type d'établissement

Etablissement rural ou urbain se développant à l'international	Q47 . Votre entreprise utilise-t-elle la conférence par téléphone ? ( $\chi^2 = 19,898$ , ddl=2, $p=0,0001$ )							
	Non	%	Oui, avec d'autres sites de l'entreprise et fournisseurs	%	Oui, avec des clients des partenaires	%	Total	%
Rural	143	69,08 %	34	16,43 %	30	14,49 %	207	100
Urbain	131	87,92 %	5	3,36 %	13	8,72 %	149	100
Total	274	76,97 %	39	10,96 %	43	12,08 %	356	100

En revanche, il est difficile de dire qu'une entreprise BtoB utilisera plus les conférences téléphoniques qu'une entreprise BtoC (voir tableau n°16,  $\chi^2 = 0,258$ , ddl=1,  $p=6,11$ ).

Tableau 16 : typologie des établissements et conférences par téléphone

Typologie des établissements	Q47 . conférence par téléphone ( $\chi^2 = 0,258$ , ddl=1, $p=6,11$ )					
	Non	%	Oui	%	Total	%



Professionnels	246	77,36 %	72	22,64 %	318	100 %
Particuliers	28	73,68 %	10	26,32 %	38	100 %
Total	274	76,97 %	82	23,03 %	356	100 %

### Concernant la présence de la vidéoconférence ou la Web conférence

Les petites et moyennes industries internationales utilisent la web conférence autant que les entreprises nationales, régionales ou locales (le test de Khi-deux n'est pas significatif).

Tableau 17 : type de clientèle et web-conférences

Q22 Clientèle Internationale ou non (4 nsp)	Q48- web conférence ou visioconférence (chi2 =0,10 ; ddl=1 ; p=0,75)					
	Non	%	Oui	%	Total	%
Internationale	308	86,76 %	47	13,24 %	355	100 %
Nationale, Régionale, Locale	293	85,92 %	48	14,08 %	341	100 %
Total	601	86,35 %	95	13,65 %	696	100 %

Les PMI du monde rural ont cependant plus tendance à utiliser la web conférence ou la visioconférence que les PMI urbaines (Tableau n°18, chi2=33,14, ddl=1, p=0,0001).

Tableau 18 : type d'établissement et web-conférences

Q1. Type d'établissements (4 nsp)	Q 48. Votre entreprise utilise-t-elle la Web conférence ou Visioconférence ? (chi2= 33,14, ddl=1, p=0.0001)					
	Oui	%	Non	%	Total général	%
Rural	317	79,85 %	80	20,15 %	397	100 %
Urbain	284	94,98 %	15	5,02 %	299	100 %
Total	601	86,35 %	95	13,65 %	696	100 %

En revanche il n'y a pas de différence notable entre les PMI à destination des professionnels par rapport aux PMI qui travaillent pour des particuliers (test du Khi-deux non significatif).

Tableau 19 : Typologie des établissements et web-conférences

Typologie des établissements (4 nsp)	Q48- Webconférences (Chi2=1,618, ddl=1, p=0,202)					
	Non	%	Oui	%	Total	%

Professionnels	515	85,69%	86	14,31 %	601	100 %
Particuliers ou les deux	86	90,53%	9	9,47 %	95	100 %
Total	601	86,35 %	95	13,65 %	696	100 %

Les PMI dans le monde rural utilisent plus la web-conférence ou la visioconférence avec d'autres sites de l'entreprise ou avec des partenaires que les entreprises dans le monde urbain Et ceci de plus de 2 ans au moins pour celles qui le pratiquent (voir tableau 20 et 21).

Tableau 20 : Utilisation de la web conférence ou visioconférence

Type de clientèle	Q48B. Types de web-conférences recodées (Chi2= 14,695, ddl=2, p=0,001)							
	Non		Oui, avec d'autres sites ou fournisseurs		Oui, avec des clients ou des partenaires		Total	
Internationale	Nb	%	Nb	%	Nb	%	Nb	%
Rural	168	81,16 %	25	12,08 %	14	6,76 %	207	100 %
Urbain	140	94,59%	3	2,03 %	5	3,38 %	148	100 %
Total	308	86,76 %	28	7,89 %	19	5,35 %	355	100 %

Sans comparer web-conférence et visioconférence, nous pouvons retenir que plus de 30 % des entreprises en milieu rural et urbain l'utilisent et que seuls 17 % des entreprises l'utilisent depuis moins d'un an. Il y a une certaine « durabilité » de l'utilisation de la visioconférence (voir tableau 11).

Tableau 21 : nombre d'année d'utilisation de la visioconférence/web conférence

Q48bis. Depuis combien de temps l'utilisez-vous ?						
Type de clientèle	Rural		Urbain		Total général	
Internationale	40		36		76	
(Nsp, sr)	1	2,50%	1	2,78%	2	2,63%
1 à 2 ans	10	25,00%	11	30,56%	21	27,63%
3 à 5 ans	10	25,00%	6	16,67%	16	21,05%
Moins de 1 an	7	17,50%	6	16,67%	13	17,11%
Plus de 5 ans	12	30,00%	12	33,33%	24	31,58%
Total général	40	100,00%	36	100,00%	76	100,00%

Typologie des établissements	Q48A Types de web-conférences recodées (Chi2=1,058, ddl=1, p=0.304)					
	Non	%	Oui	%	Total	%
Professionnels	273	86,12 %	44	13,88 %	317	100 %
Particuliers ou les deux	35	92,11 %	3	7,89 %	38	100 %
Total	308	86,76 %	47	13,24 %	355	100 %

### Concernant les applications de travail collaboratif

Très peu d'entreprises industrielles internationales utilisent les applications de travail collaboratif autres que le courrier électronique. Le test de Khi-deux n'est pas significatif (tableau 22, chi2=0.624 ddl=1, p=0.429) quand on compare les entreprises internationales ou non avec l'utilisation d'outils de travail collaboratifs autre que le courrier électronique.

Tableau 22: Utilisation des applications de travail collaboratif en fonction du type de clientèle

Q22 Clientèle Internationale ou non (11 nsp)	Q 50A. Utilisez-vous des applications de travail collaboratif (groupware) autres que le courrier électronique ? (Chi2=0.624 ddl=1, p=0.429)					
	Non	%	Oui	%	Total général	%
Internationale	331	93,50%	23	6,50%	354	100 %
Nationale, Régionale, Locale	308	91,94%	27	8,06%	335	100 %
	639	92,74%	50	7,26%	689	100 %

Il en va différemment lorsque l'on compare les entreprises urbaines ou rurales, quelles soient ou non internationales, par rapport à l'utilisation des outils collaboratifs. (Voir tableau 23 avec un test significatif : chi2=2.850, ddl=1, p=0.091).

Tableau 23: Utilisation des applications de travail collaboratif et entreprises rurale ou urbaine

Q22 Clientèle Internationale ou non (11 nsp)	Q 50A. Utilisez-vous des applications de travail collaboratif (groupware) autres que le courrier électronique ? (Chi2=2.850 ddl=1, p=0.091)					
	Non	%	Oui	%	Total	%

Rural	356	91,28 %	34	8,72 %	390	100 %
Urbain	283	94,65 %	16	5,35 %	299	100 %
Total	639	92,74 %	50	7,26 %	689	100 %

En revanche, si l'on s'intéresse uniquement aux PMI Internationales on s'aperçoit vite que les tests de Khi-deux ne sont pas significatifs, ni pour les PMI qui vendent à des professionnels ou à des particuliers ou aux deux (voir le tableau n°24, avec un  $\chi^2=0.002$ , ddl=1,  $p=0.964$ ), ni pour les PMI rurales ou urbaines ( $\chi^2=2,585$  ddl=1,  $p=0.108$ )

Tableau 24 : typologie des entreprises et utilisation des applications de travail collaboratif

Typologie des établissements (11 nsp)	Q 50A. Utilisez-vous des applications de travail collaboratif (groupware) autres que le courrier électronique ? $\chi^2=0.002$ ddl=1, $p=0.964$					
	Non	%	Oui	%	Total	%
Pour les particuliers	551	92,76 %	43	7,24 %	594	100 %
Pour les professionnels	88	92,63 %	7	7,37 %	95	100 %
Total	639	92,74 %	50	7,26 %	689	100 %

Parfois elles le pratiquent avec d'autres sites de l'entreprise, ou alors avec des partenaires, mais très rarement avec des clients ou donneurs d'ordre ou les fournisseurs (0.56 % dans les deux cas).

Tableau 25: Utilisation des applications de travail collaboratif (groupware)

Type de Clientèle internationale	Q50B. Groupware ( $\chi^2=3.420$ , ddl=1, $p=0.198$ )					
	Rural		Urbain		Total	
Non	188	56,80 %	143	43,20 %	331	100 %
Oui, avec d'autres sites de l'entreprise ou fournisseurs	12	80,00 %	3	20,00 %	15	100 %
Oui, avec des clients ou donneurs d'ordre ou partenaires	5	62,50 %	3	37,5 %	8	100 %
Total général	205	57,91 %	149	42,1 %	354	100 %

## Le télétravail nomade et à domicile

Dans les entreprises industrielles, la problématique du télétravail se pose bien différemment des entreprises de services. L'étude de l'Espace Numérique de l'Entreprise de 2008, montre que le retard pris par le télétravail semble être du au problème de contrôle qu'il pose. Mais dans le contexte de la production manufacturière, les enjeux sont tout autre, les PMI qui souhaitent se développer à l'international vont demander à leurs salariés de travailler à distance avec un portable et une connexion internet en déplacement surtout lorsqu'elles sont implantées dans des zones rurales. Globalement un tiers des entreprises internationales déclarent le faire : 29,66 % avec une plus forte proportion pour les zones rurales (voir tableau n°26,  $\chi^2=8,621$ , ddl=1,  $p=0.004$ ). Cependant avoir déjà un tiers de PMI internationales utilisant les TIC, est relativement important comparé aux 700 entreprises industrielles interrogées qui tourne approximativement autour de 22 % en milieu rural et 35 % en milieu urbain (Moriset, 2012).

Tableau 26 : Le télétravail nomade dans les établissements internationaux ruraux ou urbains

Type de clientèle Internationale (3 nsp)	Q54 Certains salariés pratiquent-ils le télétravail nomade ? (avec connexion d'un PC portable en déplacement) ( $\chi^2=8,621$ , ddl=1, $p=0.004$ )					
	Non	%	Oui	%	Total	%
Rural	132	64,39 %	73	35,61 %	205	100 %
Urbain	117	72,58 %	32	21,48 %	149	100 %
Total	249	70,34 %	105	29,66 %	354	100 %

Sinon il n'existe pas de relation significative entre des entreprises qui travaillent avec des professionnels ou des particuliers dans le monde industriel pour l'utilisation du télétravail contrairement à ce que nous pourrions penser ( $\chi^2=0.075$ , ddl=1,  $p=0,784$ ).

Tableau 27 : Typologie des établissements et télétravail nomade

Type de clientèle Internationale (3 nsp)	Q54 Certains salariés pratiquent-ils le télétravail nomade ? (avec connexion d'un PC portable en déplacement) ( $\chi^2=0.075$ , ddl=1, $p=0.784$ )					
	Non	%	Oui	%	Total	%
Professionnel	223	70,57 %	93	29,43 %	316	100 %
Particuliers ou les	26	68,42 %	12	31,58 %	38	100 %

deux						
Total	249	70,34 %	105	29,66 %	354	100 %

Concernant le télétravail à domicile, il n'y a pas de relation significative entre le type d'établissement industriel international (rural ou urbain) et la catégorie de télétravailleurs contractuel ou non. (Voir tableau n°29,  $\chi^2=1,838$ , ddl=2,  $p=0.399$ ). Il en va de même avec le type de clientèle (professionnel ou particulier) et les télétravailleurs à domicile ( $\chi^2=2,687$ , ddl=1,  $p=0.101$ ).

Tableau 28 : Le type de télétravail pratiqué à domicile

<b>Question 55I3. Certains salariés pratiquent-ils le télétravail à domicile ? (<math>\chi^2=1,838</math>, ddl=2, <math>p=0.399</math>)</b>						
<b>Type de clientèle</b>	<b>Rural</b>		<b>Urbain</b>		<b>Total général</b>	
Internationale ?	<b>Nb</b>	<b>%</b>	<b>Nb</b>	<b>%</b>	<b>Nb</b>	<b>%</b>
Non	159	56,58 %	122	43,40 %	281	100 %
Oui, contractuellement	15	60,00 %	10	40,00 %	25	100 %
Oui, d'une manière informelle	34	66,67 %	17	33,3 %	51	100 %
Total général	208	58,26 %	149	41,7 %	357	100 %

## Discussions

L'analyse du comportement des Petites et Moyennes Industries qui se développent à l'internationale est éclairée par l'enquête DISCOTEC. Il ressort de cette enquête qu'il n'existe pas de relation entre l'usage des TIC (en densité et en diversité) et le degré d'internationalisation des PMI. L'enquête ne nous permet pas de valider notre hypothèse première, à savoir que les petites et moyennes industries internationales ont des usages plus sophistiqués ou avancés que les consœurs nationales, régionales ou locales. Ainsi il n'existe pas de relation significative entre les PMI Internationales et l'utilisation d'un site web ( $\chi^2=0,003$ , ddl=1,  $p=0,957$ ). Le site web est considéré comme la vitrine commerciale d'une PMI Internationale. Il n'y a pas de relation significative non plus entre les PMI Internationales et l'utilisation d'un intranet ( $\chi^2=0,03$ , ddl=1,  $p=0,954$ ) ou des conférences téléphoniques ( $\chi^2=0,373$ , ddl=1,  $p=0,541$ ). De même les PMI pour se développer à l'international n'utilisent pas plus le commerce électronique que les PMI nationales, régionales ou locales ( $\chi^2=1,13$ , ddl=1,  $p=0.29$ ), qui est pourtant un facteur de croissance (Collin, 2006). Cependant nous avons remarqué quelques différences entre les PMI internationales et celles qui ne le sont pas. Ainsi des entreprises industrielles rurales par rapport à celles urbaines vont plus souvent développer un site web ( $\chi^2=8,106$ , ddl=1,  $p=0,004$ ) ou utiliser

davantage les conférences téléphoniques d'abord avec d'autres sites de l'entreprise ou fournisseurs ( $\chi^2=19,898$ ,  $ddl=2$ ,  $p=0,0001$ ). Enfin les PMI Internationales dans les territoires ruraux semblent utiliser plus les webconférences et les visioconférences pour leur développement à l'international ( $\chi^2=14,695$ ,  $ddl=2$ ,  $p=0,001$ ). Au final après cette étude, nous retrouvons ici certains résultats de travaux développés par Galliano & Roux (2003 & 2006) qui affirment que « le caractère multi-établissement de la firme, par la multi-localisation qu'il implique, apparaît comme un facteur qui favorise l'adoption et l'usage des TIC ». Le télétravail semble prisé par les entreprises industrielles internationales puisque nous avons aussi près d'un tiers d'entreprises industrielles internationales (35,61% en milieu rural et 21,48 % en milieu urbain) qui utilisent le télétravail nomade avec connexion d'un pc portable en déplacement ( $\chi^2=8,621$ ,  $ddl=$ ,  $p=0,004$ ). En revanche pour le télétravail à domicile, que ce soit de façon contractuelle ou informelle, les entreprises industrielles internationales implantées dans des zones rurales ou urbaines ne font pas appel plus à des télétravailleurs à domicile, ce qui est normal puisque ce sont des activités industrielles et non de services ( $\chi^2=0,075$ ,  $ddl=1$ ,  $p=0,784$ ). Enfin ces résultats doivent être mis en parallèle avec une enquête sur les entreprises de services supérieurs réalisée précédemment (Moriset, 2011 ; Collin, Thivant, Moriset et Brette, 2011) qui montrait également la forte corrélation entre TIC et développement international.

### **Conclusion et perspectives**

En conclusion, comme nous avons pu le démontrer ci-dessus, les TIC accompagnent les petites et les moyennes industries internationales. Mais pour ces entreprises industrielles ce sont des outils au service de la stratégie de développement de l'entreprise. Elles n'ont pas d'usages plus avancées que les entreprises industrielles nationales, régionales ou locales. Toutefois, quelques différences sont constatées entre les PMI qui se développent à l'internationales et celles qui ne le font pas. De même nous avons trouvé quelques différences entre les PMI implantées dans des zones rurales et dans des zones urbaines. C'est ce qui pose la question de l'impact du rural/urbain par rapport à la question de l'international et renforce l'intérêt de croiser les questionnements géographiques et managériales. De plus il faudrait faire de nouvelles études pour voir le parallèle encore entre le secteur tertiaire et le secteur industriel. Cela nous donnera l'opportunité de prolonger ainsi notre recherche. Nous envisageons également une comparaison avec d'autres pays européens, notamment la république tchèque nous permettrait d'avoir de nouvelles certitudes sur la gestion des technologies de l'information et de la communication et le management international.

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# LA VEILLE CONCURRENTIELLE – EXEMPLE DES SERVICES DES AGENCES SPECIALISEES<sup>1</sup>

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**Abstract:** *Highly competitive and volatile environment, in which operate multinational companies, gives a new perspective to market intelligence and market watch in international marketing strategy. Many authors urge the fact that in order to succeed on international markets, it is essential to develop systems of analyzing competitors, their objectives, strategies, strengths and weaknesses, etc. By adopting this approach, companies can adjust their strategy and estimate future evolution on global markets and therefore get an important competitive advantage. In order to analyze the competition, the company must identify its sources. In fact, it is required to decide whether to outsource the monitoring and rely on specialized external sources or if it will use its own sources. This decision is based on many factors; one of the most important is the presence of specialized professional agencies that develop systems of market intelligence. Those agencies are mostly present on highly developed markets. For example in the automotive world, the intelligence system is well developed in certain geographical areas, including Europe, Turkey and the major markets of Latin America such as Brazil and Mexico. Several specialized agencies offer their networks of analysts to car producers in order to facilitate the monitoring of key events.*

**Keywords:** Market intelligence, specialized research agency, competition, international benchmarking.

**JEL classification:** M16, M31

## Introduction

Les entreprises opèrent dans un environnement hautement compétitif et instable et ainsi la recherche doit être le point de démarche de la stratégie de marketing international. « Aujourd'hui, la guerre commerciale s'appuie davantage sur le renseignement que sur autre ressource. Les concurrents peuvent copier l'équipement, les produits et les procédures d'une entreprise mais ils ne peuvent pas dupliquer son

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système d'intelligence. Le contenu de ce système est la principale source d'avantage concurrentielle. »<sup>1</sup>

Croué dans son livre Marketing International distingue deux types de veilles : la veille commerciale et la veille technologique. Quand la veille technologique a pour but d'anticiper les nouvelles technologies et nouveaux matériaux, la veille commerciale représente „une action qui consiste à s'informer de façon régulière sur les agissements de la concurrence directe. “<sup>2</sup> Comme le constate Croué, il s'agit plus concrètement de connaître et d'anticiper toutes actions marketing mises en oeuvre par les concurrents sur les marchés où l'entreprise est présente. Les informations qui doivent être récupérées sont influencées par le secteur d'activité de l'entreprise. Néanmoins, les axes de recherche devraient permettre de récupérer les données suivantes<sup>3</sup> :

- l'émergence des nouveaux segments,
- les déclinaisons des produits existants,
- les services associés à la vente,
- les glissements des positionnements prix et image,
- l'évolution des axes de communication des concurrents,
- les procédés d'emballage et de conditionnement,
- les politiques de niches des concurrents directs.

### **Spécificité et objectifs des études internationales**

« L'étude de marché est une technique de collecte et d'analyse d'information, permettant de mieux connaître un marché, dans le but de réduire l'incertitude des décisions marketing ultérieurs. »<sup>4</sup>

Les objectifs de l'étude déterminent le choix des informations, des opérateurs, de la méthode et des techniques. On peut identifier une typologie des études internationales en trois groupes : les études générales et exploratoires, les études de la concurrence et les études de la pertinence de la stratégie.

Les études générales et exploratoires ont pour l'objectif d'identifier l'intérêt commercial qui représente un pays ou une zone (potentiel d'activité et de rentabilité, accessibilité, l'environnement macroéconomique) et d'évaluer les risques potentiels de l'implantation. Le résultat de ce type d'étude influence les décisions stratégiques sur l'entrée ou non sur le marché étranger et le mode de présence (par exemple si le risque

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<sup>1</sup> KOTLER, P.: Le marketing selon Kotler, Edition Village Mondial, Paris 1999, p.87.

<sup>2</sup> CROUÉ, Ch. Marketing International, page 224.

<sup>3</sup> IBID, page 225

<sup>4</sup> VERNETTE, E. L'essentiel du marketing, Editions d'Organisation 1998, page 375.

est significatif l'entreprise privilégie l'exportation ou la cession de licence à l'investissement direct).

L'intensification de la concurrence internationale nécessite une analyse profonde de ses objectifs et stratégies, des forces et faiblesses, de l'évolution de sa part de marché, etc. L'entreprise peut ainsi estimer à quoi ressemblera la concurrence à l'avenir. Les résultats sont souvent utilisés dans le cadre de « benchmarking » qui consiste dans l'analyse des solutions retenues par des concurrents. L'objectif de benchmarking est de s'inspirer des expériences positives, de détecter les forces et les faiblesses pour prendre les mesures renforçant la compétitivité de l'entreprise.

La définition de la stratégie de marketing international et son ajustement permanent se réalise au fil de décisions prises en prévision de la réaction probable du marché. Pour l'imiter l'incertitude et réduire les risques l'entreprise doit réaliser les études sur ce qu'elle estime être des points clés de la pertinence de sa stratégie. Elle peut réaliser par exemple le test de produit, l'étude sur les prix de vente, choix d'une marque, analyse des circuits de distributions, pré-test et post-test de la campagne publicitaire, l'étude de comportement des consommateurs, l'étude de l'image de sa marque, etc.

### **Techniques d'étude international de marché**

Afin de pouvoir effectivement analyser la concurrence, l'entreprise doit tout d'abord identifier ses sources d'informations nécessaires. Ces sources varient selon les objectifs des études. Mayrhofer<sup>1</sup> distingue les données internes et externes et les données primaires et secondaires.

Les données internes représentent la source d'informations qui provient de l'entreprise elle-même, de ses filiales étrangères ou de ses intermédiaires de la distribution. Pour que ces données soient effectivement mesurables, il est conseillé de mettre en place des systèmes d'informations centralisés au sein du siège de l'entreprise, qui permettent de réaliser des analyses pertinentes avec la possibilité d'identifier les tendances importantes sur les marchés internationaux.

La deuxième source d'informations représente les données externes, qui sont utilisées dans le cas où les données internes ne sont pas suffisantes pour répondre aux objectifs fixés de l'étude. Les données externes peuvent être distinguées en données primaires et données secondaires.<sup>2</sup>

Les données secondaires proviennent de différentes organisations et sont en général disponibles ou publiées sur les sites Internet de ces organisations. Si ces données ne sont pas suffisantes pour obtenir les informations nécessaires pour l'analyse,

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<sup>1</sup> MAYRHOFER U. Marketing International, page 38.

<sup>2</sup> IBID, page 39.

l'entreprise est amenée à récupérer les données primaires, qui représentent les informations collectées par l'entreprise dans une enquête spécifique.

L'étude de terrain est d'habitude coûteuse car elle travaille avec les données primaires, c'est-à-dire avec les informations qui ne sont pas à disposition publique et qui sont recueillies pour une tâche ou un projet spécifique. La réussite des études de terrain à l'étranger suppose que soient remplies de nombreuses conditions : accès aux sources d'information, compréhension de l'environnement et de la langue étrangère, adaptation des techniques de recueil des données, etc. L'entreprise peut faire appel à son propre personnel ou sous-traiter l'étude à une société spécialisée. Comme constate Mayrhofer, même si leurs données sont payantes et coûteuses, l'externalisation est une solution plus avantageuse, parce que les agences disposent de réseaux d'analystes et de larges bases de données. La création de ce type de réseau par l'entreprise serait beaucoup plus coûteuse que l'externalisation.

Les grandes sociétés disposent d'un réseau mondial et propose ses services à la clientèle internationale. Souvent elles s'installent immédiatement après l'ouverture d'un nouveau marché pour pouvoir être à la disposition de leurs « grandes comptes » (key accounts).

### **Service des agences spécialisées pour les constructeurs d'automobiles**

Les constructeurs européens utilisent notamment les services de deux agences – Jato pour les services complexes et TNS Sofres et son outil de veille sur l'offre promotionnelle PromoCAR.

Jato est une agence spécialisée en collecte de données provenant du secteur automobile. L'entreprise a été créée en 1984 et aujourd'hui, elle est présente dans 45 pays. Sa clientèle principale est représentée par les constructeurs d'automobiles, les loueurs, les sites Internet spécialisés et les conseillers divers. La recherche se concentre dans le domaine des prix, ventes et immatriculations, des actions promotionnelles et des nouvelles du secteur automobile. Plus concrètement, il s'agit des informations suivantes :

- Les spécifications détaillées des voitures avec leurs équipements de série et les options. Ces informations sont publiées sur le site Jatonet ainsi que dans l'outil JatoV4.
- Les prix des véhicules hors taxes et avec taxes, les prix des options offertes pour chaque version.
- Les informations sur les volumes (les ventes) et sur les immatriculations des modèles des différents constructeurs pour chaque marché.
- L'activité promotionnelle des constructeurs avec les détails des actions commerciales.

L'objectif proclamé des données Jato est de permettre aux constructeurs de réagir face aux changements sur les marchés cibles à court terme et de préparer les projets à long terme en comprenant les besoins des consommateurs. L'avantage concurrentiel de Jato est lié au fait, que cette entreprise est présente au niveau mondial et qu'elle collabore avec la plupart des constructeurs d'automobiles. Ceci leur donne une remarquable source d'intelligence sur le marché. Jato gère le réseau des analystes spécialisés dans les pays concernés, qui collabore avec les constructeurs et les importateurs présents sur le marché pour assurer la bonne compréhension des changements de marché. Les produits offerts par Jato, qui sont utilisés par les constructeurs d'automobiles sont par exemple Jato V4 et Jato News. Jato V4 sert de source d'informations pour les analyses prix et Jato News comme la base des données pour la veille concurrentielle sur les marchés de véhicules utilitaires.

Jato V4 est un outil du type Excel, qui intègre plusieurs bases de données et beaucoup de fonctions qui permettent des analyses approfondies très ciblées. Il offre la possibilité de faire des calculs de comparaison de prix dans une optique d'aide à la décision. Les bases de données sont les suivantes :

**Spécifications** : cette base de données contient les informations détaillées sur l'équipement de toutes les versions du modèle choisit d'un constructeur. On distingue l'équipement offert en série de celui en option. Hormis l'équipement, la base de données offre des informations sur :

- Poids et dimensions (notion très importante pour les véhicules utilitaires).
- Types de transmission.
- Informations sur la performance, consommation et autres caractéristiques techniques.
- Prix des véhicules hors taxes et toutes taxes comprises.

Cette base de données permet de créer le jeu de valeur appelé PCOM, qui est essentiel pour les analyses du positionnement prix, car ce sont ces valeur PCOM qui permettent de corriger les prix des différentes voitures pour constituer les indices de performance. Dans la base de données Spécifications, on distingue la base des Véhicules Particuliers et des Véhicules Utilitaires. A l'aide des filtres, on peut obtenir des informations très ciblées sur les caractéristiques des versions qui intéressent les clients du Jato. On peut les comparer et analyser leur positionnement.

**Volumes** : cette base de données contient les informations sur les ventes et les immatriculations mensuelles des véhicules particuliers et utilitaires. Il s'agit des informations officielles, qui sont publiées par les constructeurs ou par les associations de dealers où importateurs. Une autre base de données - **Model Mixe Volumes** - offre

des informations plus détaillées sur le volume, qui sont corrigées par les analystes Jato. Ce type d'information peut être utilisé dans les analyses diverses de prix volume.

La veille concurrentielle repose sur trois domaines de recherche, qui sont essentiels :

- évolution prix
- évolution produit
- évolution promotion

Jato possède des agents dans chaque pays concernés, qui visitent les salons, magasins, suivent la presse spécialisée et ensuite récupèrent les informations sur les évolutions de prix, promotion et produit.

Jato suit les principaux concurrents pour chaque segment sur le périmètre géographique d'une vingtaine des pays (hormis certains pays européens) et le Brésil, le Mexique, la Turquie, l'Afrique du Sud et Israël, et publie chaque jour sur son site les événements principaux de la journée aussi bien sur les VU que les VP sur l'ensemble des marchés.

Une fois qu'on identifie les informations concernant les mouvements de prix d'un constructeur, on analyse le fichier qui contient le changement de prix en valeur totale et en pourcentage pour chaque version de chaque modèle concerné. Dans chaque segment, on distinguera les versions VP et VU. Par exemple il existe le segment Trafic VP, constitué par les bus et les combi et le segment Trafic VU, représenté par les fourgons, cabine approfondie, et châssis. Une fois fichier publié sur Jato analysé, les informations détaillées pour chaque version (pays, marque, modèle, version, segment, montant de changement et date d'application) sont saisies.

Graphique 1 : Le rapport de la veille concurrentielle

COUNTRY	MAKE	MAKE	MODEL	SEGMENT	VERSION	RISE	DROP	PRICE	PROMOTION	TARGET	ADVERT	BEGINNING	END
France	FORD	FORD	TOURNEO CONNECT	KANGOO VU	All range / Toute la gamme				16.39% discount	PRIVATE	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD	TRANSIT CONNECT	KANGOO VU	3 m3 NID				Discount of EUR 2430	FLEETS	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD			4 m3 NID				Discount of EUR 2673	PRIVATE	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD			Titanium				Discount of EUR 2660 - Not cumulative with: 25046	PRIVATE	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD	FOCUS	LOGAN MCV	Trend				Discount of EUR 2210 - Not cumulative with: 15046	PRIVATE	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD			Trend 2.0 TDCi 136				Discount of EUR 2785 - Discount of 2360EUR + Trend Pack at 425EUR. Not cumulative with: 15046	PRIVATE	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD	TRANSIT	MASTER	All Range / Toute la gamme				16.39% discount - Not cumulative with: 2446	PRIVATE	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD			3 m3 NID				Discount of EUR 2430 - Not cumulative with other incentives	FLEETS	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD	TRANSIT	TRAFIC VU	4 m3 NID				Discount of EUR 2673 - Not cumulative with other incentives	FLEETS	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD			Faargon 260 NID				Discount of EUR 3401 - Not cumulative with other incentives	FLEETS	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD			Faargon 360 NID				Discount of EUR 7269 - Not cumulative with other incentives	FLEETS	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD	TRANSIT	MASTER	Chassis Cabine				Discount of EUR 7269 - Not cumulative with other incentives	FLEETS	Not publicized	01.03.2008	31.03.2008
France	FORD	FORD			20m3 NID								
France	FORD	FORD			One-Stop / Châssis Benne NID				Discount of EUR 6681 - Not cumulative with other incentives	FLEETS	Not publicized	01.03.2008	31.03.2008

Source : Données internes, Renault

Les informations concernant l'évolution des produits proviennent également du site Jato. Sur le même périmètre géographique et avec le même niveau de détail, on s'intéresse principalement à l'introduction des nouvelles versions, des éditions spéciales et limitées et des nouveaux modèles introduits par les différents constructeurs. Jato dispose d'informations détaillées sur les nouveautés grâce à

l'accord des constructeurs, qui donnent à Jato ses données (principe gagnant - gagnant, quand la majorité des constructeurs concernés bénéficient des données Jato) et aussi grâce à de nombreux agents dans les pays qui visitent les magasins et les salons pour récupérer les informations.

Au niveau de l'introduction des nouveaux produits, on s'intéresse à l'ensemble des informations publiées, mais surtout aux informations suivantes :

- motorisation – puissance, consommation, émission de CO2 (information qui devient de plus en plus stratégique).
- équipement – quel type d'équipement est offert dans la version la plus basique du modèle, on s'intéresse surtout aux items fortement valorisés par le client comme la climatisation, les airbags, CD/MP3 et autres.
- prix – on s'intéresse à la fourchette entre le prix d'accroche et le prix haut de gamme pour voir la stratégie de chaque constructeur au niveau du positionnement des nouveaux modèles.

Les données concernant l'évolution de la promotion proviennent souvent de deux sources différentes. Pour les pays de G5 (Allemagne, Espagne, France, Grande Bretagne, Italie) plus Portugal, les constructeurs peuvent se servir de données PromoCAR du TNS Sofres, et pour le reste des pays des informations qui proviennent du site Jato.

Les données PromoCAR sont très détaillées et permettent de réaliser une véritable analyse pour les marchés concernés. Les agents de Promocar récupèrent les informations sur l'évolution de l'activité promotionnelle pendant tout le mois et le publient à la fin de mois sur leur site Internet sous forme de tableau Excel qui contient les données pour chaque pays. PromoCar offre les informations sur l'ensemble du mixe promotionnel des constructeurs automobiles :

- remises sèches,
- offres d'équipements gratuits,
- offres d'équipements à prix promotionnel,
- financement,
- leasing,
- offres concernant la garantie, l'entretien,
- séries limitées.

Les données incluent la précision de la durée de chaque offre promotionnelle. Ces informations permettent de calculer la remise moyenne de chaque version, qui peut



ensuite être utilisée dans les indices qui servent dans les analyses de positionnement Renault par rapport aux concurrents.

Le principe de récupération des informations pour les autres pays de l'agence Jato est identique aux cas précédents de l'évolution prix et produit. Les informations sont publiées sur le site chaque jour pour l'ensemble des pays, mais le niveau de détail d'informations est inférieur aux données PromoCAR. Jato informe surtout sur les remises sèches et quasiment jamais sur les offres de financement, leasing et autres types de promotion offertes par PromoCAR.

## **Conclusion**

Afin de pouvoir analyser la concurrence, l'entreprise doit identifier ses sources d'information. En fait, elle est amenée à décider si elle va externaliser le monitoring et s'appuyer sur les sources externes spécialisées ou si elle va utiliser ses propres sources. Même si leurs données sont payantes et coûteuses, l'externalisation est une solution plus avantageuse dans le secteur d'automobile, parce que les agences disposent de réseaux d'analystes et de larges bases de données. La création de ce type de réseau par l'entreprise serait beaucoup plus coûteuse que l'externalisation.

Dans le monde d'automobile, le système d'intelligence est bien développé sur certaines zones géographiques, notamment l'Europe, la Turquie et les grands marchés de l'Amérique Latine comme le Brésil et le Mexique.

Plusieurs agences spécialisées offrent leurs réseaux des analystes aux constructeurs afin de leur faciliter le suivi des événements clefs. Il s'agit de Jato et TNS Sofres avec son outil PromoCAR, qui représentent les fournisseurs essentiels d'intelligence dans les domaines de prix et promotion des automobiles.

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[www.renault.com](http://www.renault.com)

# LA SPECIFICITE DES ETAPES DE NEGOCIATION ENTRE LES OPERATEURS DU COMMERCE DE DETAIL ORGANISE ET LEURS FOURNISSEURS

Alexander LOCHMAN

**Abstract:** *The article deals with the specificity of the course of negotiation process between integrated international retail companies and their supplier (SME). It defines three levels of negotiation divided into stages; each stage has its own rules and assumptions. We will examine how retailers are stepping up their demands on suppliers and specify the environment in which both partners are making decisions. We will examine the impact of listing fees and compare them to sunk costs theory in decision making suppliers. The article also points to the asymmetric contracting procedure, in which requirements of the retailer are strictly recorded in writing, while its liabilities are primarily oral form.*

**Keywords:** retail, negotiation, sunk costs, listing fee

**JEL classification:** L81, M21, M10.

## Introduction

Dans les relations contractuelles conclues entre la grande distribution et ses fournisseurs se reflète la force relative des acteurs, en fonction de leur taille et de la concurrence active sur le marché en amont, qui est régulé par l'offre et la demande. Ainsi, les intérêts communs et à la fois contradictoires des partenaires se déploient lors des négociations. Les fournisseurs veulent obtenir des parts de marché importantes, étant donné que celle-ci lui procurera un pouvoir de négociation décisive et plus intense, qui permettra une relation plus équilibrée avec le distributeur.

Le distributeur aura intérêt à ce que le nombre potentiel de fournisseur d'une catégorie de produits soit le plus large, il y a deux raisons essentielles à cela : la diversité de l'offre aux consommateurs et l'indépendance vis-à-vis de ses fournisseurs (risque). Un nombre trop élevé de fournisseurs aura également un effet négatif lié aux coûts administratifs et aux coûts de transaction, c'est pourquoi le distributeur aura tendance à optimiser le nombre de ses fournisseurs. Dans l'ensemble, on peut dire que l'intérêt commun des fournisseurs et des distributeurs est de réaliser des économies d'échelle menant à une croissance conjointe, ce qui dans la plupart des cas, mène à une stratégie gagnant-gagnant profitant aux deux parties (partenaire).

La négociation, étant elle-même couteuse pour les deux partenaires, se passe en général une fois par an, lors d'entretiens que nous appellerons entretiens annuels. Ces

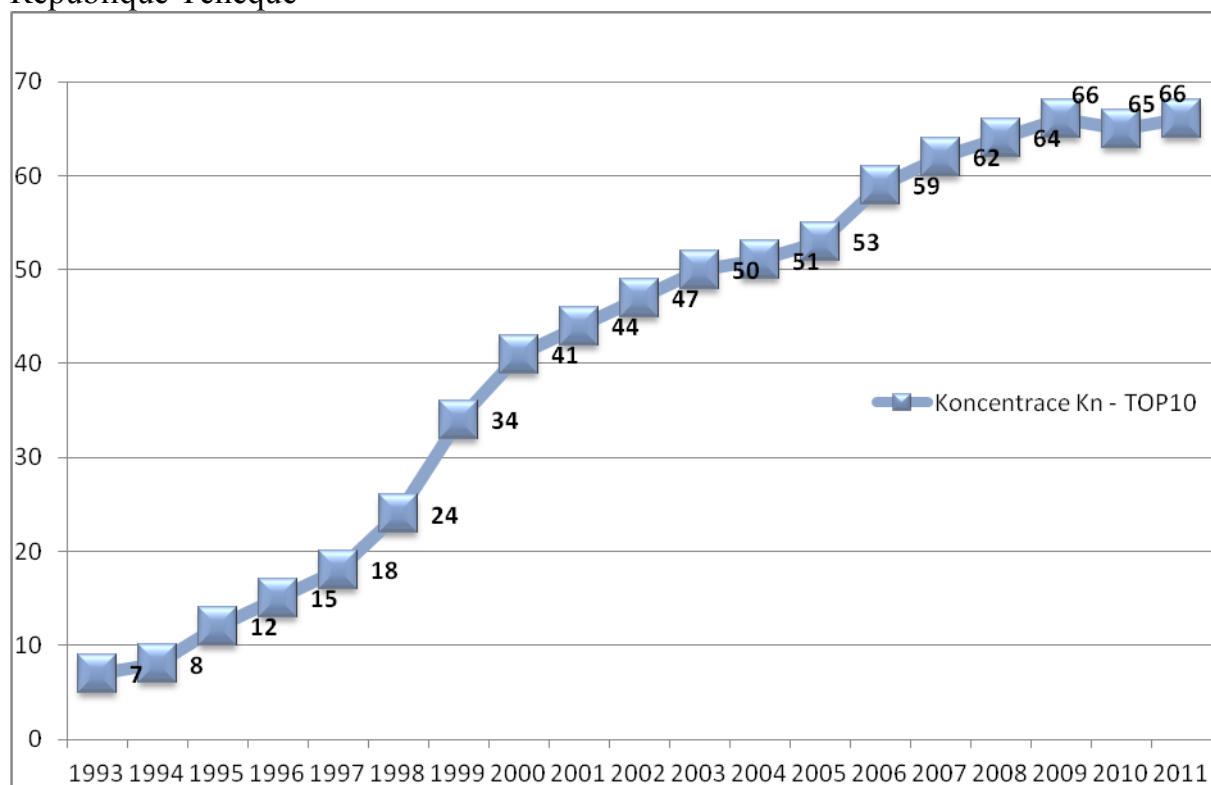
pourparlers sont une spécificité des relations entre la grande distribution et ses fournisseurs et sont précédés de négociations de référencement et de négociation de la coopération commerciale

Le but de ce travail est de définir les étapes de négociation menant à la coopération commerciale entre un distributeur et son fournisseur (PME), soulever ses spécificités et déterminer les influences.

### Le processus dynamique de conclusion des contrats

Dans le but d'atteindre une part de marché pertinente, les fournisseurs de biens de grande consommation sont astreints à travailler avec la grande distribution. Dans les conditions du marché de la république Tchèque où la concentration du marché a presque atteint la barre des 70%, il est impossible de parler de pénétration du marché sans être distribué par les grandes surfaces. Ce qui nous mène à analyser cette problématique de façon cohérente et créer une perspective complète du déroulement des transactions et faire un diagnostic des positions de négociation des acteurs.

Diagramme 1 - Evolution de la concentration du marché des grandes surfaces en République Tchèque



Source: Incoma GfK

Entrer chez un distributeur peut se révéler comme un processus relativement long, la raison est simple, les rayons sont bombés de marchandise et la place se fait rare, dans

certains cas le distributeur devra se séparer d'un produit, pour en faire entrer un autre. Cette dynamique s'interpénètre dans la totalité du déroulement des négociations, le comportement du distributeur est logique : si un produit s'avère ne plus être à la hauteur des attentes et présente un niveau de vente insuffisant, il peut être déréférencé et remplacé par un fournisseur, qui en plus rémunérera le distributeur de la somme nécessaire à référencer le nouveau produit choisit. On peut donc supposer la motivation rationnelle d'un distributeur de remplacer un produit par un autre. Les fournisseurs sont forcés de faire croître la demande pour leurs produits par l'innovation et par l'offre des services.

Les distributeurs sont donc en meilleure position pour négocier les conditions de collaborations, étant donné, que la concentration sur le marché de la grande distribution (en aval) est supérieure à la concentration du marché des fournisseurs (en amont).

Table 1 – TOP 10 des enseignes de grande distribution en 2011

<b>Rang</b>	<b>GROUPE</b>	<b>ENSEIGNE</b>	<b>CAN</b>	<b>TOTAL GROUPE (mld CZK)</b>
1	SCHWARZ GROUP	KAUFLAND ČR, v.o.s.	42,0	<b>65,50</b>
		LIDL ČR, v.o.s.	23,5	
2	REWE ČR	BILLA, spol. s.r.o.	22,5	<b>53,60</b>
		PENNY MARKET, s.r.o.	31,0	
3	TESCO STORES ČR	TESCO STORES	51,0	<b>51,00</b>
4	AHOLD ČR	AHOLD	44,0	<b>44,00</b>
5	MAKRO	MAKRO	32,5	<b>32,50</b>
6	GLOBUS ČR	GLOBUS	16,5	<b>16,50</b>
7	COOP	COOP	27,0	<b>27,00</b>
8	GECO	GECO	20,2	<b>20,20</b>
9	SPAR ČR	SPAR Česká obchodní spol. s r.o.	14,1	<b>14,10</b>
10	PEAL	PEAL a.s.	8,2	<b>8,20</b>

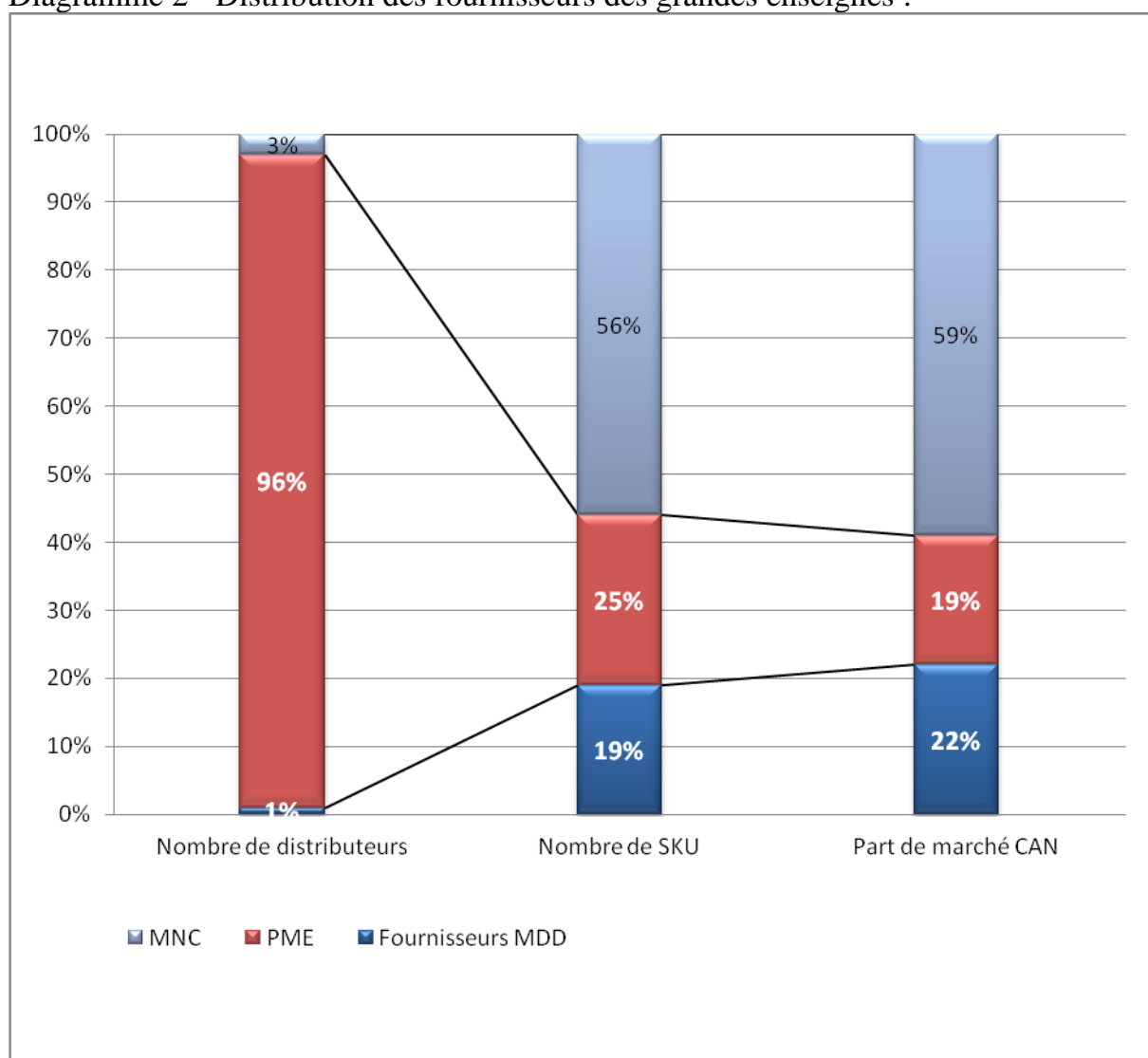
*Source: Incoma GfK*

En d'autres termes, le distributeur a bien plus de choix dans la sélection de ses fournisseurs, que ceux-ci dans le choix des canaux de distribution. Nous avons réparti la négociation commerciale en trois étapes :

1. Négociation de référencement
2. Négociation des conditions de la collaboration commerciale
3. Négociation annuelle (renégociation de la collaboration commerciale)

Chaque étape a sa spécificité, durant toute la négociation, le distributeur et le fournisseur auront tendance à maximaliser leurs bénéfices. En République Tchèque 96% des fournisseurs de la grande distribution sont des PME, représentant néanmoins que 25% de SKU et seulement 19% du chiffre d'affaires des grandes enseignes de distribution.

Diagramme 2 - Distribution des fournisseurs des grandes enseignes :



Source: Incoma GfK

### La négociation de référencement – première étape

Dans cette étape, le fournisseur persuade le distributeur sur l'adéquation du produit qu'il propose, il présente le potentiel du produit, l'évaluation de la demande du marché, la construction du prix et les innovations futures. L'acheteur s'efforce d'évaluer l'offre produit en analysant le potentiel de vente et la capacité à générer du

profit. Si le distributeur estime que le produit offert présente un potentiel sérieux sur le marché, il définira l'inclusion du produit dans sa chaîne de distribution en décidant, si le produit sera référencé dans toute la chaîne ou pour essai, dans quelques enseignes seulement, pour contrôler la rentabilité. La décision sortante décidera du montant que le fournisseur réglera au distributeur. Généralement le calcul commercial du référencement s'effectue sur le nombre d'unité produit ( $V_{SKU}$ ) multiplié par le nombre de points de vente (POS) :

$$I_{List} = V_{SKU} \times Q_{POS}$$

$I_{List}$  = prime de référencement totale

$V_{SKU}$  = nombre d'unité produit

$Q_{POS}$  = nombre de points de vente, où les unités produits seront référencées

La pratique de référencement ne crée aucune obligation du côté de l'acheteur envers le fournisseur, force est de constater, que les frais de référencement sont une sorte d'autorisation du distributeur au fournisseur d'utiliser ses canaux de distribution. Pratiquement aucun engagement ne sera pris chez l'acheteur, aucune promesse de quantité.

Le référencement est une activité relativement coûteuse, pouvant atteindre plus quelques millions de couronnes tchèques, il est raisonnable de prendre le référencement comme une sorte d'investissement, qui sera amortie sur un certain nombre d'années, conditionnant une bonne rentabilité du produit et un comportement proactif du fournisseur, tout dépendra néanmoins de la négociation commerciale et des conditions de coopération. Nous pouvons donc regarder cette opération sous le prisme de la rentabilité du capital investi ROI (Return On Investment) :

$$ROI = \frac{I_{list} + C_t}{Z}$$

$I_{list}$  = prime de référencement totale

$C_t$  = coûts de transaction et coûts d'entrée sur le marché

$Z$  = bénéfice venant de la rentabilité du produit

Le fournisseur voulant commercer avec l'enseigne de grande distribution devra analyser la capacité de rentabilité du produit proposé à amortir rapidement les coûts de référencement. À ce point de la négociation commerciale, le fournisseur est capable rationnellement de formuler le caractère positif ou négatif du commerce. La situation changera au cours de la troisième étape de négociation, l'investissement du référencement prendra un caractère de coûts irrécupérables.

### **3 La négociation des conditions de la collaboration commerciale – deuxième étape**

La poursuite des négociations sur les modalités de coopération passe par la coopération commerciale. La coopération commerciale est un contrat de prestation de services dont le contenu et la rémunération sont définis d'un commun accord entre un fournisseur et un distributeur. Le contenu de ce contrat porte sur la fourniture, par un distributeur à son fournisseur, de services spécifiques détachables des simples obligations résultant des achats et ventes.

Ces services proposés par le distributeur recouvrent des actions de nature à stimuler ou à faciliter au « bénéfice » du fournisseur la revente de ses produits par le distributeur. En somme il s'agit de l'ensemble des règles contractuelles des actions marketing et commerciales, qui seront financées par le fournisseur. La coopération commerciale en République Tchèque règle également toutes les conditions de coopération du niveau de la logistique, des délais de paiement et tout autre investissement que le fournisseur procure au distributeur. C'est donc le distributeur qui va, après évaluation du potentiel produit, décider de poursuivre ou non les négociations sur les modalités de la coopération commerciale avec le fournisseur. Nous avons stratifié les services et autres revendications des grands distributeurs en trois catégories : commercial, financier et logistique. La table ci-dessous présente les résultats :

Table 1 – Mix contributif du fournisseur

<b>Commercial</b>	
	Primes de référencement
	Emplacement spécial
	Promotions et prospectus
	Retour de marchandise
	Rabais sur quantités
	Ristournes
	Réduction de prix lors de l'ouverture d'un nouveau point de vente
<b>Financier</b>	
	Conditions de paiement
	Frais pour l'utilisation EDI (Electronic Data transmission)
	Frais de traitement des paiements
	Frais de remodelage de rayons
	Escompte pour paiement avancé
	Pénalité lors d'une livraison de marchandise tardive
<b>Logistique</b>	
	Pénalité lors d'une non-livraison de marchandise
	Conditions de paiement
	Charges pour la logistique interne du distributeur
	Coût des livraisons "just-in-time"
	Frais de merchandising

Source: auteur



Chaque fournisseur contribuera dans une certaine mesure sous la forme d'un transfert des coûts économiques en mélangeant les catégories suivantes:

Contribution commerciale et marketing (O)

Contribution financière (F)

Contribution logistique (L)

$$TC_p = a \times O + b \times F + c \times L$$

La somme du mix contributif est constante à court terme, (a, b, c) sont les poids de chaque catégorie et se réfèrent à la part respective de la totalité du mix contributif ( $a + b + c = 1$ ). La somme du mix contributif ( $TC_p$ ) peut être définie comme la somme totale des investissements, des coûts financiers, commerciaux et logistiques revendiqués par les distributeurs à leurs fournisseurs.

Il s'agit de la négociation la plus difficile, étant donné que les partenaires formeront les fondements de la coopération, qui seront décisifs pour leur évolution future et les résultats de ces pourparlers seront une condition préalable du succès du fournisseur porté à une coopération à long terme ou, au contraire, à l'échec suivi d'une activité éphémère du fournisseur chez le distributeur. Si les partenaires se mettent d'accord sur les conditions de la coopération commerciale, un modèle de collaboration se forme, qui servira au distributeur en tant que benchmark pour l'évolution des relations entre le distributeur et son fournisseur. Les entrepreneurs moins expérimentés ignorent à ce stade, que les conditions nouvellement négociées serviront de tremplin pour les revendications futures du détaillant.

À la fin de cette deuxième étape, le fournisseur peut calculer son retour sur investissement en intégrant les conditions négociées de la collaboration commerciale :

$$ROI = \frac{I_{list} + C_t}{Z - OP}$$

OP= charges de la coopération commerciale

Les effets de la coopération commerciale sous la forme de services payants et de concessions vont prolonger la période de retour sur investissement en diminuant la rentabilité du fournisseur.

### **La renégociation (annuelle) des conditions de la collaboration commerciale – troisième étape**

L'entretien annuel entre le distributeur et son fournisseur est une des spécificités du commerce avec les grandes surfaces. Le distributeur et son fournisseur vont évaluer conjointement les résultats communs de la période précédente . Ces entretiens durent généralement de décembre à Mars et l'acheteur rencontrera pratiquement tous ses fournisseurs personnellement. Les partenaires ont des objectifs bien distincts : le

fournisseur veut étendre sa gamme produit dans le réseau du distributeur, qui lui, veut négocier des conditions de collaboration plus favorables. Les exigences du fournisseur d'élargir la gamme devront être suivies d'un déréférencement d'un autre fournisseur, étant donné que dans les conditions du commerce moderne, les produits sur les linéaires prennent l'aspect de *numerus clausus*, l'entrée d'un nouveau produit ne peut se faire pratiquement, que par l'éviction d'un autre. Par contre les revendications du distributeur n'auront d'impact qu'envers le fournisseur, les exigences en question toucheront la totalité du mix contributif et le distributeur laissera au fournisseur une certaine liberté de décider de l'impact sur la catégorie. Par exemple, si le distributeur demande une réduction de 3%, celle-ci pourra être compensée par une prolongation des délais de paiement. L'offre et la demande jouera naturellement le rôle principal lors des négociations et décidera du statut des deux acteurs qui joueront de tous leurs poids pour appuyer leurs arguments, les partenaires se confronteront par les diverses options, les possibilités de substitution et l'accès aux informations. La renégociation annuelle de la coopération commerciale est un point-clé de la phase de négociation, étant donné qu'elle peut mettre fin à la coopération entre les deux partenaires, c'est une sorte de remise en question utilisée par le distributeur pour obtenir des concessions du fournisseur.

Le fournisseur se trouve dans une situation spécifique au commerce de détail intégré, qui n'est pas tout-à-fait standardisé dans les rapports commerciaux. La renégociation des conditions agréées dans la deuxième étape présente un avantage informatif pour le distributeur, qui connaît les compromis antérieurs du fournisseur et les considère comme acquis. Ainsi le distributeur entre dans la troisième étape de négociations sur un point de départ différent que lors de la deuxième étape de négociation, grâce à son signifiant pouvoir de marché il va construire sa négociation sur la base des acquis précédents de la deuxième étape de négociation. La position dominante de la chaîne de distribution combinée à la menace de déréférencement poussent le fournisseur dans une position de négociation moins confortable.

Les revendications du distributeur sont légitimes, tant que les partenaires ont achevé conjointement un chiffre d'affaires liées à un bénéfice plus élevé durant cette période que durant la période précédente. Les aspirations du distributeur sont bien plus discutables, si les performances communes des partenaires (surtout lié à la performance du distributeur) ont été plus médiocres que dans la période précédente et principalement, si cela est lié à une opération directe du distributeur (par échange de position du produit du fournisseur dans les linéaires). Dans des cas extrêmes, nous pouvons parler d'abus de position dominante du distributeur.

### **Les coûts irrécupérables du référencement**

Les primes de référencement appartiennent à la catégorie des coûts irrécupérables et sont donc des coûts qui ont été payés définitivement ; ils ne sont ni remboursables, ni récupérables par un autre moyen.

Pour un agent rationnel, ces coûts ne sont pas censés intervenir dans la prise de décision pour les nouvelles acquisitions. En pratique cependant et d'après la théorie des comportements économiques (behavior theory), les coûts irrécupérables interviennent souvent dans le raisonnement, et les partis de décision sont souvent très influencés par ces coûts, du fait de l'aversion à la perte.

Cela nous amène à constater, que les fournisseurs sont captivés par leurs décisions passées à tel point, que leur décision concomitante est déformée et ne respecte plus la rationalité et l'état commercial de la négociation. Le fournisseur acceptera souvent des conditions très dures grâce à une vision et une foi de bons résultats futurs, qui lui permettront d'amortir les primes de référencement. Une des autres raisons d'acceptation de conditions potentiellement coriaces réside dans la représentation personnelle du fournisseur. Le commercial qui mène les pourparlers, peut-être sous l'emprise d'une pression d'échec et tentera de surmonter coûte que coûte les coûts irrécupérables et la menace de déréférencement. La pression en question résulte de la culture actuelle, qui pénalise fortement les échecs commerciaux, le représentant commercial du fournisseur essaiera de garder le référencement de ses produits même au prix de conditions médiocres et restera dans l'espérance d'un miracle. La peur de l'échec mène donc à des décisions irrationnelles et faussées qui prolongent l'insuccès.

Le fournisseur se trouve dans une position affaiblie, car la non-acceptance des conditions proposées par le distributeur pourrait signifier, que tous les efforts et les investissements sont perdus. La position de négociation du fournisseur est affaiblie, surtout dans le cas, où il n'a pas récupéré les investissements primaires menés par les primes de référencement. La position du distributeur est différente. Le fournisseur a réglé ses primes de référencement et l'acheteur peut avoir le coeur à l'ouvrage pour obtenir des meilleures conditions. Si le fournisseur n'accepte pas les conditions de l'acheteur, celui-ci pourra terminer la collaboration pratiquement sans préjudice. Le seul préjudice peut être un consommateur déçu qui s'est attaché au produit, dans la condition où le produit n'est pas un produit de grande substitution.

La situation est un peu différente lorsque l'on parle de sociétés transnationales et de marques globales. Ces sociétés sont habituellement leader dans leurs catégories, leurs produits se réjouissent d'une ample connaissance du public et souvent les relations entre distributeurs et sociétés transnationales sont de longs termes et non seulement au niveau local, mais surtout au niveau global. La position de négociation des multinationales est bien plus équilibrée, étant donné que ses produits sont les moteurs des linéaires du distributeur et qu'il est difficile pour lui de s'en passer. Les marques globales bénéficient d'une fidélité du consommateur lié au produit. La multinationale

peut naturellement être menacé, lorsque le distributeur représente une part importante sur le marché local ou international, c'est là que les forces de négociation sont équilibrées. La capacité à financer les primes de référencement et surtout l'accès aux liquidités ne met pas la multinationale dans une situation d'infériorité et les représentants ne se trouveront pas autant sous l'emprise d'une décision déformée à cause des coûts irrécupérables et parviendront à rationaliser leur démarche.

Nous pouvons donc conclure, que les primes de référencement influencent fortement les décisions des fournisseurs des PME, confrontés aux nouvelles exigences des chaînes de grande distribution et exercent les mêmes fonctions que les coûts irrécupérables.

### **Asymétrie contractuelle**

Il est convenable de souligner l'importance des relations quotidiennes entre le fournisseur et le distributeur ainsi que le processus contractuel, divisé en partie orale et partie écrite. Les négociations sont menées oralement durant toute l'année, principalement celles concernant les prix et les livraisons.

La fonction orale des discussions est appréciable du point de vue du distributeur, le fournisseur lui, préfère logiquement la forme écrite, qui lui permettrait d'avoir une garantie des engagements du côté du distributeur. Cette asymétrie résulte de la puissance d'achat des grandes surfaces, qui peut être définie comme l'obtention de conditions plus favorables par un distributeur chez un fournisseur, que celles que le fournisseur proposerait dans des conditions de concurrence plus équilibrées.

Lors de la troisième étape de négociation, les revendications émises par les distributeurs vont être menées de sorte que le fournisseur puisse signer immédiatement le contrat, le fournisseur est donc invité à se décider tout de suite, ce qui rétrécit la marge de décision du fournisseur, qui devra s'exprimer de l'acceptation de l'accord sur place. L'argument donné et réel, est que les acheteurs ont l'agenda complet de rendez-vous et que la prolongation de la négociation n'est pas efficace pour le distributeur.

Lors de la négociation, les appels du fournisseur seront entendus (par exemple l'expansion de la gamme produit), les promesses émises par l'acheteur et les accords agréés par le distributeur sur les expansions possibles, ne seront portés qu'oralement, étant donné, que le distributeur se munira, pour les besoins de l'entretien, d'un modèle standardisé de contrat, qui ne stipulera que les concessions du fournisseur car les contrats présentés par le distributeur sont unifiés, il serait en effet pratiquement impossible d'avoir des contrats variés pour chaque fournisseur. Il est important de noter, que quoique l'approbation des acheteurs soit souvent émise seulement par oral, ceux-ci tentent de respecter leurs engagements.

## Les limites de la négociation – point de clôture de la collaboration

La renégociation de la coopération commerciale a ses difficultés. De façon logique, le cycle répétitif des négociations en troisième étape conduira à la limite des capacités du fournisseur, étant donné que celui-ci ne trouvera plus assez de marge pour honorer les revendications du distributeur (cela naturellement sous l'hypothèse d'une stagnation ou déclin du chiffre d'affaires commun). Tout dépend de la façon dont l'acheteur valorisera la collaboration avec le fournisseur et sera motivé à une future coopération. Les exigences limites du côté du distributeur sont des exigences qui contraignent le fournisseur à mettre fin à la collaboration. Cette situation se produira lorsque le bénéfice, la marge que le fournisseur est capable de créer de la coopération ne suffira plus pour couvrir les exigences du distributeur. Dans cette phase, le surplus économique est complètement transféré du fournisseur au distributeur, le fournisseur n'aura plus de raison de continuer la collaboration.

Nous pouvons inscrire cette phase de la manière suivante :

$$Z - I_{list} - OP \leq 0$$

$Z$  = profit économique

$I_{list}$  = prime de référencement totale

$OP$  = conditions de la collaboration commerciale

Il est naturellement avantageux, lorsque le fournisseur travaille chez le distributeur avec une gamme variée de produits ayant une rentabilité diversifiée. Dans ce cas, le fournisseur peut transférer une part de bénéfice d'un autre produit pour couvrir les pertes du produit impliqué ou peut naturellement le déréférencer, c'est une décision stratégique du fournisseur. Il s'agit de diversifier le portfolio produit, le mix produit au niveau de la rentabilité de chacun d'eux afin de ne pas se trouver dans une impasse. Cela nous mène à recommander aux fournisseurs de créer un portfolio produit n'ayant pas la même marge unitaire. Le fournisseur a la possibilité avec l'accord du distributeur, de changer le produit, sans payer une nouvelle prime de référencement ou de s'implanter chez le distributeur par le biais d'une autre société en renégociant de nouvelles conditions. Il est évidemment indispensable que le produit en question soit un produit demandé.

## Conclusion

Comme nous avons pu le constater, la spécificité de la collaboration entre fournisseurs et la grande distribution est une négociation sur plusieurs niveaux, que nous avons étapié en trois phases bien distinctes. Les tractations en première et deuxième étape ont des règles très claires et les résultats économiques sont prévisibles, étant donné que le fournisseur et le distributeur peuvent facilement calculer les bénéfices futurs de leur coopération. Lorsque le fournisseur entre dans la troisième étape de négociation, il se

trouve dans un désavantage informatif, étant donné que le distributeur entre dans cette étape avec comme point de départ des pourparlers, les concessions précédemment acquises. Cette position avantageuse pour le distributeur peut être atteinte grâce à une puissance d'achat qu'il va exercer lors de la confrontation des conditions de la coopération commerciale. Le fournisseur a naturellement la possibilité d'une cessation de collaboration, néanmoins il est souvent grevé et moralement tenu par les investissements passés, principalement sous forme de primes de référencement qu'il a réglé au distributeur. Nous avons également constaté, que les primes de référencement prennent la forme de coûts irréversibles et sont dans la majeure partie des cas pris en compte par le fournisseur lors de ses décisions économiques. La non-rationalité de ses conclusions et la menace du déréférencement poussent le fournisseur à accepter des conditions moins avantageuses.

Une autre particularité de la coopération entre la grande distribution et ses fournisseurs est l'asymétrie contractuelle. Les contrats unifiés des distributeurs stipulent de façon très précise les engagements du fournisseur, alors que les engagements du distributeur sont menés plutôt oralement. C'est donc ainsi, qu'un fournisseur moins habile peut voir l'intégralité de son surplus économique se transférer vers le distributeur, si ses produits arrivent, par l'intermédiaire d'une troisième étape de négociation répétée, à un niveau de rentabilité minimum. Le fournisseur devra prendre, dès lors, la décision de persévérer dans la collaboration ou de la quitter. Il est donc utile de diversifier le portfolio produit avec un niveau de marge différent pour chaque article et d'intégrer le plus de produit possible afin de minimaliser ces risques.

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# AN EXPLORATION OF FACILITY LOCATION METRICS IN INTERNATIONAL SUPPLY CHAIN

Denise RAVET

**Abstract:** *Companies could gain competitive advantage through the supply chain network. Especially facility location represent possible source of cost and service performance improvement. The goal of this article is to explore and expose what could be the facility location key performance indicators. A literature review is conducted to examine research relating to supply chain network distribution performance measurement, facility location and KPIs on global and local level. An exploration of the supply chain performance literature reveals global and local KPIs that could be used for the facility location measurement. A list of key performance metrics related to facility location is presented.*

**Keywords:** Glocal strategy, Distribution network design, Facility location, Supply chain performance measurement, KPIs.

## Introduction

Due to global economy, volatile markets, competitive pressure, the rising cost of energy and carbon emissions, new technologies, more rigorous quality and quicker response requirements: the survival of many companies depends on the ability to continuously improve quality while reducing costs. Strengthening global competitiveness is still the top priority for companies in all sectors. Excellent supply chain management can make a considerable contribution to achieving this, through supply chain network configuration. The latter is a key strategic factor for increasing organizational effectiveness and for better realization of organizational goals such as enhanced competitiveness, better customer care and increased profitability. Important competitive advantages can be obtained through consolidation and regionalisation of the supply chain network (AT Kearney, 2009).

As new forces and dynamics are emerging, future supply chain networks processes have to respond to these continuous changes. The issue of globalisation will continue to have an absolutely central role to play in supply chain management in the future (AT Kearney, 2009).

Equally apparent has been the move towards global sourcing and manufacturing as companies concentrate their operations on few factories that serve the whole world. Pipelines are longer with greater reliance on outsourced supply chain partners. Increase in logistics (especially oil prices), risks and labor cost in developing countries

and the volatility of commodity are affecting supply chain design. As local differences in requirements still exist, the needs of local markets must be balanced against the economic advantage of standardized products. The emergence of customer-driven markets has resulted in rapid changes to strategies adopted by organizations. Therefore, the whole question of supply chain network design will be more central to overall organization competitiveness than it has been. There will be more sensible, hybrid approaches to supply chain management that combine regional and global activities (Simchi-Levi and Fine, 2010).

Ideally organizations would like to achieve the benefits of standardization in terms of cost reduction whilst maximizing their marketing success through localization (Christopher, 2005).

Consequently, in response to globalization, the ever increasing customer demands for variety and rapid delivery at acceptable costs, companies search for innovative supply chain network configuration especially for locating activities. Thus, the challenge of facilities location is to structure a supply chain that balance between global efficiency and local responsiveness that best supports the company's competitive strategy and maximize competitive advantage. It is especially the case for facilities location relating to the distribution network as it delivers the local markets. Moreover, according to Gunasekaran, 2001, perhaps the most important research concerning logistics that is going on is in the area of designing efficient and cost-effective distribution systems. Facility location decisions are among the most important supply chain decisions, as their implications are significant and long lasting. Therefore, in order to evolve an efficient and effective supply chain, most companies realize that supply chain networks need to be assessed for their performance. As facility location decisions are very important for the supply chain's performance and supply chain related KPIs have not been widely adopted and businesses are typically uninformed of them (Bongsug, 2009), the facility location performance measurement will be focus on KPIs.

Consequently, in this context, how is it possible to link facility location with KPIs performance measurement?

The purpose of this study is to understand the link between facility distribution location and global and local supply chain performance with key performance indicators. How should management select a set of facility locations in such a way as to minimize costs (inventory and transportation) and satisfy service level requirements? Because of the multi-disciplinary nature of the supply chain performance management topic, the paper is located at the intersection of supply chain network with facility distribution location, supply chain performance measurement topics and KPIs.



The structure of the article is as follows: first, we will present the link between facility location and performance, then, in a second part we will explore and present the possible metrics for facility location performance measurement.

## **The link between facility location and performance**

### **The concept of supply chain management performance**

The objective of supply chain management is to be efficient and cost-effective across the entire system; total systemwide costs, from transportation and distribution to inventories of raw material, work in process, and finished goods, are to be minimized. Thus, the emphasis is not on simply minimizing transportation cost or reducing inventories but, rather on systems approach to supply chain management. Finally, the supply chain management encompasses the firm's activities at many levels, from the strategic level through the tactical to the operational level. Therefore the goals are to design and operate a supply chain so that the total systemwide costs are minimized, and the systemwide service levels are maintained. Thus, the supply chain performance affects the ability to provide customer value, especially in the most basic dimension of availability of products (Simchi-Levi, 2008).

In the past the focus of many companies was primarily on efficiency, i.e., a continuing search for lower costs, better use of capacity, reduced inventories. These are still worthy goals today but the priority has shifted. Now the emphasis must be on effectiveness. The challenge is to create strategies and procedures that will enable organizations to become the supplier of choice and to sustain that position through higher levels of customer responsiveness (Christopher, 2005).

The era of both globalization of markets and outsourcing has begun, and many companies select supply chain to manage their operations and to assess the performance (Gunasekaran, 2001). Globalization of markets and operations has given new perspectives of various managerial functions that include the different value chain. These new managerial perspectives require new tools in terms of suitable performance measures and metrics (Gunasekaran and Kobu, 2007).

### **Achieving strategic fit from strategy to facility location**

For any company to be successful, its supply chain strategy and competitive strategy must fit together. Strategic fit means that both the competitive and supply chain strategies have aligned goals. It refers to consistency between the customer priorities that the competitive strategy hopes to satisfy and the supply chain capabilities that the supply chain strategy aims to build. All processes and functions that are part of a company's value chain contribute to its success or failure. The design of the overall supply chain and the role of each stage must be aligned to support the supply chain

strategy (Chopra and Meindl, 2010). That's the reason why the supply network design must be aligned to the supply chain strategy.

Consequently, achieving strategic fit from strategy to facility location improves supply chain performance.

### **Glocal strategy and performance**

"A global strategy seeks to maximize worldwide performance through sharing and integration..." (Yip, 1992, p. 31). Whilst the global strategy may be implemented, the product may need certain customization to meet specific country needs (Christopher, 2005). A worldwide strategy has to adapt to local conditions, characteristics and circumstances. The introduction of the "glocal strategy" and "glocalization" concepts may be a compromise to improve the present usage of the term global strategy: the glocal strategy approach reflects the aspirations of a global strategy approach, while the necessity for local adaptations of business activities is simultaneously acknowledged (Andersson & Svensson, 2009, p.31). Therefore, the "glocal strategy" concept is introduced to provide an improved accuracy of the present usage of a global strategy approach. It comprises local, international, multinational and global strategy approaches. It differs from the global strategy approach in that it explicitly recognizes the importance of local adaptations, differences and synchronization in the marketplace of business activities. The concept thus contributes to the balance and harmony of locally and globally related issues and includes a spectrum of local, domestic, international and multinational and global strategies. Glocalization means that the standardization and adaption of companies' business activities are optimized. Nevertheless, it is a matter of thinking globally and acting locally, i.e acting and thinking "glocally" (Andersson & Svensson, 2009). There is a continuum from the local adaptations of worldwide strategies on one side, and the universal or global strategies without adaptations on the other that could improve the company's overall performance.

### **Supply chain strategy and performance**

"Supply chain is a group of partners who collectively convert a basic commodity (upstream) into a finished product (downstream) that is valued by end-customers, and who manage returns at each stage...Logistic strategy is the set of guiding principles, driving forces and ingrained attitudes that help to coordinate goals, plans and policies, and which are reinforced through conscious and subconscious behaviour within and between partners across a network" (Harrison and van Hoek, 2011, p.7). A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer request. The supply chain includes not only the manufacturer and suppliers, but also transporters, warehouses, retailers, and even customers themselves. Within each organization, such as manufacturer, the supply chain includes all functions involved in

receiving a filling a customer request. These functions include but are not limited to, new product development, marketing, operations, distribution, finance, and customer service (Chopra and Meindl, 2010).

A typical supply chain may involve a variety of stages. These supply chain stages include:

Customers, Retailers, Wholesalers/distributors, Manufacturers, Component/raw material suppliers...

A supply chain strategy determines the nature of procurement of raw materials, transportation of materials to and from the company, manufacture of the product or operation to provide the service, and distribution of the product to customer...(Chopra and Meindl, 2010). Aligning markets requirements with supply chain capabilities through SCS creates a competitive advantage (Hoffmann, 2010). Consequently, the primary purpose of any supply chain is to satisfy customer needs and, in the process, generate profit for itself. The objective of every supply chain should be to maximize the overall value generated. The value (also known as supply chain surplus) a supply chain generates is the difference between what the final product is worth to the customer and the costs the supply chain incurs in filling the customer's request. For any supply chain, there is only one source of revenue: the customer. Each decision should be made to raise the supply chain surplus. Supply chain decisions have a large impact on the success or failure of each firm because they significantly influence both the revenue generated and the cost incurred (Chopra and Meindl, 2010).

A supply chain is dynamic and successful supply chain requires many decisions relating the flow of information, products and funds (Chopra and Meindl, 2010). One of these decisions is supply chain design. During this phase a company decides how to structure the supply chain over the next several years. It decides what's the supply chain configuration will be, how resources will be allocated, and what processes each stage will perform. A firm must ensure that the supply chain configuration supports its strategic objectives and increases the supply chain surplus during this phase.

Therefore, the goal of supply chain strategy is to strike the balance between responsiveness and efficiency that fits with the competitive strategy. To reach this goal, a company must structure the right combination of the three logistical drivers (facilities, inventory and transportation) and three cross-functional drivers (information, sourcing and pricing). For each of the individual drivers, supply chain managers must make a trade-off between efficiency and responsiveness based on interaction with the other drivers. The combined impact of these drivers then determines the responsiveness and the profits of the entire supply chain (Chopra and Meindl, 2010). Therefore, to understand how a company can improve supply chain performance in terms of responsiveness and efficiency, we must examine the logistical drivers like facilities, inventory and transportation drivers.

Moreover, the globalization of supply chains involves dimensions such as offshoring of production, inventories, suppliers and customers, and differences in economies, infrastructures, cultures and politics in the competitive environment (Christopher, 2005). Globalization may increase revenue generation through entry to new markets and may provide access to suppliers that can provide materials and inputs more efficiently than domestic sources. As companies have extended their supply chains internationally they have been forced to confront the issue of how to structure their global logistics organization. The effects of globalization, technology and the growing need for environmental responsibility and sustainability is forcing organizations and individuals to make changes in the way they live, work and play (Gopal *et al.*, 2012). Rapidly changing global economic environment, green concepts and social responsibility pressures from governments shows the significant need to raise critical questions such as: do organizations need different set of measures for both responsive and efficient supply chains? Hence, it is critical to develop an efficient supply chain performance measurement system. However, monitoring and improvement of performance of a supply chain has become an increasingly complex task (Cai *et al.* 2009).

Effectiveness in global logistics can only be achieved through a greater element of centralization. Certain tasks and functions lend themselves to central control and others to local management. By their nature, decisions on location in a global network can only be taken centrally (Christopher, 2005). As supply chains are international, the supply chain management performance must adapt to this new context and develop metrics global and local. The on-time product delivery becomes more complex and challenging than ever.

Global KPI allow standards development and best practices in performance measurement and companies. But companies need to adopt and adjust them to their specific environments (Cai *et al.*, 2009).

### **Supply chain network performance in the supply chain**

According to the link between strategy and supply chain strategy, changing the strategies impact supply chain strategies and network design.

#### ***Definition***

The physical supply chain consists of suppliers, plants, warehouses, distribution centers, and retail outlets as well as raw materials, work-in-process inventory, and finished products that flow between the facilities (Simchi-Levy, 2008).

Supply chain network design decisions determine the physical configuration and infrastructure of the supply chain. It includes the assignment of facility role, location of manufacturing, storage, or transportation-related facilities, and the allocation of

capacity and markets to each facility. Therefore supply chain network design decisions are classified as follows: facility role, facility location, capacity allocation, market and supply allocation (Chopra and Meindl, 2010).

Network design is a strategic decision that has a long-lasting effect on the firm because it involves decisions relating to plant and warehouse location as well as sourcing and distribution (Simchi-Levy, 2008).

Distribution refers to the steps taken to move and store a product from the supplier stage to a customer stage in the supply chain. Distribution is a key driver of the overall profitability of a firm because it affects both the supply chain cost and the customer experience directly.

The appropriate distribution network can be used to achieve a variety of supply chain objectives ranging from low cost to high responsiveness.

### ***Strategy***

Based on the competitive strategy of the firm, its resulting supply chain strategy must determine the supply chain design for the firm. The supply chain strategy specifies what capabilities the supply chain network must have to support the competitive strategy. A firm must ensure that the supply chain configuration supports its strategic objectives and increases the supply chain surplus this phase (Chopra and Meindl, 2010).

### ***Supply chain network design and performance***

Network design decisions regarding the *role, location, capacity, and flexibility* of facilities have a significant impact on performance because they determine the supply chain configuration and set constraints within which the other supply chain drivers can be used either to decrease supply chain cost or to increase responsiveness.

The goal when designing a supply chain network is to maximize the firm's profits while satisfying customer needs in terms of demand and responsiveness. The network is designed to maximize total profits taking into account the expected margin and demand in each market, various logistics and facility costs, and the taxes and tariffs at each location. Then, in designing any supply chain, one of the key considerations is to know what costs are incurred, where they are incurred, and how they be managed. We need to understand where cost can be minimised and where value can be maximised (Chopra and Meindl, 2010). The objective is to design or reconfigure the logistics network in order to minimize annual system wide cost, including production and purchasing costs, inventory holding costs, facility costs (storage, handling, and fixed costs), and transportation costs, subject to a variety of service level requirements (Simchi-Levi, 2008).

For example, a poor distribution can hurt the level of service that customers receive while increasing the cost. An inappropriate network can have a significant negative effect on the profitability of the firm, as evident in the failure of many business-to-consumers. The appropriate choice of distribution network results in customer needs being satisfied at the lowest possible cost (Chopra and Meindl, 2010). Consequently, a manager must consider the customer needs to be met and the cost of meeting these needs when designing the distribution network. A network designer needs to consider the strategic position, the product characteristics as well as network requirements when deciding on the appropriate distribution network (Chopra and Meindl, 2010).

Moreover, the implementation of global pipeline is highly dependent upon the ability of the organization to find the correct balance between central control and local management (Christopher, 2005).

### **Facilities location performance in the supply chain network**

Decisions regarding facilities location are a crucial part of supply chain design (Chopra and Meindl, 2010). Location decisions are closely intertwined with capacity sizing, timing and type decisions: together, they constitute a resource portfolio or network strategy.

#### ***Definition***

Facilities are the actual physical locations in the supply chain network where product is stored, assembled, or fabricated. The facilities are the *where* of the supply chain. They are the locations to or from which the inventory is transported. Within a facility, inventory is either transformed into another state (manufacturing) or it is stored (warehousing) (Chopra and Meindl, 2010). The two types of facilities are production sites and storage sites. In this paper, we focus on the distribution facilities, the storage sites.

#### ***Strategy***

Location is the geographical positioning of an operation. Deciding where a company will locate its facilities constitutes a large part of the design of a supply chain. Firm's regarding its choice of location of its warehouse are all supply chain design or strategic decisions. These decisions have a long-term impact lasting several years. Consequently, when companies make these decisions, they must take into account uncertainty in anticipated market conditions over the next few years. Companies must consider a host of issues related to the various characteristics of the local area in which the facility is situated. These include macroeconomics factors, quality of workers, cost of workers, cost of facility, availability of infrastructure, proximity to customers, the location of that firm's other facilities, tax effects and other strategic factors (Chopra and Meindl, 2010).

A location strategy is a structured approach to deciding where to expand or contract capacity.

It starts by reviewing the competitive strategy: what is the value proposition to customers and shareholders. Then, the location decision must be aligned with the competitive strategy by comparing the priority rankings of competencies that location should provide, i.e., what is the relative importance of cost, quality, flexibility, and responsiveness. This ranking guides how the various factors should be weighted in making the location decision. The factors can be categorized as mainly affecting assets (resource capacity) or activities (processes) (Van Mieghem, 2001).

### ***Facility location and performance***

One of the most important strategic decisions in the supply chain network made by many companies is where to locate their operations (Van Mieghem, 2001). Indeed, facility location decisions have a long-term impact on a supply chain's performance, on the overall risk and profit of the company because it is very expensive to shut down a facility or move it to a different location. The cost of moving an operation from one site to another can be hugely expensive and the risks of inconveniencing customers very high. Then, it can be an important decision because it usually has an effect on an operation's cost as well as its ability to serve its customers (and therefore its revenues). So getting location wrong can have a significant impact on profits. When locating facilities, revenues come from the sale of products, whereas costs arise from facilities, labor, transportation, material and inventories (Chopra and Meindl, 2010). Christopher (2005) specifies that location decisions are a basic determinant of profitability in international logistics. The decision on where to manufacture, to assemble, to store, to tranship and to consolidate can make the difference between profit and loss. Because of international differences in basic factor costs and because of exchange rate movements, location decisions are fundamental. Also these decisions tend to involve investment in fixed assets in the form of facilities and equipment. Decisions taken today can therefore have a continuing impact over time on the company's financial and competitive position.

Facilities locations are the key driver of supply chain performance in terms of responsiveness and efficiency. Thus, a manager's goal when locating facilities and allocating capacity should be to maximize the overall profitability of the resulting supply chain network while providing customers with the appropriate responsiveness. A good location decision can help a supply chain be responsive while keeping its costs low. In contrast, a poorly located facility makes it very difficult for a supply chain to perform close the efficient frontier (Chopra and Meindl, 2010).

A manager must consider many trade-offs during network design and facility location. A basic trade-off here is whether to centralize in order to gain economies of scales or

to decentralize to become more responsive by being closer to the customer. Companies can gain economies of scale when a product is manufactured or stored in only one location. This centralization increases efficiency. The cost reduction, however, comes at the expense of responsiveness, as many of a company's customers may be located far from the production facility. The opposite is also true. Locating facilities close to customers increases the number of facilities needed and consequently reduces efficiency. If the customer demands and is willing to pay for the responsiveness that having numerous facilities adds, however, then this facilities decision helps meet the company's competitive strategy goals (Chopra and Meindl, 2010). Thus, a company striving for responsiveness could have many warehousing facilities located close to customers even though this practice reduces efficiency. Alternatively, a high-efficiency company would have fewer warehouses to increase efficiency despite the fact that this practice will reduce responsiveness.

Facility location strategy may be driven by a combination of cost and speed delivery. In essence, the firm must balance the costs of opening new warehouses with the advantages of being close to the customer. Thus, warehouse location decisions are crucial determinants of whether the supply chain is an efficient channel for the distribution of products (Simchi-Levi, 2008).

Moreover, according to international supply chains, when changing from localization, practitioners should know about what measures they should use? How to analyze the performance of supply chain warehouse location evolution by using suitable measures?

The reason of this complexity is performance measures differ from context to context (Gopal et al., 2012)

### **Performance measurement and location facilities**

The subject of performance measurement is encountering increasing interest. This, for the most part, is due to the broadening spectrum of performances required by the present-day competitive environment (De Toni and Tonchia, 2001). There are several reasons for measuring performance: for improving performance, for avoiding inconveniences before it's too late, for monitoring customer relations, for process and cost control and for maintaining quality (Ackerman, 2003). From a system perspective, feedback is necessary for every system or organism's survival. Performance measurement or monitoring plays the role of feedback in one's supply chain (Bongsug, 2009).

### **Definition performance measurement**

Performance measurement system is an important issue in the development of organisations. Two widely known axioms are (Boyett and Conn, 1993): "What you



measure is what you get”and “if you can’t measure it, you can’t manage it because you won’t know if it improves”.

Things for which we can devise indicators can be managed; things for which we have no indicators can be out of control before we realise it. Performance measurement spans many disciplines and it is a broad topic.

From the performance measurement literature, the two categories of “efficiency” and “effectiveness” are frequently addressed as the main indicators of a company’s performance. According to Neely *et al.* (1995), effectiveness refers to the extent to which a function meets its goals and efficiency is a measure of how the firm’s resources are utilised. Hence, the level of performance business attains is a function of the efficiency and effectiveness of the actions it undertakes. A performance measurement system, therefore, can be defined as set of metrics used to quantify both the efficiency and effectiveness of actions. It can be concluded therefore that performance measures are established to achieve goals and are provided with the intent to monitor, guide and improve all the business functions as a whole

Neely *et al.* (1995) defined it as the process of quantifying the efficiency and effectiveness of an action or activity. The purpose of performance measurement is to find out whether things are going the right way and, if not, to find what are the causes that generate a poor performance.

### **Performance measures**

Performance measures and metrics are essential for effectively managing logistics operations, particularly in a competitive global economy. The global economy is featured with global operations, outsourcing and supply chain (Gunasekaran and Kobu, 2007).

Performance measure refers to an indicator used by management to measure, report, and to improve performance (financials, growth, customer focus, business processes, environment community...). These are classed as either a Key Result Indicator (tell what you have done in a perspective), a Performance Indicator (tell what you do), or a Key Performance Indicator (tell what you do to increase performance dramatically) (Parmenter, 2007).

KPI represent a set of measures focusing on those aspects of organizational performance that are the most critical for the current and future success of the organization (daily/weekly basis) (D.Parmenter, 2007). The idea of “Key Performance Indicators” (KPIs) suggests that, whilst there are many measure of performance that can be deployed in an organization, there are relatively small number of critical dimensions that contribute more than proportionately to success or failure in the marketplace (Christopher, 2005). These KPIs derive from the strategic goals themselves and can used for benchmarking supply chain performance (Parmenter,

2007). The KPIs reveal the gap between plan and execution and offer opportunities to identify and correct potential problems (Chopra and Meindl, 2010).

These KPIs can be hierarchically organized. There are several possible approaches. One way is to hierarchically group KPIs as top tier, mid-level and ground level. For easy and fast implementation, Bongsug (2009) recommends two layers: primary and secondary. The primary metrics represent a company's overall supply chain performance, which should be regularly monitored by the top management and the middle management responsible for demand and supply management. The secondary metrics are potential indicators of why the primary metrics are high and low and offer a detailed view of supply chain.

Moreover, global standards should be implemented to measure and benchmark the performance of supply chains on a global and local basis (A.T Kearney, 2009, p.20). The goal is to provide more holistic measures that allow managers to understand synergies available or to make appropriate trade-off decisions. A measurement approach across the supply chain is important because decisions can have important implications for global and local performance. Global KPI could be implemented on the supply chain strategic level and local KPI could be implemented on the supply chain operational level.

Potential KPIs should focus on only a small list of KPIs which are critical for their operations management, customer service, and financial viability. Developing key metrics becomes a daunting task, considering that listing potential supply chain related KPIs itself appears to be inexhaustible. Choosing the right number of key KPIs is a challenge to many companies. In supply chain performance measurement "less is better": companies should start with a small number of KPIs which are absolutely necessary to monitor the meta-level processes (plan, source, make and delivery) which they can successfully manage and operate (Bongsug, 2009).

## **Supply chain performance measurement**

### ***Definition***

Supply chain performance measurement or monitoring is the term for a set of metrics and processes related to assessing and evaluating how accurate the planning is and how well the execution is carried out (Bongsug, 2009).

### ***The need for performance measurement***

Performance measures and metrics are needed to achieve a fully integrated supply chain.

Coordination of the supply chain has become strategically important as logistics evolve (Goknur and Turan, 2010) with the importance of strategic alliances, global outsourcing, shorter product life cycles, partnership formation and collaboration,

agility responsiveness, flexibility, reverse logistics and extended enterprise integration (Gunasekaran, 2004). Moreover, such measures and metrics are needed to test and reveal the viability of strategies without which a clear direction for improvement and realization of goals would be highly difficult. Customer value, product characteristics, channels to market, cost reduction – all those considerations combine to require different kinds of supply chains (Simchi-Levi and Fine, 2010). “When you think about customer value in general, it’s multidimensional. Customers could find value in price, in quality, in selection, in branding. No company can be successful on all dimensions. Wal-Mart says it’s going to compete on price, and so the supply chain is supporting it is focused on cost. That’s not the case for a company like Amazon. The customer value proposition value that Amazon provides is a set of choices. They are focusing on responsiveness. They’re focusing on service level and customer service...The supply chain that needs to support this type of customer value is different than the supply chains that need to support an every day low-pricing strategy” (Simchi-Levi, 2008) You cannot dominate on all the dimensions. What is your objective? Is it cost or service?

There is a greater need to study the measures and metrics in the context of the following two reasons:

- A lack of balanced approach. Many companies have realized the importance of financial and non-financial performance measures. However, they failed to understand them in a balanced framework.
- A lack of clear distinction between metrics at strategic, tactical and operational levels.

(Gunasekaran, 2001).

Gunasekaran and Kobu (2007) mention the following as the purposes of a performance measurement system:

- identifying success,
- identifying if customer needs are met,
- better understanding of processes,
- identifying bottlenecks, waste, problems and improvement opportunities,
- providing factual decisions,
- enabling progress,
- tracking progress,
- facilitating a more open and transparent communication and co-operation.

## Supply chain performance frameworks

The measurements should be derived from the company's strategy and include all key processes and outputs as the results of the processes. Performance management is the process by which the company manages its performance in line with its corporate and functional strategies (Goknur and Turan, 2010).

Frameworks for performance measurement systems (PMS) have been developed for supply chain management.

One particular framework, the Supply Chain Operations References, the SCOR model created by SCC (Supply Chain Council) in 1997 gained growing use and increased visibility, contributing to the development and evolution of supply chain performance measurement systems and maturity models by providing a standardised way of viewing the supply chain, offering a consistent scorecard framework for development of performance, emphasising process orientation and deemphasising functional orientation, enabling cross-industry benchmarks.

The model becomes useful as it comes to develop supply chain metrics. According to the model, a company's supply chain would be represented by four meta-level processes: plan, source, production, and delivery. For example, the metrics for the process deliver are: *On time shipment*, *On time delivery*, *Perfect Order fulfilment*, *In-stock availability*.

In practice, this high-level view of SCM processes can be useful for identifying potential Key Performance Indicators. Potential KPIs should be developed for each of the supply chain operations-reference (SCOR) model's four meta-processes (plan, source, make, and delivery) and need to be hierarchically grouped such as primary and secondary metrics (Bongsug, 2009).

According to De Toni and Tonchia (2001), the goal is pursuing the performance results on different levels. The performance measures of the operations can be conceptually divided into two and the research has shown that there are four distinct performance dimensions and so types of indicators: cost/productivity, time, flexibility, quality:

The traditional cost performance (the production cost and the productivity) are kept separate from the innovative non-cost measures (quality, time and flexibility). The first dimension is that of cost (performances of the economic-financial type or directly linked to them):

- cost performances, including the production costs (separated into materials and labour) and the productivity. The cost performances are distinguished for having a direct link with the final results of the firm, that is net income and profitability. The cost performance indicators have traditional measures, such as the cheapness of the production costs, the productivity, the control of the working capital.

The other three instead are non-cost in nature (performances of a physical type, even though influencing the economic-financial performances):

- non-cost performances, regarding the time, flexibility and quality.

The non-cost performances are generally measured by non-monetary units of measure, and as far as, they influence the economic and financial performances (net income and profitability), the link with them cannot be calculated “a priori” in a precise manner as for the cost performances.

The time is a performance dimension that regards both internal times (that is those the firm controls but the customer does not see directly) and external times (those that concern the customer, in other words, delivery time and frequency of introducing new products).

Externally-perceived time performance are split into: system times (including supplying, manufacturing and distribution lead times), delivery speed and delivery reliability (from both suppliers and to customers), time to market (or time required to develop a new product).

Flexibility is, in theory, a performance apart since it is an ability to change something in relation to all three performances of cost, time and quality. There are various types of flexibility (volume, mix, product, process, expansion).

There are four types of quality measured (produced quality, perceived quality, in-bound (supply) quality; and quality costs).

Therefore the consideration of the value, in addition to the traditional financial performances (measured by ROI, discounted cash flow...), determines a marked customer orientation, considering a long-run period in which to analyse the satisfaction and fidelity to the customer (De Toni and Tonchia, 2001).

In the framework presented by Gunasekaran (2001) for measuring the performance of a supply chain, the metrics are distinguished as financial and non financial and classified at strategic, tactical and operational levels. For effective management in a supply chain, measurement goals must consider the overall supply chain objectives and the metrics to be used.

Gunasekaran *et al.* (2004) develop a framework for supply chain performance measurement based on four main decision areas of SCOR model (plan, source, make, deliver) and

it provides a detailed measurement and metrics classification and uses a survey aiming at assessing importance within each metric group. This model presents high performance metrics (KPI) that target broader functional areas of supply chain.

According to Gunakekaran *et al.* (2004), Gunasekaran and Kobu (2007), the new era performance measurement metrics should be based on company strategy and

objectives, reflected a balance between financial and non financial measures, related to strategic, tactical and operational levels of decision making and control...

Bongsug (2009) proposes a list of metrics which are essential for a firm's operations management, customer service and financial viability.

The supply chains of tomorrow must deliver varying degrees of six outcomes – the traditional cost related benefit plus responsiveness, security, sustainability, resilience and innovation depending on key customers' needs. The new supply chain is strategically couples and value driven (Melnik *et al.*2010).

### **Supply chain distribution network performance**

The goal is to identify performance measures that need to be considered when designing the distribution network. At the highest level, performance of a distribution network should be evaluated along two dimensions: customer needs that are met and cost of meeting customer needs (Chopra and Meindl, 2010). Thus, a firm must evaluate the impact on customer service and cost as it compares different distribution network options. Although customer service consists of many components, we focus on those measures that are influenced by the structure of the distribution network. Some key customer needs to be considered include response time, product variety/availability, convenience, order visibility and returnability. Important costs that managers must consider include inventories, transportation, facilities and handling, and information.

Firms that target customers who can tolerate a long response time require only a few locations that may be far from the customer (Simchi-Levy, 2008). Order lead time refers to the time which elapses between the receipt of the customer's order and the delivery of the goods.

An important challenge faced by many organizations is how much should they centralize (or decentralize) their distribution system. What is the impact of each strategy on inventory levels and transportation costs? What about the impact on service levels?

### **Facility location metrics**

As mentioned before, location facilities decisions are fundamental (Christopher, 2005).

When changing from localization, practitioners should know about what measures they should use? How to analyze the performance of supply chain warehouse location evolution by using suitable measures? In the era of globalization it is critical to select the right choice of performance metrics and measures. The reason of this complexity is performance measures differ from context to context (Gopal *et al.*, 2012).

A manager should track the following facility-related metrics that influence supply chain performance (Chopra and Meindl, 2010).

- Location of supply sources and markets
- Location of potential facility sites
- Demand forecast by market
- Facility, labor, and material cost by site
- Transportation costs between each pair of sites
- Inventory costs by site and as a function of quantity
- Sales price of product in different regions
- Taxes and tariffs
- Desired response time and other service factors.

The location metrics could be characterised by their ability to pursue several performances at the same time. There is a logic of “trade off” between performances (De Toni and Tonchia, 2001). The goal is pursuing the performance results on different levels. According to AT Kearney (2009), logistics costs (three cost components: transport costs, warehousing costs and inventory costs) are one of the most important key metrics for supply chain performance. Moreover, these measures must be aligned with customer satisfactions. Key customer requirements regarding a company’s supply chain entail product availability and competitive lead time followed by delivery reliability. “On-time” delivery is more important than a complete delivery “in full”. Excellent service quality in supply chain management can significantly contribute to a company’s success on the market. Requirements concerning delivery lead time vary by industry. Even though delivery reliability has reached a high level with 93 percent over time, a gap still exists between customer expectations of 98.8 percent reliability and the suppliers’ actual performance. Today, customers take it for granted that each single delivery must be accurate and undamaged. Quality of service takes place during service delivery, which is the interaction between the customer and the service process.

In the table 1, we try to summarize the different KPI from the literature review that could be related to facility distribution location metrics:

Table 1 Proposed location facility KPIs

KPI	Cost	Service
	<i>Production cost :</i> -Inventory costs (L) -Transport costs (L) -Facilities/warehouses costs (L) -Handling (L) -Information (L) <i>Productivity :</i> -Labor productivity (L) -Capital productivity (L)	<i>Time :</i> -Delivery Lead time (G) -Response time (G) -On time shipment (G) -On time delivery (G) <i>Flexibility :</i> -Product variety/variability (G) -Order visibility and returnability (G) -In stock availability (G) - Frequency of delivery (L) <i>Quality :</i> -Delivery Reliability (L) -Perfect order fulfilment (G) -Delivery “in Full” (G) -Quality of service (L)

Source: author according to the framework on metrics developed by Gunasekaran (2001).

G: Global L: Local

A further research could bring more highlights in this first classification, especially for strategic and operational KPIs.

## Conclusion

An attempt has been made to present the link between facility location and performance and the possible metrics for facility location performance measurement. Facilities locations are important decisions and impact the performance of the companies. Consequently, it is important to explore the supply chain performance frameworks that could highlight the metrics that could be used in order to measure location facilities especially the location distribution facilities. Moreover, in an international supply chain, performance measurement can be analyzed according to different levels global and local. This is due to glocal strategies that are implemented in order to realize a compromise between global and local scale. Then, the challenges are to succeed the classification of the different facility location metrics according to different criteria existing in international supply chains. It is critical according to the impact on the overall performance of the business.

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# CAUSES AND CONSEQUENCES OF OCCUPATIONAL STRESS AMONG UNIVERSITY TEACHERS IN PAKISTAN

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**Abstract:** *In response to the changing uncontrollable pressures in the business world, many organizations are experiencing transformations, and to survive in this era of intense competition, they are realigning their strategies (Kinman, 1998). This applies to the education sector as well, particularly the higher education sector, where a phenomenal increase has been observed during the last decade. Academic staff at Higher Education Institutes (HEIs) is facing highly demanding work environments, performance pressures and, as a result, occupational stress has become one of the most critical problems in universities, ultimately resulting in big costs to the universities. Our study explores the main causes and consequences of occupational stress in academic staff of a semi-government university of Pakistan. The scales used to identify stress and its consequences were derived from some of the existing scales and were adapted to our context based on a preliminary qualitative survey. Results revealed that work overload was the most significant job related factor leading to stress. Some consequences of stress including turnover intention and organizational commitment showed a direct significant relation with stress. Females reported relatively higher levels of stress and turnover intention than males. Based on these results, effective stress management interventions at organizational and individual level are recommended.*

**Keywords:** Work overload, Job stress, Performance, Commitment, Turnover, University.

## Introduction

Along with the corporate sector, the educational sector has also experienced severe competition and many other challenges during the 21<sup>st</sup> century because of economic pressures all over the world. These challenges have compelled the managers of Higher Education Institutions (HEI's) to change their strategies with reference to employee relationship management in order to achieve their long term goals effectively. The challenges mainly include the increase in the number of universities particularly in the private sector, the increase in the number of departments and students in the already existing universities, dual degree programs offered by some universities and strict

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criteria by the government and the funding agencies to offer grants to universities both in public in private sector. This has created an atmosphere of competition not only among universities but also among the departments of the same universities; This ultimately led to heavy workload and performance pressures on the faculty to attract external financing (Fisher 1994, Winefield 2000) and it has made the education sector more vulnerable to stress (Kinman, 1998).

In this context Pakistan's HEI's are no exception as the challenges mentioned above have ultimately affected the higher education system in Pakistan (where this study has been carried out). The university teachers are not only traditional teachers, but they have many other responsibilities in parallel, the most important out of these being research. To overcome the challenge of financial crunch during the last decade (which still exists), it is considered normal to assign the faculty members with multiple "additional responsibilities" which includes taking care of administrative issues, students' extra-curricular affairs, promotional activities for the university to attract a good pool of students and many others. Such responsibilities become a part of their job description thus increasing the workload and performance pressures, which end in psychological or physiological (somatic) stress if they are not managed properly. High levels of occupational stress result in big costs to organizations and the community through health care expenses, compensation payments, lost productivity and intention to quit (Cooper and Cartwright, 1994) It is a matter of high concern nowadays in many developed regions of the world, but less attention has been paid to this issue in developing and underdeveloped countries. Some of the universities having a clear strategic vision may have already addressed this challenge but many others are still in hot waters. The most important asset at a university is its "faculty", and it is important to provide a low-stress congenial academic environment to increase the performance of faculty members and reduce their intentions to quit. High job commitment, high performance and low turnover intention can be obtained if the managers of HEI's successfully address the job related issues/stressors which end up in chronic stress leading to strain with its negative effects.

Keeping in view this premise, the current study focuses on the important occupational stressors in an academic context, their effects on faculty stress, commitment, performance and turnover intention in a semi government university in Pakistan, which ranked among the top ten universities of Pakistan during the last 4 years. After defining stress and reviewing the literature, our research design and methodology will be presented. The results will then be analyzed, discussed and recommendations will be presented in the end.

## **Literature Review**

Occupational stress is a growing problem and is “an unavoidable characteristic of life and work” (Kinman, 1998, p.3). The main components of the work-stress process are the potential sources of stress, which are known as stressors, the individual differences considered as moderators or mediators, and the consequences of stress which are also termed as strain (Lu et al., 2003).

### **Definitions of stress-related terminologies**

*Stress* has been defined differently by various authors, sometimes as a stimulus, sometimes as a response. Stress is considered to be an internal state or reaction to anything consciously or unconsciously perceived as a threat, whether real or imagined (Clarke & Watson, 1991). Selye (1956) defined stress as the nonspecific response of the body to any demand or stressor. According to Lazarus (1990, p. 4), “stress is a multivariate process involving inputs, outputs and the mediating activities of appraisal and coping”. It is a phenomenon used to describe feelings of tension linked with work overload but is highly individualistic in nature (Iqbal and Kokash 2011, p. 137). Motowidlo et al. (1986) have characterized stress as a disturbing emotional experience puzzled with nervousness, frustration and negative emotions. Similarly according to Cooper et al. (1994), stress is a negatively perceived quality which stems from inadequate coping with sources of stress and which results in negative consequences in terms of mental as well as physical health.

Selye (1956) defined a *stressor* as a stimulus with the potential of triggering the fight-or-flight response. According to him, a stressor is simply a factor that produces stress. Acute stress is quite intense but disappears quickly. Chronic Stress linked to the long term effect of stressors usually results from problems which don't seem to go away. The danger of chronic stress is that people get used to it. *Distress* is a harmful stress that may have a short-term or long-term negative effect on individuals if they fail to cope with it or to adapt to it. *Eustress* is a beneficial/positive stress that enhances performance and leads to a positive outcome (Selye, 1976). It is important to mention that stress can be associated with both pleasant and unpleasant events, and it only becomes a problem when it remains unresolved (Erkutlu & Chafra, 2006). Not all stress is dysfunctional and in fact, stress is not naturally bad: a limited amount of stress combined with appropriate responses actually can benefit both the individual and the organization (Chusmir & Franks, 1988).

### **Factors contributing to occupational stress in academic world**

Literature on occupational stress at various points in time attests that many teachers during the course of their careers come across a great deal of stress which has negative implications (Guglielmi and Tatrow, 1998). The traditionally conceived “stress free profession” (Fischer 1994), is now labeled as “stress factory” (Barkhuizen & Rothmann, 2008, p. 321). Research conducted in various parts of the world including Netherlands, Australia, China, South Africa, Turkey, India, Japan, Sri Lanka, UK and many other countries has acknowledged several variables associated with stress, burnout, performance and coping mechanisms with particular reference to academic staff. Johnson et al (2005), while studying the relationship between physical stress, psychological stress and work satisfaction among 26 different types of professions found that teachers showed worse than average scores on each of these three dimensions.

Lu et al. (2010) found workload, interpersonal conflicts and organizational constraints significantly related to performance. Kalyani et al. (2009) studied the contribution of occupational stress and coping on teachers’ work performance and found a significant influence of occupational stress and coping styles on work performance. However the results of male and female teachers did not reveal significant differences in occupational stress, coping styles and performance. A research on sources of occupational stress on employees of a Quebec university by Biron et al. (2005) revealed that work overload, relationship with seniors and participation in decision making were systematically reported as high risks to employees’ health. Dick & Wagner (2001), in their study of “Stress and strain in teaching” found that workload and mobbing lead to physical stress and that the support from the principal (in-charge) reduces the negative perceptions related to workload and mobbing. Barkhuizen & Rothmann (2008) in their studies on occupational stress of academic staff in South Africa reported that work overload and work-life balance contributed significantly to psychosomatic stress of teachers.

Ahmdy et al. (2007) listed the most frequently related stressors for university academic staff included workload, conflict, inadequate resources for appropriate performance, insufficient competency to the demands of their role and inadequate autonomy to make decision on different tasks. Ahsan et al. (2009) also identified stress inducing factors in academic staff which mainly included work overload, home work interface, role ambiguity and performance pressures, and Abouserie (1996) found workload and conducting research as being factors of stress. These factors are termed organizational stressors since they serve as agents that activate the different stress/strain reactions (Von Onciul, 1996).

According to Karasek’s (1979) Demand–Control theory of job stress, even if the nature of the jobs is quite demanding, the jobs in which there is a high level of control or autonomy should not be stressful. Stressful jobs, according to this theory, are those

that combine high demands with low control. Kinman (1998) mentions concerns of university staff pertaining to the increase in their levels of accountability, and at the same time the gradual increase in personal autonomy. This might contribute to higher stress for professionals who value independence in their jobs. On the other hand Winefield and Jarrett (2001) found that generally, academics are highly satisfied about their autonomy. Ballamy et al. (2003) show that academics are attracted by university careers because they value intrinsic motivators such as flexibility and autonomy, and these two factors are considered as key factors in “becoming and remaining” an academician. Maslach et al. (2001) also found that stress and burnout are higher for employees who have less involvement in decision making and who lack job autonomy, although the strength of this relationship is relatively weaker. Tytherleigh et al. (2005) concluded that academic staff was most stressed by work relationships, resources and communication, which ultimately affect organizational commitment and intention to quit.

### **Stress, performance, commitment and turnover – interrelationships**

Numerous research findings verify the relationship between stress and absenteeism, burnout, turnover, performance, organizational commitment, missing deadlines and making careless mistakes (Firth and Britton, 1989; Goodman, 1990; Jamal and Baba, 1992; Jacobs et al., 2007). Employees with high levels of burnout show withdrawal behaviors in the form of absenteeism and turnover before they seriously impact job demands and they start committing mistakes (Schaufeli et al., 2009). Furthermore, stress has been implicated as a causal factor of impaired work performance, decrease in faculty productivity, absenteeism, propensity to leave and higher staff turnover (Kinman, 2001; Schabracq and Cooper 2000; Taris et al., 2001).

Organizational commitment is one of the most important job-related outcomes and is negatively related to work stress in many studies conducted by different researchers (Jackson and Schuler, 1985; Sager, 1994, Vakola and Nikolaou 2005). Barkhuizen & Rothmann (2008) identified some factors that contributed significantly to job commitment of university staff to their institutions: high stress because of overload, job control, resources and communication. According to them, when faculty members find the intrinsic factors of their jobs stressful, their organizational commitment gets lower, and they may want to quit. Dorman (2003) found that teachers operating under high levels of stress for significant periods of time can develop burnout characteristics including less sympathy towards students, reduced tolerance of students, failure to prepare lessons adequately and lack of commitment to the teaching.

Although a majority of the research studies concluded that high levels of stress have a direct negative relationship with performance (Jacobs et al. 2007), some view stress as being essential for improving performance. For example Cohen (1980) termed stress as a challenge for employees and talked about a positive linear relationship between

stress and performance. Yerkes and Dodson (1908) suggested low performance at high and low levels of stress, and optimum performance at medium stress levels. Jamal and Baba (1992) tested four different models of the stressor-performance relationship and direct linear negative relationship between stress and performance was found. In other words those reporting higher levels of stress reported lower levels of productivity. Moreover Halpern (2005) and Cropanzano et al. (2003) reported a strong link between stress levels and psychosomatic ill health followed by reduced performance.

### **Consequences of stress**

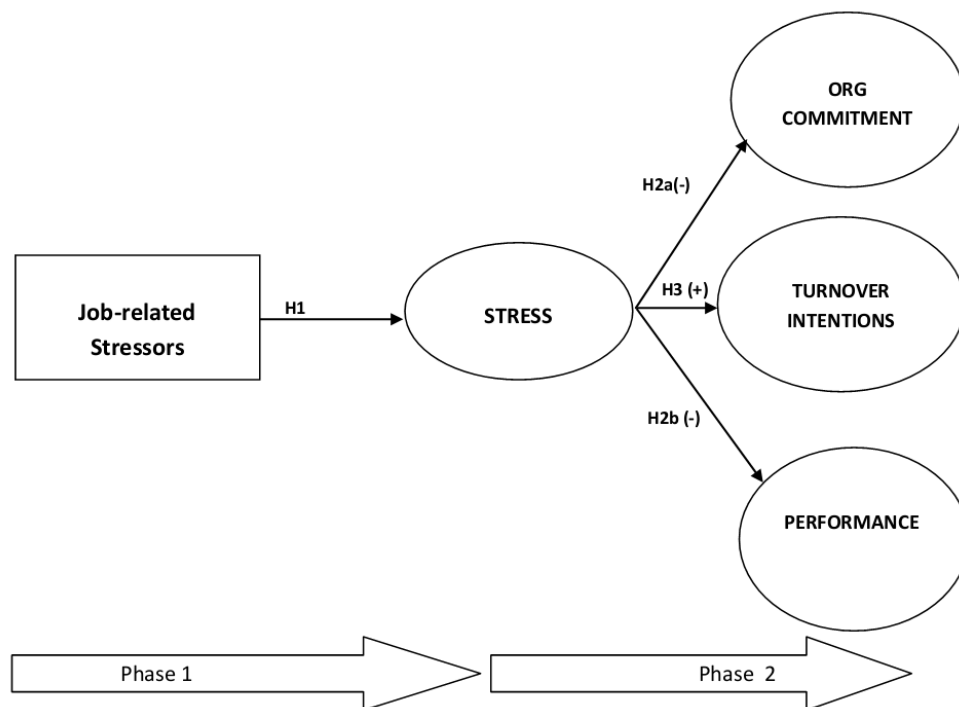
The literature shows that long-term physical effects of negative stress and burnout such as fatigue, migraines, irregular sleeping patterns, insomnia, high blood pressure or heart diseases are ultimately very harmful for the individual and the organization (Hinton & Rotheiler, 1998). Research has also shown that stress and burnout result in adding substantial costs to organizations through health care claims, compensation payments, low performance and productivity and high turnover (Cooper & Cartwright, 1994). Dick & Wagner (2001) found that “Teacher stress is seen mainly as a negative affect with diverse psychological (e.g., job dissatisfaction), physiological (e.g., high blood pressure), and behavioral (e.g., absenteeism) correlates”. According to them, these negative stress outcomes in the long run lead to psychosomatic and even chronic problems like heart diseases. Distress has quite a negative effect particularly when the employees who perform outstanding start experiencing it and start searching for new jobs, which thus affects the organization badly in increasing the recruitment and selection costs (Grigoryan, 2008; Ongori, 2007). For employees who do not quit, stress can cause psychosomatic health issues including depression, hypertension, heart diseases, suicidal tendencies, and many other problems (Christo & Pienaar, 2006). Therefore it is important to develop appropriate proactive interventions to manage stress (Grigoryan 2008, Ongori & Agolla 2008) before it reaches the stage of burnout.

### **Conceptual framework**

Past studies in the same domain (Barkhuizen & Rothmann (2008), Iqbal & Kokash (2001), Jacobs et al., (2007), Jamal and Baba (1992), Kalyani et al. (2009), Kinman (1998), Winefield et al., 2003, Winefield & Jarrett (2001)) were taken as the basis for our research framework. After a preliminary phase identifying the most important and reliable job-related stressors in the context of Pakistani universities, our framework consists of two phases. The first phase illustrates the relationship between job related sources of stress/stressors and psychosomatic stress. The second phase illustrates the relationship between stress, performance, organizational commitment and turnover intentions. Demographic factors have been used as control variables. Figure 1 illustrates a heuristic representation of the model and hypotheses to be tested:



Figure 1 – Heuristic representation of the model to be tested



Research on stress has identified several key job-related factors, particularly among teachers which mainly include work overload, inadequate resources, lack of job control, communication, time pressures problems and student interactions (Ahsan et al., 2009; Biron et al., 2005; Barkhuizen & Rothmann, 2008; Dick & Wagner, 2001; Ahmdy et al., 2007; Tytherleigh et al., 2005; Maslach et al., 2001; Kinman, 1998; Blix et al., 1994). Based on these studies, following hypothesis was developed for our study:

*H1 Job-related stressors are positively related to stress*

Many researchers have found a highly significant negative relation between stress and performance, stress and organizational commitment and many other studies show a positive relationship between stress and turnover intentions (Schaufeli et al., 2009; Vakola and Nikolaou, 2005; Halpern, 2005; Schabracq and Cooper, 2000; Kinman, 2001; Taris et al., 2001; Jamal and Baba, 1992). Based on these studies following hypotheses were developed:

*H2 a) - There is a significant negative relationship between stress and organizational commitment.*

*H2 b) - There is a significant negative relationship between stress and performance-.*

*H3 – There is a significant positive relationship between stress and employee turnover intentions.*

## Methodology and Conceptual Framework

### Participants and data collection

The survey was carried out on a sample of 159 lecturers and assistant professors from four campuses of a semi-government university of Pakistan. The data were collected during the year 2009. Each potential respondent was sent a questionnaire through a representative from his/her campus with a cover letter mentioning the general purpose of the research and guaranteeing respondent anonymity. The faculty members were asked to return the complete questionnaire directly to the representative/investigator. Strict confidentiality was insured as no personal identifiable information was mentioned on the questionnaire. All respondents participated voluntarily and received no monetary reward. Out of 159 respondents, 10 subjects were excluded due to incomplete questionnaires and/or various biases in their responses. Respondents reported their gender, post and type of teaching based on their specialization (department). Courses with no extensive lab work, e.g. management & humanities, have been considered as Non Technical Teaching (NTT) and others, e.g. Engineering, Pharmacy or Computer Science have been termed as Technical Teaching (TT). Table 1 shows these demographic details of the respondents

Table 1 – Demographic details of the respondents (N=149)

Demographic Characteristic		Number (n=149)	Percentage
GENDER	Female	34	23 %
	Male	115	77 %
POST	Assistant Professor (OG-II)	35	23.5 %
	Lecturer (OG-I)	114	76.5 %
Type	Technical Teaching (TT)	85	57 %
	Non Technical Teaching (NTT)	64	43%

### Instrumentation

*Stress*: “Stress is an imprecise and misused term and a system of measurement should provide a structure and language that facilitates the understanding of the subject” (Williams and Cooper 1998, p. 306). Keeping in view the problems mentioned in the literature pertaining to the measurement of stress, utmost care has been taken to overcome such problems in this study, firstly by selecting appropriate questions from already existing scales (William & Cooper, 1998; Porter et al., 1974; Moos & Insel, 1974; Hunt et al., 1981), and secondly by rephrasing the questions in

understandable/easy format. Thorough interviews with 39 faculty members were conducted before finalizing the questionnaire contents. Faculty members were interviewed regarding the different items mentioned in some of the most popular instruments/tools to measure job-related stress e.g. Pressure Management Indicator (PMI) by Williams & Cooper (1998) which is a 120 item self reported questionnaire developed from Occupational Stress Indicator (OSI) by Cooper et al. (1988). The interviewees/faculty members during the preliminary qualitative survey responded to many open ended questions, which were tape recorded and later on jotted down in a systematic way which gave us a good idea regarding the most prominent/prevaling indicators of stress in our specific context.

*Job related stressors:* Respondents were asked to evaluate the impact of job related stressors using a scale 1-5 (one for least effect on stress and 5 for highest impact on stress). The listed stressors included job insecurity, feeling of inequity, communication problems, work overload, harassment, lack of job autonomy, lack of resources, lack of training/skills and lack of aptitude. For more than 70 percent of the respondents work overload was the highest rated factor, followed by job autonomy and lack of resources. Very few faculty members indicated the other factors to have a high impact on stress. Therefore, only the three main job-related stressors have been considered in our study. Table 2 mentions their reliability (Cronbach alpha) and sample questions of the three scales.

Our first hypothesis can therefore be split into three sub-hypotheses:

*H1 a) – Work overload is positively related to stress.*

*H1 b) – Lack of resources is positively related to stress.*

*H1 c) – Lack of Autonomy is positively related to stress.*

*Performance:* Performance indicators/results were solicited from the respondents based on their annual performance appraisal. The questionnaire referred to the performance feedback which they received formally from different sources including performance appraisal committee, reporting officers and students (A formal student feedback system exists in the university and faculty members receive the student feedback on courses taught each semester – see Appendix). It is worthwhile to mention that the questions used to measure the performance were not merely a self appraised performance, but information on the content of this external evaluation, even if it can be biased in their reporting by their desire to give a better image of themselves.

*Organizational commitment:* The questionnaire on organizational commitment included questions adapted from Porter et al. (1974) and Williams & Cooper (1998) on personal commitment/identifications with the university (see sample items in table 2).

*Turnover intentions:* Turnover intention was measured by using four items adapted from Hunt et al. (1981) concerning plans to leave or remain in same the organization.

The items measure the quit intentions with reference to “change the university” and do not made any reference to change in the profession/job.

All the variables were measured on a five point Likert scale. Some items were removed to improve the reliability. Variables used for analysis all had Cronbach’s alphas above.

Table 2 – Descriptive information for independent and dependent variables

<b>Variables</b>	<b>No. of Items</b>	<b>No. of items removed</b>	<b>Cronbach’s alpha</b>	<b>Sample Item</b>
<b>Work Overload</b>	05	01	0.72	You feel overburdened at work and unable to complete your tasks during an average day
<b>Lack of Resources</b>	05	02	.72	Facilities & resources available at your disposal are not enough to keep you productive
<b>Job Autonomy</b>	03	none	.71	You are discouraged to make your own decisions (reverse)
<b>Stress</b>	06	01	.76	Do you feel frequent anxiety or edginess?
<b>Performance</b>	05	02	.72	On the average, where have you been rated by the appraisal committee in your annual performance feedback? (Poor      Below Average      Average Good      Outstanding)
<b>Organizational Commitment</b>	04	01	.76	In order to help your university to be successful, you put extra efforts in your job, beyond normal expectations from your job?
<b>Turnover Intentions</b>	04	01	.71	If some other university in same city pays the same as your current organization, will you leave this university?

## Results

The statistical tools used in this study for the data analysis were Pearson’s correlations, regression analysis, and T-tests, using SPSS v.19. Table 3 shows the summarized results of correlations between our dependent and independent variables. Results revealed that there are no strong intercorrelations. Overload was highly (positively)

related to stress. stress was also highly related to Organizational commitment (negatively) and to turnover intentions (positively).

Table 3 – Correlations between dependent and independent variables

<b>VARIABLES</b>	<b>WO</b>	<b>LOR</b>	<b>LOA</b>	<b>STRESS</b>	<b>PER</b>	<b>OC</b>	<b>TO</b>
<b>WORK OVERLOAD</b>	<b>1</b>	<b>.194*</b>	<b>.299**</b>	<b>.251**</b>	<b>-.062</b>	<b>-.075</b>	<b>.089</b>
<b>LACK OF RESOURCES</b>		<b>1</b>	<b>.283**</b>	<b>.104</b>	<b>.205*</b>	<b>-.019</b>	<b>-.200**</b>
<b>LACK OF AUTONOMY</b>			<b>1</b>	<b>.018</b>	<b>.135</b>	<b>.070</b>	<b>-.054</b>
<b>STRESS</b>				<b>1</b>	<b>.061</b>	<b>-.412**</b>	<b>.343**</b>
<b>PERFORMANCE</b>					<b>1</b>	<b>.140</b>	<b>-.007</b>
<b>ORG COMMITMENT</b>						<b>1</b>	<b>-.213**</b>
<b>TURNOVER</b>							<b>1</b>

\*: Correlation is significant at the 0.05 level (2-tailed).

\*\*: Correlation is significant at the 0.01 level (2-tailed).

WO: Work Overload, LOR: Lack of Resources, LOA: Lack of Autonomy, PER: Performance, OC: Org; Commitment, TO: Turnover Intentions

To test hypothesis H1 (a,b,c), a standard multiple regression analysis was conducted. Table 4 whows the results of a multiple regression between stress and the job related stressors after removing the effect of our control variables (Gender, Grade and Department type considered as dummy variables and coded 0 or 1).

Table 4 – Multiple regression for stress and other independent job related variables

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>F</b>	<b>Sig.</b>
<b>.536</b>	<b>.287</b>	<b>.257</b>	<b>9.537</b>	<b>.000</b>

Independent Variables	Standardized Coefficients	t	Sig.
	Beta		
(Constant)		-1.138	.257
Gender	.479	6.367	.000
Grade	.203	2.770	.006
Department Type	.077	1.048	.296
WORK OVERLOAD	.251	3.352	.001
RESOURCES	.091	1.220	.225
AUTONOMY	-.015	-.197	.844

*(Dependent Variable: Stress)*

The adjusted R-square value .257 shows that independent variables have 25.7% influence on stress (dependent variable). The only job related factor significantly (positively) related with stress is work overload which showed a positive significant relationship with stress (with a beta score of 0.251,  $p=0.001$ ). The rest of the job related factors showed no significant relationship with stress. However two of the demographic (control) variables namely grade and gender has also showed significant relation with stress: faculty members with higher grades displayed higher levels of stress, and women were more stressed than men.

Tables 5, 6 and 7 reveal the results of regressions between stress-organizational commitment, stress-performance and stress- turnover intentions after controlling for Gender and Grade (to validate hypothesis H2a&b and H3)

Table 5 – Multiple regression for Organizational Commitment and Stress.

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>F</b>	<b>Sig.</b>
<b>.434</b>	<b>.188</b>	<b>.166</b>	<b>8.361</b>	<b>.000</b>

<b>Independent Variables</b>	<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>Beta</b>		
<b>(Constant)</b>		<b>12.934</b>	<b>.000</b>
<b>Gender</b>	<b>-.048</b>	<b>-.547</b>	<b>.585</b>
<b>Grade</b>	<b>-.126</b>	<b>-1.584</b>	<b>.115</b>
<b>Department Type</b>	<b>-.077</b>	<b>-1.003</b>	<b>.318</b>
<b>STRESS</b>	<b>-.380</b>	<b>-4.490</b>	<b>.000</b>

*(Dependent Variable: Organizational Commitment)*

As far as organizational commitment is concerned, there is a highly significant (negative) relationship with stress (Beta= -.380, Adjusted  $R^2$ = .166). The adjusted R-square value .166 shows that independent variables have 16.6 % influence on stress (dependent variable). However table 6 shows no significant relationship between stress and performance. The results support hypotheses H2a but do not support H2b

Table 6 – Multiple regression for Performance and Stress.

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>F</b>	<b>Sig.</b>
<b>.143</b>	<b>.020</b>	<b>-.007</b>	<b>.752</b>	<b>.559</b>

Independent Variables	Standardized Coefficients	t	Sig.
	Beta		
(Constant)		6.157	.000
Gender	-.070	-.724	.470
Grade	.026	.301	.764
Department Type	-.117	-1.388	.167
STRESS	.082	.887	.377

(Dependent Variable: Performance)

The regression results between stress and turnover intentions in table 7 reveals a significant positive relation (Beta = .250, Adjusted R<sup>2</sup>= .154), thus supporting our hypotheses H3.

Table 7 – Regression analysis between Turnover and Stress.

R	R Square	Adjusted R Square	F	Sig.
.420	.177	.154	7.723	.000

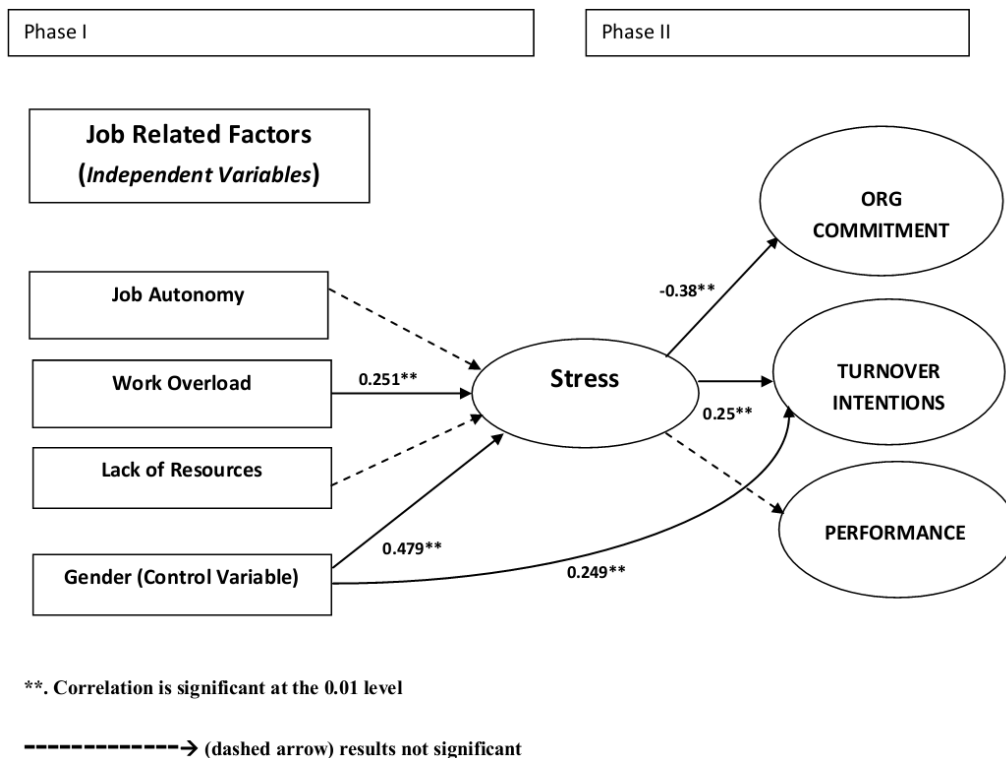
Independent Variables	Standardized Coefficients	t	Sig.
	Beta		
(Constant)		2.789	.006
Gender	.249	2.820	.005
Grade	-.021	-.264	.792
Department Type	.112	1.458	.147
STRESS	.250	2.933	.004

(Dependent Variable: Turnover Intentions)

“Gender” which is one of the control (demographic) variables showed a highly significant relationship with turnover intention (Intent to quit is higher for women than for men), but not with performance or organizational commitment.

A global picture of the results is presented in figure 2.

Figure 2 – Global representation of results



## Discussion

The objectives of this study were to test the influence of job related stressors on the psychosomatic stress in academic staff of a semi government university of Pakistan, but also to study the consequences of stress on performance, organizational commitment and turnover intentions in this academic context. As hypothesized, work overload had a significant impact on psychosomatic stress, thus supporting our hypotheses *H1(a) i.e. Work overload is positively related to stress*, but the results do not support *H1(b) and H1(c)*. Thus, among our job related factors work, overload was the only significant variable which predicted stress among faculty members. Our results confirm those of past studies: for example Association of University Teachers (2003) found overload and work life imbalance as being the most common stressors among teachers. The literature argues that academics may be stressed due to high teaching and administrative workloads that affect research productivity (Jacobs and Winslow 2004). Many universities have high research expectations from faculty members, requiring them to allocate time for teaching and administrative duties, which considerably decreases the time they can spend for research. Other researchers also found work overload as highly related to stress including Biron et al. (2005), Iqbal and Kokash (2011), Winefield et al. (2002), Kinman and Jones (2003), Barkhuizen & Rothmann (2008). In a survey by Boyd and Wylie (1994), 80 percent of the academicians mentioned that their workloads had increased consistently during the preceding years. Similarly in response to Kinman's (1998) survey, more than 50



percent of the sample revealed that more than 20 percent of their job was done “after office hours” at home and even during weekends. In our preliminary interviews more than 50 percent of the faculty members mentioned that they intentionally and willingly used their leisure time (at home) after office hours to complete some of the jobs including marking the papers, preparing results, preparation for the lectures, working on research articles etc. This may be due to the fact that they are overwhelmed by other administrative tasks that now become part of the job description of many faculty members. The results did not support hypotheses H1(b and c). Bivariate correlations show that lack of resources even improves performance ( $r=0.205$ ,  $p<0.05$ ) and reduces turnover ( $r=0.200$ ,  $p<0.01$ ): faculty members facing more difficult working conditions and getting good results may be better evaluated than the others who don't have to meet such challenges.

The result pertaining to stress and organizational commitment showed a negative significant relation thus supporting our hypothesis **H2 (a), i.e. *There is a significant negative relation between stress and organizational commitment.*** The relationship between stress and turnover intentions was also found significant (positive) thus supporting hypothesis **H3, i.e. *there is a significant positive relation between stress and employee turnover intention.*** Both these results are in conformity with some past studies including Barkhuizen & Rothmann (2008), Dorman (2003), Goodman (1990), Hannigan et al. (2004), Kinman (2001), Ongori & Agolla (2008), Sager (1994), Schabracq & Cooper (2000), Taris et al. (2001) and Vakola & Nikolaou (2005). Numerous studies have shown that organizational commitment is one of the most important job-related outcomes; it is negatively related to work stress and may end in turnover intentions. Dorman (2003) found that teachers operating under high levels of stress for significant periods of time can develop burnout characteristics including less sympathy towards students, reduced tolerance of students, failure to prepare lessons adequately and a lack of commitment to the teaching. Thus being more vulnerable to stress for a longer period of time may reduce organizational commitment and increase withdrawal or turnover.

Our hypothesis **H2b i.e. *“there is a significant negative relation between stress and performance”*** was not confirmed in this study. Our results do not support the findings of Jamal and Baba (1992) and Halpem (2005) who found a direct negative relationship between stress and performance. Stress was also considered by Van Sell et al. (1981) as being harmful for most of the employees as those facing stress might waste most of their energy to cope and this would negatively affect their performance. On the contrary Cohen (1980) and Meglino (1977) termed stress as a challenge for employees and talked about a positive linear relationship between stress and performance. Jacobs et al. (2007) and Kinman (1998) found an ambiguous relationship between psychological well being and performance. It can be argued that some other demographic variables play their role and moderate the relationship between stress and

performance. The relationship between stress and performance could also be an inverted U shape relationship (Yerkes & Dodson, 1908): at extremely low and high levels of stress, performance would be minimum; at very high level of stress, the employees' arousal level is too high to be conducive for maximum performance, thus his/her performance start declining. A moderate level of stress could be an optimal level resulting in a maximum level of performance.

Our results show a significant impact of gender on stress and turnover intentions. This result is confirmed by a t-test presented in table 8: significant differences were found between male and female faculty on stress (1.84 for men, 2.54 for women,  $p < 0.001$ ) and turnover intentions (2.55 for men, 3.26 for women,  $p < 0.001$ ). The results corroborate those of Takahashi and Takahashi (2010), Hayes (1986) or Blix et al. (1994). They support the findings of Barkhuizen & Rothmann (2008) who found that female faculty reported higher levels of somatic stress (physical illness) than male faculty. However Gmelch & Burns (1994); Kalyani et al. (2009) found no significant differences between male and female counterparts.

Table 8 – Impact of Gender on Dependent Variables

<b>Dependent Variables</b>	<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t</b>	<b>Sig</b>
<b>STRESS</b>	<b>Male</b>	<b>115</b>	<b>1.84</b>	<b>.697</b>	<b>-5.32</b>	<b>.000</b>
	<b>Female</b>	<b>34</b>	<b>2.54</b>	<b>.545</b>	<b>-6.08</b>	
<b>TURNOVER</b>	<b>Male</b>	<b>115</b>	<b>2.55</b>	<b>.902</b>	<b>-4.29</b>	<b>.000</b>
	<b>Female</b>	<b>34</b>	<b>3.26</b>	<b>.639</b>	<b>-5.16</b>	

Though interesting results were drawn from this study, one of the weaknesses of this research was the relatively the small sample ( $n=149$ ) which is not ideal for advanced level analysis. Moreover, it would be interesting to develop a comparative analysis of public and private sector or old and new universities. Cross-cultural dimensions could also be taken into consideration while applying the same study in different countries. Furthermore the moderating and mediating effects of other demographic variables such as personality type and locus of control could be studied in the future. Furthermore other variables such as job satisfaction, proactive and reactive coping or social support resources could be included as well. This study could be extended to non-academic staff and professions other than teaching. Causal relationships could be tested on a bigger sample using Structured Equation Modeling, but a closer analysis of the causality between the variables would require longitudinal studies rather than merely cross sectional data.

## Conclusion and Recommendations

Summing up, the results showed that work overload is one of the most significant factor defining stress among faculty members and that stress has a significant impact on their organizational commitment and their turnover intention, but does not seem to impact their performance.

Research on academics reports that scholars are attracted by university careers because of inherent motivators such as flexibility and autonomy (Bellamy et al., 2003). The universities which are considered as good paymasters and have overall good ranking expect high outcomes from the faculty. Academicians are mentally ready for the long work hours and challenges pertaining to the variety of tasks they will have to perform in a university, particularly if the university ranks among the top ones. Keeping in view this premise, a high work overload may be considered as the norm for such academicians, particularly if they are given sufficient resources and recognition for their outputs. However it is the responsibility of the university to ensure proper distribution of workload and resources to prevent too high levels of stress. It is suggested that particularly faculty members who are voluntarily doing additional duties along with teaching and research should obtain research associates/assistants to help them out in various assignments.

During the initial interviews, the faculty members expressed their concern regarding heavy workload and the unequal distribution of jobs/tasks by their bosses. They pointed out that many faculty members never contribute in “additional tasks”, and just focus on teaching. Even the Head of Departments felt reluctant to assign such faculty members with additional responsibilities. Ultimately, the jobs of such faculty members who avoid new responsibilities are shifted to few others who take it as a challenge, but in the long run it becomes a source of stress for them and they do it at the cost of their work-life imbalance. Moreover if there is no recognition for their outputs by the performance management committees or top management, the organizational commitment also drops down which may end in turnover of those who are good performers. Thus it is recommended that management should take appropriate measures to make sure that the negative effects of workload mismanagement should not be trickled down to good performers as it is one of the major sources of occupational stress, which may lead to turnover.

Our results reveal that stress leads to lower organizational commitment and higher turnover. Lack of organizational commitment and high turnover is a big challenge for organizations as the investment in recruitment, selection, training and development is wasted if valued workers quit (Abrams et al., 1998). Unlike other assets, human resources cannot be replaced easily. Universities must take proactive measures in this regard. Stress, low organizational commitment and high turnover intentions do not occur over night. It is a slow process which leads the employees to think negatively about their paymaster and seek jobs elsewhere. Not only individual level but

organizational level interventions can be effective in improving academics' wellbeing and these interventions should be designed to reduce individual workload, improve trust in management and increase organizational commitment (Bakker et al., 2010). "One way to reduce the impact of workplace demands would be to employ more staff, thus reducing individual workloads". (Bakker et al., 2010, p. 633). Job commitment is a two way process. If employees perceive that their organization cares for them and is committed to them, in return employees show the same attitude, although professionals can be more committed to their profession rather than to their organization. For such academicians, seeking a new job is relatively easy, but for the organization where valued workers are leaving, it is a big challenge, and proactive interventions/measures should be taken.

Avoiding the negative consequences of stress can be done by interventions at three levels, the primary level (anticipating, reducing stressors), the secondary level (managing stress, coping) or the tertiary level (reduce consequences of stress) (Kompier & Kristensen, 1998). Our interviews with the faculty members revealed that most of them were ignorant of stress management tactics. No formal stress management seminar/interventions had been conducted at the university since its inception. Though many sports and extra-curricular activities had been regularly organized on the campuses, most of the faculty members felt reluctant to participate in them, and they preferred to concentrate on research publications and other academic activities even during these sport breaks. Universities could organize stress management seminars on the campus. At the individual level employees can be encouraged to take care of stress themselves. Making their roles clear, practicing time management tactics, carefully distributing the workload to others, increasing the social support resources are workplace tactics which can help employees overcome stress through careful planning.

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# Appendix

Feedback report of all courses

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**COMSATS Institute of Information Technology**  
**Abbottabad**

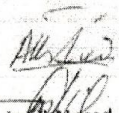
**Students Feedback Overview**

Course Title: Organizational Behaviour  
Instructor Name : Mr. Syed Gohar Abbas  
Program : MBA  
Date : 8/7/2006

Sr#	Quality Factor	Average Response	
1	Grasp and knowledge of the subject	9.33	<input type="text"/>
2	Preparation of the lecture	9.3	<input type="text"/>
3	Clarity of Speech	9.26	<input type="text"/>
4	Logical Organization and continuity in lecture presentation	9.04	<input type="text"/>
5	Clarity in explanation of difficultites with example	9.11	<input type="text"/>
6	Quality of student-teacher interaction	8.85	<input type="text"/>
7	Increasing your knowledge in the subject	8.96	<input type="text"/>
8	Developments of the intrest in the course	8.74	<input type="text"/>
9	Punctuality and regularity	8.93	<input type="text"/>
10	Impartiality in grading	8.81	<input type="text"/>
11	Relevance of exam/ homework with the lecture topics	9.11	<input type="text"/>
12	Relevance of lecture topic with the course	8.89	<input type="text"/>
13	Quality of lectures/demonstration	9.07	<input type="text"/>
14	Creativity in teaching	9.04	<input type="text"/>
15	Control of the class	8.81	<input type="text"/>
16	Laboratory arrangements	8.67	<input type="text"/>
17	Books / Course material	8.74	<input type="text"/>
18	Speed of covering material in class	8.56	<input type="text"/>
19	Requirement of amount of work after the class	8.81	<input type="text"/>
20	Overall Impression about the teacher	9	<input type="text"/>

Students Registered in the course :	35
Students Registered in the Feedback :	35
No of Students with completed feedback :	27
No of Students with Incomplete feedback :	0
No of Students with Outstanding feedback :	8
Sum of All Quality Factors Averages :	179
Course Feedback Average	9

  
**Jamil Ahmed**  
 Assistant Registrar (General)  
 CHIT, Abbottabad.