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FACTORS AND ASPECTS OF THE RELOCATION STRATEGIES OF COMPANIES

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Abstract

In the last two decades there have been significant changes in the factors that determine the geographic location or relocation of R &D, production and marketing of all transnational companies. Supply chains have expanded to new areas of the globe and big traditional providers have also expanded their global presence by an increasing trend of co-localization with their main customers. Contract manufacturers have multiplied and strengthened, expanding their geographical distribution. A more obvious trend was that of the geographic dispersion of other global value chain functions such as business services and logistics support functions. Relocation to countries with cheap labor is not always a successful strategy. Therefore the decision to relocate in international geographical area, regardless of the structure formula, offshoring or outsourcing, must be based on a more diverse set of factors.

Keywords: *relocation, TNC, clustering, offshoring, outsourcing*

JEL Classification: M10

Introduction

In the last two decades there have been significant changes in the factors that determine the geographic location or relocation of R & D, production and marketing of all transnational companies. Production was internationally dispersed long ago, but the trend of integration on a so large geographic scale is relatively recent. Supply chains have expanded to new areas of the globe and have virtually integrated regional production areas that were previously separate structures.

Contract manufacturers have multiplied and strengthened, also expanding their geographical distribution.

Great traditional suppliers have also expanded their global presence by an increasing trend of co-location with their main customers. In connection with this, the so-called "postponement" trend appeared, meaning that components are manufactured or assembled as close as possible to the final sale locations to reduce transportation costs, which for some products are still high.

A more obvious trend was that of the geographic dispersion of other global value chain functions such as business services and logistics support functions.

Even innovation, which is supposed to be rooted in their own countries for strategic and skilled professionals reasons, is increasingly performed in overseas locations. Cutting-edge

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research is still mainly carried out in developed countries, but we can see that emerging countries allocate increasing and impressive amounts on research and development spending.

1. Factors of the relocation decision

To summarize, we can mention the following categories of factors acting simultaneously on relocation decisions of transnational companies:

a) **Differences in costs**. They remain an essential factor in choosing location, especially in respect of the production function, but to a greater extent also in what involves other activities such as research and development, accounting services, IT or marketing. In selecting the location, the production costs are evaluated in the broader context of the efficiency and productivity of the location in question. This aspect is often neglected in discussions of comparative costs, but is essential for the transnational companies strategy of achieving a "systemic" efficiency throughout their entire productive system. Therefore, a location is analyzed according to how efficient performs a particular function in coordination with functions located elsewhere, and not in isolation.

b) **Search for valuable "assets"** such as the workforce qualification or the availability of talented people. The development of informatics and telecommunications has increased the ability of transnational companies to coordinate increasingly complex functions located at increasing distances. This stimulates them to outsource these functions in close relation with the mobilization of a broader range of skills and knowledge.

c) **Clustering**, which has turned into a global process of recognition by transnational companies of the benefits of co-location with suppliers, competitors, service providers, research and development centers. Although distances matter less in closing transactions, it is found that closeness and access to knowledge remains an important factor of competitiveness, and as such relocation to industrial parks or other areas of concentration of R & D activities will further remain a strategy of transnational companies.

d) **The growth potential of markets** is also an important factor. It is obvious when looking at the location of many activities in China, India and other emerging countries with large populations that, with the increasing standard of living, will also become important outlet markets.

e) **Other factors**, such as:

-Existence of a relatively developed infrastructure which creates an increased efficiency from start,
-Quality and cost of public utilities,
-Availability of building land,
-Institutional incentives offered by central and local authorities,
-Laws in the field of financial and economic activities and labor
-Aspects related to the quality of life.

In the field of services, offshoring reflects, in essence, the resulting revolution from the services' commercialization. Traditionally, most services were until recently non-marketable, in the sense that this required the buyers and sellers presence in the same place and at the same time. Unlike goods, they could not be traded between parties placed in different countries (medical services, fitness services, etc..). Other services do not require physical proximity of the parties, but instead they have to be delivered face-to-face due to technical or traditional constraints (sharing, storage, processing and transmission of information). These services were non-marketable because:

- certain types of information could not be stored
- others could be stored, but could not be transmitted quickly and economically across borders for processing,
- others were traditionally processed inside the company (accounting, data storage, design),
- others, traditionally presumed face-to-face presence (medical, financial, legal consultations).

With the development and application of the new information and communication technologies (ICT), such barriers were more frequently demolished.

ICT enables the digitization, encoding and standardization of knowledge and, consequently, the production of a wide range of services which can be fragmented or modularized, the resulting components being re-locatable, in order to obtain cost or quality advantages, economies of scale or another advantages. Thus, the arbitrage strategies of various factors on national and international level have become feasible in the sphere of services.

Requirements for these services to be re-locatable are:

- to involve no face to face interaction
- to have a high information content
- the working process must be compatible with the distance transmission and the Internet
- to involve large wage differences
- installation barriers to be insignificant
- social protection requirements to be modest.

Factors that prevent compliance with these requirements and consequently prevent the offshoring of services are:

- technological limitations (such services cannot be digitized or separated from other activities)
- need face to face interaction (marketing, delivery, etc.),
- the need to be close to customers (fashion, creativity, innovation, medicine, privacy, etc.)
- occupational requirements, labor market restrictions, lack the necessary qualifications or knowledge of foreign languages,
- law and intellectual property rights protection
- risk aversion.

As time passes, more and more of these barriers are overcome, or seem to be overcome, both in terms of technological developments and government policies.

In many respects between the factors that determine the modularity and the globalization of production of goods and services there are many similarities, but some differences persist, such as:

- the offshoring of services is structurally simpler and faster in terms of resources, endowments and equipment necessary, than the offshoring of production,
- the offshoring of services mainly affects white-collar workers, not the blue-collar workers from the manufacturing sector,
- the offshoring of services potentially addresses to a larger number of companies in all areas,
- the offshoring of services require less investments and links with local suppliers.

Large transnational companies play the most important role in the phenomenon of services offshoring, both through captive offshoring, and through subcontracting to local suppliers. The captive offshoring can be implemented both for their own activities and / or to serve third parties. Offshoring is not limited however to transnational companies, but is implemented also by smaller companies.

The main **factors** that have influenced the decision of services offshoring are the following:

a) The need to control those activities, especially when involving intellectual property rights or sensitive information. As in other economic activities, the more strategic those services and closer to the core competencies of the companies are, the less willing are the companies to outsource them. In this situation there are, for example, the financial services or the research and development activities, preponderantly transferred to their own subsidiaries (transnational companies such as Oracle, Texas Instruments, General Electric,

Cisco, Hewlett-Packard, IBM and Microsoft have established research and development centers in India).

b) The internal interaction degree involved in the respective activity. When the services can be split, but involve a closer connection with the other business activities (services, manufacturing, research and development) to ensure a greater efficiency, they will not be outsourced. By contrast, the back-office and front-office operations that can be easily standardized and separated from the other activities are more easily subject to outsourcing. The same thing happens when the software developments are outsourced: the standard or routine activities are contracted with Indian corporations, for example, and the most sophisticated are kept in business.

c) The existing of the service providers in the emerging countries. The activity of such providers in the emerging countries is a relatively a recent phenomenon and has become an alternative to the strategies of the western companies, for about a decade. For example, when transnational companies began to transfer their back-office functions to India, they couldn't find there local companies to undertake the outsourcing. Therefore, in 1998, American Express had to set up their own subsidiaries. Only after 2000, other airline companies that wanted to outsource similar services have found local Indian companies able to take over. For example, Delta Air Lines has outsourced some of the services booked by the call-center company Spectramind, a subsidiary of Wipro company. Also, Swiss International Airlines, Austrian Airlines and Sabena have outsourced the accounting services for the revenues resulting from the cargo and people transport, ticket booking, flight schedules and administration support to air navigation to the company AFS, a subsidiary of Tata Consultancy Services, the largest Indian software company. There is also a range of services, which was developed more rapidly in the emerging countries, as the software services, for which local suppliers competitors can easily be found, while other services have evolved later, so that competition is lower (for example the financial analysis services). Availability of local suppliers in emerging countries is correlated with other factors such as intellectual property protection, cultural and linguistic differences, the information availability on local business.

d) The volume of the activities that can be outsourced. From the analysis of the corporate decisions can be seen that there is a greater temptation to keep in the company those activities with a bigger workload or added value, in order to benefit from the efficiency surplus resulting from the operations of the large yield series. Offshoring's version to subsidiaries is the most frequently used. At smaller sizes of activities, the offshoring to third parties enter into discussion with more power.

e) The costs reducing is one of the main motivations of offshoring, as confirmed by numerous studies. Cost reduction can be achieved either by searching for locations with lower costs, or by consolidating operations and reduce the costs with infrastructure, personnel training and management. Any international bank that has, for example, 50-60 data centers, each with infrastructure, specialists and maintenance costs, can strengthen them in 5-10 centers. This means costs reductions and allows the creation of centers of excellence, and if combined with lower labor costs, the savings can be considerable. It is estimated that the U.S. banking industry saved by offshoring to India about U.S. $ 8 billion in 1999-2002. In Europe, about 80% of the largest transnational companies with offshoring experience reported savings ranging between 20-39% and another 10% of them showed even greater savings. In call-centers, labor costs in developed countries represent 50-70% of total costs. In India, the salaries were at the beginning of this decade 80-90% lower than in England. However the savings derived from wages are diminished because of higher costs of infrastructure, personnel qualification and travel. Overall the savings are situated in the margin of 30-40% compared to the costs in England and something more compared to that ones from the U.S.A.

f) A better quality of the services is another important factor in the decision of services relocation. Many transnational companies have been surprised to find this, the factors in this respect being of two categories:
- when the "back-office" services of the services customer become “front-office” services of the services provider, the latter gives a higher attention to the quality of the services
- mostly, the low-cost locations use a more educated staff than the one used in developed countries. If in India they are university graduates in industrialized countries are school or college graduates.

2. Aspects of the relocation strategy

2.1. Relocation to countries with cheap labor is not always a successful strategy.

Absolute labor costs are important in labor-intensive industries, but in the overall equation there are other factors that are even more important than we are tempted to believe at first, such as:
-Political risk,
-Risk related to intellectual property rights,
-Cost of raw materials,
-Energy and equipment,
-Transportation costs,
-Interest rates,
-Taxes
-Trade policies of states.

Maybe some items have to be adjusted in the meantime, but a study conducted in 2004 by McKinsey company, based on the experience of a number of companies in California, quantified that, when companies operate efficiently in the home country, the comparison with carrying out the same business in countries with cheaper labor, taking into consideration the above mentioned factors, leads to the following final price advantages in favor of these countries: in high technology field 0.6%, in the processing of plastics 6% and in the clothing industry 13%. These gains seem minor compared with those obtained by a faster satisfying of customers and a prompter respond to fashion trends and consumer preferences.

Also what matters ultimately is not absolute labor cost (dollars / hour), but the unit cost of labor, or labor incorporated into the product. This unit cost is often higher in countries in transition as a result of:
- Lower qualification of the labor force,
- Periods of training required to use certain technologies,
- Losses due to the need of more frequent repair of equipment and machinery,
- Loss of material,
- Increased labor migration,
- Stress caused by living conditions, transportation, and so on.

2.2. Relocation strategies generated by the cost benefits or by the benefits of processes **modularization and** their outsourcing, show noticeable conceptual differences and approach. The best example results from the comparison between the American and Japanese strategies, especially in the electronics industry.

In this respect, it is of interest the opinion of the president of the Japanese company Kenwood regarding the manufacturing outsourcing strategies, expressed in an interview: "I know that American companies are convinced that production without manufacturing plus EMS (electronics manufacturing services) is the best approach. But I have serious doubts in this respect ... especially on markets that are in rapid change. Managers of companies without manufacturing do not know anything about production anymore. If technologies or markets change, they simply cannot adapt. Newly established companies require contract

manufacturers, is the best approach for them because investments are minimal and development quick. But this is not for me. This is the U.S. power: new technology combined with production without manufacturing and EMS. In such a system, a flexible value chain is an advantage. In the long term, however, where the manufacturing process changes due to changing technologies and markets, you need manufacturing in-house. That's why companies in Japan have a longer life. It is another form of competition. We must specifically adapt to meet the challenges."

Japanese electronics companies have also pursued strategies that use the advantages of assembling in China, but within a division of labor that keeps important percentages of production in the country, along with the phases of product defining, research and development, design and distribution. This trend is also manifested in industries with high potential of the value chain fragmentation. Japanese strategies focus on the complementarities between home integration and abroad networks.

Such an approach, even U.S. researchers say, is simply not possible to be put into practice in the U.S. anymore, in a wide range of fields.

Most likely to remain contracted in the country are activities with a strong non-modular character. Also, due to American penchant for strategies built on modularity and contracting the modules (functions) of that business, modularity covers a wider range in U.S. than in Japan.

The two distinct forms of competition are based also on different thinking. A good example can be the following:

- Kenwood preferred organizing the production of mini-disk players within its factory in Japan, as a means of accelerating the renewal of the product range and their supply to consumers.
- Apple has registered remarkable achievements through another strategy, quickly designing new generations of iPods that are assembled outside the United States from components whose production was also outsourced. Apple has promoted the same strategy in the production of iPads, massively outsourcing it into China.

But what is more interesting is the fact that if an American manager in the electronics industry would like to apply the Japanese strategy to increase its market share of products with short production cycle, it would be hard for him to find within U.S. the ingredients for such a strategy. The widespread transfer of manufacturing functions and of other product design and technology functions to contract manufacturers in the U.S. and abroad have practically broken the production system in a way that seems irreversible.

Zara Company is maybe a "king" of speed on the route of concept-manufacturing-retail, but the U.S. has not left any company that could be like this. On a smaller scale there is still that possibility, and American Apparel and Knapps prove it. But electronics, automotive and auto parts, textiles and clothing, such companies are not the mainstream anymore.

2.3. There are a number of cases that make the manufacturing outsourcing counterproductive, and as such the relocation strategies are not operational.

Such cases can be considered the following:

- High-tech areas where the new knowledge content has yet not been standardized
- Areas which require a continuous relationship between engineers, designers and workers on both manufacturing and product design or technology
- Situations in which major brand companies are reluctant to do outsourcing for fear of insufficient protection of intellectual property rights,
- Situations where the effect of "clustering" makes the leaving of the area counterproductive since in other locations proper factors are not to be found (qualified workforce, talents, research centers) or synergistic effects do not exist (large number of suppliers, manufacturing traditions, the type of relationships between firms, and so on).

Conclusions

The phenomena of the globalization of production have to be seen as a sum of **strategies of companies regarding the reorganization and relocation of their activities.**

The arbitrage of functions of the global value chain of a product is relatively new in corporate management, in the context of the "functional" specialization, and the analysis of the relocation strategies of companies on the basis of the "functions" arbitrage completes the entirely new list of opportunities that globally integrated companies have latelly at their disposal.

New opportunities arise also from the **reorganization and relocation of companies in the context of business services offshoring.** That is why companies have to analyze the premises for the services offshoring and the factors in the decision of outsourcing and offshoring of services. There are sufficient motives to assert that the modularization of services is vaster than the one in the sphere of production. At the same time, the new technologies often simplify the "production" of those services, facilitating even more their geographic relocation. However statistical data of the past decade show **differences in strategy among American companies, more likely to establish foreign affiliates, and European, more likely to contract service providers in other companies.**

One conclusion is that the **strategies of companies regarding the relocation of their activities**, driven by the cost advantages or by the benefits of processes modularization and outsourcing, are hard to be standardized as far as companies and managers bear certain national encryptions. It is the case of American and Japanese company strategies.

Another conclusion is that **the relocation strategies are not operational anytime. There are cases that make the manufacturing outsourcing counterproductive and the business can be carried out more effectively and safe with most of the functions kept inside the company.**

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NEW TRENDS IN EU'S ECONOMIC RELATIONS WITH CHINA

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Abstract

EU's economic relations with China in 2012 may be sum up in 4 points. Firstly, EU tried to seek Chinese support in order to facilitate the efforts of stabilizing the market confidence and gain some time for seeking solutions for the European Sovereign Debt Crisis. Secondly, EU tried to expand exports to China, but the effects of its measures are limited. Thirdly, EU strengthened the market defence actions to protect European market, which led to harsh trade disputes between EU and China. Fourthly, EU accelerated the implementation of Global FTA Strategy with the aim to promote exports and to set up new standards in world trade, which could weaken the Chinese competitive advantages. EU's actions could be understood as a kind of pragmatism, and the contradictions of the actions exposed the lack of vision on its strategy for China and its vague position on EU-China Comprehensive Strategic Partnership. There is an urgency on behalf of the EU to clarify its strategic position toward China, otherwise it would be harmed the continuity of the EU-China Comprehensive Strategic Partnership.

Keywords: *EU-China Economic Relationship, EU-China trade disputes, EU FTA, EU-China Comprehensive Strategic Partnership*

JEL Classification: E 44, E 61, F 13, F 34

Introduction

The article tries to present the EU's economic relations with China and especially her support for stabilizing the EU market and increasing actors confidence and solving the European Sovereign Debt Crisis. The article analyzes EU export to China and also the actions for protecting European market leading to trade disputes between EU and China. EU has focused on the implementation of Global FTA Strategy with the aim to promote European exports and to set up new standards in world trade, which may affect negatively the Chinese competitive advantages.

1. Seeking China's support

There was a strong unrest of the European Sovereign Debt Crisis in 2012, wave after wave. The markets heavily doubted on the Greek exit from the Eurozone.

Spanish and Italian bonds market bore huge pressure and although their governments had implemented massive austerity measures the market suspicions remained. The collapse of Euro and break-up of EMU were in headline of western media. As the EU' s biggest trade partner, US was still struggling with its troubles caused by huge deficits and debts and slow growth, the Europeans were moving their eyes on China, the second largest trade partner, who held the biggest currency reserve in the world, in the hope of a strong China's support.

In fact, the Europeans had already expected China's support in 2011, especially in autumn, when it became a hot topic in the world media. In September 2011, Chinese Premier Wen Jiabao had a round-table discussion with entrepreneurs during the Summer Davos Forum

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in China Dalian. His expression reflected the consideration on China's support to Europe.[1] On 27 October 2011, French president Nicolas Sarkozy initiated a telephone conference with China's president Hu Jintao, right after the European Summit finished. Mr Sarkozy shared the information on the just closed European Summit and the European latest actions dealing with sovereign debt crisis and exchanged the views on the soon coming G20 Summit in Cannes.[2] The very next day of the French phone call, Mr. Klaus Regling, CEO of EFSF, flied to Beijing, trying to persuade China to involve in the leveraging EFSF. In February 2012, soon after the Chinese traditional holiday, the Spring Festival, the German Chancellor Angela Merkel visited Beijing, and 10 days later the president of the European Council Mr. Herman van Rompuy and the president of the European Commission Mr. Jose Manuel Barroso came to Beijing for the 14th EU-China Summit which had been postponed in 2011 because of the crisis. One of the topics of these visits was China's support to Europe.

Europe is China's biggest export market, and also China's biggest trade partner. China as a responsible power in the world, took well-meant responses on account of the Europeans expectation. During the Summer Davos Forum in September 2011, Premier Wen expressed that "China is willing to extend a helping hand to Europe, and to boost investment in Europe".[3] On 14 February 2012, at the press conference after the EU-China Summit, Premier Wen announced that "China is ready to provide more involvement in combating the European Sovereign Debt Crisis, and will have a close communication and cooperation with Europeans".[4] Mr van Rompuy welcomed China's position and expressed the European gratitude; he also declared that China had already participated in solving the European crisis in different forms such as purchasing bonds issued by EU member states and involving in the European stabilization mechanism. Both sides agreed to further exchange views on China's involvement and to discuss how to cooperate.[5] On 18 June 2012, when Chinese president Hu Jintao attended the 7th G20 summit in Los Cabos in Mexico, he announced that China would inject 43 billion USD into IMF, which showed, on the one hand, that China took her responsibility on common actions dealing with the crisis and financial stability[6] and, on the other hand, that China indirectly provided help to Europe. On 11 September 2012, when Premier Wen attended the Summer Davos Forum in Tianjin, he repeated the Chinese solid support to the European integration and the development of Eurozone. Premier Wen said Chinese export to Europe was experiencing a decline because of the Debt Crisis, so *"in this sense, providing help to Europe will contribute to the world, and at same time it will help ourselves*".[7]

Unfortunately, China's well-meant gestures were not recognized fully by the Europeans. In November 2012, European Strategic Partnerships Observatory (ESPO), a project financed by Finnish and German ministries of foreign affairs, published a report, which sustained that China's help to Europe was mainly on the purpose of protecting its own Euro stock; lending political support to the euro-area was at a time when there was a real risk of break-up; and China's activism kept the value of the euro high and benefited the competitiveness of Chinese products. Moreover, China's contribution to address the Eurozone debt crisis through the IMF comes alongside renewed discussion on IMF reform, including redistributing voting rights away from European countries to emerging economies.[8]

[1] http://news.cntv.cn/china/20110915/100276.shtml.
[2] http://news.xinhuanet.com/world/2011-10/27/c_111129294.htm.
[3] http://news.cntv.cn/china/20110915/100276.shtml.
[4] http://news.xinhuanet.com/politics/2012-02/14/c_111524302.htm.
[5] http://news.xinhuanet.com/politics/2012-02/14/c_111524302.htm.
[6] http://www.people.com.cn/h/2012/0620/c25408-111910006.html.
[7] http://www.tj.gov.cn/zwgk/zwxx/zwyw/201209/t20120912_181412.htm.
[8] Nicola Casarini, The EU and China: Investing in a troubled partnership. In Giovanni Grevi and Thomas.

There was a turning point of the European Sovereign Debt Crisis in September 2012 when the ECB announced the Outright Monetary Transaction (OMT) and the financial market was calmed down. It was very strange that along with the process of the crisis being somehow contained, the European attitude on China's involvement has changed.

China's help to Europe on combating with the Debt Crisis was mainly on a strategic dimension, which reflected China's strong support to the European integration. And Euro is the core and symbol of the European integration. Such kind of support was in accordance with the EU-China Comprehensive Strategic Partnership.

It brought benefits for both sides, and provided win-win results. As an English proverb used to say, a friend in need is a friend in deed. China did not follow the way the Anglo-Saxon media shouted on the Euro skepticism, and provided firm support to the Euro. It is hard to imagine what a mess it could have been in Europe, and also in the world, if China would not have thought in a strategic way. It is regretful that there is a lack of such kind of strategic thinking on the European side.

2. Promoting EU export

During the debt crisis, the domestic demand weakened in the internal market, so trade could be a major driver for the Europeans to boost economic growth. Promoting export is one of the major focus for EU.

According to Eurostat, EU exports to most of its major partners grew in 2012 compared to 2011. The most notable export increases were in two digits, such as South Korea by 16%, Russia by 14%, Japan by 13%, Brazil by 11% and US by 11%.

As regards import, there was a 12% increase with Switzerland, and a 7% increase with US, Russia and Norway respectively. The biggest fall in imports were from Japan by 8%, India by 6%, and Brazil and South Korea by 5% each. EU export to China increased only by 6%, and imports decreased only by 1%.[1]

The Chinese statistics show that EU was replaced by US as China's biggest export market after 8 years, although EU remained China's biggest trade partner and biggest import resource. The bilateral trade volume was 546 billion USD in 2012, 3.7% less than the previous year. China's export to EU was 334 billion USD (decreased by 6.2%), and import from EU was 212 billion USD (slightly increased, by 0.4%). The trade balance lowered by 15.8%, with 122 billion USD surplus for China. By comparison, China's whole trade volume reached 3867 billion USD, a 6.2% increase compared to the previous year. China's export was 2049 billion USD recording a 7.9% increase, and import was 1818 billion USD recording a 4.3% increase.

Comparing with the strong increase of China's trade with Russia (11.2%), ASEAN (10.2%) and the US (8.5%), trade with EU showed lack of dynamic.[2]

Both data from EU and China show that EU-China trade weakened in 2012. On the one hand, the negative impact of the European Sovereign Debt Crisis on the internal demand emerged, which produced a shock to China's exports to the EU. On the other hand, when compared with its other major trade partners, EU's effort to promote export to China was impeded.

Actually, in order to help Europe out of the Debt Crisis, China had sent trade delegations to Europe, trying to import more from Europe. But such kind of help was not recognized by EU trade officers. Because the focus of the EU trade officers are on the

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Renard eds., Partners in Crisis: EU Strategic Partnerships and the Global Economic Downturn. European Strategic Partnerships Observatory (ESPO) Report 1, November, 2012. p23.

[1] EuroStat NewsRelease, EuroIndicators, 43/2013, 18 March 2013.

[2] http://www.customs.gov.cn/publish/portal0/tab1/info412938.htm.

openness of China's public procurement market, on the state subsidies which generate unfair competition according to their views, and not on the trade delegations.

EU's concerns were not rewarded by Chinese active responses, so the EU rested its hope in strengthening trade defence measures.

3. Intensifying trade disputes

It is no doubt that China became the biggest target country of EU trade defence system, in the recent years. There was no change in 2012.

According to European Commission DG Trade, EU initiated 13 anti-dumping cases on 7 products, and 4 products refer to China, which takes 30% of the cases with more than half in products. At the same time, EU initiated 6 anti-subsidy cases on 5 products, 3 products refer to China, which takes half of the anti-subsidy investigations with 60% of the products. Further more, EU initiated 14 expiry reviews where China took 4, and concluded 12 cases with confirmation of duty where China took 5 cases.

EU also initiated 6 cases on anti-circumvention investigation, and all the 6 cases refer to China.[1]

Meanwhile, EU concluded 8 anti-dumping investigations in 2012 on 6 products, among which 5 products were imported from China. EU also concluded 7 anti-dumping investigations without duty, 4 products refer to China.

Table 1: New Anti-Dumping and Anti-Subsidy Investigations initiated by EU during 2008-2012

	2008	**2009**	**2010**	**2011**	**2012**
Country of origin: China	6	7	10	8	7
Total EU new investigation	20	21	18	21	19
China's share	30%	33%	56%	38%	37%

Source: http://trade.ec.europa.eu/doclib/docs/2012/december/tradoc_150133.pdf。

There were 5 characteristics of EU trade defence practices toward China in 2012.

Firstly, a new case with "gigantic" value appeared. Usually there is a common view that the value of the anti-dumping cases does not exceed 2% of the EU-China trade volume. Fundamental change happened in 2012 in this regard.

Solar World Co., a company headquartered in Germany, reached a preliminary result in an anti-dumping and anti-subsidy investigations toward Chinese solar panel products in US in May 2012. After then, Solar World initiated an EU ProSun consortium with more than 20 European companies associated and requested the European Commission to start investigations on China solar panel products export to Europe in July 2012. European Commission DG Trade accepted the application and announced the investigation on 6 September 2012. On 26 September, EU ProSun also requested the anti-subsidy investigation. And DG Trade started the anti-subsidy investigation procedure 45 days later. As around 70% of Chinese PV products go to Europe, comparing with 10% products going to the US, the Solar Panel case has a significant importance to the Chinese PV industry. If EU would apply a punishing duty like the US, it would cause disaster for the whole Chinese PV industry. China had exported 21 billion Euro PV products to Europe in 2011.[2] Based on estimations, the Solar Panel case itself takes 7% of the Chinese export to Europe.[3] It is the biggest trade dispute in the history of the EU-China relationship.

[1] http://trade.ec.europa.eu/doclib/docs/2012/december/tradoc_150133.pdf.

[2] Data from http://trade.ec.europa.eu/doclib/press/index.cfm?id=829.

[3] Based on the data published by EuroStat on 16 March 2012, EU import from China in 2011 was 292 billion Euro. EuroStat, NewsRelease, EuroIndicators, 44/2012, 16 March 2012.

Secondly, the investigated products moving from low added value to high technology content. EU anti-dumping investigations toward China are no longer focusing on textile products and shoes, they are looking at the electronics and new energy products. Besides, steel industry is again in focus.

Table 2: New investigations initiated by product sector during the period 2008-2012

Product sector	2008	2009	2010	2011	2012	China
Chemical and allied	0	9	7	11	-	-
Textiles and allied	-	3	-	-	-	-
Wood and paper	-	-	2	-	-	-
Electronics	-	1	2	-	2	-
Other mechanical engineering	1	1	1	1	1	1
Iron and Steel	11	4	3	6	11	3
Other metals	5	1	-	1	-	1
Other	3	2	3	2	5	2
Total	20	21	18	21	19	7

Source: http://trade.ec.europa.eu/doclib/docs/2012/december/tradoc_150133.pdf。

Thirdly, anti-dumping and anti-subsidy measures are going together. EU trade defence measures toward Chinese products are no longer limited in anti-dumping measures, anti-dumping together with anti-subsidy became the new tendency in the latest new investigations. EU trade defence practice goes tougher.

Fourthly, preparing for investigation were initiated by DG Trade itself.

According to the opinion of the EU trade officers, European companies would have not requested investigation because they worried about their on going businesses China. So the EU trade officers felt the responsibility and tried to get more mandate from European leaders and legislators, in order to initiate investigations directly by DG Trade itself, based on their judgment, without an official request from European industry.[1] ITC products are in the DG Trade's focus.

Fifthly, emphasizing reciprocity, especially focusing on public procurement market. European Commission drafted an amendment on the Directive of Public Procurement in 2011. The Committee on International Trade of the European Parliament held 4 round discussions on the amendment, and concluded a final opinion on 7 November 2012,[2] leaving the parliaments of the member states to decide approval. The amendment of the Directive mainly focuses on reciprocity. Based on the proposal from DG Trade, if an European trade partner does not open its public procurement market, then EU will close its own public procurement market for that trade partner. The amended Directive will affect countries such as the US, China, etc. Trade dispute tensions between EU and China will go stronger.

4. Promoting FTA Negotiations

The European Commission presented its renewed Trade Strategy in November 2010. As compared with the initial one, which had been published in 2006, EU had a more assertive manner. The assertiveness was not only in the determination to promote EU export and push the main trade partners to open their markets, especially the public procurement market, but was also in the design of the new rules on investment and trade by concluding a new generation FTAs. A notable progress had been reached in EU' s global FTA strategy in 2012.

The European Parliament approved EU' s trade agreements with 6 Central American countries in December 2012, which would be effective in the second quarter of 2013. EU also

[1] Note: European Commission proposed to modernize the EU's trade defence instruments on 10 April 2013.
[2] Committee on International Trade, European Parliament, 2011/0437(COD), 7.11.2012.

accelerated negotiations with Canada on the Comprehensive Economic and Trade Agreement (CETA), which would be concluded, hopefully, in 2013.

Big progress was reached in preparing transatlantic trade negotiation in 2012. Europe and US jointly presented midterm evaluation reports on transatlantic cooperation in summer 2012, and plan to start the Trans-Atlantic Trade and Investment Partnership (TTIP) negotiations in 2013.[1]

Asia is one of EU's essential focus in FTA negotiation. South Korea was the first country in Asia who singed FTA with EU. EU-Korea FTA came into force since July 2011. Another breakthrough is Singapore, who reached FTA with EU in December 2012. EU also started FTA negotiations with Malaysia and makes preparations with Vietnam.

Japan is the next core of EU FTA strategy in Asia. During the EU-Japan Summit in May 2011, both sides announced they would soon prepare the FTA negotiations. European Commission reached an agreement on the negotiation agenda in May 2012, and afterwards asked for opinions of the member states seeking the mandate for negotiations. In November 2012, European Council agreed on the mandate for the Commission to start FTA negotiation with Japan.[2]

Besides, EU takes into consideration a potential FTA negotiation with China Taiwan, and accelerates FTA negotiations with India who kicked off with EU in 2007.

EU' s global FTA strategy will promote EU export, and bring employment and growth. It will also have potential negative impact for the future development of China's foreign trade.

Firstly, China is not listed in the EU global FTA strategy. The EU's new trade strategy in 2010 had split focus from two countries (US and China) to 6 countries (US, Japan and 4 BRICs countries), with special focus on US, China, Russia and Japan. EU had decided to start FTA negotiation with US and Japan. Russia is the third largest trade partner of EU, and the two parties signed Partnership and Cooperation Agreement (PCA) in 1994, and started a new round negotiation in 2008 for updating PCA. No agreement had been reached since then. China is the second biggest trade partner of the EU. The two parties had signed a "Trade and Cooperation Agreement" in 1985, and started PCA negotiation in 2007. The two parties also agreed in 2010 to initiate a negotiation on investment agreement, as soon as possible. Up to now, there is no intention from the EU to put China into its FTA wish-list.

Secondly, EU's FTA strategy implied an option to encourage less dependency on trade with China, especially import from China. As EU trade officers indicate in different occasions that the objectives of EU FTA strategy are, on the one hand, to promote employment and drive the economic growth and, on the other hand, to be a measure to combat the challenges rising from emerging countries, especially the rapid growth of Chinese foreign trade.

There is a deep inter-dependency between EU and other developed countries. And among the emerging countries, EU still cannot get rid of dependency from two countries, one is Russia and the other is China. From trade patterns, we can see that energy and raw material are the two main categories in EU's imports from Russia, and Russia is a huge export market for the EU machinery, transportation equipment, chemicals and agriculture products. Therefore, EU's dependency on Russia is based on energy, raw material and export market. However, EU's dependency on China is a different story comparing with Russia. China is EU's largest import source, and EU's import from China is mainly industrial products, especially machinery, transportation equipment, and manufactured products. At least half of the imports are products coming from processing trade. EU's export to China is also mainly industrial products, in the same category of machinery, transportation equipment and

[1] Note: On 13 March 2013, EU and US leaders decided to launch TTIP in 2013, after the trade officer at both sides approved the final report by the High Level Working Group on Jobs and Growth.

[2] Note: On 25 March 2013, EU and Japan announced to start EU-Japan FTA negotiation.

manufactured products, with small proportion of chemical products. Based on geographical facts, Russia's status in EU's energy supply will be less likely to be replaced in a foreseable future. However, if the locations of the processing trade were moved, EU's industrial products imported from China would be slightly changed, thus the dependency on China would be lowered. EU's FTA strategy could encourage such kind of change to a certain extent.

Thirdly, EU's FTA in Asia could irritate the growth of the China's foreign trade. As well known, more than half of the China's export is realized by processing trade. Manufacturers from Japan, Korean and China Taiwan relocated production capacities to China by investment, then exported parts and semi-products to China, produced and assembled them and sold them all over the world. Such kind of processing trade diminished the export from East Asian economies to Europe and America, and, at the same time, accumulated massive export from China to Europe and America, which made the Chinese trade surplus to increase dramatically. The processing trade became the main growth model of China's rapid export. In recent years, along with the increasing labour costs in China, some industries relying on processing trade have started to move from China coastal area to South and East Asia.

EU FTAs with South East Asian countries will encourage such kind of process of industry relocation. EU' s FTAs in East and South East Asia look like a "Soft Pearl Chain"[1] in front of China, which would tie up China's trade development, and undermine its trade growth model.

Fourthly, EU FTA negotiation with developed countries will contain the new rules setting in international trade, and affect China's trade potential development.

EU FTA negotiations with Japan and US are different from the other ongoing and concluded trade agreements. The differences hint that these negotiations are deals between developed and mature economies; the purpose of the FTA is not only to promote bilateral trade, but also on responde to the challenges of the rising emerging countries; and the FTA agreements will set up standards, rules and laws, in order to establish a new global trade environment. If the EU had faced serious challenges from emerging countries in the round of globalization in 21st century, EU remained the hope in FTA with other developed countries, making full use of its soft power to occupy the rule-setting height in international trade.

When we entered into 2013, EU-China Comprehensive Strategic Partnership had been born for 10 years. Economic and trade relationship was one of the three main pillars of EU-China relationship, and it was the most important part. Comparing with 10 years ago, both China and the EU have experienced dramatic changes. China became the 2nd largest economic power in the world, and soon will be the biggest trading power. China's economic growth model is experiencing a shift from export driven to domestic consumption, a market with the biggest population in the world, which indicates unthinkable possibilities for the world trade.

It was also a live drama for the Europeans in the past 10 years. Europe has finished its ever biggest enlargement with expanded market, implemented Lisbon Treaty, which was a milestone in the European integration history. Hit by the financial tsunami in 2008, EU lacked growth potential. Lasting Sovereign Debt Crisis induced the weak economic recovery in Europe. And the same crisis affected EU-China trade in 2012.

We are in a world of transformation, and facing a number of strategic challenges. In a time when Chinese economy goes up and European faces downturn or stagnation, at the same time China is not in the EU FTA wish-list and absent from the rule setting on the international trade between EU and the developed economies, it leaves the strategic meanings of the EU-China Comprehensive Strategic Partnership into a bold question. Taking into consideration that the PCA negotiation reached a dead-lock between EU and China, negotiation on

[1] Note: US takes its military alliance in East and South East Asia as "Hard Pearl Chain".

investment protection is still waiting for the start, it is worth for both sides to re-evaluate the strategic positioning of the bilateral relationship, to explore the possibility of designing a new framework for the bilateral economic and trade relations, and to promote EU-China Relationship to a healthy and stable path.

Conclusions

2012 is the third year of European Sovereign Debt Crisis. The Crisis stroke the European strategic planning and obstructed European ambitions. In the second half of 2012, the crisis situation calmed down, and European economic governance went deeper, the Europeans started to rethink about strategic issues with major partners and strategic positioning. EU' s economic relations with China in 2012 showed a certain pragmatism, but a contradictory and inconsistent one, which reflects muddle through mentality and lack of strategic thinking. EU-China Comprehensive Strategic Partnership is still a mystery for the Europeans even after 10 years. Trends in 2012 showed that EU would enhance trade defence practices, trade disputes would be intensified, and reciprocity and DG Trade initializing trade investigations would further increase the tension between EU and China. EU promoted FTA strategy with major partners but China will have its own vision on the future development of EU-China Comprehensive Strategic Partnership. Both EU and China need a new framework for bilateral relations in the next decade.

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FDI IN THE EEC-10: A COMPARATIVE ANALYSIS[1]

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Abstract

The present paper examines the evolution of FDI flows generated and received by ten new member states of the EU (NMS minus Cyprus and Malta, EEC-10) during the period 2000-2011, with the aim to identify their dynamics, composition and performance. Taking into consideration the EEC-10' high dependence on the Internal Market and the weaknesses of the national companies, the authors demonstrate that the strengthening of the national firms and the diversification of the trade and investment flows are crucial for the future development of each EEC-10. In the same context, the authors point to the fact that a strong impetus to the EEC-10 near-term development could also come from the absorption of European cohesion and structural funds.

Keywords: *EEC-10, FDI, Internal Market, FDI/GDP index, FDI/external debt index, FDI contribution index, FDI performance index, FDI regulatory restrictiveness index*

JEL classification: E22, E32, E44, F21, F62, G01, G11, G15

Introduction

The group of EEC-10 continues to hold reduced shares in the total EU trade in goods and services. During the last decade, their contribution to these flows increased only marginally. More than that, the EEC-10 is more dependent on the Internal Market than the EU-15 and, besides, the dependence degree augmented in the case of import of goods and trade in services, as compared to the situation of the EU-15, which diversified their export destinations and import sources (Eurostat, 2012a).

On the FDI side, the trend is similar. The bulk of FDI inflows in EEC-10 originates in the EU (WIIW, 2011). It is worth mentioning also that no transnational corporation (TNC) from the EEC-10 is present either in the hierarchy of the world's top 100 non-financial TNC or in the hierarchy of the top 100 TNC from developing and transitions economies (UNCTAD, 2012, Annex Tables).

In the context of the global financial and economic crisis and the debt crisis in the Euro Zone, this should be an alarm signal for the decision factors in these countries. That is why we ask at this moment a difficult question: Which should be the EEC-10 development drivers for the future, in addition to the FDI?

In the present research paper we are trying to demonstrate that among the determinants of the EEC-10' economic growth, besides the FDI it could be also included: the acceleration of the absorption of the structural and cohesion funds (with a view to the financial framework 2014-2020 and having in mind the lessons learned from the period 2007-2013), the

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strengthening of the TNCs from EEC-10 home countries, which should become active players on the international stage, the development of a skilled and motivated labour and of a good infrastructure, the diversification of trade and investment flows.

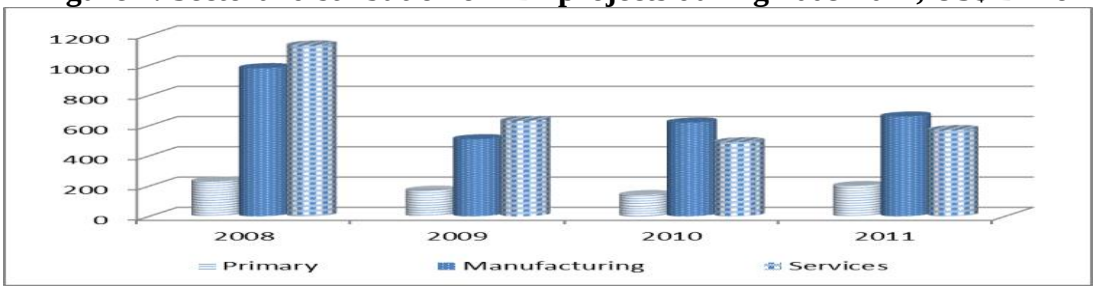
1. Overview of FDI flows: recent trends at international and national levels

1.1. Recent trends of the global FDI flows

In the last two decades, it has been recorded a substantial increase of world GDP, international trade flows and FDI stock worldwide. The FDI stock augmented by almost 10 times, from US$ 2018 billion to US$ 20438 billion, according to the latest UNCTAD World Investment Report (WIR 2012). In the same period, the world GDP rose by 3.4 times, from US$ 20206 billion in 1990 to US$ 69660 billion in 2011. A significant increase in absolute terms has been registered in exports of goods and non-factor services from US$ 4382 billion in 1990 to US$ 22095 billion in 2011, meaning a 5 times increase over the stated period of time. The highest increase, of over 18 times, had been noticed in incomes generated by the inward FDI in 2011 in comparison to 1990, reflecting the gradual growth of FDI efficiency worldwide. At the same time, the FDI stock ratio in world GDP has soared from only 10 per cent in 1990 to circa 30 per cent in 2011.

The FDI in services sector amounted to US$ 570 billion from the total investment worldwide in 2011, after a massive downturn during the global financial crisis. A gradual decrease of FDI projects value in services over the 2008-2011 has changed the sectoral distribution of FDI. It is worth mentioning that the FDI in manufacturing surpassed the value of the FDI in services sector from 2010 onward (Figure 1).

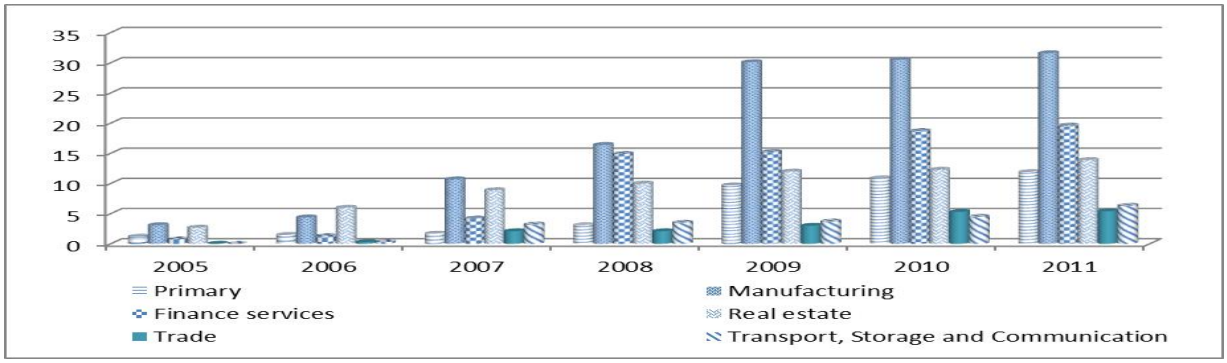
Figure 1: Sectoral distribution of FDI projects during 2008-2011, US$ Billion



Source: UNCTAD database (WIR 2012); www.fdimarkeys.com.

An increasing significance of indirect FDI flows has become visible starting from 2005. According to UNCTAD (WIR 2012), FDI by Sovereign Wealth Funds (SWFs) has gained gradually an important role in the last years. Their total volume has soared by almost 11 times to US$ 125 billion in 2011. It is worth pointing out that EU attracted circa 42% of this amount. Services sector accounted for 65% of the total FDI by SWFs in 2011, while the manufacturing industry only a quarter. The highest growth rate of FDI by SWFs has been found in Transport, Storage and Communication, Financial services, and Trade. The specific behaviour of these SWFs is finding the most profitable branches in a country (Figure 2).

Figure 2: FDI by SWFs, breakdown by branches, 2005-2011, US$ Billion



Source: UNCTAD database (2012).

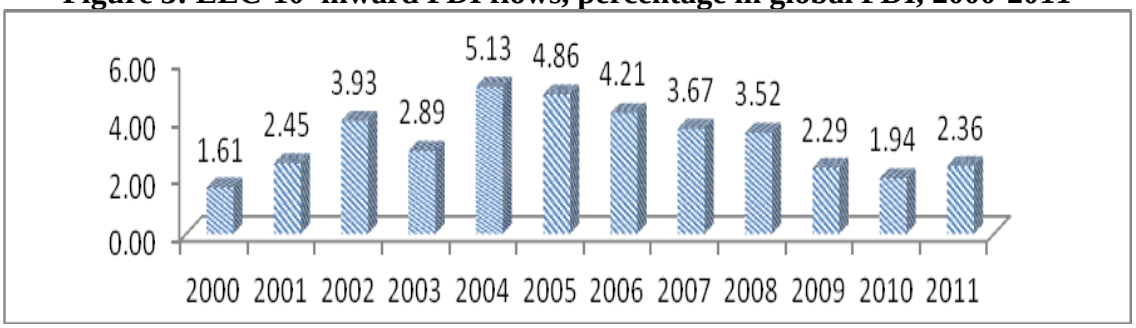
Returning to the investment projects worldwide, these were significantly driven by cross-border M&As that rose 52 per cent in 2011 to US$ 526 billion. In the same time, the value of greenfield investment projects has been maintained almost steady at US$ 904 billion in 2011 (UNCTAD 2012). The EU had a share of 28% in the global inward FDI flows, 33% in the total value of M&As worldwide and 36% in the world FDI stock in 2011. Anyway, the percentage of the EEC-10 in the FDI attracted by the EU was under 10%.

1.2. FDI in EEC-10: a brief comparative analysis

Relations between EEC-10 and EU have been strengthening gradually in parallel with to privatization and integration processes. International investors, mainly from EU saw the Eastern openness and fall of the communist regime as an opportunity for obtaining market advantages in these countries. The gradual increase of the EEC-10' FDI has been possible through the opening of these markets to investors from all over the world, after almost five communist decades. These were attractive and relatively near markets for investors from Western Europe. The integration process of the EEC-10 into the Internal European Market accelerated after signing the Association Agreements, which offered an opportunity for investing in these countries. Besides their large markets, the EEC-10 offered access to a relatively skilled and cheap workforce, and also to a good quality agricultural land and to natural resources at a relatively low price.

As a direct consequence, inward FDIs in the EEC-10 have been expanding gradually as a share in the world total, from the modest share of 1.6% in 2000 to 5% in 2005-2006. As the EEC-10 and the main FDI home countries were hardly affected by the international financial and economic crisis in 2008-2009, the percentage of EEC-10' inward FDI in the world total decreased to 1.94% in 2010 – the lowest level in a decade, as indicated by Figure 3. The modest share of this group of countries in the world FDI inflows illustrates the lower attraction capabilities in comparison with other countries. In fact, when we analyze the FDI flows, we should always keep in mind the balance between what these countries have been offering and which are the main motivations of the TNC to invest abroad: resources (natural or cheap and/or highly qualified labour force), market dimensions, effectiveness and strategic assets (OECD, 2002, pp. 39-41). Anyway, even if the basic motivations are the same, the investors' strategies are not identical and they depend on the policy and priorities of each TNC.

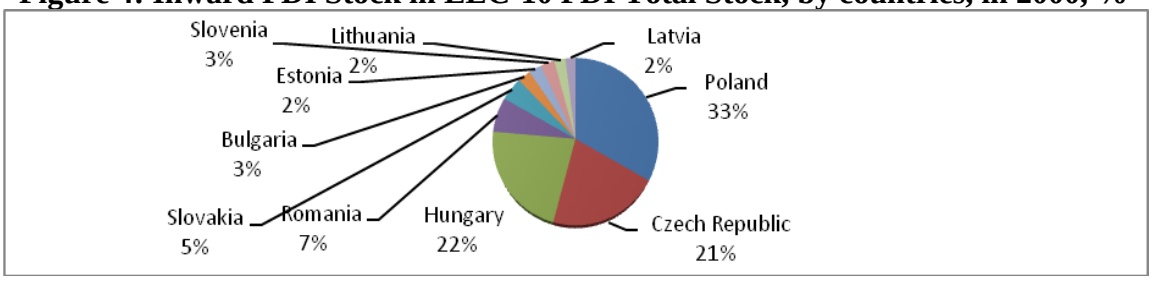
Figure 3: EEC-10' inward FDI flows, percentage in global FDI, 2000-2011



Source: Own calculations, based on UNCTAD data (2012).

Still, a comparison between 2000/2011 shows a gradual increase of inward FDI stocks for EEC-10 as a group, from US$ 103.1 billion to US$ 634.4 billion, reflecting a substantial growth, of more than six times.

Figure 4: Inward FDI Stock in EEC-10 FDI Total Stock, by countries, in 2000, %

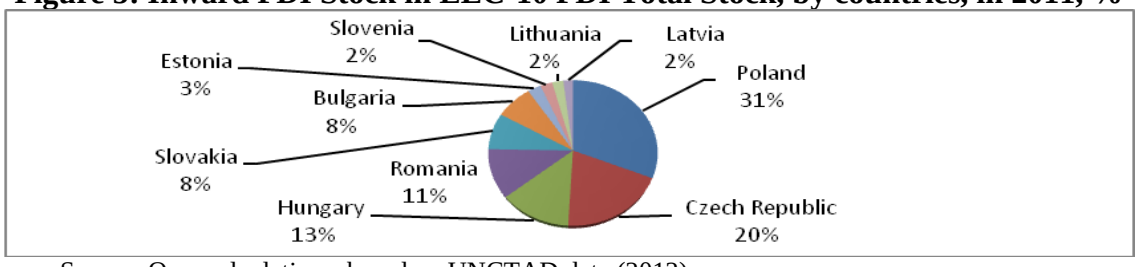


Source: Own calculations, based on UNCTAD data (2012).

At the same time, a comparison between the main beneficiaries of inward FDI (at level of stock) among the EEC-10, in 2011 as compared to 2000 reveals: Poland ranking the first, a change of positions between Hungary and the Czech Republic, in favour of the latter and Romania, Slovakia and Bulgaria ranking the fourth, fifth and sixth respectively (Figures 4 and 5).

Although the same countries remained in the top six positions (with changes of places between Hungary and the Czech Republic), it is worth mentioning that Hungary has registered a marked decreasing of its share in the EEC-10 total inward FDI stock in 2011 compared to 2000, from 22% to only 13%. On the opposite side there is Bulgaria who has gained from only 3% to 8% in total EEC-10' FDI stock.

Figure 5: Inward FDI Stock in EEC-10 FDI Total Stock, by countries, in 2011, %



Source: Own calculations, based on UNCTAD data (2012).

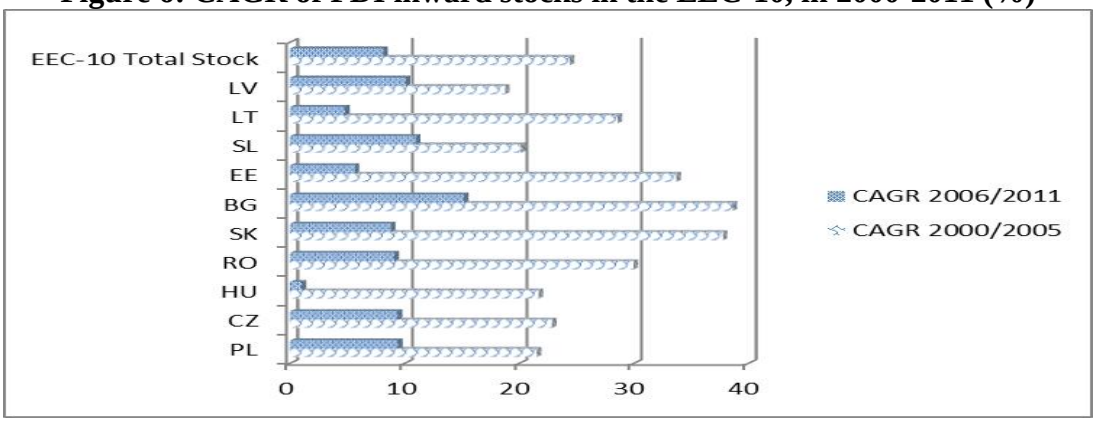
1.2.1. Some FDI indicators

Taking into consideration the FDI contribution index,[1] it appears that the strongest development impact of FDI on the host economy is recorded by Hungary, followed by Belgium (2), the Czech Republic (3), Romania (4), Poland (6) and Estonia (8) (UNCTAD, 2012, p. 197).

A significant increase of annual contribution to GDP growth due to FDI inflows has been registered by services, especially financial intermediation and banking and also by services connected to manufacturing industry. The FDI inflows to each EEC-10 have contributed to export increasing and also to the improvement of the trade balance.

As regards the FDI yearly growth rate in terms of inflows in the EEC-10, one can distinguish a marked differentiation among the period 2000-2005 and 2006-2011. Figure 6 highlights the main trends in EEC-10' FDI inflows in terms of growth rates. For example, the average annual growth (CAGR) of EEC-10' FDI inflows was considerably higher in the first years of 2000-2011, with Slovakia and Bulgaria being the leaders in the process of catching-up with Poland, Czech Republic and Hungary. The average annual growth of EEC-10' FDI inflows decreased markedly in the 2006-2011 for each member country as well as at the level of the EEC-10 group. The main cause is the spread of the world financial and economic crisis, associated to a substantial decrease of world FDI.

Figure 6: CAGR of FDI inward stocks in the EEC-10, in 2000-2011 (%)

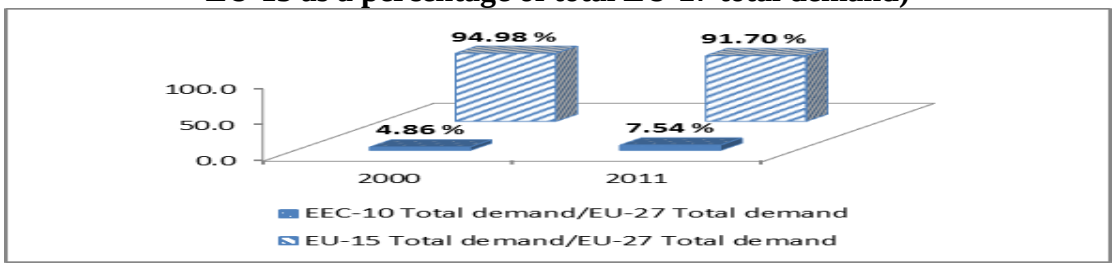


Source: Own calculations, based on UNCTAD data (2012).

Albeit the above mentioned advantages generated by investing in EEC-10, the domestic demand gap between EEC-10 and EU-15 remains at a high level. Nevertheless, the percentage of EEC-10 in EU-27 total demand has increased, even if only marginally: from almost 5% in 2000 to circa 8% in 2011 (Figure 7).

[1] "The UNCTAD FDI Contribution Index ranks economies on the basis of the significance of FDI and foreign affiliates in their economy, in terms of value added, employment, wages, tax receipts, exports, research and development (R&D) expenditures, and capital formation (e.g. the share of employment in foreign affiliates in total formal employment in each country, and so forth). These variables are among the most important indicators of the economic impact of FDI" (UNCTAD, 2012, pp. xv-xvi and p. 31).

Figure 7: Domestic demand evolution in 2000-2011 (comparison between EEC-10 and EU-15 as a percentage of total EU-27 total demand)

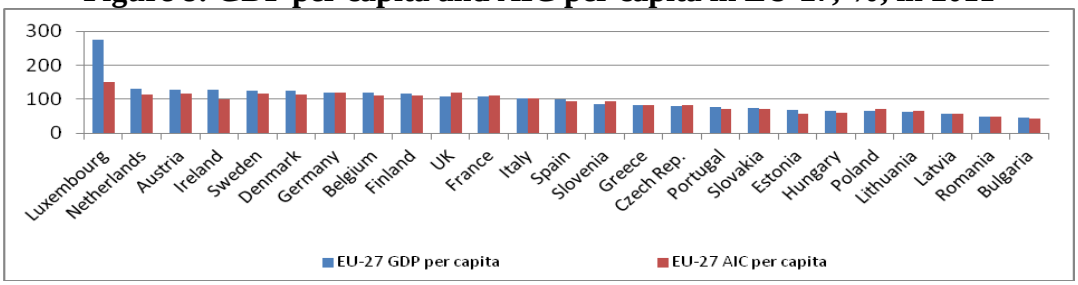


Source: own calculations on the base of Eurostat database (2012a).

In spite of high intra-trade integration (illustrated by the high export intensity of 70-85%) the standards of living gap between EEC-10 and EU-15 remains relatively unchanged. Based on first preliminary estimates for 2011, Gross Domestic Product (GDP) per capita expressed in Purchasing Power Standards (PPS) varied from 45% to 274% of the EU-27 average across the Member States (Eurostat, 2012b). At the EEC-10 level there have been retained almost the same differences over the time. On the top positions there were Slovenia and the Czech Republic i.e. between 15% and 25% lower than the EU-27 average, and Slovakia was around 25% below. Estonia, Hungary, Poland and Lithuania were between 30% and 40% lower than the average. Latvia was around 40% below average, Romania around 50% and Bulgaria 55% lower than the average.

According to Eurostat database[1] while GDP per capita is often used as an indicator of countries' level of welfare, an alternative welfare indicator, better adapted to reflect the situation of households, is Actual Individual Consumption (AIC) per capita. In 2011, AIC per capita ranged between 44% of the EU average in Bulgaria to 150% in Luxembourg (Figure 8).

Figure 8: GDP per capita and AIC per capita in EU-27, %, in 2011

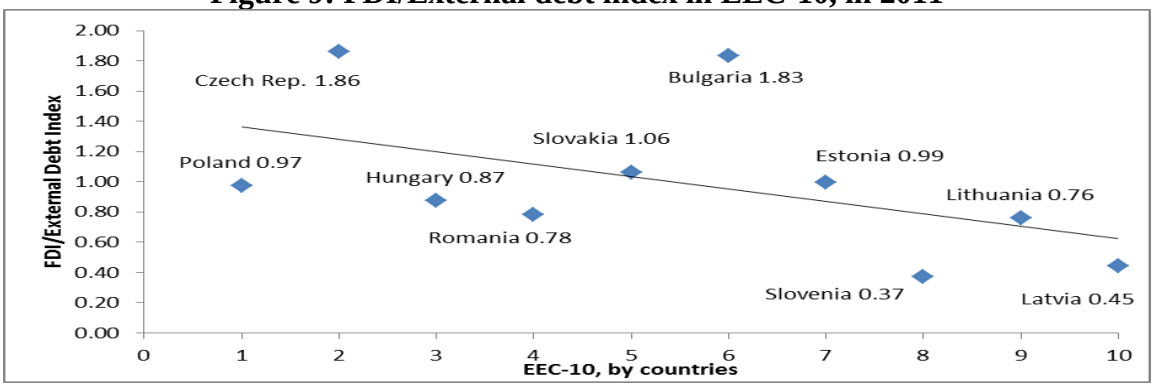


Source: Eurostat (2012b).

The FDI inflow in each EEC-10 country divided by the national external debt suggests an inverse correlation, underlining a positive FDI contribution to reducing the external debt. The tendency line illustrates the indirect correlation between the FDI inflow and the external debt. Larger FDI inflows contribute to the lowering of the external debt (Figure 9). A more significant impact of the FDI on lowering the external debt or maintaining this debt at a low level can be remarked for countries like Czech Republic, Bulgaria and Slovakia.

[1] Individual Consumption (AIC) consists of goods and services consumed by individuals, irrespective of whether these goods and services are purchased and paid for by households, by government, or by non-profit organisations (Eurostat definitions).

Figure 9: FDI/External debt index in EEC-10, in 2011



Source: own calculation, based on UNCTAD database (2012).

Going further with our analysis, we conclude that the index of FDI efficiency, measured as the ratio of inward FDI stock to the GDP of these countries, reveals a general increasing trend during 2004-2011 (0.48% in 2011 as compared to 0.43% in 2004), suggesting a relatively more intense relationship between the internal development and the FDI, as can be seen in the Table 1. At the same time, a comparison between the index of FDI efficiency worldwide and the index of FDI efficiency at the level of EEC-10 reveals a higher dependence in EEC-10. Bulgaria, Estonia and Hungary have recorded an outstanding GDP dependency on inward of FDI during 2004-2011. Conversely, at the other extreme, there are Slovenia, Lithuania and Poland (Table 1). Although Poland is the first destination of FDI at the level of EEC-10, it ranks the sixth in terms of FDI inward stock / GDP. This apparent paradox is due to its GDP, the largest among the GDP values of the analysed countries.

Table 1: FDI Inward Stock as a percentage of GDP, 2004-2011

YEAR	2004	2005	2006	2007	2008	2009	2010	2011
Poland	0.35	0.35	0.39	0.45	0.34	0.36	0.47	0.38
Czech Rep.	0.52	0.50	0.57	0.66	0.57	0.61	0.67	0.59
Hungary	0.64	0.58	0.69	0.78	0.60	0.72	0.74	0.61
Romania	0.29	0.33	0.42	0.44	0.34	0.40	0.46	0.40
Slovakia	0.57	0.52	0.64	0.63	0.60	0.62	0.58	0.54
Bulgaria	0.41	0.51	0.76	0.98	0.92	1.05	1.01	0.93
Estonia	0.87	0.86	0.82	0.85	0.73	0.86	0.88	0.78
Slovenia	0.23	0.21	0.24	0.32	0.30	0.32	0.30	0.31
Lithuania	0.29	0.34	0.39	0.42	0.30	0.36	0.38	0.34
Latvia	0.34	0.32	0.41	0.45	0.38	0.44	0.44	0.46
Total EEC-10' Inward Stock of FDI	**0.43**	**0.42**	**0.49**	**0.55**	**0.45**	**0.49**	**0.56**	**0.48**

Source: own calculation based on Eurostat (2012a), UNCTAD database (2012).

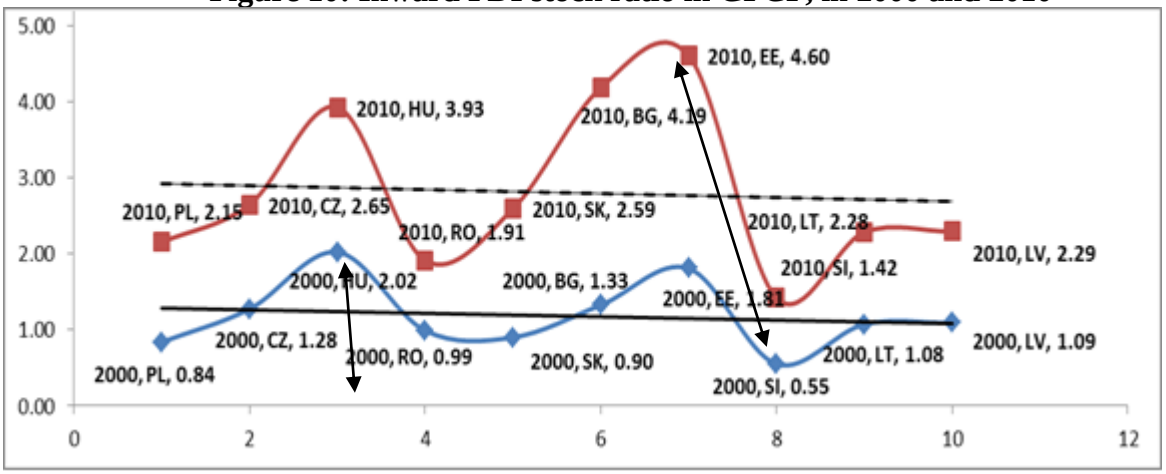
Before proceeding to a deeper analysis, we bring to the forefront a very suggestive indicator: Inward FDI stock ratio in gross fixed capital formation (GFCF)[1], taking into

[1] GFCF is an indicator used for the first time by Simon Kuznetz in 1930s. Two decades later this concept became an internationally measure for the investment share in national GDP. Theoretically, GFCF excludes land and financial transactions and also the value of inventories.

consideration FDI inflows that have become gradually a very important asset for a country's sustaining growth especially for developing and emerging groups. These countries have become in the same time more vulnerable in a case of financial turmoil due to the fact that financial intermediation services and real estate transactions mainly registered the highest growth rates among all the categories of services in the last decade. That is why we consider important to see the real impact of inward FDI to create capital assets in the host country as a long term development contributor.

By calculating the inward FDI stock ratio in GFCF in each analysed country we obtain a remarkable connexion. The difference between local maxima and local minima had increased in 2010 as compared to 2000 (3.18 in contrast to 0.47). On the top are positioned Estonia (4.60), Bulgaria (4.19) and Hungary (3.93) and on the other side, there are Slovenia (1.42), Romania (1.91) and Poland (2.15) with the lowest FDI stock contribution to the GFCF. Nevertheless a higher ratio reflects a stronger dependence of the foreign resources and also a substantial contribution in national development of capital accumulation (Figure 10). The motivation of lower ratios for countries that attracted the bulk of EEC-10' FDI, namely Poland and Czech Republic consists in an early economic openness to foreign investors than the other countries from the group and also the larger dimension of internal development capacity. But what is remarkable is the maintaining of the same order in the EEC-10 group in 2010 as in 2000. This share reflects only partially what it's happening in these countries. Purchases of second-hand assets like planes, industrial equipment and road vehicles represent a higher share in the total investment in comparison to the EU-15. *The investment quality is not taken into consideration here and we notice its increasing importance.*

Figure 10: Inward FDI stock ratio in GFCF, in 2000 and 2010



Source: own calculation on the base of UNCTAD and OECD database (2012).

1.3. Comments on the EEC-10' inward and outward FDI

1.3.1. EEC-10 capacity to attract FDI

As already suggested in the previous chapter, the attractiveness of an economy for FDI is given by several factors, such as:

- Market attractiveness by the size of the market (GDP by PPP); spending power (GDP per capita by PPP); real GDP growth rate;
- Availability of low-cost labour and skills by unit labour cost, size of manufacturing workforce;

- Presence of natural resources by exploitation of resources (value of fuels and ores exports); agricultural potential (arable land);

- Enabling infrastructure by transport infrastructure (road density) (UNCTAD, 2012, p. 30).

Several of the above mentioned determinants are present in the EEC-10 countries as well. In the last years of '90s after signing the Association Agreements the EU-15 FDI outflows to the EEC-10 countries were primarily oriented to manufacturing due to the advantages like good skilled workforce and the low wages in the majority of these countries. Each of the EEC-10 governments put in practice national strategies to attract affiliates of the TNC to locate in economy and to contribute to the general GDP growth.

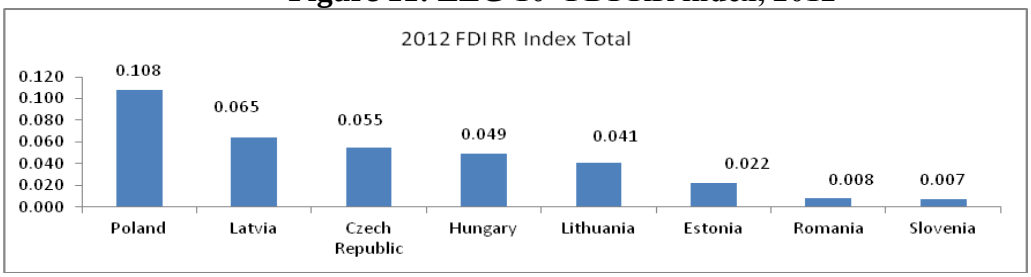
At the motivations mentioned before should be added the restrictions present in the host countries, which could impede the FDI. These are reflected by the *FDI Regulatory Restrictiveness index (FDI RR index)* (OECD 2012). This index measures statutory restrictions on foreign direct investment in 55 countries, including all OECD and G20 countries, and covers 22 sectors in accordance to definition. The following categories are taken into consideration as scored measures for FDI RR index:

(i) Foreign equity restrictions,
(ii) Screening and prior approval requirements,
(iii) Rules for key personnel,
(iv) Other restrictions on the operation of foreign enterprises.

If the score for any measure in any sector is 1 this means the measure fully restricts foreign investment in the respective sector and if the score is 0 there are no regulatory restrictions to FDI in the sector.

The scores for all four above mentioned types of measures for each sector are obtained by summing up with the condition that the result is limited at a value of 1. By comparing the FDI index for each country to the average of all 55 countries for which the FDI index is calculated, we notice that only one EEC-10 country, namely Poland, is above the average (0.108 as compared to 0.105). This means a permissive FDI environment in all the EEC-10 countries, minus Poland. This conducts us to the following questions: if Poland implies restrictions or certain rules to the FDI, why does this country attract the bulk of the FDI in the EEC-10 countries? Why is this country the first in the hierarchy of the EEC-10 countries in terms of GDP (in US$, in current prices)? Why its GDP has been continuing to grow while the other EU countries were affected by recession? We consider that the policies oriented towards the maximization of the FDI contribution to the economic development of a country are even more important than the policies focused on attracting FDI.

Figure 11: EEC-10' FDI RR index, 2012



Note: Among the EEC-10, Bulgaria and Slovakia weren't on the sample of the 55 countries for which the FDI index is calculated.
Source: OECD FDI Regulatory Restrictiveness Index (www.oecd.org/investmeny /index).

According to the WIIW database, at the level of 2010, Poland, Czech Republic, Hungary and Romania were the main beneficiaries of the FDI stock in EEC-10. Together,

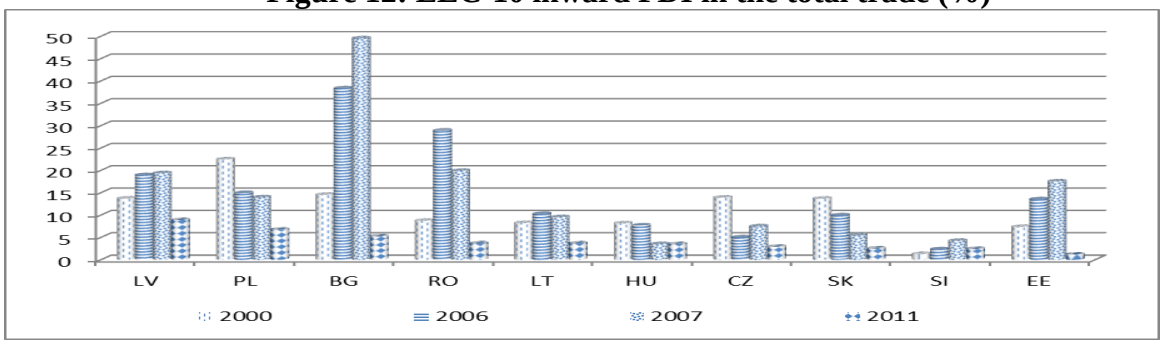
they attracted around 3/4 of the total FDI stock in EEC-10. Nevertheless, the differences between these countries were notable. These can be emphasized by examples such as the FDI stock accumulated in Romania, which represented only one third of the FDI stock in Poland but it was six times higher than that attracted by Latvia. The bulk of the FDI stock at the level of EEC-10 originated in the EU-15 (circa 85% of the total value). According to the UNCTAD database the percentage of inward FDI stock in Poland, Czech Republic, Hungary and Romania together accounted for the lion's share of the EEC-10 group (75.5 per cent) in 2011 too. The rest of the EEC-10, namely Slovakia, Slovenia, Bulgaria, and the three Baltic states accounted for only 24.5 per cent of the total FDI stock inflows in 2011.

The importance of the foreign enterprises in the host economies induced many debates and analyses at the international level. In 2008, Dunning and Lundan defined an index as an average of four indicators:

- FDI inflows as a percentage of GFCF (average for three years);
- FDI inward stock as a percentage of GDP;
- The value added of foreign affiliates as a percentage of GDP;
- Employment of foreign affiliates.

The contribution of FDI flows to EEC-10 trade is positive over the past decade. A calculation of the FDI inflows to EEC-10 total trade ratio reveals the increasing role of FDI in total trade volume. However, it is worth mentioning a sharp decrease of this ratio after the 2008-2009' global financial turmoil, due to the drastic decrease in the inward FDI. The most visible decrease could be seen in Bulgaria and Romania, both countries acceding in the EU in 2007 (Figure 12).

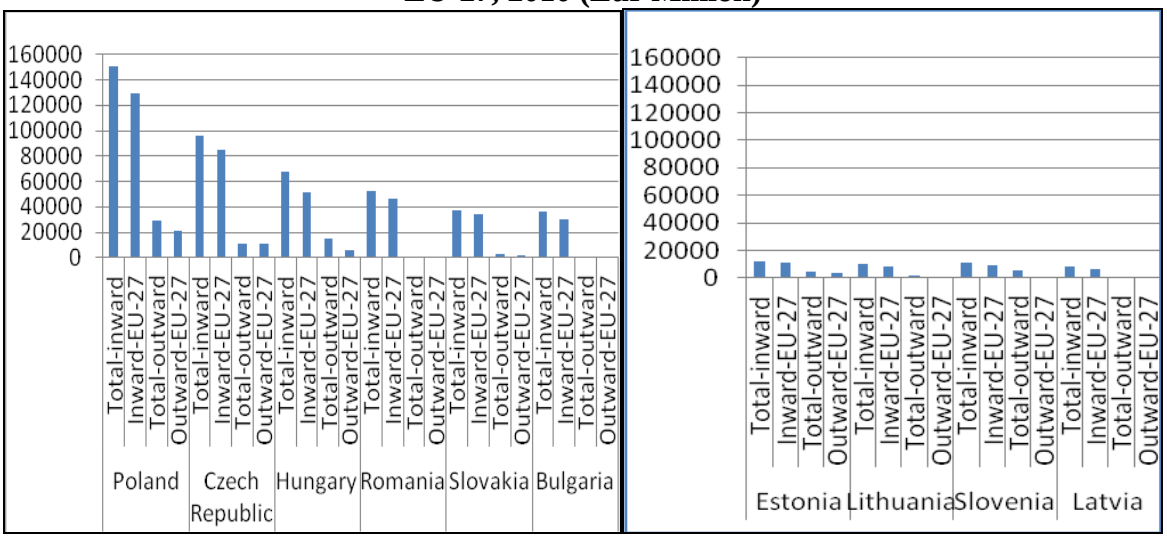
Figure 12: EEC-10 inward FDI in the total trade (%)



Source: own calculation on the base of UNCTAD (2012).

As many companies scaled back or suspended their expansion plans due to the global financial crisis, FDI inflows in Poland and Bulgaria declined considerably in 2008, but in the Czech Republic and Hungary they did not change significantly, despite increasing macroeconomic problems in both countries. For many years the automotive industry has been the key driver of strong FDI inflows to the new EU member countries, but the decline in Euro area car sales that began in the last quarter of 2008 has revealed the region's vulnerability on account of its heavy reliance on the industry (UNCTAD, 2009).

Figure 13: FDI inward and outward stocks in the EEC-10, total and in relationship to EU-27, 2010 (Eur Million)



Source: WIIW (2011).

The examination of the data referring to the structure of the FDI stock in the EEC-10 by sectors at the level of 2010 (Table 2) highlights the following conclusions:

- Manufacturing represented the most attractive sector in the Czech Republic, Lithuania, Poland, Romania and Slovakia.
- The sector of real estate, renting and business activities was the main destination of the FDI in Bulgaria, Estonia, Hungary and Latvia, while in the case of Slovenia the sector of financial intermediation attracted the bulk of the FDI stock in this country.
- Financial intermediation represented the second most attractive sector for foreign investors in other seven of the analysed countries (including Romania).
- Another sector with high shares in the total FDI stock attracted by the NMS-10 was represented by wholesale, retail trade, repair of motor vehicles. These two last evidences should be directly correlated to the increasing consumption in the EEC-10.
- FDI stock in transport, storage and communication surpassed 10% of the total FDI stock in Bulgaria and Lithuania, while FDI in electricity, gas and water supply was close to 13% in Slovakia.

Table 2: FDI Inward Stock by activities, according to NACE Rev. 1, 2010 or the most recent year available (in % of total stock received by each country)

	Bulgaria	Czech Rep.	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovakia	Slovenia
Agriculture, hunting and forestry +Fishing[1]	0.4	0.2	0.6	0.4	2.6	0.9	0.5	1.0	0.2	0.1
Mining and quarrying	0.8	2.6	0.5	0.3	0.6	0.5	0.2	4.0	1.1	0.1
Manufacturing	16.8	32.0	14.4	24.8	12.6	28.1	31.8	31.5	34.5	26.9
Electricity, gas and water supply	4.7	8.0	3.8	5.5	3.8	8.7	4.1	5.5	13.3	3.0
Construction	7.6	1.4	1.5	0.8	1.9	1.5	2.5	3.7	1.2	0.8

	Bulgaria	Czech Rep.	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovakia	Slovenia
Wholesale, retail trade, repair of motor vehicles etc.	13.3	9.9	11.2	12.7	12.0	13.4	15.9	12.2	11.0	13.1
Hotels and restaurants	1.8	0.5	0.6	0.4	0.7	0.7	0.4	0.4	0.2	0.2
Transport, storage and communication	12.7	5.2	5.4	7.4	7.3	12.4	5.8	6.8	4.4	3.4
Financial intermediation	17.7	20.4	30.1	9.5	23.5	12.4	18.6	20.5	20.9	40.4
Real estate, renting and business activities	22.1	16.2	30.5	30.8	25.0	18.7	17.6	13.7	12.3	11.5
L-Q[2]	0.6	1.3	1.0	0.0	1.3	0.0	0.5	0.7	0.8	0.4
Private purchases & sales of real estate	0.0	2.2	0.0	2.2	0.0	1.9	2.1	0.0	0.0	0.0
Other not elsewhere classified activities	1.4	0.0	0.4	5.2	8.6	0.8	0.1	0.0	0.0	0.2

[1] Percentages corresponding to *B Fishing* are 0.0 or close to 0.0 for each of the ten countries presented in this table.

[2] L Public administration, defence, compulsory social security, M Education, N Health and social work, O Other community, social and personal services, P Private Household with employed persons, Q Extra-territorial organizations and bodies.

Note: Data for Bulgaria, Hungary, Latvia, Lithuania as of 2010, the Czech Republic, Estonia, Poland and Slovakia as of 2009, Romania as of 2008 and Slovenia 2007.

Source: WIIW Database (2011).

1.3.2. Comments on the EEC-10' outward FDI

Poland, Hungary and the Czech Republic generated together in 2010 almost 77% of the total FDI stock originating from the group of EEC-10. It is worth mentioning that the outward FDI stock generated by the EEC-10 represented only 15% of the corresponding inward FDI stock in 2010. Romania, on a par with Bulgaria, lagged well behind the three leading countries (each with 1.6% of the total FDI stock generated by the group of EEC-10 versus 40.5%, 20.7% and 15.5% respectively) and they were surpassed by Slovenia (7.6% of the total), Estonia (6%), Slovakia (3.5%) and Lithuania (2.2%).

According to the literature (Helpman, Melitz and Yeaple, 2004, p. 301), least productive firms serve only the domestic market, relatively more productive firms export and the most productive companies engage in FDI. The analysis of labour productivity (GDP per person engaged) based on data of the International Labour Organization (Key Indicators of the Labour Market) emphasizes that most of the EEC-10 increased mostly their productivity in the last two decades, as compared to the EU-15. Anyway, in terms of GDP per person engaged in 2010 (constant 1990 US$ at PPP) as well as GDP per hour worked (constant 1990 US$ at PPP), Romania is the last in the hierarchy of the EU countries and also in EEC-10 as can be seen in Table 3.

Table 3: GDP per person engaged and GDP per hour worked in EU-27, in 2010

Country	GDP per person engaged (constant 1990 US$ at PPP)	GDP per hour worked (constant 1990 US$ at PPP)
Estonia	44,568.00	24.34
Slovenia	36,752.00	21.86
Slovakia	32,911.00	19.43
Latvia	28,665.00	14.71
Lithuania	26,870.00	14.42
Poland	25,873.00	12.52

Country	GDP per person engaged (constant 1990 US$ at PPP)	GDP per hour worked (constant 1990 US$ at PPP)
Czech Rep.	24,941.00	13.21
Hungary	21,473.00	10.91
Bulgaria	18,141.00	10.93
Romania	11,019.00	5.88

Source: International Labour Organization, Key Indicators of the Labour Market, available online at: http://kilm.ilo.org/kilmnet/.

As to the hierarchy of the Forbes Global 2000 (the best 2,000 companies taking into consideration a composite ranking from four metrics: sales, profits, assets and market value), among the EEC-10, there are present only TNC from *Poland* (PGE Polska Grupa – utilities, PKO Bank Polski, PKN Orlen – oil and gas operations, KGHM Polska Miedz – mining, Grupa PZU – property and casualty insurance, Pgnig Group – oil and gas and JSW Group – diversified metals and mining), *Hungary* (MOL – oil and gas operations and OTP Bank), *the Czech Republic* (one, which surpasses all the other TNC from the EEC-10 in terms of the composite index: CEZ – utilities). Anyway, there are strong TNC in other EEC-10 countries, although not so highly competitive (e.g. Slovenian companies: Gorenje Group, Krka dd, Adria Airways dd and Petrol dd). UNCTAD (2001 and 2003) presented detailed analyses of the EEC-10' TNC. Nonetheless, these were overshadowed by the ascension of the TNC from emerging economies such as Brazil, Russia, India and China (BRIC) and they remained a "second-tier" research topic.

As a conclusion, some TNC of the EEC-10 are able to compete on the international stage, anyway, they lag far behind their competitors from the developed and some emerging economies, such the BRIC countries.

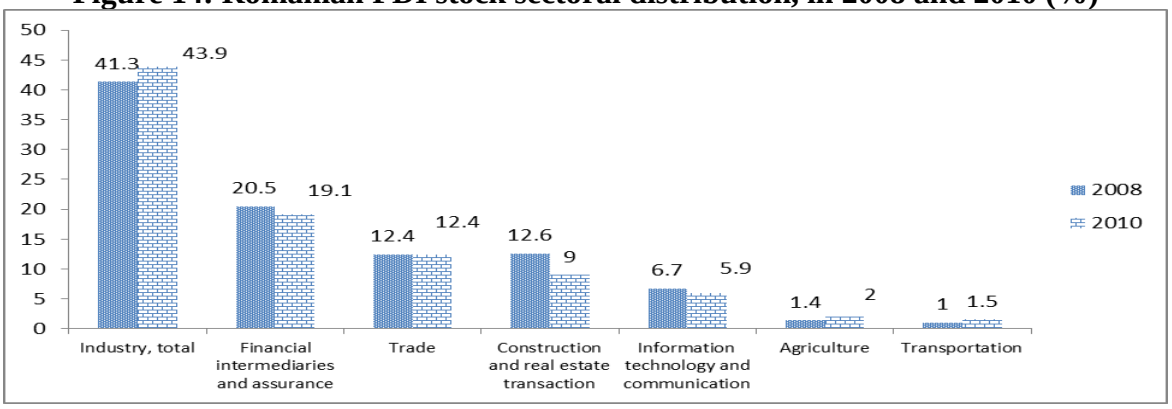
1.4. Inward FDI: the case of Romania

According to statistics of the National Bank of Romania[1], the growth rate of FDI inflows in our country was 7.8% at the end of 2010, as compared to the end of 2008. The analysis of the FDI structure reflects that over 40% of the FDI stock is oriented to industry and especially manufacturing industry.

The bulk of FDI stock is oriented to manufacturing industry with 32% from total FDI stock at the end of 2010 (31.3% at the end of 2008). A breakdown of FDI stocks illustrates the most attractive branches is *metallurgical production* (6.9%), followed by *Food, drink & tobacco* (4.6%), *Mineral oil refining, Chemicals, Rubber & plastics* (4.3%), *Railroad and transport equipment* (4%), *cement, glass and ceramics* (3.6%). Among other branches, *financial intermediation and assurance* recorded a share of 20.5% followed by *construction and residential transactions* (12.6%), *trade* (12.4%) and *information technology and communication* (6.7%). According to the data released by the National Bank of Romania, the stock of FDI shared by branches has remained relatively unchanged with one exception: *construction and residential transactions* registered a decrease to 9% at the end of 2010. In absolute values the decrease is more suggestive, from Euro 6.2 billion to Euro 4.7 billion. The FDI stock in *Information technology and Communication* registered a small decrease from 6.7% to 5.9% but it remains relative constant in absolute volume (Figure 14).

[1] Foreign Direct Investment in Romania to 31 December 2008 and Foreign Direct Investment in Romania to 31 December 2010, National Bank of Romania, Statistical Direction.

Figure 14: Romanian FDI stock sectoral distribution, in 2008 and 2010 (%)

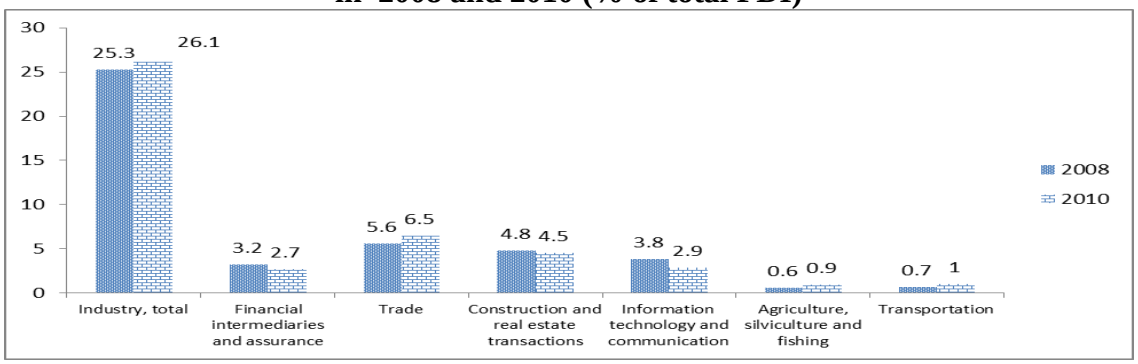


Source: own calculation based on statistics released by National Bank of Romania (2011).

For a better understanding of Romania's FDI evolution it is important to mention the level of tangible and intangible assets in its total FDI. In accordance to statistical data released, the percentage of tangible and intangible assets in total Romanian stocks is highly represented with a total of 46.2% at the end of 2010. This means a high level of foreign investment stability, especially in manufacturing industry branches (18.2% from total FDI in 2011). Among different manufacturing branches a high percentage of tangible and intangible assets is performed in electrical production, gas and water supply (4% in 2010 from 2.9% in 2008).

A small percentage of FDI and tangible and intangible assets respectively in total FDI has been registered in traditional branches such as Textiles, Clothing, Leather, Footwear and Furniture manufacturing. The share of tangible and intangible assets for services as a whole is very low, especially at end of 2010 as it can be seen in Figure 15.

Figure 15: Tangible and intangible assets by main branches in Romania, in 2008 and 2010 (% of total FDI)



Source: own calculation based on statistics released by National Bank of Romania (2011).

By types of FDI in Romania, the structure at the end of 2010 was as follows:

- Greenfield FDI represented 1.1% from the total FDI (1.2% in 2008);
- M&A also represented a low percentage of 2.3%, meaning a noteworthy sinking from 32% at the end of 2008.
- The increasing capital accumulation (from 66.8 per cent in 2008 to 96.6 per cent in 2010).

In spite of the significant increasing of capital accumulation share in the total FDI if is compared the absolute value we remark that it grew only marginally: Euro 3.5 billion in 2008 and Euro 3.9 billion in 2010. The foreign investors prefer to develop their investments instead to the other two types of FDI. This is a general pattern for EEC-10 in the last 2 years due to international financial crisis and the modest pace of economic development.

For a better image of the Romanian Inward FDI it is worth to mention that in the 2003-2005 Romania held the 26th position in a world hierarchy made by UNCTAD on the base of *FDI Performance Index*. According to UNCTAD definition, this index is calculated as the ratio of a country's share in global FDI flows to its share in global GDP (WIR 2002, p. 23). In 2010 Romania's ranking in the world hierarchy decreased sharply to 47 from a number of 141 total countries. The most part of FDI income is provided by net capital investment.

As to FDI contribution to Romanian exports it is remarkable their predominance in the trade balance. It is illustrative the fact that the branches with the highest FDI contribution have also the greatest participation to Romanian exports. As a matter of fact, foreign firms generate new export possibilities from the host country since imported inputs and parts may be incorporated to final production exported.

Still the percentage of manufacturing to Romanian exports decreased markedly in 2010 to 61.2% from 83.4% in 2008 due to international financial crisis. In the same time, the contribution of foreign - controlled enterprises to Romanian manufacturing imports diminished from 83% in 2008 to 44.2% in 2010.

1.5. European structural and cohesion funds: development drivers for future?

Another appropriate development measure for EEC-10 could be the increasing of the European funds rate absorption in the coming years. From the total EU budget the group of the NMS has a part of 18.3% for convergence, sustainable growth, rural development, fishing and other development objectives. Poland ranked the first as regards the European structural and cohesion funds both in 2010 and 2011, in absolute volume. In relative terms, Romania has a low rate of absorption of only 7.4 per cent from the total amount. This is more striking if we take into consideration that our country is the second largest EEC-10 in terms of population.

Romania like other EEC countries with low rate of funds absorption could learn from Poland who managed to attract all the projected funds of Euro 68 billion over the period 2007-2012. In the context of financial crisis this amount could cover the most part of the national investment plans. At the national level Poland managed to approve Euro 100 billion investments oriented primarily in finishing 600 km of highways, modernising railway infrastructure, implementing education and innovation programmes and developing IT companies. Nevertheless we must recognise that Poland had more than two and a half years in advance, from May 2004 to December 2006. In this period Poland like the other EEC that became EU members in 2004 benefited of supplementary financing.

In order to increase the European absorption rate in Romania we highlight that both quantitative and qualitative aspects are important. At the quantitative level we should have the goal to assimilate as much as we can from these funds and at the qualitative level it is vital to select carefully the projects that could be a solid base for a durable and sustainable development. We consider that changing the way of thinking, the mentality, is essential because it is imperative to attract resources for spurring the local investment. But first of all, the political actors should set the priorities and stimulate those projects that are oriented toward infrastructure, competition, labour skills improvements and human resources.

The first direction might be the improvement of European funds absorption degree in primary and manufacturing sectors. These two sectors lag well behind the EU-15 in terms of technological state of the art. The second one is encouraging the services sector to become more competitive. Another priority should be the SMEs, increasing their capacity to compete

at national and even international level. Last but not least, Romania should have its own influential TNCs, like Poland, Czech Republic, Hungary and even Slovenia.

Romanian ranks the second in the EEC-10 in terms of population and in spite of that, with several exceptions, our country does not have any local and regional business representations in Brussels. This makes difficult the understanding of European procedures and statutory stipulations and hinders the improvement of the EU funds absorption rate and the lobby activity. Thus we see why the dialogue between the Romanian companies and Brussels, which is responsible for business development, has not been flexible and appropriate for the national needs.

In the case of agricultural projects and SMEs, local authorities should consider that the potential beneficiaries don't have the skills to conceive and monitor a project. That is the reason why, at the services-sector level there is a substantial need for consulting firms that could contribute to the improvement of the absorption rate of the European funds. Romania still has an insufficient number of skilled project auditors. The Romanian government should encourage the selection of skilled auditors, from Romania and from EU, specialised in EU projects.

In order to find solutions for all these problems and so as to develop the infrastructure, increase the utilisation of local resources, modernize current capacities, the Romanian government should have in view the development of human resources and the integration of all these elements in national strategies and, the most important of all, the implementation of these strategies, which could lead gradually to development of national firms and increase of their contribution to GDP.

As a conclusion, with a view to the financial framework 2014-2020 and having in mind the lessons learned from the period 2007-2013, the acceleration of the process of absorption of the structural and cohesion funds should be a national priority.

Conclusions

The reverberations of the world financial and economic crisis, the Euro Zone debt crisis, the slowdown in economic activity at global level and the double-dip recession in many developed countries, associated with the political uncertainties in different regions of the globe represent a real challenge for the EEC-10. These countries are strongly interconnected with the EU as a whole and dependent on the European FDI and trade flows, as well as on the structural and cohesion funds. More than that, in the context of globalisation and ascension of emerging economies like BRIC, the harsh competition on the international stage urges the EEC-10 economies to restructure and become more competitive. Taking into consideration all these elements, our paper is trying to find several answers at the question: *Which should be the EEC-10 development drivers for the future?*

Resorting to indexes such as FDI/GDP index, FDI/external debt index, FDI contribution index, FDI performance index, FDI regulatory restrictiveness index and comparisons among the EEC-10 member states, our paper concludes that Poland remains the most attractive host country for FDI at the level of NMS. In this context, our investigation emphasizes that those policies oriented towards the maximization of the FDI contribution to the economic development of a country are even more significant than policies focused on attracting FDI. In spite of the evidence that Poland implies restrictions or certain rules to the FDI, it manages to attract the bulk of the FDI in the EEC-10 countries. Poland is the NMS ranking first in the hierarchy of the EEC-10 countries in terms of GDP (in US$, in current prices). It was also the only EU country which did not fall into recession during the global downturn. Besides, among the EEC-10 countries, Poland is the NMS with the strongest TNC. Its multinationals, together with those from the Czech Republic, Hungary and, to a lesser extent, those from Slovenia are able to compete on the international stage. Although these

TNC lag far behind their competitors from the developed and some emerging economies, such as the BRIC countries, Romania can learn from their experience and resort to encouraging its own companies to "go out".

Due to international financial turmoil EEC-10 lost a great part of the FDI inflows that could have been one of the most substantial engines for growth in the 2008-2010 period. The TNCs' behaviour of redrawing demonstrates that EEC should build a set of development drivers that could work even in times of world economic crisis. EEC should use their geographical position between European partners on one side and Russia and China on the other side. In the same time they should focus on agricultural potential development and also to control better their resource driven branches.

Romania like other EEC faces multiple other challenges, including those from the process of absorption of European structural and cohesion funds. Primary statistical sources indicate that Romania, Hungary, Slovenia and Bulgaria are below average performers, in contrast with Latvia and Lithuania, which are top performers and Estonia, Slovakia, Czech Republic and Poland, which are above average performers. In our paper, we tried to outline some solutions for a better EU funds absorption based on a comparison between Romania and other EEC, considering the acceleration of the structural funds absorption as a development driver on the short and medium term. Our paper demonstrates that, on the long term, Romania and the other EEC need strong national firms' involvement, skilled and motivated labour, good infrastructure, diversified trade and investment flows which are crucial for their future development.

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SERVICES EXPORT PROMOTION, A PRIORITY WITHIN THE GLOBAL WORLD ECONOMY

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Abstract

The basic challenge in exporting a service is to convince a foreigner to try a service that does not exist yet. The foreigners have to believe that the service will be of good quality and will meet their needs. Usually the foreigner forms that belief based on recommendations, referrals, or somehow seeing the service provider in action. There are also several roles that trade promotion activities can play in building that belief or credibility. A national TPO needs to find or reinforce some special quality that its country has so that when potential customers hear about a service supplier from this country, their first response is, "Oh yes, I've heard good things about services from your country."

Keywords: *foreign trade promotion, services, TPO, efficency, export*

JEL Classification: F18

Introduction

The importance of international trade is widely recognized not only by the business sector, but also by governments. Governments all over the world have reviewed and streamlined their trade policies during the last decade. Economic reform programmes have improved the overall policy framework and created a more favorable environment in many countries.

In spite of this considerable resource endowment of trade promotion programmes, these programmes need to be selective in terms of products, functions and/or markets. An equal distribution of trade promotion resources over all products, functions and markets would obviously not make sense, as resources would be spread to thinly to reach anywhere a critical mass.

In spite of this considerable resource endowment of trade promotion programmes, these programmes need to be selective in terms of products, functions and/or markets. An equal distribution of trade promotion resources over all products, functions and markets would obviously not make sense, as resources would be spread to thinly to reach anywhere a critical mass.

In the context of globalization and increased competitiveness in the world market in general, and in Central and Eastern European countries, in particular, structural adjustment programmes and trade policy reforms are preconditions for economic growth and healthy trade performance. However, macroeconomic initiatives need to be complemented and supported at the microeconomic and operational level, in order to ensure a dynamic, outward-oriented and competitive business sector. Firstly, there is a need to improve the export supply response through institutional strengthening and enterprise-oriented assistance in areas such

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as product development and adaptation, trade finance, export quality management, export packaging, and better management of imported inputs. Secondly, efforts towards market expansion and diversification must be intensified, for example through the strengthening of business information networks.

Trade Promotion Organizations (TPOs) have a broad mandate to provide or coordinate trade support services in these areas.

A Trade Promotion Organization (TPO) is defined by the International Trade Centre UNCTAD/WTO from Geneva like a private or public institution with the main task to facilitate entry into foreign markets for a collective group of exporters and manufacturers of the home country. Governmental TPOs are those bodies set up by government as part of its infra-structure in order to facilitate foreign trade in general, but exports more in particular.

1. Recent Trends of the International Trade with Commercial Services

The total dollar value of world merchandise exports (nominal terms) jumped 19 per cent to US$ 18.2 trillion in 2011. This increase was nearly as large as the 22 per cent rise in 2010 and was driven in large part by higher primary commodity prices.

Commercial services exports also grew 11 per cent in 2011 to US$ 4.1 trillion. The share of commercial services in total goods plus commercial services trade (on a balance of payments basis) was 18.6 per cent, the smallest such share since 1990.

Transport services recorded the slowest growth of any sub-category of services (8 per cent), followed by other commercial services (11 per cent) and travel (12 per cent). The slow growth of transport services is perhaps not surprising considering the close relationship between this category of services and trade in goods, which stagnated in the second half of 2011. An oversupply of new container ships may have also depressed revenues in the shipping sector.

The top five exporters of commercial services in 2011 were the United States (US$ 578 billion, or 14 per cent of the world total), the United Kingdom (US$ 274 billion, 7 per cent), Germany (US$ 253 billion, 6 per cent), China (US$ 182 billion, 4 per cent) and France (US$ 161 billion, 4 per cent). The United Kingdom replaced Germany as the world’s second-largest exporter of services compared with last year's tables, but this was mainly due to a large upward revision in official statistics on UK exports of other business services and financial services, which together make up roughly half of all UK commercial services exports.

The top five importers of commercial services were the United States (US$ 391 billion, or 10 per cent of the world total), Germany (US$ 284 billion, 7 per cent), China (US$ 236 billion, 6.1 per cent), the United Kingdom (US$ 171 billion, 4 per cent) and Japan (US$ 165 billion, 4.3 per cent). There were no changes in the ranking of the top importers.

2. Service Innovation Management

Innovation in any industry requires a conscious allocation of resources and careful management of the concept development and implementation process. The firm is at risk if the innovation fails; however, there is also the potential for major market rewards if the firm is able to sustain intentional, repeatable change. Services firms face some additional challenges related to innovation that are not shared by goods-producing companies:

- Need the most skilled staff in direct contact with customers, but promotion means moving away from direct contact.
- Need staff to be highly motivated, but staff have flat career paths.
- Need staff to take initiative in solving customers' problems, but staff need to conform to standard service procedures.
- Need staff to use information technology, but there is no time available for training.

- Need staff to “recover” well with customers, but often they do not have the authority to act.
- Need customers to cooperate, but customers do not know or accept their role in co-production.
- Need customers to recommend the service, but customers' perceptions are shaped after they receive the service.

To manage these additional challenges, managers of services firms need to be able to address the issues discussed below: reducing the risk, managing the customer interface, “training” customers, managing staff performance, engaging front-line staff, linking innovation options to the type of service, and using information technology.

Reducing the risk. One of the main barriers to innovation adoption is the customers' fear of the risk involved. For services firms, risk is already a factor in that customers never know ahead of time how well the service will be provided. While customers may find a service innovation intriguing, they may also be concerned that the service firm is less likely to be able to control quality in providing a service with which they are less experienced.

The issue of risk is particularly critical in regard to business services (i.e. those provided to businesses rather than to households) as the consequences of service failure are often more serious. Business services typically comprise half of all the output of the services sector, or as much as 40% of overall economic activity, and are the most likely candidates for export.

Managing the customer interface. Manufacturers produce their goods away from the customer and so can separate the operational and marketing functions. This is not the case for services firms. In most cases, customers have too levels of direct interaction with the service production process, whether virtually or in person (so called line of interaction and line of visibility) and one level of indirect interaction (so called “line of internal interaction”).

While the technical aspects of the service may be provided by professional staff, the customer's experience of the service process is shaped in large part by the front-line contact staff, which performs both as administrative and marketing staff. The “line of interaction” represents the potential moments of truth when the customer is in direct contact with the company’s employees, and so he is gaining a positive or negative impression of the company service capabilities.

The “line of visibility” indicates the point at which the customer is aware of being in direct contact with the firm. Poor service at this interaction point often reflects a staff attitude that views customer contact as disruptive. Alternatively, poor service may result from not having analyzed all aspects of the service delivery process from the customer's perspective.

The “line of internal interaction” refers to interactions between those responsible for services to customers and those who provide the support functions within the firm (e.g. accounting, computer network administration) which affect how well the service can be delivered to the customer. This is the place within a service firm where organizational innovations are most promising but most often overlooked. The ease with which this interaction is handled is often referred to as “internal service quality”.

Training customers. Often customers must themselves play a role as “co-producers” or “unpaid staff” for the service to be delivered. This requires them to learn their role and execute it properly. In this respect it has to be mentioned the conclusion of the United States Technical Assistance Research Program (TARP) that 30% of customer dissatisfaction results unwittingly from their own inadequate performance.

When considering service delivery innovations, firms often overlook the customer's role, which overlaps significantly with that of staff at all three stages of the service (service design, service delivery, service evaluation). At the service design stage, an increasing number of services firms solicit customer input on what would make a new service or service

delivery process most attractive to them. Once the service is being delivered, both customer and staff roles may vary. If the design is for self-service, then customers will be taking the lead "production" role.

Alternatively, staff may provide the service to customers without requiring customer participation, or both customers and staff may collaborate in creating the service experience. Once the service experience has been completed, staff will want to review and evaluate it, but customers play the dominant role.

When services firms introduce an innovation, the customer's role may need to change. This raises issues about whether or not customers want to take on the effort of learning a new role. Services firms also need to think through how they will communicate those changed role expectations and what additional benefits customers could expect to receive if they are willing to adopt a new role.

Managing staff performance. When customers assess service quality, what they are typically assessing is staff performance (i.e. how the service was delivered) rather than the service offering *per se*. This means that successful innovation needs to focus on execution in the interaction in the web of relationships. One of the challenges for managers is that, while customer satisfaction increases with consistent task execution, staff motivation may decrease if they feel that their work has become routine. Generally staff is motivated by increased task complexity and increased discretion in task execution.

Because research for innovation begins with assessing customer needs, it is usually counterproductive for services firms to segregate research and development into a separate department. In fact, the most knowledgeable staff is often those who interact directly with customers.

Traditionally, "research" has been viewed as a technical skill that is not part of front-line responsibilities. Services firms which overlook the potential for input from front-line staff are severely limiting their chances of success.

Linking innovations options to the type of service. While in general service operations differ from goods production in the tangibility of their output, they also differ amongst themselves in critical ways. One of the dimensions most relevant to innovation is the perceived degree of risk. Experience shows that customers will expend much more energy seeking out specific services firms if the potential for nonperformance is high and the consequences are highly negative. Customers select some services primarily on the basis of convenience of location and are unlikely to travel to a distant location no matter how innovative the service offerings are. More risky services purchases (e.g. medical care, security services) usually result in customers researching options carefully and selecting a service provider largely because of its ability to deliver rather than for reasons of convenience.

Using information technology to innovate. Both domestic and export service operations have been revolutionized by the links between information technology and telecommunications. The Internet is being utilized for marketing, partner search, service delivery, inter-staff coordination, and interactive customer research, among other uses. The successful launch several years ago of amazon.com, the first bookstore to exist only in cyberspace, is one example. Medical specialists provide real-time consultations to remote communities that they may never visit in person. Customer service telephone numbers may be answered from anywhere in the world.

3. Main Approaches in Trade Promotion of Services Exports

At micro - economic level, the main approach for a services exporter is represented by his ability in promoting his new product on the international market. In this respect, the basic challenge in exporting a service is to convince a foreigner to try a service that does not exist yet. The foreigner has to believe that the service will be of good quality and will meet their

needs. Usually the foreigner forms that belief based on recommendations, referrals, or somehow seeing the service provider in action. There are also several roles that trade promotion activities can play in building that belief or credibility.

At macro – economic level, the main task in promoting the national business oportunities in the field of services on the international market is in charge of the national TPO, which, in cooperation with the non – governmental organizations and the economic operators has to create a general favorable image of a certain branch on a well defined segment of the world market. In this respect, the national TPO needs to find or reinforce some special quality that the national providers of a specific service have, so that when potential customers hear about a service supplier from this country, their first response is, "Oh yes, I've heard good things about services from your country". An example in this respect is the following: when people think of computer software and IT services, they think of India which now has 12% of the global market. Any Indian IT firm benefits from that reputation, which was built up over a period of ten years.

Here are some questions to ask yourself to help a national TPO to identify the competitive advantage of the national providers of service:

- *Does the country have a geographic advantage?* For example, Panama is already known for being a transportation and distribution hub due to the Panama Canal and its strategic position between Central and South America. Based on its infrastructure and links to four submarine fibre optic cable systems, Panama can now market itself as the regional hub for e-services.
- *Does the country have a language or cultural advantage?* For example, Peru has large Japanese and Chinese immigrant communities.
- *Does the country have a human resources advantage?* For example, Jordan has a number of well- trained professionals who were trained in the U.K., U.S., or France and have extensive work experience in the Arab Gulf countries.
- *Does the country have a reputation for being particularly business friendly or familiar with other ways of doing business?* For example, Barbados has a reputation as a politically stable, open economy with over 8,000 offshore businesses.
- *Does the country have a reputation in a particular sector that can be leveraged as a country image?* For example, Jamaica has a global reputation of reggae music, which is being leveraged as a lead sector.
- *Can the country provide the foreign customer access to a range of other markets?* For example, a CARICOM country like Trinidad & Tobago can position itself as the gateway to the Caribbean (and South America through links with Venezuela) for services like market research.

4. Selecting Priority Sectors and Target Export Markets

Usually, a country is offering over 60 categories of services being exported. For successful trade promotion, the national TPO will need to pick priority sectors for the focus of its promoting resources – i.e., sectors where the local companies have:

- Some competitive edge to exploit.
- Sufficient domestic capacity to support rapid export growth.
- Some potential for synergies among services.
- A service industry association to work with government on trade promotion strategies.

In general, services are exported to a wider range of markets, at least 30 different export markets, than are goods. For effective use of resources, the national TPO will need to select geographic markets that hold the greatest growth potential. For this reason, the national TPO has to take into account the following:

- The number of firms already exporting to, or interested in, that market.

- Economic growth patterns in that market.
- Attitudes in that market towards importing services.
- Historical links with that market, including investment and tourism.
- Ease of access for exporters (direct flights, visa requirements).
- Ability to pay, including exchange restrictions, inflation rate, currency stability.

5. Services Trade Promotion Activities

While goods promotion typically focuses on the tangible product (making use of virtual trade shows and online catalogues), services promotion needs to focus on the solutions that can be provided by the service companies. Customers are particularly interested in onestop solutions. For example, a consortium that includes architecture and design, engineering, construction, and project financing is more competitive than any of those services on their own.

While there is a wide range of services being exported, from a trade promotion perspective there are five general categories of services that benefit from slightly different promotional approaches:

- *Infrastructure services*. These include architecture, engineering, construction, transportation, distribution, and financial services.
- *IT-related services*. These include computer consultancy, software development, data processing, database management, and call centres.
- *Business services* (non-IT-specific). These include a wide range of business support activities such as research & development, equipment leasing or maintenance, market research, management consulting, translation, investigation & security, etc.
- *Professional services*. These include the licensed professions (other than architecture and engineering) like accounting, legal services, medical & dental services, nurses and veterinarians.
- *Quality of life services*. These include education & training, health-related services, entertainment services, cultural services, recreational services, and sporting services.

There are eight general types of activities that have proven useful in promoting the above mentioned five categories of services.

- *Participation in global or regional trade events*. For some services, there are annual or biannual trade events that provide excellent profile building and networking opportunities. Examples include CeBIT, Medtrade, and WTA. In some instances, it is possible to find that a regional trade event that is held in an export market of priority is even more useful. To maximise effectiveness, it is useful to have some kind of export country presence – a booth with information about service capabilities, a sponsored reception for participants from targeted export markets, speakers on the program, etc.
- *Sector-specific trade missions.* These trade missions would be comprised of service firms that are already exporting or wishing to export. To maximise effectiveness, the TPO which is in charge with the mission has to think to have some kind of theme to the mission and organise opportunities for mission participants to meet not only with potential customers but also with potential partners. A component of the mission would be educational presentations by mission participants. An example of this type of mission is the health services missions Malaysia has led to Cambodia and Brunei in order to convince local health practitioners to refer patients to Malaysian hospitals for specialised care.
- *Cross-sector trade missions.* These trade missions would be comprised of service firms from several industries willing to work together to provide "bundled' services.

- *Partnering events.* The purpose of such an event is to encourage collaboration between organisations, either across national boundaries or across sectoral boundaries. Such events can be held for service firms and/or for service industry associations.
- *Media tours.* The purpose of this type of event is to promote the profile of service firms' capabilities in the media of developed markets where media coverage confers credibility. The structure would be to identify a small group of service firms with unusual capabilities and successes, and then to hire a public relations firm in the target market to arrange a series of media interviews with those firms.
- *Incoming missions.* Incoming missions from target export markets provide a low-cost opportunity to acquaint potential foreign customers with the capabilities of service suppliers. The structure would be to have an business event at which service suppliers could provide useful information, followed by a networking reception.
- *Networking with investors*. Sometimes foreign investors import services (especially professional and business support services) because they are unaware of local capabilities. Providing a structured opportunity to highlight national expertise gives the local firms the chance to engage in exporting.
- *Missions to international finance institutions*. These missions would be comprised of service firms that provide the types of services currently being funded by international financial institutions such as the World Bank, the regional development banks, or bilateral aid agencies. The purpose would be to apprise the officers of the capabilities of country's service firms both to deliver IFI-funded projects in their country and also to deliver quality services in other donor-funded markets.

Conclusions

Export readiness is the capability to succeed in export markets. Innovation links to export readiness in several ways. First, in order to resource a company export initiative effectively, it may need to introduce internal organizational innovations to handle different customer demands. Second, the manager will find that his company will profit the most in an export market if it is offering a service or service delivery process that is new to that target market. Third, in order to adapt to the cultural norms of the target market, it is very likely that the company will need to change features of its service or the manner in which its service is delivered (again an innovative activity).

Exporting can strengthen overall competitiveness if the company is able to select target markets where the services it can offer are a good match with local needs and cultural values. Foreign customers can offset low demand in a home market and may provide hard currency earnings. However, because of cultural variables, it is all too easy to misread customer needs, motivations and priorities. The same is true with local partners and staff.

To improve a service company's chances of export success through innovation, there are several strategies to put into practice:

- It has to target ethnic subgroups with cultures similar to the services provider.
- It has to target expatriates from the services provider's home country who are living in the target market.
- It's very useful to find a local partner and let them lead on issues of services design and delivery that are culturally specific.
- It's considered to be efficient to hire local staff for the lead front-office, high-contact positions.

Entry into new export markets can be speeded up through strategic alliances with local service providers. A local partner can vouch for the service exporter capabilities and can provide it with ready-made networks. Strategic allies can also help exporter to succeed in third markets due to their reputation and profile.

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CHINA-FIRST SUPERPOWER IN INTERNATIONAL TRADE WITH HIGH-TECH PRODUCTS

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Abstract

The article tries to make a picture of the last five years of the Chinese international trade with high-technology (HT) products. China is after 2006 the biggest commercial force on the international market for HT products, exceeding EU and USA. Its international trade grew rapidely in the field of exports and more slowly for imports, the ballance sheet going from a negative sold to a positive one from 2007 to 2011 (the analized period of time).

China disposes of a great potential both for export and import and it is one of the most important partners of EU in this field. China exports and imports, in different proportions, mainly computers and office machines, electronics and telecommunications apparatus, scientific instruments, electrical machineries and other HT products, the prospects for the years to come being hardly encouraging.

Keywords: *international trade, high-tech products, research and development, competitiveness*

JEL classification: F14, F17, O30, O33

Introduction

In the two last decades, China imposed itself more and more on the international market of high-technologies (HT), in 2006 being the greater exporter in this field, followed by USA and EU.

According to the WEF - Global Competitiveness Report 2012-2013, China is classified in the second stage of development (efficiency driven) and ranks 29 between 144 states. The Global Competitiveness Index (GCI), is calculated in this study following a sophisticated algorithm, and has 3 sub-indicies and 12 pillars. At the pillars 9 – technological readiness and 12 – innovation (both of them being important for this analysis), China ranks 88 (score 3.5 on a scale from 1 to 7) and, respectively, 33 (score 3.8). Definitely, speaking about China competitiveness in the field of HT products international trade these are not sufficient arguments and the most important factors are the cost and the commercial facilities.

Nowadys, at global level, 15 states (or states groups) summarised approximatelly 97% of total exports and 90% of total imports of HT products on the international market.
These 15 exporters and importers are: China, EU-27, USA, Japan, Singapore, Hong-Kong, Taiwan,Thailand, South Korea, Malaysia, Canada, Switzerland, Philipine, Brasil, India.

In 2011, four economies, together, accounted more than half of HT exports worldwide: China and the EU were the main exporters of HT products, with shares of about 19% and, respectively, 16,5%, followed by USA (about 15%) and Japan (about 7%).

Thus, as early as 2006, according to UN Comtrade SITC Rev. 3, China defined itself as the most important force in the HT products on the global market, heading EU-27 and

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USA.

1. **Evolution of China international trade with high-technology products in the last five years**

Our interest for China is due to the fact that this country is a very important partner for EU, especially in the trade with HT products and, of course, a competitor on the international market; that is why it must be seriously taken into consideration, analyzed and presented.

In UN Comtrade Rev. 3 classification, the HT products encompass 9 groups and 56 sub-groups (see table 1). These commodities have been selected in conformity with research-development intensity (R&D expenditures/total sales).

During the past ten years, the commodities included in high-technologies (HT) groups summarised about 19-22% from the whole value of global trade. Of course there are some value differencies plus or minus between different statistics and studies, because of products groups considered to be part of this category and due to the inclusion or not of some adjacent services.

Table 1. Classification of HT products accordingly SITS, Rev. 3

Groups of high-technology products	**SITC Rev. 3**
I - Aerospace	7921+7922+7923+7924+7925+79291+79293+(714-71489-71499)+87411
II - Computers – office machines	75113+75131+75132+75134+(752-7529)+75997
III - Electronics – telecommunications	76381+76383+(764-76493-76499)+ 7722+77261+77318+77625+77627+7763+7764+7768+89879
IV - Pharmacy	5413+5415+5416+5421+5422
V - Scientific instruments	774+8711+8713+8714+8719+8721+(874-87411-8742)+ 88111+88121+88411+88419+89961+89963+89966+89967
VI - Electrical machinery	77862+77863+77864+77865+77867+77868+7787+77884
VII - Chemistry	52222+52223+52229+52269+525+531+57433+591
VIII - Non-electrical machinery	71489+71499+7187+72847+7311+73131+73135+ 73142+73144+73151+73153+ (7316-73162-73166-73167-73169) +73312+73314+73316+7359+73733+73735
IX - Armament	891

Source: Eurostat – Statistics in focus 25/2009

As it is known, the principal cause of value differencies in minus of exports versus imports consists, in many cases, in FOB terms for exports and CIF terms for imports. The values of China HT international trade are expressed in US dollars.

Gradually, China gained its status as one of the largest manufacturing centers in the world, creating companies of any kind, from the very simple commodities makers, like garments or toys, to networking gear manufacturers, which successfully used their low cost advantage to compete against companies from the most developed countries.

But, in the HT industries, in particular, not only low the labour cost constitutes the outstanding advantage. ”*Some firms have started to combine their low wage advantage with sophisticated end-to-end strategies by ramping up competencies in important areas in the value chain, including research and development, manufacturing and supply chain management, marketing and strategy. The competitive advantages of those industries include*

low cost structures, a pool of highly skilled engineers and scientists, a sophisticated science and technology infrastructure, a growing domestic market with enormous potential, and a cluster of related high-tech industries that benefit each other"[1].

One example reflecting the extension that Chinese HT research and development took in the last 20 years is the Chengdu Hi-tech Zone, one of the six pilot zones of "The World's First-Class Technology Park Initiatives" sponsored by the Ministry of Science and Technology. In this zone there are 29,163 companies, many of them being firms with investments from foreign corporations. Here, there are manufacturers producing microelectronics- oriented IT industry, including software, Traditional Chinese Medicine (TCM) - centered bio-pharmaceutical industry, the precision machinery manufacturing industry and many other HT producing units. In all, about 500 companies with activity in high-technology field are registered here[2].

The result of the outstanding China's HT production is also, of course, the increase of international trade in this domain. We must emphasize that during the crisis period, China HT products international trade developed quite well, without major disturbances.

In the period 2007-2011, China exports of HT products grew from 338.4 billion $ to 511.7 billion $, that is with 51.2% (see table 2). As for imports, in the same interval, their increase was by 8.8%, from 397.3 billion $ to 432.3 billion $. The balance sheet of China international trade with HT products was negative in 2007 and positive in 2011.

Table 2. China international trade with HT products, 2007-2011, in billion $

Groups of high-technology products	Export value		Growth	Import Value		Growth	Balance sheet Export-Import	
	2007	2011	2011/ 2007 +/-, %	2007	2011	2011/ 2007 +/-, %	2007	2011
I - Aerospace	0.9	2.1	133.3	11.1	14.8	33.3		
II - Computers – office machines	139.9	185.1	32.3	36.7	44.7	21.8		
III - Electronics – telecommunications	151.4	243.5	60.8	182.2	254.6	39.7		
IV - Pharmacy	3.2	6.1	90.6	1.7	5.1	-28.2		
V - Scientific instruments	28.7	46.1	60.6	62.6	85.7	36.9		
VI - Electrical machinery	6.7	15.1	125.4	95.6	13.3	-86.1		
VII - Chemistry	6.3	11.3	79.4	3.3	6.1	84.8		
VIII - Non-electrical machinery	1.2	2.3	91.7	4.1	7.8	90.2		
IX - Armament	0.1	0.1	-	0	0	-		
Total	**338.4**	**511.7**	**51.2**	**397.3**	**432.3**	**8.8**	**-58.9**	**79.4**

Source: Calculations based on UN Comtrade data

[1] Leiming Bian, The China Advantage – A Competitive Analysis of Chinese High-Tech Industries, Massachusetts Institute of Technology, September 2005

[2] A first-class hi-tech industrial development park, updated 2013-03-22, in China Daily.com.cn

2. Structure of China HT products international trade

China was in 2011 between the first five international exporters of HT products in the following groups and sub-groups of these products:

-The group II - ***Computers – office machines*** **–** sub-group 75997;

-The group III - ***Electronics – telecommunications*** **–** sub-groups 6381, 7722, 77261, 77627, 7763;

-The group IV – ***Parmaceutical products*** – sub-group 5413;

-The group V - ***Scientific instruments*** **–** sub-groups 8711, 8714, 8719, 88419, 89961;

-The group VI – ***Electrical machinery*** - sub- groups 77862, 77863, 77865, 7787, 77884;

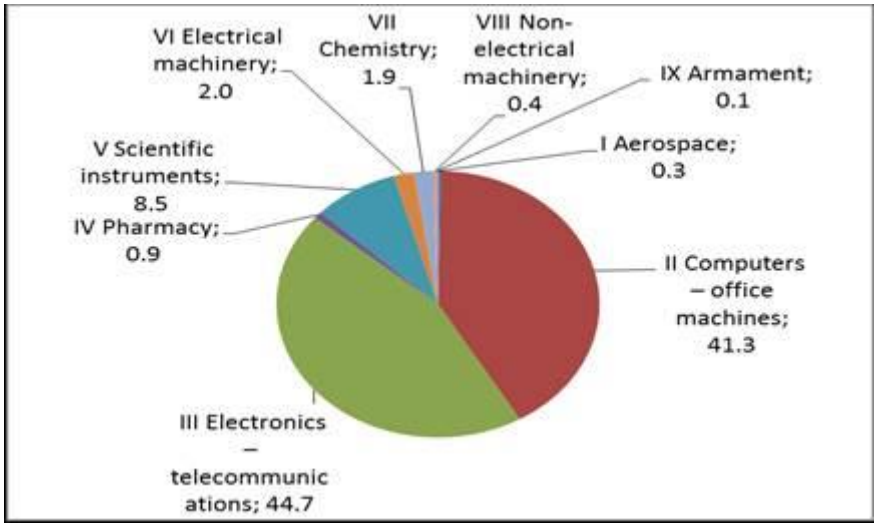
-The group VII – ***Chemistry*** - sub- groups 52222, 52223, 52229, 52269, 531, 57433, 591; and

-The group VIII – ***Non - electrical machinery*** - sub-grups 7311, 73314.

During the period 2008-2011, China registered the greatest increase at the export of ***Integrated circuits and electronic components*** - the group 776 (approximately 159%) and division 79 (approximatelly 70%), ***chemical products*** (about 45%) and ***pharmaceutical products*** (about 46%). The same products groups were the most well represented, from the point of view of the growth, in the Chinese HT products import.

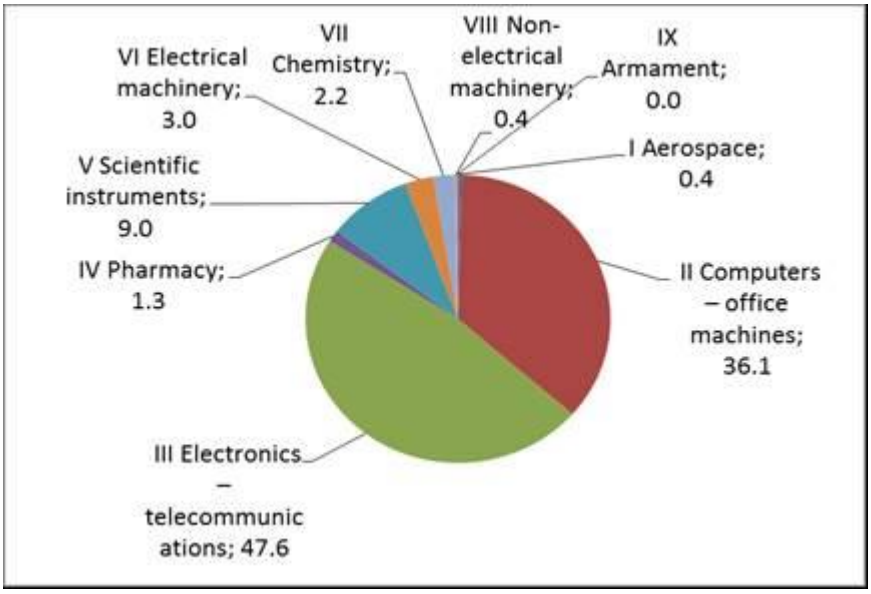
In the figures 1-4 are presented the structures of the Chinese HT products exports and imports (in %, in 2007 and 2011). The main products groups, in the two mentioned years, are for Chinese exports (see figures 1 and 2), the groups ***II - Computers – office machines,*** with a participation of 41.3% in 2007 and 36.1% in 2011 (somewhat in a remarkable decline), and ***III - Electronics – telecommunications*** with 44.7% in 2007 and 47.6% in 2011. The group ***V - Scientific instruments*** had a stable share (8.5% in 2007 and 9% in 2011). The other groups have shares under 3.0% in both years.

Figure 1. China international export of HT products structure, 2007, %



Source: Designed upon UN Comtrade, Rev. 3 data

Figure 2 – China international export of HT products structure, 2011, %



Source: Designed upon UN Comtrade, Rev. 3 data

Regarding the Chinese imports we may see a difference in relation to exports, because in 2007 (Figure 3) the group ***II – Computers – office machines*** had a much small share (9.2%) in favour of groups ***IV Electrical machinery*** (24.1%) and ***V – Scientific instruments*** (15.8%). The group ***III - Electronics – telecommunications*** had a similar share with that detained in exports (45.9%).

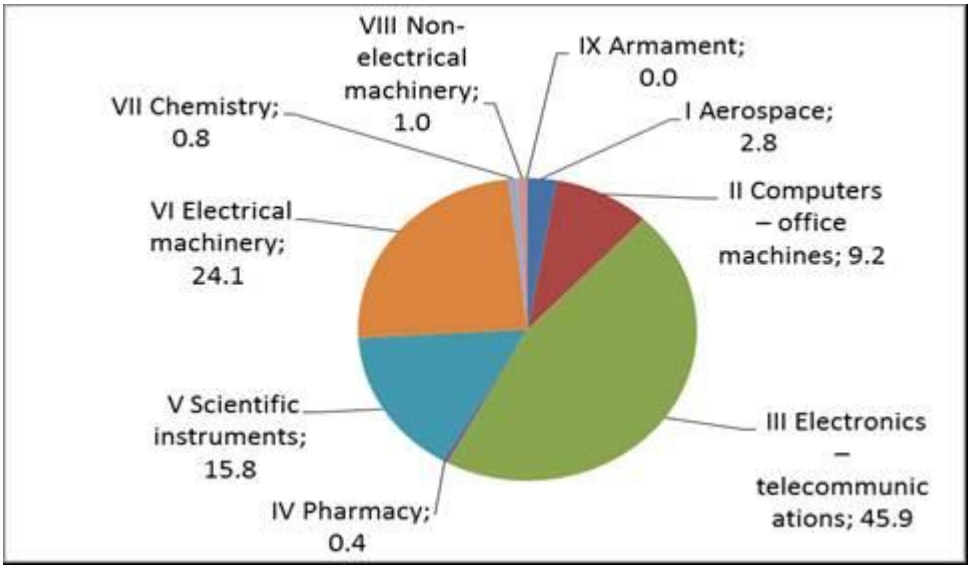
In 2011 (see Figure 4), it is a picture much different from 2007, because of the great increase of the share of group ***III – Electronics – telecommunications*** (practically 60%) to the detriment of group ***VI – Electrical machinery***, which participation decreased from 24.1% at 3.1%. This means that there is a quite important difference between the evolution of the structure of HT products exports and of the structure of imports in the same period of time.

If we compare the export and import structures of the Chinese HT products trade in the analyzed period, we may remark that there is a difference, the import structure being much changed in 2011 as compared to 2007. In 2007, the Group ***III - Electronics – telecommunications*** had a very closed share in exports – 44.7% - compared to that of the imports – 45.9%. But, as regards the group ***II - Computers – office machines***, it may be noticed a great difference between its share in exports and imports, i.e. 41.3% against 9.2%. The Groups ***V – Scientific instruments*** and ***VI - Electrical machinery*** had registered substantial greater shares in imports relatively to the exports.

In 2011, we may see a quite great share difference for the exports in relation with the imports for the Group **III** (47.6% towards 58.9%) as well as for the Group **II** (36.1% towards 10.3%) and for the Group **V** (9.0% towards 19.8%).

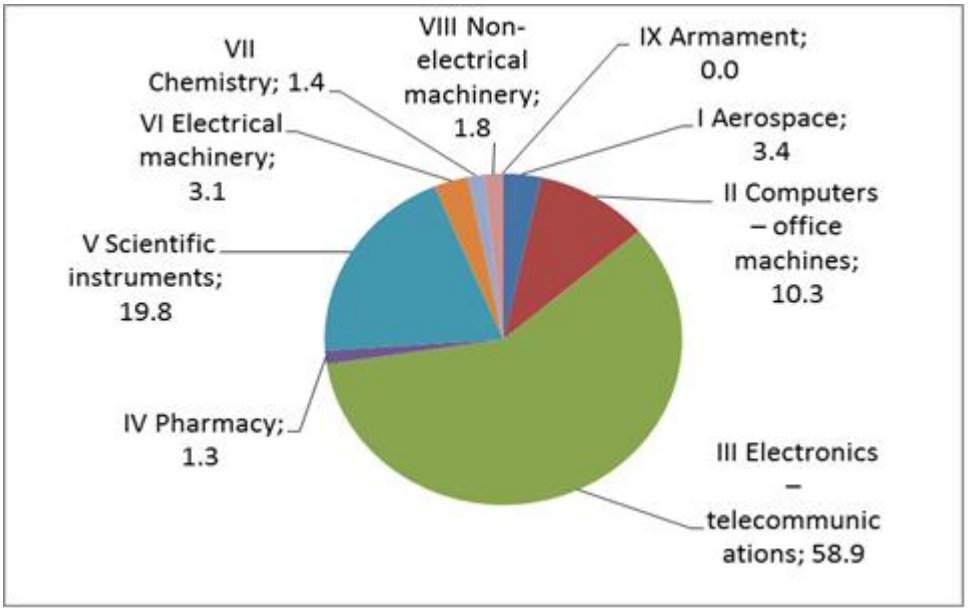
The conclusion I may draw is that there is a more evident differentiation in the evolution of the import structure as compared to that of the export, in the period 2007-2011.

Figure 3 – China international import of HT products structure, 2007, %



Source: Designed upon UN Comtrade, Rev. 3 data

Figure 4. China international import of HT products structure, 2011, %



Source: Designed upon UN Comtrade, Rev. 3 data

C**onclusions**

The short analysis marked out here reveals at least three conclusions:

a) the impressive development of China industrial production had as a major consequence the great extension of the international trade, with very good prospects for the years to come. According to my estimations, based on the past period growth rate, in 2020 the export value of HT products will reach about 745 billion. $ and the import one about 600 billion $;

b) the HT products export and import structure is a very good one for an emergent economy in full development like China's (taking into account, of course, its outstanding development progress). Anyway, in the considered period of time the structure of imports is

quite different in comparison to that of exports. The expectations for the future evolution of trade pattern are also positive, both for HT products exports and imports, from the point of view of their structure;

c) EU countries must action more firmly for gaining segments from China huge market, especially with HT products, finding out some complementarities for the development of bilateral trade relations. Some suggestions I may do refer to the targeted sectors like pharmaceuticals, cosmetics, aerospace and gears of any kind of industries.

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AFGANISTAN AND RARE EARTHS

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Abstract

On our planet, over a quarter of new technologies for the economic production of industrial goods, are using rare earths, which are also called critical minerals and industries that rely on these precious items being worth of an estimated nearly five trillion dollars, or 5 percent of world gross domestic product. In the near future, competition will increase for the control of rare earth minerals embedded in high-tech products. Rare minerals are in the twenty-first century what oil accounted for in the twentieth century and coal in the nineteenth century: the engine of a new industrial revolution. Future energy will be produced increasingly by more sophisticated technological equipment based not just on steel and concrete, but incorporating significant quantities of metals and rare earths. Widespread application of these technologies will result in an exponential increase in demand for such minerals, and what is worrying is that minerals of this type are almost nowhere to be found in Europe and in other industrialized countries in the world, such as U.S. and Japan, but only in some Asian countries, like China and Afghanistan.

Keywords: *rare earths, minerals, reserves, assessment, industrial products, shortage, supply*

JEL Classification: L 61,L 72,Q 32, Q 55

Introduction

Experts are studying rare earths for almost three decades, because of their unusual properties highly recommended for a successful use in the composition of wind generators, as parts of electronic assemblies, in the metal separators, motors, clutches and other auto parts, devices lifting and extraction etc. Rare earths are part- very few people know - of the laser components, mobile phones, computers, iPods, LCD screens, washing machines, cars, hybrid, digital cameras, some headphones, sonar, radar, mobile, portable, liquid crystal displays, electric vehicle batteries and even in the composition of missile guidance systems, smart bombs and missiles in space. Despite the name "rare earths" they are not so rare, but - usually – they are in very small volumes, arranged on large areas and requiring a complicated post-processing, which makes the majority of deposits to be quite expensive for exploitation[1].

1. Afghanistan high potential in rare earths

In January of 1984, shortly after the outbreak of hostilities in the "war with the Soviets" Afghan Manager of Geology Department published a report that the country's subsoil has a wide variety of mineral resources, including: iron, chrome, gold, silver, sulfur, talc, magnesium, marble and lapis lazuli.

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[1] Avatar on Terra: rare earths are the sap of civilization, on the site www.descopera.ro, 16 March 2010.

It was only a superficial estimate, Afghan geologists not having the time and also the performance equipment with which to evaluate all the minerals in the subsoil or even to evaluate the size of the deposits in question. Information provided by Afghan geologists reached to the ears of the Soviets, who even before the beginning of their presence in Afghanistan, knew that this arid country hides also other valuable minerals than the huge deposits of natural gas, on which the Kremlin knew since 1957, Russian geologists investigating the natural gas reserves near the river Amu Darya. At that time Afghan government was a puppet supported by the former Soviet Union: therefore, the authorities in Kabul were preparing to develop and exploit the mineral resources using extraction and processing technology of ex-Soviets who were supposed to train Afghan engineers, while ex-USSR planned to keep the lion's share for herself. Another treasure long sought by ex-Soviets was Afghan uranium reserves, usually being very popular throughout the world since they supplied raw material for nuclear weapons whose development was at its peak at mid 80's. Over Soviet-Afghan plans laid out the dust after ex-USSR was defeated by mujahedeen, which ended with a shameful withdrawal of the Russians in 1989.

In 2004, American geologists, who were sent to Afghanistan as part of a reconstruction team, discovered a strange series of maps deposited by Afghan Geological Survey in Kabul Office. At first assessment, the maps presented new data on mineral deposits of the country. U.S. team learned later that these data were collected by Russian mining experts during the Soviet occupation of Afghanistan. Due to the rush withdrawal in 1989, all maps and materials prepared by the Russians were abandoned. During the chaos years of 90's, when Afghanistan was crushed by endless civil wars and the iron regime of the Taliban, a small group of Afghan geologists managed to protect maps, concealing in their own homes. Afghan geologists have returned to Afghan Geological Office only after the American invasion and chasing of the Taliban in 2001.

"The maps were made long years ago, places were known, but mining development was non-existent in those 30-35 years of continuous war," said Ahmad Hujabre, an Afghan engineer who had worked in the years '70 in the Ministry of Mines in Afghanistan.[1] Armed with the old Russian charts, the U.S. Geological Survey began in 2006 a series of investigations high over Afghanistan. American scholars have used the latest equipment based on magnetic and gravity measurements. The equipment was attached to a plane P-3 Orion Navy guy who flew as over 70 percent of the country. The data obtained were so optimistic for Washington that, in 2007, the team of geologists returned for an even more sophisticated study, this time aboard a British bomber aircraft, equipped with instruments that offered dimensional images of small mineral deposits and their deep. It was the most detailed and advanced study of Afghanistan basement ever made. The results were - apparently - forgotten, but in November 2009, a special force of the Pentagon was delegated the task to find final data on Afghanistan wealth and to set up emergency Afghan 'terrorism theater ". By 2010, according to the Pentagon, the largest natural deposits investigated contained *major deposits of iron and copper.* Fields are so large that theoretically Afghanistan holds the largest reserves of copper and iron in the world. Other finds include *large deposits of niobium*, a light metal rarely used to obtain superconducting properties of steels. *Afghanistan's natural gas reserves* amount to approximately 150 billion cubic meters. Coal deposits in this country amount also to enormous figure of over 400 million tones. In 1983, in Khwaja Rawash Mountains, north of Kabul, Soviet experts had identified one of the *largest uranium deposits in the world*. In 2009, Americans discovered further that Afghanistan also holds similar deposits of uranium in Koh Mir Daoud, near Herat and in Kharkiz from Khandahar province. Furthermore,

[1] Mention made public on the site 7126569-treasure-from-afghanistan-real-reason-of-American-invasion_files/index_white_980.htm, visited on 11 September 2010.

Afghanistan also holds important *natural deposits of gold, silver, nickel, zinc, mercury, bauxite, potash, graphite, tourmaline, emeralds, sapphires and rubies.* Afghanistan's gold deposits are also important, some experts believe that if one is going to exploit all Afghan gold deposits, then gold price on world market will decline by 50 percent in the short term.

But the vast wealth of the *Afghan iron deposits is characterized by an unparalleled purity*. At first assessment, ferrous deposits contain about 2 billion tons of mixtures of hematite and magnetite with about 62 percent iron. The largest copper deposit in Afghanistan is 50 km north of the capital Kabul, in the Aynak valley. Deposits contain over 300 million tons of ore, with 0.7-1.5 % copper. About 80% of the world's lapis lazuli, a semi-precious stone, yet untapped, are hidden in the basement of Afghanistan. Before the Soviet invasion in 1979, Afghan miners extracted annually about 6,000 tons of lapis-lazuli, a tiny amount compared to large bulk deposits.

In November 2009, not incidentally, a team of specialists from Pentagon and American geologists discovered mineral deposits in Afghanistan worth about 1 trillion dollars[1]. In early September 2010, the Minister of Mines in Afghanistan, Shahrani Wahidullah came with a statement which literally disturbed the stock exchanges in London, New York and Tokyo. Afghan official said that following repeated research, carried out by American geologists and Pentagon specialists, the natural mineral deposits, initially estimated at about 1 trillion dollars are actually much higher. According to data submitted by American scholars, only lithium reserves of Afghanistan are greater than those held by Bolivia, the country considered, by 2009, the first world exporter. Similarly, natural reserves of copper and iron are well above those originally estimated. Only iron stores in Bamyan province are higher than those in Western Europe. Shahrani also said that according to American data, the found mineral reserves would be worth "only" 1,000 billion dollars, but these figures were released especially in the last years because Washington did not want to destabilize the markets by announcing a more realistic figure of about 3000 billion dollars. According to U.S. officials, the new discoveries have fundamentally changed the prospects for Afghan economy, and now it is obvious why US deploys a costly war for acquiring these resources, which are actually owned by Afghanistan. New deposits, previously unknown, containing huge veins of iron, copper, cobalt and gold and critical industrial metals such as lithium, are so big and include so many minerals essential to modern industry that Afghanistan could be transformed in one of the most important mining centers in the world. According to a Pentagon memo, Afghanistan could become the "Saudi Arabia of lithium," a key material in the manufacture of batteries for laptops[2].

The Afghan government and President Hamid Karzai were informed about the new discovery. While it may take several years to develop this mining industry, the potential is so great that officials and executives in the industry believe it could attract heavy investment even before mines are profitable, providing the possibility to create jobs that could detract from the war. *'There is a stunning potential here*, "Gen. David H. Petraeus said, the head of U.S. Central Command."*There are a lot of conditions, of course, but I think there is a huge potential*," he added.

United States announced the discovery of these large mineral deposits of such magnitude that might change the Afghan economy and the war waged by Allied Coalition, led by the U.S. for so many years. Deposits contain iron ore, cobalt and gold, and rare metals such as lithium, essential for the modern electronics industry. Perhaps the most coveted

[1] Treasure from Afghanistan – the real reason for American invasion?, on the site www.mozilla.firefox.ro, visited on 16 September 2010.

[2] Stoica, Mihaela, Americans have made a huge discovery in Afghanistan: mineral ores worth of about one trillion de dolari, in Adevărul, 14 June 2010.

"treasure in Afghanistan" is huge lithium deposits discovered by Americans in autumn 2009. Alone, only lithium reserves of Afghanistan could bring down severe poverty today and - in theory - would make this country richer than the 10 Eastern European countries that joined the European Union in May 2004. It is known that this raw material is used for lithium batteries and some parts of laptops, mobile phones and other devices, from pocket dimension to cosmic shuttles.

2. Importance of rare earths for Afghan economy

The value of the newly discovered mineral deposits put in a new light Afghanistan's economy, based mainly on opium production and drug trafficking as well as on aid from the United States and other industrialized countries. Afghanistan's GDP is only 12 billion dollars. American and Afghan officials agreed to discuss the fate of these extremely valuable deposits in a difficult time of war. But U.S. officials acknowledge that the mineral discoveries will certainly have a double-edged impact. Instead of bringing peace, its mineral wealth could lead the Taliban to intensify their struggle to regain control of the country. However, corruption, which is already quite high in the Karzhai government could be amplified by the new wealth, particularly if a handful of oligarchs who have personal ties with President might take control of these resources. Last year, the Afghan minister of mines was accused by American officials of accepting a 30 million dollars bribe to award to China the rights to develop copper mines. The minister was later replaced. Experts believe that without "the mining culture" it will take decades until Afghanistan will be able to fully exploit minerals. Mineral deposits are scattered throughout the country, including the Southern and Eastern parts, along the border with Pakistan, where there have been the most intense battles in the war against the Taliban insurgents.

The Pentagon has already begun to help Afghans to set up a system to deal with mineral development. International accounting firms that have expertise in mining contracts have been hired to offer consultancy to the Afghan Ministry of Mines, and technical data are ready to be handed over to multinational mining companies and other potential foreign investors. Pentagon had already helped Afghan officials in their efforts to seek bids for starting the mining in the fall of 2011. In this new context, China could provide exactly what is missing in Afghanistan: tools for extraction. Afghanistan is totally lacking the necessary mining infrastructure and needs decades until it may get some profit from these deposits just discovered. "*This country has no mining culture*", said Jack Medlin, a geologist involved in geological exploration. It has some small mines, but it will take a long time to have modern mines.

It is not actually a single enormous reservoir: the whole country seems to be dotted with mineral deposits, their discovery seems to have been possible thanks to some old maps found in the library of the Afghan Geological Institute in Kabul, most maps showing the country's mineral deposits. These maps and satellite mapping have been studied since 2004, and American geologists have confirmed the data collected by Soviet geologists which proved the existence of huge mineral deposits. "*There were maps, but the development of mining could not start due to the 30-35 years of war*," said Ahmad Hujabre, engineer in Afghan Ministry of Mines. Based on these maps, American geologists have been exploring using an aerial satellite belonging to Navy P-3 Orion, over 70 percent of Afghan territory, obtaining three-dimensional results of underground mineral deposits, the results being amazing: copper and iron deposits and rare earths are so important that could make Afghanistan a major world producer, deposits contain niobium - a rare metal, which is very important for manufacturing missiles, nuclear energy, for capacitors and production of lithium, a crystal able to change the refractive index, being used to manufacture high capacity optical fiber. There are also large deposits of gold in Pashtun province, and huge lithium deposits in Ghanzi province. The news

of the discovery of these deposits remained silent for many years and was deliberately ignored[1].

Conclusions

There is not a risk of shortage of raw material deposits of rare earths, but there is a risk of shortage of processed rare earths available for consuming industries. Fast enough to compensate for the reduction of rare earth production announced by China, it is essential to make available as fast as possible the new deposits on the planet, especially in Afghanistan, but they are inaccessible deposits because there is no infrastructure in the area where the discovery of deposits was made. But financing such operations is difficult in times of crisis. Economy of raw materials and manufacturing technologies, some of them, as we have mentioned, very recently, do not allow the overnight replacement of these raw materials, rare earths. Permanent magnets obtained from neodium have qualities that can not be changed with ferrite magnets. Only car batteries on nickel metal hydride (NiMH) containing lanthanum may be gradually replaced with batteries based on lithium-ion (Li-ion). Rare earths are used in the composition of a long list of electronic devices - ranging from wind turbines to flat screen TVs of the most consumer electronics, the economics of green energy goods. Rare earths include the minerals, such as dysprosium, terbium, thulium, lutetium and yttrium, which have applications in electronics, aviation, atomic energy, aeronautics and space research. Rare earths are used by specific technologies for fabrication of wind turbine generators and motors, electric vehicles and their electric batteries, fuel cells and energy efficient lighting. Current and future economic world depends more than extracts from rare earths metals, which form the basis of a very diversified production of industrial goods, from electric motors to solar panels and computer parts. In 2009-2011 period, the global economic crisis also hit the non-energy raw material supply[2].

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THE CENTRAL BANK ISSUING POLICY AND FISHER´S EQUATION OF EXCHANGE

Richard Pospíšil*

Abstract

The issue of money and establishing interest rates are the main activities of central banks.

Through this, the banks immediately influence the behaviour of households, companies, financial markets and the state with the impact on real outcome, employment and prices. When monitoring the issue of money, it is necessary to focus not only on its volume, but also on the attributes and functions carried by money. Among the first economists who considered the quality monetary aspect were J. Locke, D. Hume, D. Ricardo and others. The founders of modern monetarism of the 20th century were I. Fisher and M. Friedman. Fisher was the first to define the equation of monetary equilibrium in the present-day form. The objective of the paper is to point out different approaches to the equation and its modifications and different meanings of its variables. As regards the monetary aggregate M – Money – the paper also deals with the denomination of the aggregate to its various elements, which is significant for fulfilling monetary policy targets. This approach is very important especially at present in the time of crisis when central banks are performing their policy considering contradictory targets of price stability and economic growth.

Keywords: *issue of money, central bank, monetary policy, monetary equilibrium, money aggregates, monetarism, Irving Fisher, Milton Friedman*

JEL Classification: E52

Introduction

The current economic crisis is primarily a budget and debt one. Nevertheless, together with public budgets and public debts, the issues of monetary policy have been continually and broadly discussed and thought out. Central banks issue money and govern short-term interest rates and thereby influence the behaviour of financial markets, wealth, real outcome, employment and also prices.

Even after several decades of real functioning of central banking it is possible to find a schematic simplifying of monetary policy, the consequence of which is that the monetary approach has been increasingly oversimplified and mixed up with the regulation of the amount of money in the economy. Other aspects of monetary policy, especially the functioning and attributes of money, its velocity of turnover or the use of regulations of short-term interest rates, have been missed out – maybe due to a difficult and sometimes ambiguous understanding of their content. Money in circulation needs to be monitored not only from the point of view of its volume, but also from the point of view of the functions it carries.

1. Objectives and Methods

The objective of the paper is to analyse the monetary equilibrium using the so-called equation of exchange, to analyse the content and characteristics of particular variables of the

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equation and to define basic methodical resources of monetary equilibrium for the purpose of real implementation of monetary policies by central banks. The predominant methods used were the research and analysis of available historical and current scholarly and scientific resources related to this issue, including their comparison.

2. Views on the Theory of Money

The first views related to the quantity monetary thinking appeared more than four centuries ago in connection with the increasing inflow of gold and silver from overseas to Europe. Several philosophers of that time noticed that together with the growth of gold and silver in circulation, prices also grew up.

The first one who tried to give scholarly reasons for the quantity approach to money was the English philosopher, economist, state theorist and jurist John Locke. In 1691, he summed up his interpretation of money supply and its functioning in circulation in five chapters of his pamphlet" Some Considerations of the Consequences of Lowering the Interest and Raising the Value of Money". As an economist – mercantilist he resulted from the generally widespread and accepted identification of money and precious metals. In consequence of precious metal imports to Europe and the increasing mining of precious metals on European fields, he asked himself the question of how much money should actually be in circulation. Even at that time he mentions that it is difficult to define the exact and ideal supply of money in circulation as its function in the economy is affected not only by its volume but also by the velocity of its turnover (Barbon, 1971).

Moreover, Locke assumes that not all the money in circulation really circulates; a part of money is kept for the so-called bad times, or can be taken abroad. Related to this, he was the first to suppose that the decrease of money has no significant impact on monetary circulation as it is equalled by faster turnover of money. At the very beginning of his paper he divides money into its particular forms according to the purpose of its use and the velocity of turnover, i.e. money for landholders, money for labourers and money for brokers. Therefore he was the first to discuss the issue of money denomination into particular monetary aggregates, which has been very topical and discussed so far.

Fifty years later the Scottish enlightenment philosopher and economist David Hume became the first true author of the quantity theory of money in the present-day meaning. He sophisticatedly connected the conclusions and findings of many of his predecessors into a united social and economic theory. He published his views in the volume "Political Discourses" in 1752. Pricing is not related only to the value ratio of precious metals, or metal money, and goods, but it is significantly affected by the supply of money in circulation. Increasing the supply of money leads to the increase of prices and to the increase of outcome only in a short-term perspective, whereas in the long-term perspective the real product remains unchanged. In his work "Four Dissertations", which was published as a part of "Essays and Treatises on Several Subjects" in 1757, Hume argues that increasing the supply of money has no other impact than increasing the price of work and goods. In the process towards this change, such increase may have an impact on the economy as it may stimulate industry, but after the changes settle down, there is no impact at all. As the first author he precisely formulated the quantity theory of money and the derived theory of interest rate (Fieser, 2006). Therefore he directly influenced John Maynard Keynes, one of the greatest economists of the 20th century.

David Ricardo was another significant economist who, besides Adam Smith, Thomas Malthus and John Stuart Mill, became one of the most significant representatives of the British school of political economics. In his collection "On the Principles of Political Economy and Taxation" from 1871 he drew the conclusion that the value of money from precious metals is affected not only by its volume but also by the costs of mining the metals

and production of money from the metals. On the other hand, the value of paper (non-substance) money, the issue of which was spreading at that time, depends only on its amount. Decreasing the amount can increase its value and vice versa. In Chapter 27 " On Currency and Banks" he discusses the equilibrium of the supply of money in circulation and the amount of offered goods. He also says that any disequilibrium has to be treated by the Bank of England by means of adjustment of its issuing activity. Ricardo united the quantity theory of money and the in-progress theory of value into a comprehensive theory and it is regarded as the peak of the English political economics (Sowell, 2006).

3. Equation of Monetary Equilibrium

The above-mentioned brief overview can be, as most economic relations and associations, summed up into a mathematical equation. At the end of the 19th centurysome economists attributed its primacy to the well-known American astronomer and economist Simon Newcomb who in his work called "Principles of Political Economy", published in 1885, discusses the "equation of exchange of money and goods" (Friedman, 1997). The first author who published the equation in the form known today was the outstanding American economist Irving Fisher who did so in his work „The Purchasing Power of Money: Its Determination and Relation to Credit, Interest, and Crises", published in 1911. The works of Irving Fisher are considered to be the beginning and basis of monetarism and his notation of the equation is as follows:

$$MV = PT,$$

where M is the nominal amount of money (in the Czech Republic defined by the Czech National Bank), V is the velocity of money turnover (circulation) which defines how many times during the period in view one Czech crown is on average used for purchasing goods. On the right side of the equation P defines the average price of goods and services (in this case the price level) and T represents the number of transactions. Fisher is his original version of the equation used T for expressing all transactions, i.e. for purchasing the final production of goods and services, for purchasing intermediate goods and for purchasing capital transactions, i.e. in a broader sense for purchasing land and capital. In the present-day form T involves only the final production of goods and services and therefore T is substituted by Q (the real product) and the form of the equation is as follows:

$$MV = PQ = (p_1q_1 + p_2q_2 + \ldots)$$

Every purchase may be seen as an entry in the double-entry bookkeeping in two different ways. On one hand as the amount of money spent and on the other hand as the amount of goods and services (multiplied by their price) purchased. The left side of the equation represents the supply of money and the right side of the equation represents the supply of goods, or money demand.

According to Fisher, the equation implies the following conclusions:

- prices change direct proportionally to the amount of money in case the amount of purchased goods Q and the velocity of money circulation V remain unchanged,
- prices change direct proportionally to the velocity of money turnover (circulation) in case the amount of money M and the amount of purchased goods Q remain unchanged,
- prices change in the opposite proportion to the amount of purchased goods Q in case the amount of money M and the velocity of its turnover V remain unchanged.

From the above conclusions, Fisher also deduced the impact of the change of money on nominal and real quantities. Provided that V is stable (the economy is in equilibrium and V is determined by payment conventions and technologies) and Q is independent on the supply of money in circulation and on price (the economy fully uses its disposable resources and finds itself close to its potential with full employment), the changes in the supply of money in circulation M lead only to the changes of the price level, i.e. an increase of money supply results in the same increase of the price level (Fisher, 1922).

The logical consequence of the above is the so-called neutrality, or the super neutrality of money, which means that money does not affect the real quantities of the economy (real product and unemployment rate) but only the nominal ones (price level, nominal product, or both). Money is regarded as neutral in case the money supply has no long-term impact on the real interest rate, real product and real monetary rate because the above-mentioned quantities in their nominal amount exchange one to one to the nominal amount of the money supply. The only result of a supply shock on the side of the money supply change (increase) is only the increase of the price level. Money is regarded as super neutral in case that permanent changes of the money supply have no long-term impact on the real interest rates, real product and the rate of its growth and the real monetary rate because the inflation rate and the above-mentioned quantities in their nominal amount change one to one to the nominal amount of the money supply. In this sense, super neutrality is discussed with regard to the real revenue - standard of living - and with regard to the rate of growth of real revenue - economic growth (Frait&Zednicek, 2001).

The impact of inflation increase on relative demand for money and capital can be illustrated by the so-called Tobin effect which is based on the premise that a part of the property portfolio of economic entities is both money and physical capital. Increasing the rate of inflation at the given real return of capital leads to the decrease of money attractiveness and increase of capital attractiveness which in consequence leads to the revaluation of portfolio structures. The higher rate of inflation then corresponds with higher stock of capital and in consequence with the increase of real revenue. What also plays a fundamental role is the aversion of households towards saving risks and the legal deposit insurance. In a standard market economy, the rate of inflation and the rate of economic growth are expertly set by the mix of monetary and fiscal policies. Changes of the monetary policy affect the flow of government revenues, which in consequence affects changes in the fiscal policy. If economic entities suffer from high aversion towards risk, then changes in the fiscal policy are manifested by the fact that high rate of inflation is related to slow economic growth (stagflation). If the economic policy is transparent and trustworthy and risk aversion is low, the result may correspond with the presumption of the Tobin effect.

As regards monetary policy, Fisher was the first economist to clearly and consequently distinguish between the real and nominal interest rates. The so-called Fisher effect deals with the change of the real interest rates depending on the amount of the nominal interest rates and inflation. Generally the real interest rates are considered to be nominal interest rates minus inflation. According to Fisher, the mutual relation is more complex. The real interest rate r is defined as follows:

$$r = [(1 + i) / (1 + \pi)] - 1$$

Where i is the nominal interest rate and the inflation π is the growth rate of the consumer prices index. Fisher explains this relation by the impact of inflation on the economy. Inflation not only depreciates the real revenue of interest rates but primarily distorts the prices of goods and services and therefore, according to Fisher, the real interest rates are

lower than what would correspond with the simple margin between the nominal rates and the rate of inflation.

Further development of the quantity theory of money in the 20th century was mostly influenced by two significant economic approaches – Keynesianism and Monetarism.

In the first half of the 20th century the all-round British genius, especially economist and mathematician John Maynard Keynes, the inheritance of whom hugely affected all fields of economics, became the scholastic and ideological founder of the Keynesian thinking. Keynes' book "The General Theory of Employment, Interest and Money" from 1936 became the principal work of the main stream of the economic theory at that time.

Keynes did not limit himself only to work with the above-mentioned macroeconomic aggregates but he worked especially with the aggregate M with regard to its relation to the variables such as unemployment, investment, interest rates, economic growth, budget deficit etc. He treated the aggregate M from a different point of view – he accentuated another attribute of money which is, beside the velocity of its turnover, its liquidity. He viewed the supply of money in circulation as money demand. Keeping different forms of money can have different motives – either money is kept for the purpose of purchasing goods and services – i.e. the transaction (circulation) motive, or it is kept for the reserve purpose – i.e. the canniness motive, or the hoarding motive (reserve). Based on this we can see that particular forms of money (kept for particular purposes) differ significantly depending on their liquidity. Transaction money (the circulation motive) has a cash or undated form in contrast with money kept as a reserve (the canniness motive) which usually has the form of time deposit or money kept as a monetary asset. And the size, intensity and preference of these motives determine the level of money liquidity, or: an asset is the more money, the more it is liquid, and it is the more liquid, the lower are the costs related to its exchange.

Keynes' contribution and influence in his times was almost boundless. He used scholarly methods to prove the necessity of state interventions into the economy with the positive impact on aggregate demand (of consumptions and investment) and on employment. In the field of the quantity theory of money, his major contribution, among others, is the different concept of money and its forms based on its liquidity. Keynes was the first to lay the claim of dividing money based on money demand into particular aggregates according to the level of their liquidity (Keynes, 1963). At present, work with monetary aggregates is an inseparable part of the execution of the monetary policy of central banks. They monitor not only the absolute volume of particular aggregates, but in particular the changes and transfers among them.

A part of Keynes' heritage closely related to the theory of money is also a modified concept of the quantity equation of money, the so-called Cambridge equation of equilibrium (Keynes, 2012). In the Cambridge equation, Keynes focuses more on money demand than on money supply governed by central banks. Particular equations also differ in the concept of the aggregate of the velocity of money turnover V. In the classical quantity equation of equilibrium, associated with Fisher, money circulates at a relatively fixed rate and serves rather as a medium of exchange. On the contrary in the Cambridge equation, money acts as a store of value and its velocity of turnover depends on the desirability of households to keep cash. Economists associated with Cambridge University, besides Keynes for example Alfred Marshall, A.C. Pigou and others prove that a certain portion of issued money will not be used for transactions; but is, for the canniness and security purposes, kept by households in cash. This portion of cash is commonly represented as k and if it is regarded in a short-term period as fixed, then according to the Cambridge equation the velocity of money turnover V equals to the inversion value of k. The Cambridge equation is thus:

$$M \cdot 1/k = PQ$$

The development of economic thinking in the last third of the 20th century was significantly influenced by the so-called Chicago school of economics which began focusing on the quantity theory of money from the monetary point of view. This monetary stream led into the movement represented by the principal representative of the liberal economic theory and of the Laissez faire doctrine Milton Friedman.

Keynes' relation between the volume of money and other quantities in the transaction equation is not as simple as it may seem. The quantities are affected by many, already mentioned, factors – liquidity of money, devaluation of money due to inflation, unemployment, consumers' preferences, etc. Monetarists find this relation more direct. In case the economy is not suffering from intense changes and consumers' preferences are stable as the result of stable expectation of future revenue, and the velocity of money turnover V (the ratio of gross domestic product and the amount of money, i.e. GDP/M) is relatively fixed, then it is possible to influence prices and therefore the economic activity through the supply of money M. Friedman formulated this clearly in a range of his papers and works, such as in the paper "The Role of Monetary Policy" from 1968, "The Optimum Quantity of Money: And Other Essays" from 1976, "Monetary Policy: Theory and Practice" from 1982 and in many others.

4. Monetary Aggregates

The mutual correlation between the growth of the price level P and the increase of money supply M was proved by lots of research work performed independently of each other in many advanced countries. If price stability is to be kept, which is the main aim of central banks' activities at present, the principal target is to maintain an equable growth of money supply and also a growth of production. In other words: there is inflation if the left side of the equation, or the growth of money supply (on condition that the velocity of money turnover V is fixed), advances the right side of the equation, i.e. the growth of a product - offered goods and services (Friedman, 1968). In his paper "Inflation: Causes and Consequences" from 1963, Friedman describes that inflation is always and everywhere a monetary phenomenon.

Together with the establishment of this new economic concept of the quantity theory of money and inflation, these thoughts were increasingly brought to the notice of operative activities and monetary policies of central banks. Recently this has been facilitated by the boom of information technologies which enable modelling economic processes, or the relation of the above mentioned quantities, while putting emphasis on the supply of money in circulation and its impact on inflation, by means of various economic-mathematical models.

Experience shows that at present central banks pay an extraordinary attention to the volume of money supply. The main issue they have been facing is how to determine the volume of the money supply part which a bank uses for the application of its issuing and corrective policy. This takes us back to the above mentioned fact of different liquidity of different forms of money which are cumulatively and for the purpose of monetary equilibrium equation defined as the aggregate M. Central banks apply methodical and structural distinction of the aggregate M into its particular elements which are carefully monitored with regard to their absolute amount as well as to the mutual transfer of their volume. The aggregate M1 is sometimes used for transaction money (narrow money), it is the most significant and the most monitored aggregate. According to the methodology of the Czech National Bank, M1 includes money in circulation (i.e. banknotes and coins) as well as the balance which can be immediately transferred to money in circulation or used for cashless payments, e.g. one-day deposits. This is the most liquid monetary aggregate. The aggregate

M2 comprises of the aggregate M1 and moreover of the deposits due within two years and the deposits which are subject to three months' notice. Depending on liquidity, these deposits may be transferred to the elements of narrow money but in some cases there may be some restrictions such as the necessity of terminating the deposit by a notice, delay, penalty or charges. The definition of the aggregate M2 reflects the interest in analyzing and monitoring the monetary aggregate which besides money in circulation includes also liquid deposits. The aggregate M2 is called quasi money (near money). The same procedure may be used to create other aggregates in an analytical way with lower and lower rate of liquidity. The aggregate M3 consists of the aggregate M2 and of tradable tools issued by monetary financial institutions. This aggregate includes some tools of monetary market, particularly shares and investment certificates of market funds and repos. A high level of liquidity and price security guarantee that these instruments are near substitutes of deposits even though their liquidity is considerably lower. Incorporation of these instruments leads to the fact that the aggregate M3 is affected by substitution among different categories of liquid assets less than the narrower definitions of money are, and therefore it is more stable. The aggregate M3 is called broad money. The aggregate M4 consists of the aggregate M3 and of deposits in domestic non-bank institutions (e.g. co-accepted drafts and cheques). The aggregate M5 includes the aggregate M4 and other securities in the domestic currency (e.g. long-term obligations or bonds).

Why are central banks watching the particular aggregates so carefully? Simply because the amount and change of volume of particular aggregates are significant indicators of the economic performance of economy. A transfer of money from the aggregate M1 to the aggregate M2 signals increased saving behaviour in the economy. The increased volume of the aggregate M2 is for commercial banks the main source for giving credits. Increased but cautious crediting of enterprises by banks means an increased investment activity but also an increased flow of money to enterprises in other forms (financial means for operation, export etc.). Many analyses proved that the increase of the aggregate M2 is, after a particular lapse of time, followed by the growth of GDP. A fast growth of this form of money accompanies a boom, its restriction is on the other hand often followed by recession, or can even have worse effects.

Analytical monitoring of particular monetary aggregates is also an inseparable part of the monetary policy of central banks, especially in their activity related to inflation targeting; despite the fact that the development of monetary aggregates does not directly enter into the prognoses, e.g. of the Czech National Bank. The reason for this is that in the mode of inflation targeting, when the central bank checks the interest rates and withdraws excess money from the market, the development of money supply only reflects the economic development, measures of monetary policy and expectations of economic entities. Monetary aggregates may still serve as additional indicators for verifying the prognosis if they carry information about the current or future development of the economy. The analysis of the predicative ability of the monetary aggregates using the indicators of the so-called monetary overhang and the nominal and real monetary reserve is also a part of monetary policy analyses. These concepts are commonly used for analysing the monetary aggregates also by the ECB.

The monetary overhang is defined as a percentage deviation of the real level of money supply from the level corresponding to the current position of the economy within the cycle and other fundamentals; and it is calculated based on a standard estimate of money demand. The nominal monetary gap is defined as a percentage deviation of the real aggregate M2 from the value it would have reached if it had grown at the rate reflecting the potential of the economy and the inflation target. The real monetary gap is defined as the nominal monetary gap adjusted by the difference between the real inflation and the inflation target. The monetary gap differs from the monetary overhang by the fact that in case of the monetary

overhang the analysis is focused on how much the dynamics of M2 corresponds with the current development of the economy, while in case of the monetary gap the analysis is focused on how much the development of M2 corresponds with long-term equilibrium trends in the economy.

As it is difficult to divide the aggregate M into its particular elements according to a qualitative methodological point of view, it is also difficult to determine the optimum volume of these elements. This depends not only on the decisions of central banks but also on the particular economic situation of the country, on the priorities of the government and on its economic policy, on the structure of the state budget or on the state of the banking sector in the country. The practical application of the monetary policy thus depends on the priorities which are set in the particular country for the future status of national economy. Therefore it is not simple to analyse and compare monetary aggregates of different countries. At the end of the year, the central bank may determine the so-called target corridor of money supply, e.g. by dividing the year into four quarters and comparing the planned and expected amount of money supply with the previous year. This may be used for continual refinement of monetary policy targets, even several times a year. For refining future prospects, a wide range of information is taken into account, namely e.g. the current status of the economy, its growth or decline, pressures on price increase, exchange rate changes, commodity prices and many other facts, even those which are difficult to be estimated at that time.

Assessment of the aggregate M by central banks in an isolated way, without mutual relations and without respecting mutually different functions of money, does only little predicate about the particular status and fulfilling the issuing policy of the central bank. Money in the form of capital, which brings product and further revenue, income, wages and taxes into the state budget has a completely different function in monetary circulation than money in the form of money in circulation which only enables the exchange and consumption of the goods produced. Both are money of the aggregate M but with completely different monetary functions and consequences.

Central banks cannot simply replace deficit production of the economy or for example deficit of the state budget by new issue of cash money. Such issue would be unfair and harmful – it would give purchasing power to the first holders of this money as well as to those who do not participate in production and moreover, inflation consequences of this excess issue of money would destroy the purchasing power of all economic entities. At present, central banks take this fact into account when issuing money and use suitable regulatory measures and tools which allow governing money circulation not only as a global monetary mass but with respect to the differentiation of various forms of money and monetary functions of particular elements of the monetary aggregate.

Conclusions

At present the care of price stability is the main objective of the monetary policies of central banks in advanced countries. Exactly the same objective is set for the Czech Republic by Article 98 of the Constitution of the Czech Republic and Paragraph 2 of the Czech Act No. 6/1993, on the Czech National Bank. The same objective, i.e. price stability, is set for the European Central Bank in Article 105 of the Treaty on the Functioning of the European Union. The Czech National Bank also supports the general economic policy of the government if this side objective is not counter to its main objective. Securing price stability in the economy, i.e. to contributing towards creating a stable business environment, is a part of the central bank liability for sustainable economic development. The Czech National Bank endeavours to fulfil this through the monetary policy mode called inflation targeting.

The Czech National Bank, similarly to most of the central banks, concentrates mostly on the stability of consumer prices. Practically, price stability does not mean changelessness of prices but their slow increase. The increase of prices corresponding with price stability should include a statistical deviation upwards which occurs at measuring the increase of prices, and should also give the necessary scope for slight changes of price relationships which happen in every economy with an effective price system all the time.

At present, the dominant activity of central banks related to the monetary policy is primarily establishing interest rates and executing operations on the free market. The issuing activity of central banks is often being marginalized. Nevertheless, the possibilities of central banks to influence the performance of the economy through the interest rates are quite limited. Commercial banks secure their sources first of all on the primary market, or by means of trade among themselves on the bank-to-bank market and the policy of central banks is effective only little. This can be seen even at present when the policy of minimum rates established by central banks is not able to support the economy and its growth.

On the other hand, a competent issue of money and regulation of the monetary aggregate M represents a more efficient monetary policy tool aiming at economic recovery and sustainable growth. Central banks must carefully analyze also the internal structure of the aggregate M, consisting of the aggregate M1 to M5, and adjust also other tools from a wide range of monetary policy instruments. Central banks must be prospective in their issuing activity because an excess issue of money in its consequence always leads to the increase of prices and its impact on the real product in a long-term perspective is none.

To sum it up, it is clear that:

- inflation is a monetary phenomenon which follows rather from faster increase of the amount of money (left side of the transaction equation) than by the product (right side of the transaction equation);
- there is only one efficient treatment of inflation, which is a lower rate of money supply growth (executed by different monetary policy tools);
- treatment of inflation is long-term and the costs of disinflation are always high, mostly related to the decline of the product growth dynamics and to the increase of unemployment.

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FINANCIAL CONTAGION RELOADED: THE CASE OF CYPRUS

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Abstract

In the present case study, our main objective is to bring to the forefront the main factors that led to the double-dip recession of the Cypriot economy. We analyze determinants such as "tax haven" status, interlinks with the Greek economy, spillovers originating in the Euro Area as a whole (through the debt crisis) and Greece in particular. In spite of the fiscal reform of 2002 and the new fiscal system in force since the 1st of January 2003, Cyprus continued to be a "tax haven". Its high investment attractiveness spurred the "Cyp-Rus" relations, boosted an outsized banking sector (representing 800% of Cyprus GDP in 2010-2011) and generated an unsustainable proportion between the real and the "virtual" economy. Besides, the public sector became larger than required by such a small economy, its share in the total yearly value added being close to one quarter. Taking into consideration all these factors, we conclude that the „W"-shaped recession of the Cypriot economy is a *sui generis* one and the questioning of its "fiscal paradise" status is even more acute than in the case of countries such as Luxembourg or Liechtenstein.

Keywords: *Cyprus, financial contagion, tax haven, Cyp-Rus, Cyprus-Greece, recession, euro zone, debt crisis*

JEL classification: E22, E32, E44, E66, F21, F33, F34, F44, F62, G01, G11, G15, G21, H81

Introduction

Cyprus, a member of the euro zone since 2008 and a high income non-OECD economy (according to the World Bank classification), recorded a robust economic growth during 1975-2008. The insular country is considered "unique" in the EU, taking into account several cumulative evidences: its geostrategic position (at the intersection of three continents), its status of "tax haven", its division in two parts (one Greek, the other Turkish) since 1974, the UN peacekeeping force and the British military presences on the island. As demonstrated in our analysis, "unique" in the euro zone are as well the Cypriot crisis and the "bail-in" rescue package.

The reason for having chosen the present topic is, on the one hand, its actuality, and, on the other hand, the absence from the literature of a comprehensive analysis of the determinants that led to the Cyprus crisis. The existing papers examine either its tax haven status (Maftei, 2013) or the deep relationship with Russia through the capital flows (Pelto *et al.*, 2004), or the EU accession (Tocci, 2004) or institutional aspects (for instance its banking sector, Stephanou, 2011, or the territorial partition between Greece and Turkey, Tocci, 2004).

Drawing on data provided by institutions such as Eurostat, International Monetary Fund (IMF) and European Commission and experts' opinions, we analyze in our case study Cyprus main macroeconomic indicators and explain the key factors that led to the double-dip recession of the Cypriot economy.

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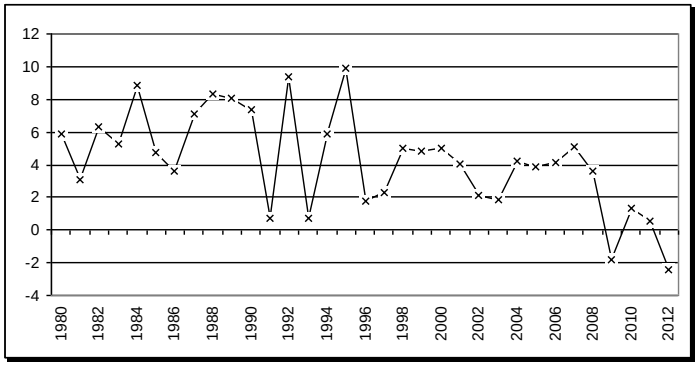
1. The „W"-shaped recession of the Cypriot economy mirrored by macroeconomic indicators

Before it became a member of the euro zone in January 2008, the Republic of Cyprus presented "impeccable credentials" (The Economist, 2012). In 2007, it ran a budget surplus of 3.5% of GDP and a government debt of 59% of GDP (IMF, 2013).

In 2009, as a direct consequence of the global financial and economic crisis (spread through channels such as decline in external demand, investment decrease, increasing difficulty in accessing credit for the already highly indebted private sector), the Cypriot economy slipped into its first recession in 35 years.

After two years of modest growth, the economy entered a double-dip recession in 2012 (Chart 1), having as source the spillovers originating in the euro zone as a whole and Greece in particular.[1]

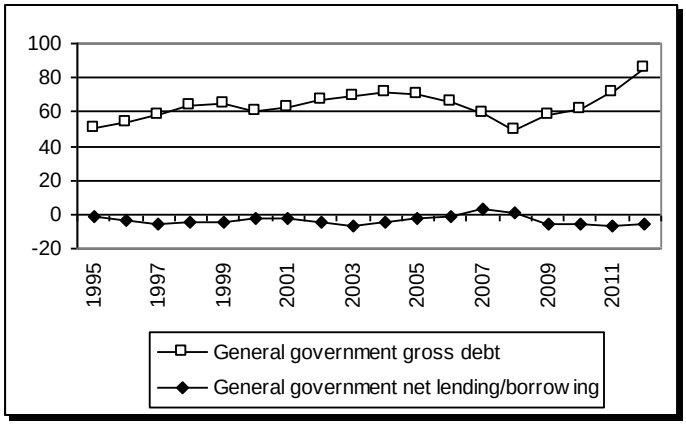
Chart 1: Cyprus GDP real growth rates during 1980-2012 (in %)



Source: IMF (2013).

Starting with 2009, the general government balance was negative, and the government gross debt deepened. At the level of 2012, the IMF data indicated a fiscal deficit of 5% of GDP and a public debt of over 86% of GDP (Chart 2).

Chart 2: Cyprus – General government balance and public debt during 1995-2012 (% of PIB)

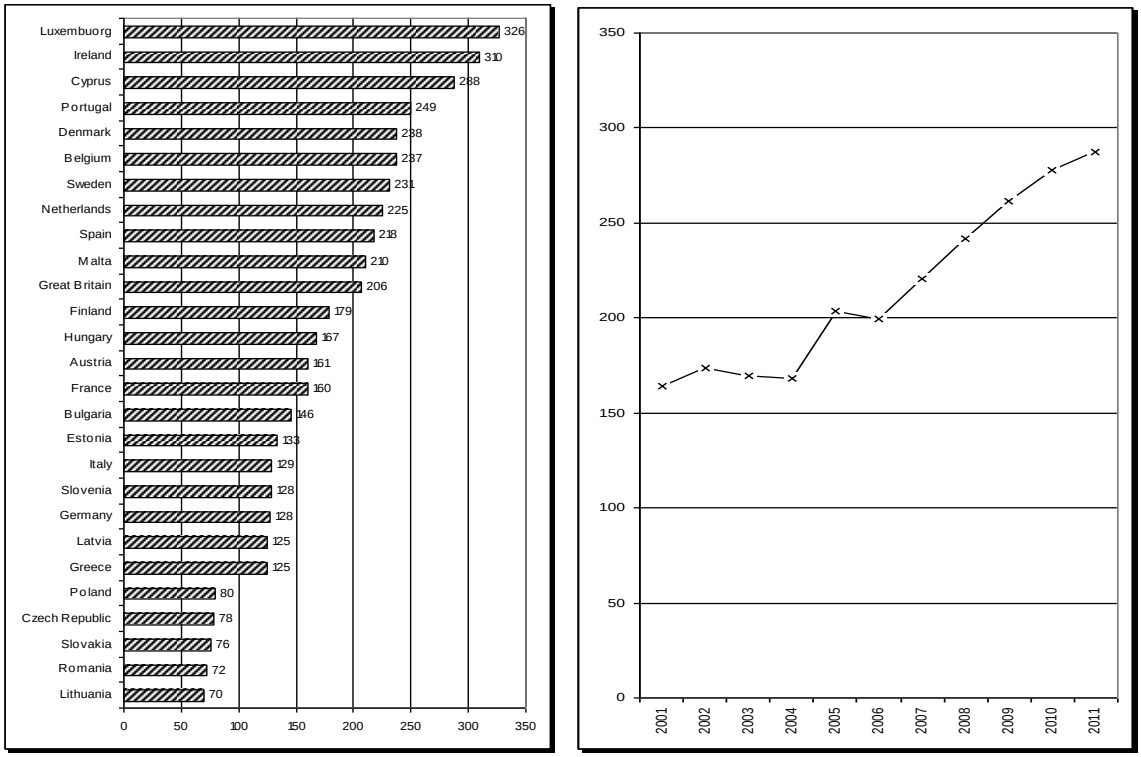


Source: IMF (2013).

[1] For the distinction between *contagion, spillover, monsoonal effects*, please consult Masson (1998) and subsequent research papers. Intensive research in the "contagion" area was successively stimulated and revitalized by the Latin American debt crisis (1982), the Mexican crisis (1994), the Asian financial crisis (1997-1998), the Russian financial crisis (1998), the Brazilian one (1998-1999) and more recently the global financial and economic crisis.

At the same time, the private sector debt (including here the households and companies from the non-financial sector) continued its ascending trend and is close to 300% of GDP – the third highest in the EU (The Economist, 2013; Eurostat, 2012) (Chart 3).

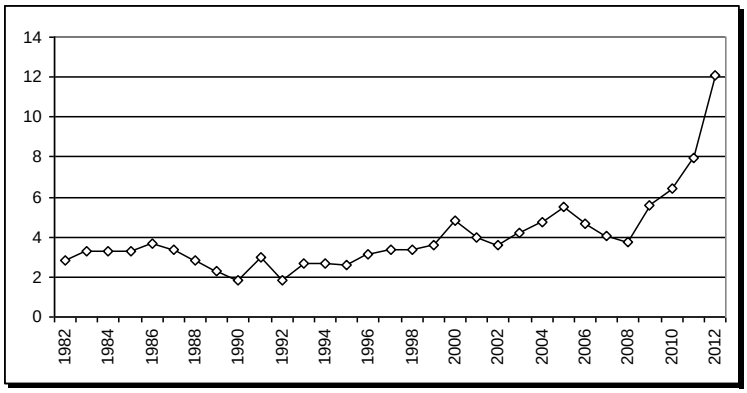
Chart 3: Private sector debt in the EU countries in 2011 and in Cyprus during 2001-2011 (% of GDP)



Source: Eurostat (2012).

The recession brought as a direct consequence a sharp increase of the unemployment rate in Cyprus, which surpassed in 2012 the level of 12% - higher than the euro zone and EU-27 averages (European Commission, 2013) (Chart 4).

Chart 4: Unemployment rate in Cyprus during 1982-2012 (% of the active population)



Source: IMF (2013).

These macroeconomic indicators alone do not explain *why* Cyprus entered the double-dip recession in 2012, which forced the authorities to resort to the burdening "bail-in" package. Factors such as the status of Cyprus as a "low tax haven" (Maftei, 2013, p. 44) and

its attractiveness for the Russian capital, its banks exposure to sovereign Greek debt, the spillover effects of the global financial and economic crisis as well as of the euro zone debt crisis on the Cypriot economy are just several determinants of its actual economic situation.

2. Main "acts" of the Cyprus "drama"

Year 2011 may be considered decisive for the Cypriot economic situation, due to a complex of factors. It was the first time after the EU accession when its internal weaknesses became visible, as the economic downturn of 2009 had been considered mainly a direct consequence of the global financial and economic crisis. The Cypriot banks exposure to sovereign Greek debt proved to be too high and the pace of the structural and fiscal reforms too slow. The austerity measures adopted in 2011 were not the solution to the crisis and the protests against the austerity intensified. More than that, in July 11, 2011, the Vassilikos power plant (the largest one in Cyprus) was extensively damaged by a blast at the Cyprus Naval Base. Besides the restoration costs (estimated at Euro 300-350 million), a direct effect was the increase of the energy prices, already situated at levels above the EU average (Cyprus Mail, 2012).

The rating agencies Moody's, Fitch and Standard&Poor's played again their role by the means of downgrading government bond ratings and banks credit ratings. In September 2011, the Cyprus access to the international bond market was practically blocked by prohibitive bond yields (Financial Times 2011).

The moment that prefigured Cyprus' "fate" was the euro zone Summit of 26-27 October 2011 in Brussels, when it was decided that the Greece debt would be reduced by circa Euro 100 billion, by the means of a "voluntary" 50% haircut in the nominal value of the Greek bonds. This decision had successive repercussions on the Cypriot banking sector. At the level of 2011, Laiki Bank (Cyprus Popular Bank) lost Euro 2.5 billion (Reuters, 2013d), and the Bank of Cyprus over Euro 1 billion (The New York Times 2012), as a consequence of the financial contagion transmitted through the channel of the Greek bonds (EUObserver 2012). In the Annual Report of 2011, the Central Bank of Cyprus emphasized that "Cypriot banks with operations in Greece are particularly exposed to credit risk due to the adverse economic conditions and the increased uncertainty that exists."

In December 2011, Cyprus managed to obtain a loan from the Russian Federation, amounting to Euro 2.5 billion, with a five year maturity and an interest rate of 4.5%. Cyprus has been for a long time an offshore centre preferred by the Russian "big business" (Reuters, 2013c). It is worth underlining that, in spite of the fiscal reform of 2002 and the new fiscal system in force since the 1st of January 2003 – considered necessary for the EU membership of 1st of May 2004 –, Cyprus continued to be a "tax haven". Among the factors that guaranteed this position were: low levels of income taxes and VAT and the absence of a rigorous capital control. At the same time, the foreign investors outside the EU (especially from the Russian Federation) were attracted by the possibility of acquiring Cypriot citizenship (therefore EU status), which stimulated the "Cyp-Rus" relationship (Pelto *et al.*, 2004).

Table 1: VAT levels in Cyprus since the adoption of the VAT legislation in 1992

Date/period	Standard rate	Reduced rate 1	Reduced rate 2
01/07/1992 - 30/09/1993	5%	---	---
01/10/1993 - 30/06/2000	8%	---	---
01/07/2000 - 30/06/2002	10%	5%	---
01/07/2002 - 31/12/2002	13%	5%	---
01/01/2003 - 31/07/2005	15%	5%	---
01/08/2005 - 29/02/2012	15%	5%	8%

Date/period	Standard rate	Reduced rate 1	Reduced rate 2
01/03/2012 - 13/01/2013	17%	5%	8%
14/01/2013 - 12/01/2014	18%	5%	8%
Starting with 13/01/2014	19%	5%	9%

Source: http://www.mof.gov.cy/mof/vat/VAT.nsf/DMLrates_en/DMLrates_en?OpenDocument.

Its high investment attractiveness boosted an outsized banking sector (with assets representing 800% of Cyprus GDP in 2010-2011) and generated an unsustainable proportion between the real and the "virtual" economy. Cyprus and other EU countries, like Luxembourg, Malta, Ireland, Great Britain, Denmark, France and Netherlands record also a value of bank assets as a percentage of GDP higher than the EU average of 370%. Outside the EU, "tax havens" like Switzerland and Liechtenstein register as well high bank assets-to-GDP ratios (European Banking Federation, 2012). Nevertheless, most of them have a highly diversified national economy and are export-oriented. For instance, in Liechtenstein, although the financial sector contributes to 27% to the GDP and generates more than one third of the state revenue, the manufacturing industry is the largest sector (Liechtenstein Bankers Association, 2012). Financial services contribution to the overall economy (measured by gross value added) is close to 27% in Liechtenstein – similar to Luxembourg – and much higher than in countries like Switzerland, UK, Ireland. Of the 17 banks licensed in Liechtenstein, seven are subsidiaries of solid Swiss and Austrian institutions (Liechtenstein Bankers Association, 2012).

In Cyprus, the largest shares of the total gross value added in 2011 (at basic prices) were held by the following sectors: Distributive trades, transport, accommodation and food services (23%), Public administration, defence, education, human health and social work activities (22%), Real estate activities (almost 12%), Financial and insurance activities (9%) and Construction (8%) (Eurostat, 2013). This structure underscores not only the low contribution of the financial sector to the output, but also another weakness, given by an oversized public sector.

Moreover, there are two other key factors that distinguish Cyprus from other countries with large banking systems. As indicated by Stephanou (2011), domestically-owned credit institutions (both cooperatives and commercial banks) play an important role in Cyprus. Besides, even though the biggest domestically-owned banks in Cyprus are small in absolute terms, their large size as a proportion of GDP sets them apart from those of other countries. The three biggest banks (Bank of Cyprus, Laiki, and Hellenic Bank) controlled 56% of domestic deposits and 48% of domestic loans as of March 2011 and expanded their operations abroad, particularly in Greece (Stephanou, 2011).

In June 25, 2012, a week before his country assumed the rotating six-month presidency of the Council of the European Union, the Cypriot president announced the intention of resorting to international financial assistance. At that time, the government estimated the financial need at Euro 3-4 billion, while the EU experts had already advanced the amount of Euro 10 billion.

Without any access to the international capital markets, Cyprus had been searching a second loan from the Russian government, in order to recapitalise Laiki Bank, its second-largest bank after big losses caused by Greece's debt restructuring in March 2012 (The Economist, 2012).

In November 2012, the Cypriot authorities declared that the necessary amount to avoid collapse was at least Euro 17 billion, out of which 6.1 billion was required for the payment of the due external debts, and the rest for the banks recapitalisation (RiaNovosti 2013).

One month later, it was outlined a draft memorandum of understanding between the Cypriot authorities and the troika of international lenders, made out of the European Central Bank, the European Commission and the IMF. The hard conditions attached to this memorandum (new austerity measures and taxes increase) hindered the reach of any agreement. As a consequence, the government was forced to resort to a loan amounting to Euro 250 million from the pension funds of the state-owned companies, in order to be able to pay the holidays wages of the civil servants (Spiegel International 2012a and 2012b, EUObserver 2012, RiaNovosti 2013).

Exactly nine months after the announcement made by the Cypriot authorities regarding the financial aid needed, on the 25th of March 2013, the finance ministers of euro zone member countries reached an agreement with the Cypriot authorities on the key elements necessary for a future macroeconomic adjustment programme (Eurogroup Statement on Cyprus, 2013).

This agreement (considered as "Plan B"), was concluded a week after the rejection by the Cypriot parliament of the initial proposal ("Plan A", supposing a levy of 6.75% on deposits of less than 100,000 euros – the ceiling for European Union guaranteed deposits – and 9.9% on deposits above 100,000 euros, Bloomberg, 2013). Even the "Plan B" is considered "harsher" than the initial one (as it involves the shut down of Laiki Bank, the move of the guaranteed deposits from this bank to the Bank of Cyprus, while uninsured deposits face major losses), the Parliament could not vote against it, as this implies the restructuring of the banking sector, for which there is a legal framework already adopted. Anyway, this solution was based on the principle "take it or leave it", as the European Central Bank had informed on its decision to cancel all forms of financing for Cyprus in the absence of an agreement until the 25th of March 2013.

Besides these two plans, the experts envisaged another one, having as main players Russia and Cyprus. Apparently, Cyprus is only a small insular country in the Mediterranean, but, in reality, its geostrategical position and resources are eyed by major players on the international stage. According to this scenario, the Russian banks would have taken over the Cypriot credit institutions, Gazprom would have assumed control over the newly discovered gas resources located offshore Cyprus (estimated at Euro 400 billion), and the Euro would have been replaced by the Russian Ruble. Nonetheless, this "Plan C" would have tensioned the relations between the Russian Federation and the EU and also would have had a negative impact on the Euro, with a share of 40% in Russia's foreign exchange reserves. At the same time, the Cypriot Orthodox Church would have supported Cyprus' exit from the euro zone, but probably not the costly alliance with Russia. This is a strong institution at national level and holds almost one third of the Hellenic Bank shares, the third "big bank" after Bank of Cyprus and former Laiki. One might conclude that, like in a chess game, Cyprus was sacrificed in order for Russia to obtain a better position. Besides, Latvia, as a future member of the euro zone, might replace Cyprus as an attractive destination for the Russian investors (Süddeutsche Zeitung, 2013b; Der Spiegel, 2013).

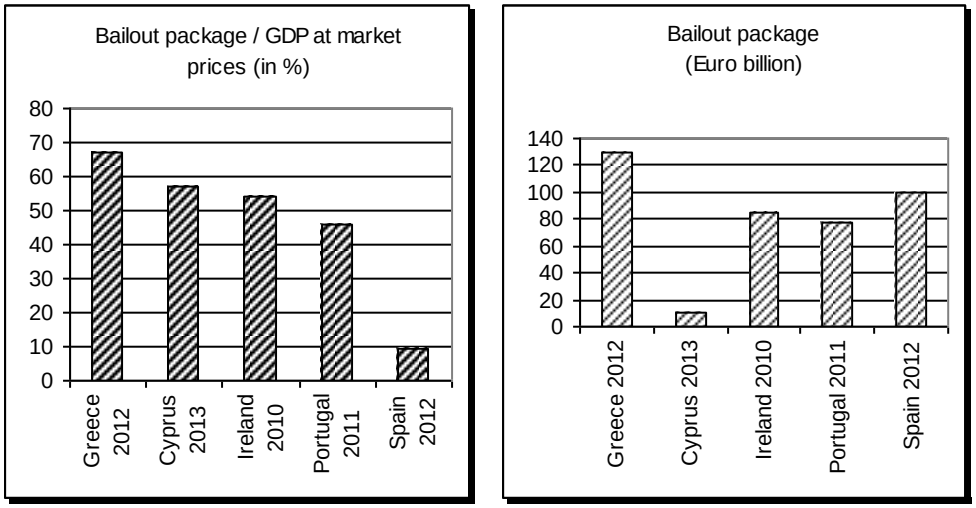
The agreement according to the "Plan B" is known as a "bail-in", as the shareholders and bondholders in banks are forced to bear the costs of the restructuring first, followed by uninsured depositors (Reuters, 2013a).

Jeroen Dijsselbloem, Dutch minister of finance, president of the Eurogroup and president of the Board of Governors of the European Stability Mechanism, asserted that this solution chosen for Cyprus should be considered "a model for the rest of the euro zone". Nevertheless, market reactions were negative, and many EU heads of government infirmed the "Dijsselbloem model".

Even if it has the lowest value among the countries that have already resorted to external financial aid (Greece, Ireland, Portugal, Cyprus and Spain – GIPCS), the "bail-in"

package represents circa 57% of its GDP (Euro 10 billion / Euro 17.5 billion), as compared to bailout packages of approximately: 67% for Greece, 54% for Ireland, almost 46% for Portugal and 9.5% for Spain (Chart 5). Taking into consideration this amount, we estimate that the general government gross debt will reach 146-160% of GDP at the level of 2013. According to the troika of international lenders, Cyprus will have to diminish this percentage to 100% of GDP until 2020 (Financial Times, 2013, Süddeutsche Zeitung, 2013a).

Chart 5: Bailout/"bail-in" packages for Cyprus, Greece, Ireland, Portugal and Spain (% of nominal GDP and Euro billion, respectively)



Sources: Eurostat 2012a and 2012b.

After the Cyprus "bank earthquake", against the background of "capital flight" (even in the presence of strong rules on capital flows – Reuters, 2013b) and the loss of the statute of "tax haven", of increasing unemployment rate and of higher risks of credit default, the European Commission presents a discouraging economic outlook for Cyprus: GDP decreases in real terms of 3.5% in 2013 and 1.3% in 2014 and gross fixed capital formation reductions of 23.7% in 2013 and 11.6% in 2014. Moreover, in April 2013 it changed the previous forecasts to GDP declines of 8.7% and 3.9%, respectively. Other experts predicts GDP drops of 15% in 2013, 15% in 2014 and 5% in 2015, generating a cumulative four-year decline in GDP of 33% and surpassing the six-year decline of Greece of circa 24%. Besides, a possible "labour exodus" could hurt the economy even more than the "capital flight" (The Economist, 2013).

Conclusions

In the present paper, we underscored the main factors that led to the actual crisis of the Cypriot economy and the burdensome "bail-in" package.

In 2009, the Cypriot economy slipped into its first recession in 35 years. The economic downturn of 2009 had been considered mainly a direct consequence of the global financial and economic crisis and only in 2011 Cyprus' economic weaknesses became visible, for the first time after its EU accession. Among these weaknesses can be mentioned the following.

First, its status of "tax haven" boosted an outsized banking sector (with assets representing 800% of Cyprus GDP in 2010-2011) and generated an unsustainable proportion between the real and the "virtual" economy. In contrast to other "tax havens", like Switzerland and Liechtenstein, the Cypriot economy is not enough diversified. Moreover, a small number of domestically-owned credit institutions play an important role in Cyprus and they expanded their operations abroad, particularly in Greece.

Second, the Cypriot banks exposure to sovereign Greek debt proved to be too high. The financial contagion transmitted through the channel of the Greek bonds and the associated losses had successive repercussions on the Cypriot banking sector and on the Cypriot economy as a whole. Third, the austerity measures adopted in 2011 were not the appropriate solution to the crisis and the protests against the austerity intensified. Fourth, the oversized public sector chose a slow pace of the structural and fiscal reforms. In the near future, a possible "labour exodus" could hurt the economy even more than the "capital flight". As a consequence, the „W"-shaped recession of the Cypriot economy is a *sui generis* one and the questioning of its "tax haven" status is even more acute than in the case of countries such as Liechtenstein.

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CURRENCY CRISES AND SOME THEORETICAL APPROACHES. EVOLUTION OF THE CURRENCY CRISES IN ROMANIA

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Abstract

The evolution of financial-currency phenomena after the `90s and, in particular, in the last decade, has disrupted the financial-currency relationships with serious consequences on the monetary-currency balance in a series of countries with extension at regional or international level, as well as on the economic balance. The discussion of theories regarding the currency crises in their evolution is one of the matters designed to clarify the causes of such crises, the implications in the financial-banking, economic environment, as well as the possible ways to limit the negative effects disrupting the financial and economic balance in the given countries, as well as at regional and international.

Keywords: financial crisis: currency, banking and external debt; Twin Crisis; models of financial crisis; self-fulfilling crisis; moral hazard; common lender effect

JEL Classification: G01

Introduction

The prevention of systemic crises (and in particular of currency crises) has started to raise a growing interest, especially in the last decade of the last century, following the crises of the European Monetary System (1992), Mexico (1994), in the countries of South-Eastern Asia, as well as in Thailand, Malaysia, Indonesia, Philippines, South Korea (1997) or in Russia (1998).

The economic literature distinguishes between three patterns of financial crises: currency, banking and external debt crises. However, in practice there are no pure forms of crises. A special concept in the economic theory in this respect is that of Twin Crises – the currency and the banking sector crises. The crises in Asia (1997), Russia (1998) or Turkey (2000) are good examples. Other forms of complex crises are the currency and fiscal crises: Brazil (1999) or currency and external debt crises: Mexico (1994), Argentina (2001), USA (2007), and Europe (2009).

1. Theoretical approaches

It is difficult to formulate a clear and precise definition of currency crises. An approximate definition could be the loss of confidence in the national currency, expressed by increased demand to exchange the domestic currency for a foreign currency, which leads

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either to the strong devaluation/depreciation of the national currency, or to the decrease in currency reserves or restrictions on capital movements [1].

(A) In the economic literature, financial crises are categorized into three generations of models. Opinions are divided as regards this classification: some authors, such as Krugman (1998), consider only two generations of models: the speculative financial crises are included in the last type of models. The first generation of models was introduced by Krugman (1979) [2] and subsequently developed by Flood and Garber (1984). According to this type of models, in the context of a fixed exchange rate, an expansion of excess credit in relation to the increase in money demand leads to a gradual, but persistent, loss of international reserves, and eventually to a speculative attack on the exchange rate. Companies realize they will record losses if they hold domestic currency and, consequently, they sell it right when the so-called shadow exchange rate is equal to the fixed exchange-rate („shadow exchange rate" is the exchange rate that would exist is the exchange rate was not fixed), reserves are exhausted and the authorities are forced to abandon the parity. This model characterizes times of crisis as times when the currency reserves of authorities decrease persistently, and internal credit increases more rapidly than the money demand. If the excess supply of money is the result of the need to finance the public sector, than the large fiscal deficits and the credit to the public sector may serve as crisis indicators.

Agenor, Bhandari and Flood (1992) [3], suggest that, according to this crisis version, variables of external nature, such as the real exchange rate, may serve as crisis indicators as well. For instance, the deterioration of the trade balance and the current account may be the result of expansionary fiscal and/or credit policies, which may lead to an increase in demand for import goods and for a part of the previously exported goods. Moreover, the relative price of services increases, due to the fact that expansionary policies lead to an increase in related demand. Consequently, the price level is high, which leads to a real appreciation of currency. Thus, variations in the real exchange rate may be considered crisis indicators.

More recent models suggest that the authorities abandon parity not only due to the decrease in reserves, but also following the evolution of other variables.

Ozkan and Sutherland (1995) [4] highlight that the authorities have an objective that depends positively on maintaining the nominal fixed exchange rate and negatively on the deviations of production in relation to a given target level. Thus, in case of a fixed exchange rate, an increase in international interest rates leads to higher domestic interest rates and to a lower production level, decreasing the cost of maintaining parity. According to this argument, the evolution of interest rates at domestic and international level, as well as the GDP variations may be considered crisis indicators. Extending the reasoning, other variables affecting the objective-function of the authorities may be considered crisis indicators. High interest rates lead to increased financing costs to the central administration. Thus, an important public debt will show a greater inclination to abandon the peg.

Moreover, high interest rates may generate vulnerabilities in the banking sector, and authorities would rather devaluate the currency than risk a collapse of the banking system, associated with much higher costs due to the guarantees offered on the liabilities side of the banks, respectively for guaranteeing deposits. Thus, indicators such as the level of nonperforming loans, credit facilities granted to banks by the central bank, reduced deposits, may indicate financial crises.

This first generation of models clearly describes the crises of the 8^{th} and 9^{th} decades of 20^{th} century in the countries of Latin America, such as Argentina, Brazil and Chile. Fixed exchange regimes were introduced as a result of stabilization programs in order to reduce inflation and to control the budget deficit. In most cases, they ended in one of the ways

described above: the fixed exchange rate was abandoned due to the rapid growth of domestic credit (generally following the bankruptcy of commercial banks) and a significant reduction of international reserves of the central bank.

The self-fulfilling crises are the main characteristic of the second generation models [5]. This type of models is characterized by the possibility of the existence of multiple balances, while the economy may vary between them without a significant change in real variables.

For instance, the existence of exchange rate collapse expectations leads to higher interest rates. This generates additional costs for authorities, which may decide to abandon the peg, thus validating the initial expectations. Also, they do not necessarily imply the existence of negative aspects at the level of the real sector.

A sudden worsening of expectations alone is sufficient to generate the abandoning of the peg and the transfer to another balance with a flexible exchange rate. The problem that remains is related to the causes generating the sudden change of expectations and the extent to which such causes are correlated to the existence of deficits in the real sector.

This approach involves the idea that the prediction of currency crises is extremely difficult, due to the inexistence of a clear connection between the real variables and the occurrence of crises. In the absence of perfect information, Moris and Shin (1998) [6] show that real variables matter in the occurrence of a crisis when they deteriorate below a certain value.

(B) Second generation models explain a series of crises, such as the one in the ERM (Exchange Rate Mechanism) applied to the European Monetary System since the beginning of last decade. In this case, the unification of Germany generated a great shock of demand in this country, which led to higher interest rates in the other Member States. Since labour markets are very rigid at European level, the effect was an increase in unemployment, likely to generate an attack on the currency. Moreover, these expectations increased interest rates, raising again the costs of authorities associated with maintaining a fixed exchange regime and generating a series of speculative attacks, which forced the authorities to abandon the peg.

(C) The third generation of models combines the first two and introduces a series of microeconomic elements into the analysis, such as variables related to the banking sector. The development of these models increased after the Asian crisis. The Southeast Asian countries did not have extremely expansionary monetary or fiscal policies. Inflation and unemployment rates were low. There were problems with banks and companies, and their outbreak led to the crisis. In particular, the moral hazard issues, the liquidity crunch and contagion elements represented the essential components of the crisis.

Firstly, moral hazard comes from a close connection of financial institutions with the governments in the region, which induced the idea of the existence of implied governmental guarantees in relation to financing. This generated, on the one hand, over-indebtedness (especially external), and on the other hand, suboptimal investment decisions. Thus, a shock, even low, at the level of asset prices generated a significant deterioration of the banks' portfolios. Authorities were forced to intervene by inflationist measures in order to save the banking sector. This leads to a crisis in the balance of payments [7]. According to this type of models, the level of asset prices may serve as a good indicator to detect currency crisis.

Secondly, the liquidity crunch starts from diminished confidence in the banking system, which leads to increased withdrawals from the system, reducing the liquidity of banks, thus generating a crisis of the banking sector and, subsequently, a currency crisis. According to this argument, the main factors that may affects the liquidity of the banking

sector may serve as crisis indicators: short-term external debt at banking level, on the one hand, and long-term capital inflows, on the other hand [8].

Finally, the contagion effect involves the spreading of currency crises across borders and their transmission to other countries. This may be the result of a devaluation or depreciation based on competitiveness problems of the external sector or what is known as the common lender effect, according to which, when an investor suffers losses in one country, it liquidates its investments in another country as well. There is also the possibility of an irrational behaviour generated by the herding behaviour.

Kaminskz, Lizondo and Reihart (1998) [9] examined 28 empirical studies regarding currency crises and organized the 46 used variables into 10 categories: (1) capital account; (2) debt profile; (3) current account; (4) international variables; (5) financial liberalization indicators; (6) other financial variables; (7) real sector; (8) fiscal sector; (9) political variables; (10) institutional factors.

The authors characterized the explanation degree of variables by examining the number of studies in which the given variables had a significant degree of relevance in explaining the crises. Thus, the factors that had a high degree of explanation were: currency reserves, real exchange rate, increase of nongovernmental credit, level of credit to the public sector and inflation. Other indicators proposed to be considered, with a relatively good degree of predicting crises, are: trade balance, performance at the level of exports, increase of monetary supply, M2/reserves, increase of real GDP and fiscal deficit. The influence of political and institutional variables is difficult to assess, due to their presence in only a few studies.

On the contrary, the variables associated with the external debt profile and the current account balance had very poor performances, which was most likely due to the inclusion of information provided by these indicators in the developments of the indicator related to the real exchange rate.

A more recent study on the empirical research regarding currency crises is the one made by Michael Chui (2002) [10]. The study has greater relevance also due to the fact that the summary made by Kaminsky, Lizondo and Rienhart (1998) [11] contained only events that occurred until the end of the year 1997. In addition to the indicators present in the previous studies as well (overvaluation of the real exchange rate, increase of real GDP, exports and fiscal deficit), a series of new indicators (related to the Asian crisis, the crises in Russia, Brazil) connected to the weaknesses seen in the banking sector, such as the increased dependence of financial systems on the authorities, acquire great relevance.

2. Forms of currency crisis and evolution of the banking system in Romania

Starting with the years 1997-1999, the financial-currency system in Romania has dealt with a system crisis, in which the financial-currency crisis manifested in hard forms, which are also maintained at present.

During the above-mentioned period, the RON devaluated by more than 100%, thus reaching an annual average of over 15,000 RON for one dollar in 1999, as compared to an average of almost 9,000 RON for one dollar in 1998 and 7,000 RON for one dollar in 1997. During 2009-2012, the RON devaluation resumed (only in the first 10 months of the year 2012, the RON devaluation to the euro was 5%).

If we make a comparison between the current crisis and 1997-1999, the banking system suffered drastic mutilations, with over 10 banks disappearing, among which Bancorex (the biggest bank in the country) and the Agricultural Bank, the reason being the large volume

of financing, especially in foreign currency, granted to state companies, which were strongly affected by the crisis at that time. Of course, if we compare the current crisis and the 1997 crisis, a common point is the macroeconomic imbalance. At that time, the strong devaluation of the national currency contributed to the massive increase of inflation, which was around 150%, but also to the increase of interests, which had reached 30-50% for credits and even over 100%.

Since 2009, the financial-currency and banking industry, not only in Romania but in the whole world, has been at an historical crossroad in its development. The reason why we got here is the strong erosion of trust in this industry. It is known that a financial-currency and banking system cannot exist without trust, since there is a close connection between trust, ethics and the carrying out of financial-currency and banking services. The strong devaluation of euro is relevant in this respect, especially as a result of the sovereign debts of some countries in Europe (Greece, Island, Portugal, Spain, Italy), which exceeded by much the 100% share of the given countries' GDPs, a situation that also influenced the evolution of the RON/euro exchange rate. At the beginning of October 2012, the RON devaluation of over 5% in relation to the euro (4.60 RON for one euro) as compared to the end of the year 2011 and the RON devaluation of over 15% in relation to the dollar (3.63 RON for one dollar in 2012 as compared to 3.33 RON for one dollar at the end of the year 2011). The situation of this exchange rate is also a consequence of the political disputes in Romania.

The National Bank of Romania assures us that the evolution of this exchange rate is similar to that of the zloty, the Czech crown or the forint, as can also be seen in the graphs attached (the daily nominal exchange rate) [12]. Like any currency with a controlled floating exchange rate, the central bank has the possibility to act directly in the market, by selling or buying foreign currency, or indirectly, by monetary policies.

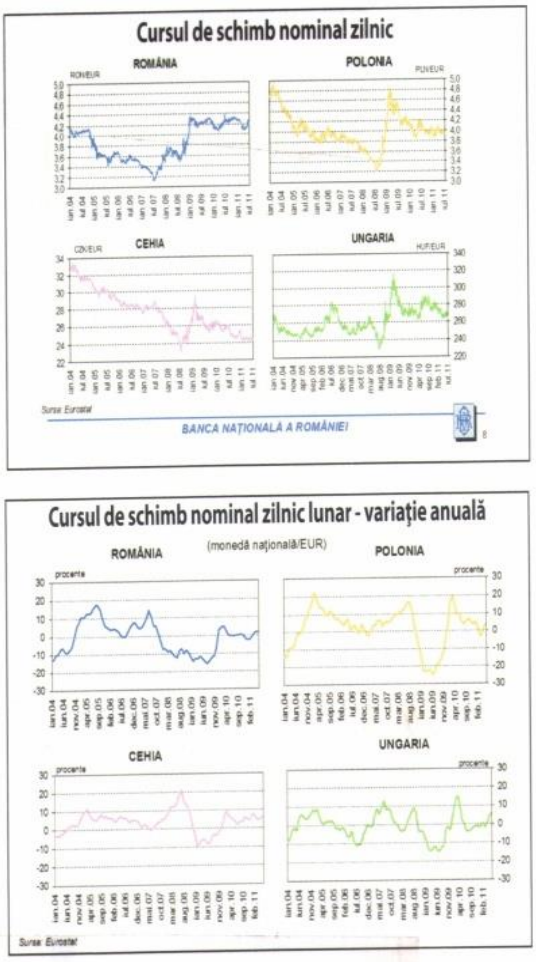

Fig.1 Evolution of the nominal exchange rate in Romania, Poland, the Czech Republic and Hungary

If we examine the graphs with the evolution of the annual variation, we see large amplitudes, the champion at his chapter, in 2011, being the Polish zloty, which came closest to what the economic theory calls free floating.

The evolution of the RON exchange rate in the first 10 months of the year 2012 indicates a devaluation of over 5% as compared to the end of the year 2011.

The most significant devaluation took place in July 2012, when the exchange rate reached an historical level of 4.6997 RON/euro, namely 9.3% depreciation as compared to last year's exchange rate. The RON depreciated abruptly from the beginning of July 2012, by 4.2% by the end of the month, while the foreign currencies in the region recorded gains of up to 1.1%.

The strong depreciation of the RON also influenced the level of interests applied by the commercial banks, which, for one-day term deposits, amounted to 4.78%-5.26% per year. Also, one-week maturity yields dropped from 4.86%-5.34% to 4.83%-5.32% per year.

The governor of the Romanian National Bank of Romania specified that "The impact of the external evolution on the exchange rate has been minor until present. The exchange rate is also influenced by what comes from the outside. We see it first in the risk premium and then in the exchange rate. Until now, the impact has been minor and we see no reason for a greater impact".

Of course, such a depreciation of the RON increases the competitiveness of the Romanian products in the external markets and leads to economic growth. Under such circumstances, the exchange rate may be a valve only for the imbalances accumulated in the economy. However, you must have production overcapacity or rapid investments, or fields such as the agriculture, where increases of 10% can make the difference.

We should not forget that the devaluation of the national currency, as a result of vulnerable structures in the economy, such as the case of Romania, where a relatively high degree of exports (the exports to *Germany, Italy and France represent approximately 40% of total exports) includes imports whose prices rise, makes an increase in the exchange rate to be felt in costs*.

We can agree that, by the depreciation of the national currency, an opportunity is offered to the domestic producers to regain the domestic market by eliminating imports, but in this case as well, investments and the increase of production capacities are needed.

We should not omit the impact of the exchange rate depreciation on the level of interests.

It is worth mentioning that a strong depreciation of the national currency in relation to the main credit denomination currencies would have a positive impact on interest income. However, this would be counterbalanced by the much higher expenses related to the depreciation of the quality of financial assets, especially in the case of debtors natural persons. The currency risk manifested by the direct impact of the exchange rate variation on the financial situation of credit institutions is low. The maximum VAR value recorded during the 2010-2011 period, which involves a liquidation of uncovered positions within 10 working days, does not exceed 0.25 % of total equity.

One of the mechanisms for balancing the financial markets following depreciation of the exchange rate is available to the State.

Discussing the relationship between the State and the financial markets subject to imbalances, the Austrian professor Jorg Guido Hulsmann [13] mentioned that "one of the State's mechanisms of intervention in the financial markets is the manipulation of prices in the financial markets". The manipulation of prices can be achieved through numerous means, such as: the control of the inflation rate or the control of precious metals price".

Conclusions

At present, in the academic environment, it is acknowledged that, at real level, the currency crises are a mixture of important elements belonging to the three above-mentioned categories. Anyway, in times of crisis, some aspects seem to hold a more important role than others. Having this description in theory, it is important to verify at empirical level whether the variables belonging to the real or banking sector may serve as indicators of crisis. On the other hand, if these variables are not convincing as indicators of crisis, the proper conclusion is that the given crises are a result of self-fulfilling expectations and of the herding behaviour at the level of companies.

The depreciation of the actual real exchange rate in Romania, starting with the second half of the year 2011, involved an improvement in external competitiveness with favourable effects on the future net exports. The nominal depreciation of the exchange rate in relation to the Euro and the US Dollar acted, mainly, in this respect. It occurred in the context of deterioration of the investors' perception of the perspectives of economies in the region as a result of the uncertainty related to financing the public debt of Greece, Spain, Portugal, Italy,

and Ireland. The increase of the investors' aversion to risk was also reflected in the ascending quarterly dynamics of the credit default swap (CDS) spreads for a series of countries in the region, including Romania. In relation to the impulse transmitted through the net export channel, the developments of the exchange rate and the sovereign risk premium in the last quarters induce a restrictive effect on the future economic activity by increasing the cost of credit in foreign currency, a phenomenon that has manifested since early 2012.

In conclusion, even if, on short-term, the increase of the exchange rate helps the achievement of the budget deficit targets provided for in the agreement with the IMF, on medium and long-term, the impact on the economy is worrying. Bigger problems regarding the public debt (denominated in an important share in foreign currency), the increase of inflation (depreciation leads to the increase of inflation), the increase of the risk of default on bank loans, the increase of interests will certainly appear.

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EUROZONE PUBLIC DEBT PROBLEM: AN ANALYSIS FROM THE PERSPECTIVE OF THE INSTITUTIONS AND POLICIES

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Abstract

Based on a synthetic literature review, the present article summarizes the main characteristics of the Eurozone institutional setup and the related economic and political incentives that drive Eurozone governments to increase their public debts, disregarding the limits agreed in the European treatises. We propose a theoretical and qualitative approach, taking into account the general features and the nature of Eurozone institutional setup. The second and third part of the paper contains a review of the Eurozone institutional setup and its role in sovereign debt problem of Euro area while the fourth part of the paper carries out a concise analysis of some proposed strategies and policy tools to fight Eurozone debt problem: ECB bond buying, EFSF/ESM leverage, Eurobonds and Euro-TARP.

Keywords: *public debt, fiscal union, Eurobonds, ECB bond buying, Euro-TARP*

JEL Classification: H6, H63, H69, H7, H74, H77, H81, H87

Introduction

Real insight regarding the Eurozone public debt crisis can be acquired analyzing the underlying institutional setup of Euro area and the incentives it creates for the member states' governments to increase their deficit spending. Explicit rules specified in the Maastricht Treaty and the Stability and Growth Pact (SGP) require limits of government budget deficits and public debts (3% of GDP budget deficit and 60% of GDP public debt). The history of breaches of Maastricht Treaty and SGP indicate that all these formal requirements proved powerless to curb the Eurozone governments' incentives of incurring in excessive deficits and debts. Moreover, although Maastricht Treaty contains an explicit "no-bailout" clause that was designed to prevent Eurozone countries from being liable for the debts of other member states[1], nevertheless the "no-bailout" clause was ignored in the case of Greece bailout and also in case of other countries of Eurozone that received financial assistance in the context of Eurozone debt crisis.

Most of the solutions suggested and supported currently in EU to counter the effects of the Eurozone debt crisis imply increased centralization at the EU level – in terms of fiscal union, banking union and even political union. Although the implementation of a fiscal union in the Euro area is presented as a way to save the euro and to overcome the sovereign debt crisis, nonetheless there are no reasons to believe that the debt problem of Euro area will be solved as long as the socialization of risks and losses across Eurozone remain possible. Historical studies suggest that the "no bailout" clause is crucial for well-functioning fiscal unions or federations. For example, Bordo, Jonung and Markiewicz studied five historical cases of fiscal unions or federations and concluded that "fiscal discipline has been obtained through several techniques: explicit or implicit no-bailout clauses, constitutional restrictions,

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[1] Article 104b of the Treaty on European Union (or Article 125 of „Consolidated Version of the Treaty on the Functioning of the European Union").

and discipline exercised by financial markets for government debt". They explained that "without a strict and credible no-bail out clause, the financial market mechanism is likely to fail as an efficient disciplining device on fiscal policy" (Bordo, Jonung & Markiewicz, 2011). In spite of this, the advocates of the fiscal union in EU propose additional strategies and mechanisms of socialization of risks and losses across Eurozone countries, weakening or canceling the effect that market discipline naturally impose on banks, governments or other agents.

The main idea defended in this article is that reckless disregard of the formal rules concerning public debts limits showed by some of the Eurozone member states is close related to the underlying institutional setup of the Eurozone. Credible commitment to a "no bailout" clause and real compliance with Maastricht Treaty and SGP conditions require a match between the underlying institutional setup of Eurozone and the formal requirements regarding debts limit. Consequently, the first step in solving Eurozone debt problem must consists in dismantling all the mechanism of debt rollover and also in cutting off the socialization of risks and losses across Euro area.

Based on a synthetic literature review, the present article summarizes the main characteristics of the Eurozone institutional setup and the related economic and political incentives that drive Eurozone governments to increase their public debts, disregarding the limits agreed in the European treatises. We propose a theoretical and qualitative approach, taking into account the general features and the nature of Eurozone institutional setup. The first and second part of the paper contains a review of the Eurozone institutional setup and its role in sovereign debt problem of Euro area while the third part of the paper carries out a concise analysis of some proposed strategies and policy tools to fight Eurozone debt problem: ECB bond buying, EFSF/ESM leverage, Eurobonds and Euro-TARP.

1. The Underlying Institutional Setup of the Eurozone and Sovereign Debt Problems of the Member States

In order to explain and identify the incentives of Eurozone governments to increase government deficits and public debts over the agreed limits of Maastricht Treaty or SGP, Philipp Bagus used the concept of the *tragedy of commons* – coined by Garrett Hardin – and conceived it as a special case of the external costs problem.[1] As Ph. Bagus analysis demonstrates, this concept of the *tragedy of commons* can be successfully applied in order to explain the external costs arising from the fact that the institutional setup of the Eurosystem in the EMU is such that all Eurozone governments can use the ECB to finance their deficits.

How exactly these external costs arise, given the institutional setup of Eurozone? It is a common practice for governments to issue bonds when spending is greater than tax revenue. Government bonds are usually bought by banks, given the fact that the central banks accept them as collateral for loans to the banking system. Thus, banks' purchases of government bonds enable them to expand credit on their turn and also to buy further new government bonds. In a fractional reserve banking systems, the concrete result of this practice is a process of bank credit creation that is directed toward crediting governments. Moreover, beyond this common practice in contemporary economies, there is the peculiar characteristic of Eurozone institutional setup: one currency and many fiscal authorities. Technically, under such institutional setup, European Central Bank (ECB) can finance the deficits of Eurozone governments either directly by buying government bonds or indirectly accepting them as collateral for loans to the Eurozone banking system. The first route (ECB bond buying) was

[1] External effects appears when proprietors do not assume the full advantages or disadvantages of using property, because of poorly defined or poorly defended property rights.

not commonly used but it was only exceptionally admitted during the Eurozone debt crisis[1]. The second route of financing Eurozone government deficits *via* ECB is more subtle and it is commonly used by Eurozone governments, given the ECB and national central banks acceptance of Eurozone government bonds as collateral for loans.

Therefore, given the practice of fractional reserve banking and bank credit creation and also, given the peculiar institutional setup of Eurozone, the costs of increasing the deficit in one of the Eurozone countries is undertaken by all users of euro currency in the form of reduced purchasing power of the monetary unit. In conclusion the costs of increasing deficits and public debts in one of the Eurozone countries can be externalized and consequently there are clear incentives for Eurozone governments to permanently increase their deficits, as the cost of this increase is supported by all other countries using euro[2]:

> "The tragedy of the Euro is the incentive to incur higher deficits, issue government bonds, and make the whole Euro group burden the costs of irresponsible policies—in the form of the lower purchasing power of the Euro.[…] With such incentives, politicians tend to run high deficits. Why pay for higher expenditures by raising unpopular taxes? Why not just issue bonds that will be purchased by the creation of new money, even if it ultimately increases prices in the whole of the EMU? Why not externalize the costs of government spending?" (Bagus 2010, p. 91)

The *tragedy of commons* is a concept or model employed to explain cooperation failures in situations when agents can externalize costs and retain benefits of their actions. *Moral hazard* is another concept that approximates more or less the same type of problem: it refers to the tendency that one may have to take more risks given the fact that the costs of his action will not be endured by the ones who assumed the risks[3]. For example, the Eurozone governments may be prone to take more risks (increasing their deficit spending) than they would normally take if the related economic and social costs were incurred only by high deficits countries. Both approaches – i.e. tragedy of commons and moral hazard – have in common the fact that they take into account the incentives of agents involved.

It is worth noting that ideal cases of *tragedy of commons* or *moral hazard* described in theory may not be encountered in real life situations. For example, in the case of Eurozone government's high deficits problem there are several possible limitations on the incentives to increase deficits. Ph. Bagus identified six such possible limitations that may be encountered in practice: (1) banks may not buy government bonds and use them as collateral if interest rate offered for the government bonds are not high enough in comparison with the interest rates they pay for loans from the ECB; (2) the default risk on governments bonds may also determine banks to act prudently; (3) the ECB may require a minimum rating for banks to be accepted as collateral; (4) the liquidity risk involved for banks using the ECB to refinance themselves by pledging government bonds as collateral; (5) haircuts applied by the ECB on the collateral that not allow for full refinancing; (6) the fact that ECB may not accommodate all demands for new loans for banks. (Bagus 2010, pp. 88-90)

The fact that the entire process of financing government deficits took place *indirectly* through the banking system explains indeed why the Eurozone government "borrowing race" encountered limits. But at the same time, a tendency to bypass or neutralize such limits may

[1] The independence of the ECB and the national central banks (NCBs) of the Eurosystem has been given "constitutional" status, as it has been set down in both the Treaty on the Functioning of the European Union and the Statute of the European System of Central Banks (ESCB Statute).

[2] This paragraph is a very concise reconstruction of the Philip Bagus's argument of the tragedy of commons applied to the Eurozone chapter 8 of the *Tragedy of the Euro* (Bagus 2010).

[3] For a detailed analysis of the moral hazard concept see (Hülsmann 2006, 2008).

be observed. First, highly indebt countries benefitted from the implicit guaranties of more sound countries when joined Eurozone and consequently buyers of debt securities considered the risk of default on governments bonds to be insignificant. Countries like Greece and Italy – which had high public debts when they joined Eurozone (over 60% debt limit imposed by Maastrict Treaty) – borrowed money almost at the same interest rate as Germany which was sounder and relatively more competitive than the majority of the Eurozone economies of the Southern Europe. Second, it was noticed the Eurosystem inelasticity to risk regarding Eurozone governments bonds: NCBs & ECB accepted as collateral all debt securities of Eurozone countries, including risky debt securities issued by GIIPS[1] countries. Further, as we shall see in the following sections of the article, the Eurobonds and other proposed strategies to solve sovereign debt problems imply the obliteration of the differences between the more risky and less risky debt securities (i.e. GIIPS countries and non-GIIPS countries debt securities) and therefore easy access to new funds for highly indebt Eurozone governments.

2. TARGET2 system and its role in sovereign debt crisis

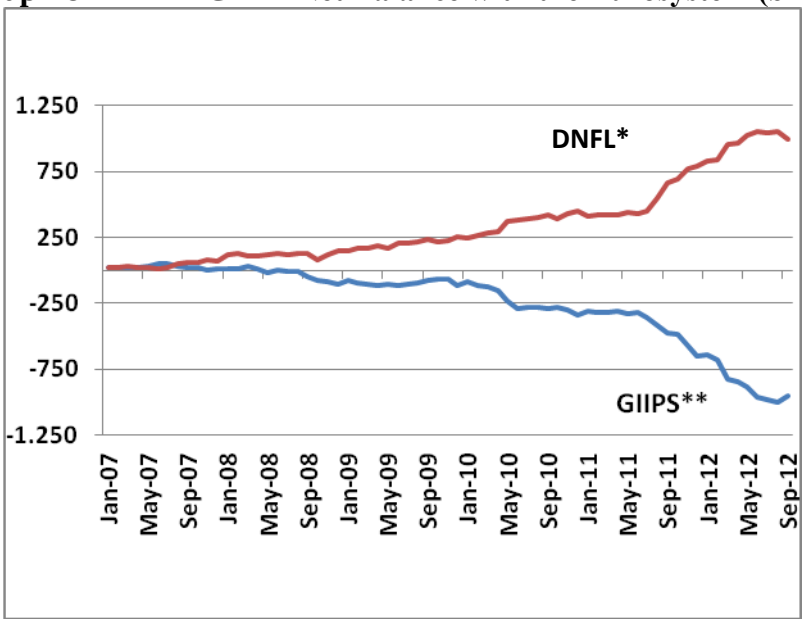
TARGET2[2] system is the interbank payment system for the real-time processing of cross-border transfers throughout the European Union.

A recent theoretical controversy related to the operation of this system raises questions about the effects it produce in the Eurosystem. A detailed analysis of TARGET2 system is performed by the economist Peter Garber, in a special report of Deutsche Bank (Garber 2010) and resumed later by other economists and analysts, like Stefan Homburg, head of public finance Leibniz University of Hannover (Homburg 2012), Hans-Werner Sinn, President of the Ifo Institute for economic Research in Munich (Werner-Sinn & Wollmershaeuser 2012), Philipp Bagus (Bagus 2012) and others. Among the problematic effects that are reported regarding the TARGET2 system is the indirect monetization of government deficits and socialization of risk involved in the process (Bagus 2012). Stefan Homburg also stresses that TARGET2 system led to a "liability union". He emphasized that it was not established from the outset the periodical adjustment of TARGET2 balance and that NCB and BCE accepted as collateral for loans without differentiation all Eurozone governments bonds.

The way TARGET2 system function allows any of the Eurozone countries to automatically draw vast credit from the rest of Eurozone members *via* ECB in the case of capital flight (Garber 2010). It permits basically unlimited financing of current account deficit and during the crisis it functioned as a hidden bailout mechanism for countries like Spain, Greece and other countries with high current account deficits (Homburg 2012, Werner-Sinn 2012, Bagus 2012). TARGET2 debits represent debt of companies and governments TARGET2 accumulated imbalances between the banks in the Eurozone mainly in the context of the financial crises, given the fact that since 2007 interbank market did not functioned properly. In October 2012, Germany credit via TARGET2 system was 719 billion euros (while at the end of 2011 it attained 463 billion euros), Spain debit was 380 billion euros and Italy debit, 266 billion euro. Since the beginning of the financial crisis, Eurosystem/TARGET2 net balance indicates a progressive accumulation of claims in particular by Germany, Netherlands and Luxembourg and debits by countries like Spain, Italy, Greece, Ireland and Portugal (Graphic 1).

[1] GIIPS – Greece, Italy, Ireland, Portugal, Spain.
[2] TARGET - Trans-European Automated Real-time Gross Settlement Express Transfer System.

Graphic 1 - TARGET2 Net Balance with the Eurosystem (bn €)



Source: Euro Crisis Monitor, Institute of Empirical Economic Research, Osnabrück University

* DNLF = Germany, Netherlands, Luxembourg, Finland
**GIIPS = Greece, Italy, Ireland, Portugal, Spain

Ph. Bagus (2012) illustrates the role of TARGET2 system in Eurozone public debt accumulation and trade deficits using an example: a Spanish agent buys an asset from Germany (import). At the beginning, the trade deficit may be financed by loans from German banks to Spanish banks, but after some time the Spanish banks will run out of good collateral. The increasing government debts and also the over indebtedness of the private sector reduce the quality of Spanish debt as collateral. At some point, private investors do not want to continue to finance Spanish banks (and Spanish trade deficit) because they do not have any more good collateral. Yet by TARGET2 system, Spanish banks can use bad collateral (Spanish) and refinance with the Bank of Spain, which accepts Spanish bonds as collateral for new loans. TARGET2 debits to the ECB increase. Risks are shifted to the Eurosystem and socialized. The trade deficit is financed *via* TARGET2 through public central bank loans (Bagus 2012).

General conditions and key factors involved in the way TARGET2 system contributed to the public debts accumulation and to the increase of trade deficits in GIIPS countries are the following:

1. Fractional reserve banking that allows bank credit creation directed toward crediting governments;
2. Inelasticity to risk of Eurosystem: NCBs & ECB accept risky debt securities as collateral for loans;
3. No date established for TARGET2 credit and debit to be settled as it is the case with FED in USA, for example; as a result credit and debits accumulates indefinitely.

3. Strategies and Policy Tools Applied or Proposed in Order to Counter the Eurozone Debt Crisis

3.1. ECB Bond Buying

ECB intervened on several occasions on the market, not only as a lender of last resort for banks in the Euro area but also for Eurozone governments on the brink of bankruptcy. Traditionally, the ECB did not buy government bonds directly, but this has changed when Eurozone debt crisis erupted; the ECB intervened directly in order to reduce the cost of refinancing the Eurozone highly indebt governments. The ECB has developed programs of direct bond purchase of Euro area countries in the period 2010-2012:

- June 2009 - *Covered Bond Purchase Programme*: ECB bought bonds with a total nominal value of 60 billion euros, which will be held by ECB until maturity.
- May 2010 - ECB launched *Securities Markets Programme* (SMP),
- November 2011 - *Covered Bond Purchase Programme 2*, which aimed to buy till October 2012 bonds with a total nominal value of 40 billion euros.
- August 2012 - *Outright Monetary Transactions* (OMT)

ECB decision to implement the new program (OMT) in August 2012 was not unanimous; the representatives of Germany expressed its opposition. The chief of German central bank, Jens Weidmann and German Finance Minister, Philipp Roesler, voiced their opposition to the ECB plan to buy bonds of troubled member of the Eurozone, arguing that it would reduce the willingness of these countries to implement reforms.

The consequences of the ECB financing of GIIPS public debt are synthetic summarized by Aloys Prinz and Hanno Beck (2012, p. 186), based on a simple theoretical model. In the model, member states are classified in two categories, GIIPS/non-GIIPS; bonds issued by Euro area countries are also classified as GIIPS bonds and non-GIIPS bonds; banks are key players investing in bonds issued by national states, but this model assumes that banks are no longer willing to purchase bonds of GIIPS countries (only to highlight the effects of GIIPS debt financing *via* ECB).

Key issues related with ECB bond buying as a solution to solve GIIPS government debt problem are the following:

- There is no negative feedback loop to limit debt dynamic; therefore ECB balance will be overloaded with GIIPS bonds and ECB will incur losses, requiring recapitalization. There is also a major risk that ECB – trying to avoid a major crisis – to be entirely taken in tow by the fiscal policy of GIIPS countries (Prinz and Beck 2012, 186).
- Highly indebt countries will have access to funds easier then would normally be possible on the market. This fact will lower the pressure for GIIPS countries to reform inefficient state sectors and inflexible labor markets.
- ECB bond buying implies shifting the risks from the level of over indebt countries to the level of the entire Eurozone – which raise a moral hazard problem. The over indebt countries not only that will not have an incentive to reform labor market and inefficient economic sectors or institutions but they will have incentives to continue the deficit spending and public debt accumulation.

3.2. Eurobonds and EFSF/ESM Leverage

Eurobonds are debt securities issued in euros jointly by the 17 Eurozone nations**.** Their role is to facilitate access to new funds in more advantageous conditions than would be the case on the market for highly indebted Eurozone countries. In November 2011, EC published the *European Commission Green Paper on the Feasibility of Introducing Stability Bonds* (EC 2011), proposing three main approaches for the issuance of Eurobonds, based on the degree of substitution of national issuance (full or partial) and also based on the nature of the underlying guarantee (joint and several/or several):

1. *Full Eurobonds with joint liability*. This option requires the complete replacement of the national issuance of governmental bonds by Eurobonds, each EU member being fully liable for the entire issuance.
2. *Partial Eurobonds with joint liability*. The second option implies that the member states would still issue national bonds to cover the share of their debts beyond a certain percentage of GDP not covered by Eurobonds.
3. *Partial Eurobonds without joint guarantees*. The third option implies also that member states would still issue national bonds to cover the share of their debts but without joint guarantees. Unlike the first two approaches, this would involve "several but not joint" government guarantees.

Eurobonds are not an acceptable solution for the indebted Eurozone states, because on the long term it leads to progressive accumulation of public debts (Prinz and Beck 2012, p. 188). Also, easy access to new funds for highly indebted countries may imply a moral hazard problem: transferring the costs of imprudent policies of GIIPS countries on other countries that have had a more restrictive fiscal policy creates strong incentives for all countries (GIIPS or non-GIIPS) to rely more on borrowing, increasing their public debts. Since the costs and risks of imprudent policies of national states are constantly redistributed to all Eurozone member states, there is no negative feedback loop for limiting the debt spiral in Eurozone (Prinz and Beck 2012, 188).

EFSF leverage means that EFSF could buy GIIPS and non-GIIPS debt securities and then it could use them as collateral for ECB credit. The proposal was made in November 2011, after the euro summit that was held in October 2011. There is a similarity between the proposal to issue Eurobonds and the EFSF/ESM leverage proposal. In both cases GIIPS states are not directly dependent on loans given by banks but instead they are financed by a publicly guaranteed agency. Also in the case of Eurobonds, debt securities of GIIPS and non-GIPS countries are treated as involving the same risk; in the case of leverage of EFSF/ESM, the differences between the debt securities of GIIPS and non-GIIPS countries is kept, but it does not play a role because these securities can be equally used as collateral for ECB credit

Regarding the ultimate consequences, there are no significant differences between the ECB bonds buying of GIIPS countries, on the one hand and Eurobonds and EFSF/ESM leverage on the other hand. In all mentioned cases, high-risk securities will reach ECB balance. The ECB will have to bear the losses and it will need a recapitalization. This will ultimately have a negative impact on all Eurozone states. According to Hanno Beck and Aloys Prinz, the only negative feedback loop that has worked so far in limiting debt accumulation is market discipline – and every policy that loosens this market discipline increases the likelihood of debt explosion (Prinz and Beck 2012, pp. 187-188).

In summary, the key issues related to Eurobonds and EFSF/ESM leverage as strategies to solve Eurozone debt problem are:

- Moral hazard problem: since there is no mechanism to restrict public debt in GIIPS countries in an enforceable way, these countries are confronted with

incentives to borrow excessively either *via* Eurobonds or through the EFSF (Prinz and Beck 2012, pp. 187-188).

- There is no negative feedback loop to limit debt dynamic. Hanno Beck and Aloys Prinz (2012, pp. 187-188) identified that in the case of Eurobonds and EFSF/ESM leverage there are three positive feedback loops encouraging excessive borrowing: (1) GIIPS countries are encouraged to continue excessive borrowing policy since in case of Eurobonds and EFSF/ESM leverage the difference between GIIPS and non-GIIPS debt securities doesn't really matter; (2) the second positive feedback loop that cause debt accumulation is set in motion given the fact that Eurobonds and EFSF bonds are accepted as collateral for ECB credit; (3) the third positive feedback loop will be put in motion in the case when ECB incurs losses and needs recapitalization from the part of all remained solvent countries (non-GIIPS countries).

3.3. Euro-TARP

Euro-TARP (European Troubled Asset Relief Programme) requires using EFSF/ESM funds in order to recapitalize banks holding GIIPS bonds in their balance. It is a solution focused on saving banks than saving countries from default. With the Euro-TARP critical banks will be recapitalized so that they will be able to write-down the sovereign-debt of GIIPS countries without risking too low equity ratios. Aloys Prinz and Hanno Beck believe that the main advantage of Euro-TARP (unlike ECB bond buying, Eurobonds and EFSF/ESM leverage) is that ECB will be isolated from the debt crisis problem of GIIPS states (Prinz and Beck 2012, p. 188).

The main weakness of this proposal is that it involve a transfer of funds from the non-GIIPS countries to GIIPS countries, which means that losses will ultimately be supported by the states which have led a relatively more prudent fiscal policy (more exactly by the taxpayers of these states). Although in the case of Euro-TARP will be isolated from debt crisis (or not affected to the same extent), this strategy does not differ essentially from other types of proposed solutions – ECB bonds buying, Eurobonds, EFSF/ESM leverage – because all of them involve socialization risks associated with the accumulation of new debts. Moreover, the necessary funds EFSF/ESM must provide to banks will lead ultimately to an increase of tax burden for Eurozone countries, with all negative economic effects that are following from this kind of policies.

Aloys Prinz and Hanno Beck admit that without sovereign default, the recapitalization of banks will not work, because banks (and investors) will have the power to force their own bailout by attacking default-threatened countries and demanding high risk premiums so that the respective countries will become unable to refinance their maturing debt at affordable interest rates (Prinz and Beck 2012, p. 188).

In fact, by accepting from the outset, as a solution, the discipline that market naturally impose – i.e. agents undertaking risky business, whatever their role, to fully support the risks and losses involved without appeal to any mechanism or strategy of risk and/or loss socialization – would drastically reduce moral hazard and irresponsible or reckless behavior of investors, bankers and even governments. In the absence of various bailout options, governments will have to remain credible on the bond market.

Key issues related to Euro-TARP strategy are the following:

- Main advantage: ECB will not be involved in GIIPS public debt problem.
- Main weakness: the recapitalization of banks is a form of socializing risk and losses and it will lead ultimately to an increase of fiscal burden in Eurozone countries that sustain EFSF or ESM with funds.

- Sovereign default is required if recapitalization of banks is implemented otherwise the banks will have incentives to attack default-threatened countries in order to gain high risk premium and to force their own bailout.
- If market discipline is accepted from the beginning for all kind of agents and everybody (including banks) would be responsible for the risks and losses involved in their businesses banks themselves will be very cautious in investing in high risk debt securities.

Conclusions

The underlying institutional setup of the Eurozone is such that the costs of increasing deficits and public debts in one country can be externalized to the entire Eurozone. Consequently there are clear incentives for Eurozone governments to permanently increase their deficit spending, as the cost of this increase is supported by all other countries using euro. There are identifiable general conditions and features of Eurozone institutions that intentionally or not favored the process of debt accumulation. Thus, given the practice of fractional reserve banking and bank credit creation and also, given the peculiar institutional setup of Eurozone (one currency and many fiscal authorities), the costs of increasing the deficit in one of the Eurozone countries is undertaken by all users of euro currency in the form of reduced purchasing power of the monetary unit. The inelasticity to risk of Eurosystem – i.e. the fact that GIIPS and non-GIIPS debt securities are equally accepted as collateral by ECB and NCBs for credit – encouraged highly indebt governments to continue deficit spending and weakened the willingness of these countries to reform inefficient economic sectors. Also the fact that imbalances arising from TARGET2 operations can accumulate indefinitely without settlement aggravated the public debt problem of Eurozone countries, especially after 2008 financial crisis.

Moreover, most of the strategies advanced in order to solve the sovereign debt crisis in the Euro area (in the context of a fiscal union or not) – ECB bond buying, EFSF/ESM leverage, Eurobonds, Euro-TARP – involve additional mechanisms and strategies of debt rollover and socialization of risks and losses. Whether or not a fiscal union would be set up, the debt problem will remain unsolved if all these mechanisms of risk socialization persist. In other words, if a fiscal union will be set up in EU without dismantling all intrinsic mechanisms of debt accumulation and risk socialization, we will still be talking of the debt problem of the fiscal union member states.

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THE FUTURE OF COMMON AGRICULTURAL POLICY AND THE CHALLENGES OF EUROPE 2020 STRATEGY

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Cristina Bâlgăr[**]

Abstract

Currently, the Common Agricultural Policy (CAP) faces a series of challenges involving the need for strategic decisions for the long term future of European agriculture and rural areas in the European Union. To be effective in addressing these challenges, the CAP must work within a framework of connected economic policies and sustainable public finances that contribute to accomplish the EU. In this context, it should be noted that the Europe 2020 Strategy revealed a new perspective for the CAP reform, the main development directions being focused on finding the most appropriate solutions to the new economic, social and environmental issues brought on by the international economic crisis, also contributing to the sustainable development of EU agriculture. In what follows, we will briefly review the existing proposals at EU level for future development directions of the CAP.

Keywords: *Common Agricultural Policy, sustainable development, Europe 2020 Strategy, international economic crisis*

JEL Classification: F, K, F15, H53, O13

Introduction

Launched in 1962, the Common Agricultural Policy (CAP) represents a link between agriculture and society, between European Union and its farmers. Its main aims are to improve agricultural productivity and to increase the supply in order to provide stable and affordable food resources for consumers and to ensure a fair standard of living for farmers.
Since its creation as the main regulatory framework for agriculture and rural development in the EU, the Common Agricultural Policy has always been adapted to better respond the challenges of its time. Currently, the Common Agricultural Policy is built around two pillars. First, the agriculture pillar that includes measures with a view to regulating the agricultural products markets integration. Second, the rural development pillar that comprises structural measures aiming at promoting a uniform development of rural areas, considering the social, economic and environmental issues. At present, the Common Agricultural Policy is facing a complex series of both particular (like the development gap between rural areas across EU) and unforeseen challenges (for example, the negative impact of international economic crisis).

As some analysts have shown (Ackrill, 2000), although it is well known that the CAP is the most expensive EU policy, it has a significant impact not only on European agriculture, but also on the EU's environment and the food industry. The negative effects of the financial and economic crisis on the European economy highlighted the need for reassessing the EU objectives and regulations on rural development and agriculture. Furthermore, the Common

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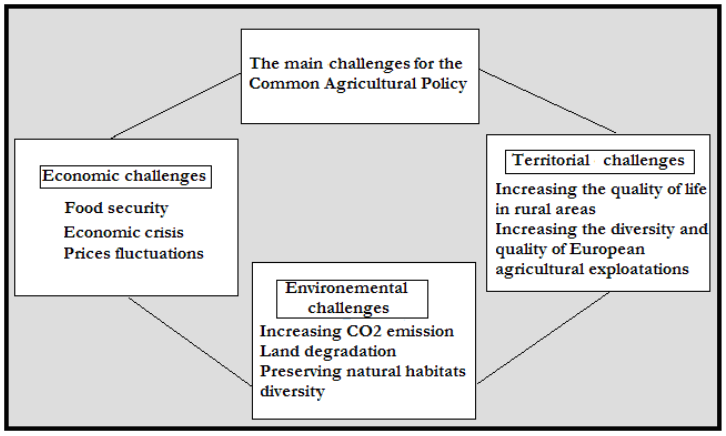
Agricultural Policy is now facing the challenges brought on by its harmonization with the goals of the Europe 2020 Strategy. As a result, EU has launched a comprehensive reform, in order to modernize this policy and to make it more market-oriented. Hence, in order to achieve this goal, the Europe 2020 Strategy provides a new perspective. Thus, by addressing to the new economic, social, environmental, climate-related and technological challenges of our society, the Common Agricultural Policy may contribute further to developing of an intelligent, sustainable and inclusive growth. Besides, the Common Agricultural Policy must also pay a greater attention to the wealth and diversity of agriculture within the EU-27 Member States.

1. The main challenges for the common agricultural policy future development

Agriculture is an integral part of the economy and society, having a major role in terms of economic growth and social sustainability at European Community level. Like other economic sectors within the EU, the agricultural sector was affected by the financial and economic crisis by reduction of financial lending, which had direct effects on producers in the Member States and also by increasing demand imbalances created as a result of the EU internal market. Recent analysis (Kyed, Karsten & Kaergard, Niels & Zobbe, Henrik, 2012) show that any significant reduction in EU agricultural activities would have adverse effects on economic growth, leading, consequently, to economic failures and job losses in the related sectors, especially in the agro-food production chains, which are based on primary agricultural sector to achieve high quality materials, to become more competitive and secure. Consequently, we have identified several areas that represent major "challenges" for the future of the EU Common Agricultural Policy, being decisive for the entire reform process.

Figure 1: The main challenges for the Common Agricultural Policy



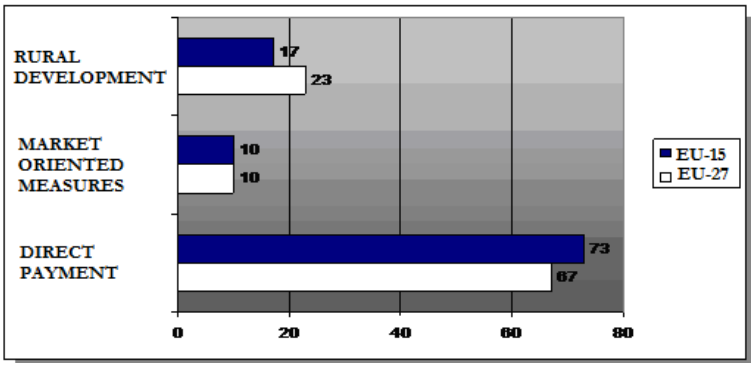
Source: EAGF - *Financial Report*, 2012

1.1. Economic challenges

EU agriculture is currently facing a more competitive international market, as the world economy becomes more integrated, and the trade system is increasingly liberalized. According to some analysts (Fennel, 2007), this trend will continue in the coming years and will represent a major challenge for EU farmers, but also an opportunity for them and for the agro-food products exporters. Therefore, it is extremely important to increase productivity and competitiveness of EU agriculture. As the global food demand is projected to grow continuously in the future, the EU should be able to meet this major requirement. Hence, it is essential for the EU agriculture to constantly maintain and improve the production capacity while respecting EU commitments regarding international trade and policy coherence for agriculture development. In this context, the new direction of Common Agricultural Policy

reform must take into account the fact that, at present, EU agriculture is facing inherent difficulties after the economic crisis which has seriously affected agricultural producers and rural community space, that are directly linked to broader macroeconomic developments which are affecting agricultural production costs.
In this context, it is necessary that the Common Agricultural Policy continues to support the income of EU farmers through direct payments system, providing a "safety net" for European producers in the framework of economic difficulties brought on by the international financial and economic crisis. In 2011, the distribution of Common Agricultural Policy expenditures showed a lower than previous target allocation of funds to rural development. However, it should be noted that once emerging from the economic crisis, the EU funds should be redirected to achieve this objective that can boost the sustainable economic growth and social inclusion, in line with the objectives of Europe 2020 Strategy.

Graph 1: Distribution of CAP expenditure in 2011 (% of total allocation)



Source: EAGF - *Financial Report*, 2012

According to the data published in Official Journal of the EU, by the European Commission, the appropriations for Agriculture and Rural Development (Title 05) were calculated based on commitments and payments (see table 1)

Table 1: Appropriations for agriculture and rural development in 2011-2012(million €)

Structure/year	2011	2011	2012	2012
	commitments	payments	commitments	payments
Total	57,291.11	54,835.52	58,586.88	55,879.67
-direct aid	39,771.10	39,771.10	40,510.70	40,510.70
-rural development	14,432.15	12,125.18	14,613.14	12,125.18
-market interventions	2,968.41	2,966.24	3,233.31	3,233.96
-others	381.94	135.50	422.45	239.81
minus audit	- 262.5	-262.5	-192.7	-192.7

Source: Official Journal of the EU, 29.02.2012

These data show that, currently, most of the funds under the CAP are still mainly oriented to European agricultural sector and therefore there is a clear need to redistribute them in order to achieve a stronger support for rural development.

1.2. Environmental challenges

It is now commonly accepted that the industrial food model stated in the last fifty years in the European Union is one of the factors that have contributed to environmental

degradation and the exacerbation of climate change that led to repeated natural disasters. On the one hand, natural resources such as water, land, forests were considered inexhaustible and they were heavily exploited and therefore irreversibly damaged. On the other hand, the excessive use (especially in food processing industries) of products derived from fossil fuels (such as fertilizers, pesticides and plastics) has affected the natural equilibrium of eco-systems. As a result, Common Agricultural Policy reform aimed to redirect funding (mainly in the framework of direct payment system) to support sustainable agriculture. Currently, although the greenhouse emissions from EU agricultural sector decreased by 20% since 1990, it is widely recognized that further efforts are necessary to be undertaken, in order to meet the ambitious EU's agenda on energy and climate change.

According to the Europe 2020 Strategy, a major objective is to protect the natural resources and to preserve the environment. In this context, some analysts (Winter, M. & Fry, C. & Carruthers, S. P., 2008) stated that the Common Agricultural Policy might decisively contribute to this approach, by introducing measures to provide economic sustainability and long-term food security, while ensuring environmental protection of rural areas. Among the measures assigned to achieve this goal, the most important ones are those aimed at reducing production costs and consumption. Another "tool" that may contribute to achieve this goal is to provide farmers support for using production technologies with low carbon consumption and for using crop rotation system. It is important to promote carbon reduction measures related to production efficiency, including energy efficiency improvements, such as bio-mass and energy sources based on innovative renewable technologies. With regard to the sustainable management of natural resources, because the agriculture is "the first victim" of climate change in the form of growing occurrence of weather disasters, the European farmers must not only improve their production methods and reduce carbon CO_2 emissions, but also adapt their working methods. Therefore, in accordance with Europe 2020 Strategy goals, it is vital to encourage organic farming and funding support for those European farmers who intend to adopt "green technologies" in the production process. This objective is explicitly stated by the Common Agricultural Policy which, according to the Strategic Guidelines for Rural Development for 2014-2020, emphasizes the environmental and countryside protection, as a priority at EU level. Moreover, the funds allocated to this priority aim at protecting natural resources and landscapes in rural areas of the EU, particularly in the field of biodiversity, preservation of high natural systems and eco-systems. Environmental services and green agricultural practices - such as forest conservation, organic agriculture and crop rotation - are supported by these funding programs.

1.3. Territorial challenges

At present, an increasing number of rural areas are supported by non-agricultural factors, due to the diversification of their socio-economic structure. However, in a large part of the EU, agriculture remains an essential driving factor for rural development. The vitality and potential of many rural areas continue to be closely related to the presence of a competitive and dynamic agricultural sector, attractive for young farmers. This situation is mainly characteristic of predominantly rural areas, where the primary sector comprises approximately 5% of the added value and 16% of the occupied workforce. It has also to be noted that agriculture plays an important role in rural areas by generating associated economic activities, related to agricultural products processing, tourism and trade. Also, in many EU regions, agriculture forms the basis of local traditions and social identity.

Having regard to the three types of challenges outlined above, it was agreed at EU level that the CAP reform objectives should follow the directions mentioned below, in order to be brought into line with the objectives of the Europe 2020 Strategy: to encourage the transfer of knowledge and innovation in agriculture, forestry and rural areas; to increase the competitiveness of all agricultural sectors and to increase the viability of agricultural

exploitation to promote the organisation of food chains and risk management in agriculture; to restore, preserve and strengthen the ecosystems that depend on agriculture and forestry; to promote the efficient use of resources and to support the shift to low-carbon economic activities which could adapt to climate change in the agricultural, food and forestry sectors and to promote social inclusion, poverty reduction and economic development in the rural areas.

Figure 2: Budgetary implication of the CAP reform

Strategic aims	Funding (billion EUR)
First Pillar – Direct payments and market expenditure	317.2
Second Pillar – Rural Development	101.2
Total (first and second pillar)	**418.4**
Food safety	2.5
Funds for disadvantaged persons	2.8
European Fund for Globalization Adjustment	3.9
Research & Innovation in the field of food safety, bio-economy and sustainable agriculture	up to 2.8
Total additional funds	**no more than 17.1**
Total budget proposed for 2014-2020	**no more than 435.5**

Source: European Commission – *The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future,* Brussels, 2010.

In accordance with the Common Agricultural Policy reform proposal, in the post-2013 period, a significant part of the EU budget must continue to be allocated to agriculture, which is a economic sector of strategic importance. As such, in order to carry out the main CAP activities, the proposal is to allocate EUR 317.2 billion for the first pillar and EUR 101.2 billion for the second pillar, in the period 2014-2020.

These funds will be supplemented by additional financing for research and innovation, food safety, and funds intended for disadvantaged persons; also, a fund of EUR 3.9 billion is to be provided for crisis situations in the agricultural sector and an amount of EUR 2.8 billion is to be allocated to the European Globalization Adjustment Fund, bringing the total budget to EUR 435.5 billion in the period 2014-2020. Pursuant to the new regulations, the distribution of the support for rural development will be based on objective criteria, with less developed areas continuing to benefit from higher co-financing rates, that will also be applied to certain measures such as those related to the transfer of knowledge, producer groups, cooperation and the Leader Axis. In what follows, we will outline the main instruments to be used within the CAP reform in order to face the abovementioned challenges and, at the same time, to better answer to the development priorities.

As it may be noted in the figure 2, in the next financial exercise most of Community revenues will be guided to direct aids, granting support both to young farmers, and to disadvantaged persons. This is explained by the fact that, as opposed to the previous years, when the CAP measures mainly reacted to endogenous challenges, from excess production

crises to food safety-related crises, and proved to be useful for the EU both internally and internationally, currently, in the post-crisis period, most challenges are caused by factors that are external to agriculture, which impose a more complex reaction.

2. Key elements of CAP reform in the perspective of the 2020 Europe Strategy

In order to better emphasize the EU agricultural potential, the CAP must support farmer income in a fairer, simpler and better targeted way. For these purposes, only productive farmers will benefit from direct payments for income support. Also, direct payments must be distributed more fairly among farmers, regions and Member States.

Price volatility represents a "threat" for the long-term competitiveness of the EU agricultural sector. In order to counterbalance this risk, the CAP proposes the so-called "safety-nets" for the agricultural sectors that are most exposed to crises and to encourage the establishment of insurance systems and mutual funds.

In order to strengthen the environmental sustainability of the agricultural sector and to address the efforts of farmers, the CAP must redirect the direct payments system to economic practices that enable the optimal use of natural resources. These practices are environmentally-effective and simple to implement and they include: crop diversification, maintenance of permanent pastures, protection of green areas and of natural parks. In order to create a competitive agriculture, it is necessary to double the budget allocated to agronomic research and innovation, and to find solutions for putting its results into practice, by means of a new partnership for innovation. Such funds will contribute to encourage the transfer of knowledge and technical assistance for farmers, as well as to the support of research projects that are relevant for the agricultural environment, ensuring a closer cooperation between the agricultural sector and the scientific community.

In our opinion, in order to achieve the objectives of Europe 2020 Strategy, the CAP must ensure *a more competitive and balanced food production system,* by strengthening the farmers' position. As some analysts consider (Spoerer, 2010), this goal may be achieved through a better support for producer organisations, inter-professional organisations and for the development of the "short networks" between producers and consumers (the decrease of the number of intermediaries). In order to encourage *agro-environmental development,* the CAP reform must take into account the specificity of each territory, encouraging national, regional and local agro-environmental initiatives. To this end, the protection of ecosystems, their restoration and climate action, as well as the optimal use of resources are priorities of the rural development policy.

At present, within the EU, two thirds of the farmers are over 55 years old. In order to support job creation and encourage young generations to get involved in the agricultural sector, the European Commission proposes the creation of a new "setting-up support", directed at farmers under 40 year old, during the first five years of their project. Also, in order to promote employment and entrepreneurship, the European Commission proposes a series of measures for boosting economic activity in the rural areas and for encouraging local development initiatives. For example, a "start-up set" will be created in order to support micro-enterprise projects, with a five-year financing of up to EUR 70,000.

In some analyses (Lowe, P. & Buller, H., 2011)it is considered, in order to avoid useless administrative formalities, the simplification of several CAP mechanisms, namely the cross-compliance rules and the control systems, without entailing a loss of effectiveness. Moreover, the support granted to small farmers will also be simplified, with the establishment of a lump sum payment of EUR 500-1,000 per farmer per year. Land transfer from small farmers who cease their activity to other holdings that want to restructure their farms, will be encouraged.

Figure 3: SWOT analysis of the contribution of CAP to the achievement of the Europe 2020 Strategy objective

Conclusions

The alignment of CAP objectives to those of the Europe 2020 Strategy complies with the subsidiarity principle, in the context in which this policy represents an area of competences shared between the EU and the Member States. Through the action of synchronising with the EU development objectives in the perspective of the years 2020s, the new reformed Common Agricultural Policy will enable the promotion of innovation, the increase of both economic and environmental competitiveness of the agricultural sector, the fight against climate change and the maintenance of employment and growth.

By maintaining the current two-pillar structure of the agricultural policy development instruments, Member States are given more discretion, in order to be able to better adapt Community solutions to their local particularities. Through all these elements, the future evolution of the CAP may essentially contribute to the preservation of a modern and competitive agriculture in the EU, capable of coping with climate change and international competition and meeting the expectations of EU citizens, at the same time.

Rural areas cannot be considered uniform territorial entities. Many of them currently enjoy a relatively favourable situation in the EU, especially with respect to their physical proximity to the large urban centres, which is a direct advantage. Other European territories are still exposed to the risk of facing an industrial recession related to certain circumstances that mainly result from the closing-down of a large enterprise. Some areas also face a series of geographically-related constraints that currently prevent them from accessing a fair share of the resources needed for the increase of competitiveness. Therefore, the development

challenges are bigger when attempting to establish or maintain a solid basis of employment in remote or peripheral areas.

Employment development in rural areas is closely related to the development of the regional economy's production structure. Since in view of a sustainable rural development, agriculture no longer represents the sole economic development "engine" for rural regions, the rural development policy needs to strongly and directly target the increase of employment in case of non-farm or non-agricultural activities, still taking into account, however, the need to involve farmers in the multi-sectoral development strategies. In this context, both specialization, and diversification may be successful strategies. As shown by the experience with the LEADER European programme, which supported the establishment of micro-enterprises and small and medium-sized enterprises (SMEs), as well as the access to information and communication technology (ITC), the actors having the necessary capacity (the knowledge, skills and ability) are the essential and decisive factor for job creation and the support of a sustainable rural development.

The central CAP objective in the perspective of the 2020s must be the increase of the competitiveness, sustainability and stability of agricultural production in the European Union, in order to guarantee healthy and qualitative food for the citizens in the member countries, in order to protect the environment and to develop the rural areas. The Common Agricultural Policy, especially through the second pillar, dedicated to rural development, has the needed instruments to contribute to the achievement of the objectives of the Europe 2020 Strategy, but the SWOT analysis (see figure 3) of this policy shows there is still room from future improvement in some of its areas.

The current reform process of this policy, which is a flexible and permanently evolving one, may contribute to the remedy of the "weaknesses" of this Community policy, since it intends, as shown in the Communication from the Commission, "The CAP towards 2020", to remodel the economic policy options meant to answer to the future challenges which EU agriculture and rural areas will face.

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SAVING THE COMPANIES AFFECTED BY THE CURRENT ECONOMIC CRISES – AT THE HAND OF STAKEHOLDERS AND ACCOUNTING PROFESSIONALS

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Abstract

The current economic environment is characterized by uncertainties related to price volatility, difficulties in the valuation of financial instruments, as well as of assets and liabilities in general. More and more companies face liquidity issues that could even threaten their existence. Under these circumstances, saving such companies becomes a major concern for the ones directly interested, "survival" being the term most used in the current state of the world's economy.

In the context of this economic turmoil at international level, the main stakeholders and the accountants professionals find themselves in the position of revising their procedures, objectives, strategies, but also their behaviour, their attitude in general, in order to limit or even eliminate the negative consequences of the financial crisis. From our perspective, the communication among company, stakeholders, and auditors represents the fundament of a successful business strategy. However, communication difficulties could be encountered, especially under conditions of uncertainty and crisis.

The present article intends to identify the opportunities and threats generated by the economic crisis and to analyze the information flows among company, stakeholders and accountants professionals under circumstances in which the going concern assumption is threatened. Our paper emphasizes the importance of communication among company, stakeholders, and auditors in saving the firms affected by the economic crisis.

Keywords: *economic turmoil, stakeholders, accounting professionals, communication, transparency*

JEL Classification: M41

Introduction

The break-out of the world economic crisis, which has initially started with a financial crisis, caused by unprecedented increases in credits (stimulated by a long period of moderate financial and economic conditions) is opening the road to changes affecting companies, stakeholders and the relationships between them, as well as to changes at the level of the whole society. These changes are rather answers, reactions, effects of the adaptation to the new unfavourable economic background. Usually, change involves multiple, ample, long processes, that are necessary for survival within new economic coordinates and which use specific tools, whereas one of the most important is communication.

Our paper presents the current situation and the causes of the economic crisis, aspects related to corporate governance and the role of the stakeholders in the enterprise's life and the

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economic environment, but also the reaction of the stakeholders to the current economic changes. Last but not least, we presented the role and importance of communication in times of financial crisis, as main survival factor and even exit from the crisis.

1. Current Situation and Causes of the Economic Crisis

The financial crisis that broke out in the summer of 2007 is striking in its magnitude, its speed of spreading internationally and in its persistence, since it is far from being over. At present, the financial world is characterized by risk adversity, reduced liquidity, price volatility, uncertainty regarding the future of financial institutions, doubts related to the quality of the structured credit products and uncertainty about the macroeconomic prospective in general. A number of factors contributed to the break out of the current economic crisis, among which: the expansionary macroeconomic policies of the United States of America to restore the economic growth affected during the previous crisis from the first half of the century, excessive distribution of credit, the use of complex financial instruments without having realistic image on the associated risks etc. Some authors also mention lack of economic cooperation between major countries (*Report on the Financial Crisis*, 2008, pp.3) [1].

This turmoil in the most advanced financial markets was the consequence of an exceptional growth of credit, stimulated by a long period characterized by benign financial and economic conditions. During that period, there were extremely low real interest rates, whereas no liquidity problems existed, which raised the level of risk that creditors, investors and intermediaries were willing to take on. In conjunction with this, financial innovations expanded the system's capacity to generate credit assets and leverage but outpaced its capacity to manage the associated risks (*Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience,* 2008,pp.5) [2]. A sophisticated and apparently stable system was established, which consisted in originating extremely complex financial instruments that allowed banks to offload risks (especially in the United States of America). These financial instruments were then distributed and bought – mostly in Europe, without paying proper attention to the underlying assets and the real economic fundament of these instruments (*Report on the Financial Crisis,* 2008, pp..3).

The expansion of complex financial instruments was also encouraged by favourable credit ratings that implied assets were high-quality and low-risk. Financial guarantors contributed further to the perception that investment opportunities were unlimited and of high quality. As a consequence, the perceived liquidity of credit instruments increased. Additionally, several factors led to lowering the standards used in analyzing the eligibility of clients who wanted to benefit from the products of the financial institutions. Some of these factors were: relatively stable macroeconomic conditions, increased competitiveness among financial institutions, low interest rates, rising house prices, weak government oversight. Thus, the products of the financial institutions (in particular credits) were given much easier, and this lead in some cases to fraudulent practices (*Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience,* 2008, pp.5).

Despite that, neither investors nor banks, and not even rating agencies correctly assessed the risks associated with this kind of financial instruments that deterioration in general economic conditions would pose (*Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience,* 2008, pp.7). Standard risk management instruments used by financial institutions were not appropriate in estimating the impact of potential losses connected to structured credit products. The absence of a history of returns, the complexity of many of these products created uncertainty regarding estimated risks (*Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience,* 2008, pp.7). Market participants underestimated default risks, market risks and liquidity risks. In some banks, the control over off-balance sheet risks, as well as the communication across

business lines and functions was weak. As a result, when turmoil began, most companies, investors, other stakeholders, as well as the society as a whole were not able to correctly and rapidly assess risk exposure. The stakeholders‟ role is very important in conjunction with risks, because they have enough instruments for saving the companies and the economic environment from the imminent “disasters” that could be the consequences of the world's economic crisis.

2. Corporate governance and the role of stakeholders in the company’s life and in the economic environment

In theory it is considered that the concept of enterprise refers to a single entity which operates harmoniously and whose main goal is to maximize value and shareholder wealth. Due to the appearance of new elements and complex needs, other views on the enterprise have been developed. Thus, the definition of the enterprise could be based on the concept of social interest, with the purpose of generating wealth as a result of the participant's collaboration in the company's life (shareholders, managers, creditors, employees, customers, suppliers, public power). Thus, the objectives of a company are of social nature, but also relate to maximizing profits (Feleagă N., 2006, pp.69) [3]. The definition developed under the first theory leads to financial information directed towards investors, while the second definition is oriented to satisfy the financial needs of all users (Feleagă N., 2006, pp.69).

One of the key factors that influence the efficient use of resources, the increase of the confidence shareholders have in the enterprise managers, the success in achieving the company's objectives and the economic efficiency is the corporate governance system by which a company is controlled. This system promotes fairness and transparency at company level, and consists in a set of rules of conduct that aims the welfare of the society as a whole, but mostly the welfare of the shareholders and other stakeholders: managers, creditors, employees, customers, suppliers, public power, etc. (*World Bank*, 1998, pp.7) [4].

Shareholders, one of the key elements of the company, bring the funds necessary for the activity, and are in turn interested that these funds are used and managed well and fairly by the managers appointed for this purpose. The relationship between owners and managers is controversial, because the two categories of participants may have different interests, often contradictory. For example, the shareholders have, in general, a greater preference for risk, because their securities portfolio is diversified, while managers are more risk-adverse, because all financial interests and of other nature focus on a single enterprise (Feleagă N., 2005, pp.171) [5].

Agency theory, by which the company is seen as "a knot of contracts" (Feleagă N., 2005, pp.51), is the one that makes it possible to solve "the conflict of interests between the shareholders and the managers of an enterprise" (Feleagă N., 2005, pp.171). This theory establishes a set of relationships, with mutual benefits, on the one hand, between shareholders and managers, but also between other parties interested in the smooth running of the company (employees, creditors, etc.). However, the shareholders-managers relationship is the one that generates the most complex conflicts of interest and settling them is closely related to the organization of an effective system of governance which "encourages that the interests of the managers are aligned to the ones of the shareholders" (Feleagă N., 2005, pp.170).

Stimulating managers so that they fulfil their responsibilities with fairness refers in principle to financial benefits (salary, implementation of a stock-option plan that creates benefits such as dividends and increases of value generated by the sale of the company's shares), but also to benefits in kind (company car, company house, etc.).

Auditors play an important role in the conflicts of interest between shareholders and managers. They make a fair, impartial, independent evaluation of the financial statements of the enterprise, having the role of showing shareholders the real situation. Through external

audit, shareholders benefit from an important tool to assess the efforts of managers in achieving the company's goals, and in maximizing the wealth of owners.

Creditors are third parties who provide loans to companies, and look out for interest and principal. Thus, creditors are directly interested in that company obtains profit as this will be the source of payment of the related loan interests. As for the shareholders, the loans can be a viable solution for obtaining new funds, but the associated risk may be high, because the effective administration of the equity thus obtained depends on the attitude, skills, and especially on the interest of the manager.

Employees have multiple interests within a company. They represent one of the most important resources available to a company. The main interests of the employees concern the remuneration level, the benefits in kind (meal and gift tickets, phone, life insurance, trips, company car, etc.), the security and the work conditions etc. For this purpose, the employees follow the evolution of profitability and the business continuity of the company.

Customers and suppliers are the trading partners of the company. Customers are interested in the ability of the company to continue its activity and in its prices, because they are directly interested whether their supplier can provide to them the goods/services they need for the smooth running of the activity. Suppliers have in view whether the customer-company has sufficient resources to pay its financial debts (Feleagă N., 2005, pp.57).

The corporate governance system may differ depending on the importance given to the categories of participants, but the relationship between shareholders and managers occupy the central position, as their relationship has the most divergent elements.

3. The Impact of the Current Financial Crisis on the Main Stakeholders and Accounting Professionals

3.1. Managers, Investors and Auditors

Managers are the ones who, by using a series of laws, principles, methods etc., as well as their own competences and abilities, run the company towards achieving its established purposes. They are charged by investors with using the company's resources (from equipment to employees‟ knowledge and competences) in order to achieve business success. For investors, who took financial risks, success means, in most of the cases, financial performance, namely profit. However, the objective of maximizing profit set by investors is not always the objective of the managers, who are often tempted to follow their own interest, at the expense of the investors. Under financial crisis, managers and investors focus more on their own interests, sometimes opposite to one another. However, it may happen that the objectives of the managers and those of the investors are the same, since both are interested in survival and exist from the crisis.

Since investors do not always have the benefit of direct contact to the responsible managers, the ones that act instead of them and protect their interests are the financial auditors. Financial auditors are independent experts that express their opinion on the financial statements of the companies, their interest being whether these statements provide a true and fair view. Under financial crisis, the role of the external auditors has an increased importance, and banks and supervisors rely more and more on the expertise and judgment of external auditors. An audit conducted in accordance with international audit and ethics standards, under independence, integrity and professional competence, can provide a number of benefits to institutions, companies, financial systems and supervisors (*External audit quality and banking supervision*, 2008, pp.2) [6].

Audits increase the confidence of market participants by increasing the credibility of the financial statements, especially under economic turmoil. Although it is not one of their main objectives, auditors can help identify weaknesses in internal control relating to financial

reporting and thus can contribute to safe and sound bank systems. Most of the world's credit institutions undergo audits, and supervisors rely more and more on high quality bank audits that complement the supervisory processes. In the context of globalization, most audit companies expanded at international level, and consequently, their structures are complex and corporate governance within audit companies is characterized by difficulties in insuring transparency (*External audit quality and banking supervision,* 2008, pp.8). Therefore, the audit profession faces new challenges within the current financial crisis.

One of these challenges refers to testing the going concern assumption, which is fundamental in preparing financial statements. Most of the financial statements are prepared based on the assumption that the entity is continuing in business for the foreseeable future with neither the intention nor the necessity of bankruptcy, liquidation or reducing activity (ISA 570). The auditor is in charge with verifying the appropriateness of this statement made by management, as part of its responsibilities to prepare the financial statements of the company. Under economic crisis, it is expected that more and more companies put question whether they will indeed continue as going concern in the foreseeable future (which usually means over a period of more than 12 months) (*Audit Considerations in Respect of Going Concern in the Current Economic Environment,* 2009, pp.5) [7] As a consequence, the auditor will need to pay particular attention in conducting the specific tests related to this aspect.

Before the financial crisis, auditors had a relatively passive role, because they analyzed the evidence on which the management made the going concern assumption and investigated the soundness of this evidence. Nowadays, auditors are challenged to take a more active role, to search in an alert and independent manner the factors that could dismiss the management's assumption and that could lead to issuing an adverse opinion. Another challenge for these accounting professionals is auditing financial statements based on fair value measurement. Both measuring fair value and verifying this measurement is difficult due to its complexity and involves subjectivity and uncertainty, especially under crisis. Therefore, the auditor will need to develop his/her competences in order to adapt to the new situation.

3.2. Creditors

The company's need for funding can be satisfied through loans from bank lenders, from companies within the group etc. To determine the ability of reimbursement of the loans, the bank lenders take into account the fair value of the items, not the historical value. The prudence that they manifest may conduct to an undervaluation of the assets and an overvaluation of the debts in order to ensure a safety margin (Feleagă N., 2005, p. 56) .

Creditors assess the liquidity indicators of the companies funded, but also "the personal, technical, moral value of the managers, the general situation of the activity branch the enterprise is part of, the general situation of the company (the nature of products, the quality, the price, the customers, the suppliers) and the financial situation of the enterprise "(Feleagă N., 2005, p.56). Bank creditors document their lending decision according to the company's size and closely analyze the evolution of loans reimbursement. However, due to non-compliance with the general principles related to loans, the imprudence of bank creditors led to the break-out of the global financial crisis in 2007.

As a normal reaction, in times of financial crisis, the attention of bank creditors grows significantly. While in normal conditions, prudence is the basic principle, during financial crisis, lenders focus on excessive prudence, on business continuity of companies, on their ability to maintain profits, on the degree of liquidity, but also on the human factor, especially on managers, on their behaviour, the measures taken to survive, and also to exit the crisis.

The refusal of bank creditors to fund a company can lead to a liquidity crisis. The permanent communication between creditors and managers, the fair description of the company's situation, the flexibility, the transparency and the fairness are key factors for

establishing a viable relationship between creditors and companies. In crisis conditions, survival is the main objective of the companies and funds are primary. However, if loans are not efficiently used, it can lead to bankruptcy.

During difficult economic conditions, the loans from companies within the group represent a reliable alternative. The conditions for obtaining such loans may be more permissive, the interests – lower, or the reimbursement periods – longer. However, the funding alternative is available only to larger companies, who are part of a group of enterprises.

3.3. Other stakeholders – employees, customers, suppliers

3.3.1. Employees

Survival remains the biggest challenge in times of financial crisis. However, survival is understood in different ways by the managers and the employees of a company. If managers believe that survival means reducing the number of staff, for sure, the employees will think exactly the opposite, because the disposal would affect their welfare, as the unemployment period may be longer than normal. On the other hand, accepting a number of employees too large in comparison with the necessities of survival or continuation of activity can lead to inefficiency and even bankruptcy.

In crisis conditions, the employees are interested not to lose their job, and to maintain the same financial and other benefits. Therefore, the permanent communication with their managers, the active participation in the business of the company, or on the contrary, the more or less violent confrontations between managers and employees are some of the possible effects related to the reaction of employees during these difficult conditions.

3.3.2. Customers and suppliers

Trading partners demonstrate more prudence when there are going concern issues. Customers are mainly interested in the company's going concern assumption, but they also have in mind the possibility of negotiating prices easier. On the other hand, the suppliers are interested and analyze more strictly the profitability of the companies and their ability to pay the financial liabilities. However, the monitoring of debits and deadlines is the main objective of suppliers in times of financial crisis. The improvement of the relationships between the trading partners and the companies can be achieved through communication and informational transparency.

The financial crisis leads to significant changes in the behaviour of stakeholders. The reactions differ depending on the role of the participants in the company's life. To avoid bankruptcy and conflicts of interest, managers should adopt a flexible attitude, adapt to the demands of the stakeholders involved and not at last, insure permanent communication between company and interested parties.

4. Importance of communication under economic crisis

Most economic crisis lead to rumours, to distorted perceptions regarding the economic environment, to stress, to lack of control, to panic, to disorientation, to uncertainty, to lack of security and even to major lack of balance in the whole society. The first affected by the above mentioned facts are companies, their owners and managers, but also other stakeholders and parties directly involved in the life of a company. They may have reactions such as denial, avoidance of responsibility, disclaimer of culpability, justification. Finally, the reactions are transformed into positive ones: acceptance, remediation, corrective actions, optimism and confidence. One of the factors that make the transition from a negative attitude on the crisis to a survival-oriented behaviour, if not to optimism, is the communication

between the company and stakeholders and between the company and the economic environment as a whole (fig. no. 1).

Individuals react differently to a given situation. Their personality, temperament, and the environment in which they have developed and worked, the psychological, social, economic, political factors and the factors of other nature have led to different, complex, sometimes opposed reactions. Social context involves individual's interaction, which can be achieved mainly through communication. The role of communication is important because it can lead to sustainable and productive relationships between individuals or to the opposite reactions of rejection, conflict, and indifference. Human relationships influence the creation, the existence and the development of the enterprises, and of the economic environment.

Companies cannot exist without individuals, whereas a powerful connection is created: individuals depend on the existence and the proper functioning of companies, while companies cannot exist in the absence of individuals.

The strong link that has been created between the different categories of individuals, due to the interactions between them, had as starting point communication. In times of financial crisis, communication takes magnitude, since individuals need accurate information on the facts (in order to eliminate rumours and distorted perceptions of the economic environment). On the other hand, using communication and tools offered by psychology, individuals can recover their balance (by eliminating stress, lack of control, panic and disorientation). Last but not least, the uncertainty, and the lack of security and balance can be controlled and removed only when panic and disorientation in the society are reduced. Thus, individuals can make correct and rational decisions related to the crisis situation, can identify the causes, clear them off and restore the social and economic balance.

For these reasons, correcting the negative effects triggered by the economic crisis is the first step to getting out of the crisis. However, the responsibility for these actions is to be taken by individuals (stakeholders) whose main tool is communication.

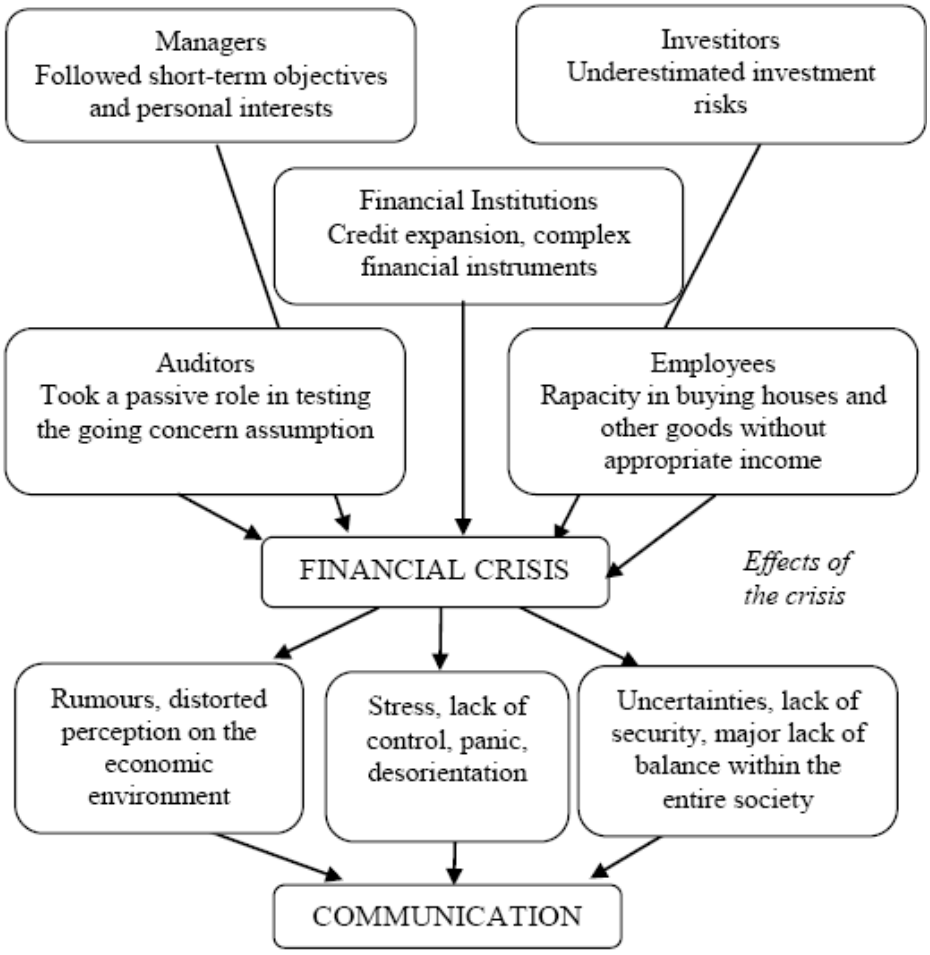

Fig. 1: The phenomenon of financial crisis

Conclusions

The effects of the financial crisis that broke out in the summer of 2007 at international level are also felt today. The uncertainty, the increasing number of cases of bankruptcy, the risk adversity of investors, the reduced liquidity, the stricter credit conditions, the price volatility are only some of the features of the crisis phenomenon.

All participants in the economic life are affected, directly or indirectly, more or less, by the current crisis. As a consequence, changes are necessary, both in attitude, but also in the undertaken actions, whereas communication is essential as instrument of survival and exit from the crisis.

Managers, who are responsible for their company's well-being, will need to develop survival strategies and powerful instruments of risk management. Moreover, prudence and conservatism will characterize the attitudes of investors, who before crisis started, were willing to take risks. Creditor, who proved to be quite tolerant in the period of credit expansion, will become stricter in analyzing the eligibility of their potential clients. The importance of auditors will increase, because creditors, investors and the public in general rely on their opinion as independent expert. Employees will become directly interested in the success or failure of the company where they work, due to their dependency relationship with the employer. The driver for all these changes in attitude will be communication.

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SUSTAINABILITY AS A PART OF BALANCED SCORECARD

Lucie Sara Zavodna*

Abstract

Sustainability is a trend, which is more seriously discussed on the international and national level. But also companies in the local level are pushed to have strategies and visions, which enable better future for society, our planet and local economy. Sustainability is one of the conditions – it allows companies to implicate social, economic and environmental pillars to the company´s strategy and management. The question, which remains today is, how to measure social, economic and environmental impact on society? And more – how to enable future generations to have the same conditions as we have today? The paper provides format for a possible bridge between current strategic Balanced Scorecard system and future trend of sustainability. One of the special tools, which can be used for measuring sustainability, is Balanced Scorecard (by Kaplan and Norton in 1990s) with the complement of sustainable metrics. The paper introduces three possible methods, which can be used by implementing sustainability into the Balanced Scorecard. One of these methods is described in detail. There is a focus on the sustainable indicators included as the fifth area in Balanced Scorecard model.

Keywords: *sustainability, management, trends, balanced scorecard, measurement*

JEL Classification: M21

Introduction

The Balanced Scorecard methodology demonstrated in this paper provides format for a possible bridge between current strategic Balanced Scorecard system and future trend of sustainability.

The sustainability concept is relatively new and in many organizations still do not know, how to implement or measure its outputs. Sustainability is key factor for success in the future market. Climate change is emerging as a key factor, which expects to transform the way we manage resources. Impacts of climate change on resources affect all regions of the world, but will manifest themselves in different ways. The uncertainty regarding the severity, timing, and frequency of events and their impacts, is the main challenge. Having robust and adaptive resource management plans will help prepare company for the uncertainty and risks that lie ahead. (Changing Currents, 2010)

Responding to societal concerns is very important to businesses, not only from a public relations (marketing) perspective but also as a means to address customer and shareholder expectations. Financial markets are also starting to examine the way in which companies address environmental / sustainability issues, adding to this public pressure to sustainably manage natural resources. Many people are not aware of the impact that such industrial pollution can have on the earth. By helping to make it known, companies can be one of the voices that will draw attention to the issue thus helping to inspire change.

Every business is usually made with the main goal in the form of profit. The management is traditionally focused on profitability, market share or some from the new

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measuring indicators such as EVA, CFROI, RONA, CVA, etc. Many view the sustainability report as only a companion to financial reporting. It is unavoidable perspective, when company trades abroad.

Forty or fifty years ago, it was a struggle to call general public interest concerning the state of the environment even in developed countries. Nowadays such concepts as becoming 'carbon neutral,' 'green consumerism' and 'eco-efficiency' appear to have been embraced in the developed world. (Elijido-Ten, 2011)

This paper focus on the way, how to implement sustainability measuring into the Balanced Scorecard and what exactly does it mean for organizations.

The paper establishes older findings by many scientists with the new view of concrete indicators, which could be implemented in the Balanced Scorecard.

Aim of the article and research questions: The aim of this paper is to introduce and implement sustainable indicators into the system of Balanced Scorecard. The main research questions are: How to measure sustainability? What are the main sustainability indicators? How to implement these indicators into the Balanced Scorecard?

Methods used in research: Examine and analyze characteristics of the sustainability and its metrics. The expected result of the research is a new model of Balanced Scorecard with the sustainability elements.

1. Original Balanced Scorecard

Robert Kaplan and David Norton managed in early 1990s to combine financial and nonfinancial issues into a comprehensive performance management system called Balanced Scorecard (BSC). In 2012 it was 25 years since the publication of 'Relevance Lost', in which Professors Johnson and Kaplan alleged that management accounting information needs had become subservient to financial reporting requirements. The goal in 1992 was to incorporate multiple perspectives into organizations that primarily manage financial issues, balance sheets and income statements. These traditional financial reports only indirectly measure the effectiveness of corporate strategy and can be misleading about whether a specific strategy has been implemented successfully.

Financial measurement systems are years ahead of nonfinancial measures. This is naturally because of governmental regulatory and obligatory reporting. Accounting experts have improved these measurements through decades in cooperation with government agencies.

The BSC model was originally created to measure four quadrants: financial, customer, internal and learning perspective.

- Financial quadrant – primarily measures revenue growth, investment return, and cost reduction
- Customer quadrant – focusing mostly on market share and customer loyalty, satisfaction, profitability, and acquisition
- Internal Business Process quadrant – identifying more effective processes for the organization to most efficiently meet its objectives
- Learning & Growth quadrant – consists of employee skills and training, IT functionality, and administration of routine processes

The basic premise of the Balanced Scorecard is that financial results alone cannot capture value creating activities. The only financial measures are lagging indicators and are not effective in identifying the drivers or activities that affect financial results.

According to Bain&Company in 2004 about 57% of global companies were working with the Balanced Scorecard model. It is used extensively in business and industry, government, and non for profit organizations to align business activities to organizational strategy.

The Balanced Scorecard is a customer-based planning and process system, which main aim is focusing and driving the change process. Sustainability is also focused on customer needs. That means company needs to implement sustainability into the company´s goals. Is there any space in BSC for it?

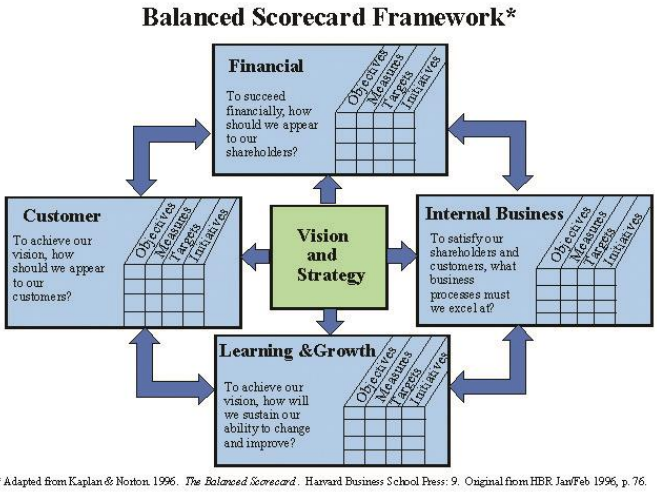

Figure 1: Balanced Scorecard Framework adapted from Kaplan & Norton (1996).

2. Sustainability Perspective Discussion

As the sustainability or environmental/green strategy is a nowadays theme of the organization's strategy, it can span the existing balanced scorecard perspectives. The sustainability concept originally refers to how organizations handle non-financial factors related to environmental, social and economic issues. This concept potentially impacts the organizations future.

Sustainability includes broader issues in area of ecology, sociology and environment as well as well-being of people and standard of life. In other words it is sustainability seen as "green" practices and can be found throughout the operations of all types of business.

The sustainability concept is also synonymous with citizenship reporting, social reporting, triple-bottom-line reporting, and other terms that encompass the economic, environmental, and social aspects of an organization's performance and planning. Public and private agencies can consider sustainability reporting at three levels: organization (internal), policy outcomes (external), and contextual or spatial outcomes (regional). (The Centre for Public Agency Sustainability Reporting, 2007)

Organization with the sustainable (also seen as green) strategy have three possibilities, how to implement sustainable strategy in BSC. (Elijido-Ten, 2011) **First**, environmental and social aspects can be integrated in the existing four standard perspectives. Environmental/social aspects become then an integral part of the Scorecard and are automatically integrated in its cause-effect links and hierarchically orientated towards the financial perspective. For example an added dimension within the financial category can be the integration of sustainability measures, such as energy costs, recycling revenues, disposal costs, and environmental dollars. Each organization can choose what specifically applies to its business environment and ignore any of the metrics that do not apply.

Secondly (and this is more likely) there can be created an additional perspective to take environmental and social aspects into account. Figge et al. (2001) propose the introduction of an additional, so called non-market perspective in order to integrate strategically relevant environmental and social aspects. Kaplan and Norton also point out that the firm-specific formulation of a BSC may involve a renaming or adding of perspective (Kaplan, Norton, 1996). Adding an additional perspective to the BSC may be the simplest

approach for companies that want to emphasize sustainability as a key corporate value. The paper develops this idea later on.

Third possibility, a specific environmental or social scorecard can be formulated. Derived environmental or social scorecard cannot be developed parallel to the conventional scorecard. This scorecard is not an independent alternative for integration, but only an extension the two variants discussed above. (Figge et al., 2002) The reason, why companies establish a separate Balanced scorecard for sustainability, is that CSR strategy or/and sustainable development are seen as core strategy in creating competitive advantage.

Sustainable perspective implemented in BSC model should ensure that *the strategy of company is in link with environmental, social and economic needs of the next generations*. The integration procedure of the sustainability perspective metrics offers a possibility for organizations to translate sustainability visions and strategies into action plans.

The process of creation new perspective into BSC must lead to an integration of environmental and social management into strategy. The sustainable aspects must be integrated according to their strategic relevance. (Figge et al., 2002) By integrating sustainability measures into business practices and by clearly linking an organization's competitive strategy to its green outcomes, the BSC clarifies the relationship between sustainability outcomes and profitability/shareholder interests. (Butler, Henderson, Raiborn, 2011)

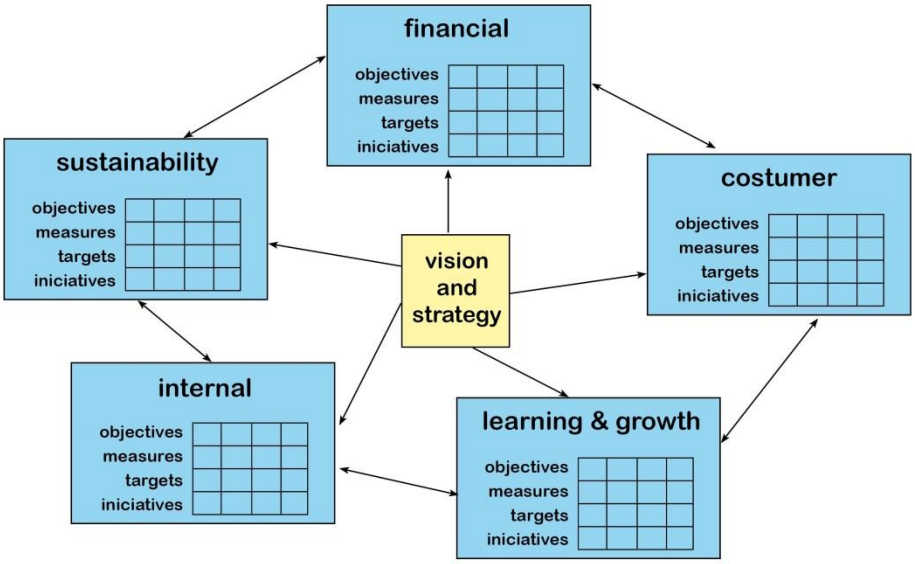

Figure 2: Balanced Scorecard with the Fifth Category - Sustainable Perspective - adapted BSC model.

"*What gets measured gets managed*" is an old accounting saying that remains true today. The sustainability perspective enclosed in BSC also needs its measurement.

3. Indicators of Sustainability

Before we can measure anything, we have to define the term sustainability and its characteristics. The definition of sustainability depends on who is defining – government, NGO, scientists. Still, common topics run through most definitions of sustainability. They usually deal with the economy or/and nature. They are about the rate of change, and about equity between generations. Many see sustainability as a continually process of development. As the sustainability is a new trend, many come with own definitions.

The concept of sustainable development was described in a 1981 White House Council in Environmental Quality Report (EPA, 2011): "The key concept here is sustainable development. If economic development is to be successful over the long term, it must proceed in a way that protects the natural resource base of developing countries." The business dictionary (2011) defines the sustainability as an "ability to corroborate or substantiate a statement" and "ability to maintain or support an activity or process over the long term". According Brundtland Commission and the report "Our Common Future" sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Donella H. Meadows (2004) sees "a sustainable society as the one that is far-seeing enough, flexible enough, and wise enough not to undermine either its physical or its social systems of support." Searching through different definitions there can be found key elements, which are common for most of the authors. These are: Consideration of future, Protection of resources, Economic prosperity and Connection between environmental, social and economic areas. These areas should be considered by creating sustainable indicators for the companies.

Management of the organization should develop certain metrics for achieving sustainability goals. BSC measures can reflect each individual company´s strategies and operations, so those measures identified will vary widely among companies. According Butler et al. (2011) measures, targets, and goals chosen for every perspective should be:

1. Controllable by all stakeholders,
2. Quantifiable,
3. Include all component elements when a multidimensional measure is used.

Multidimensional measure means for example, that the term greenhouse gasses (output to global warming) may be used for a variety of gasses (carbon dioxide, methane, chlorofluorocarbons, etc.).

At the figure 3 there is a model of incorporating sustainability into companies and other organizations. It is all based on the principles of sustainable development, which are giving the basic platform.

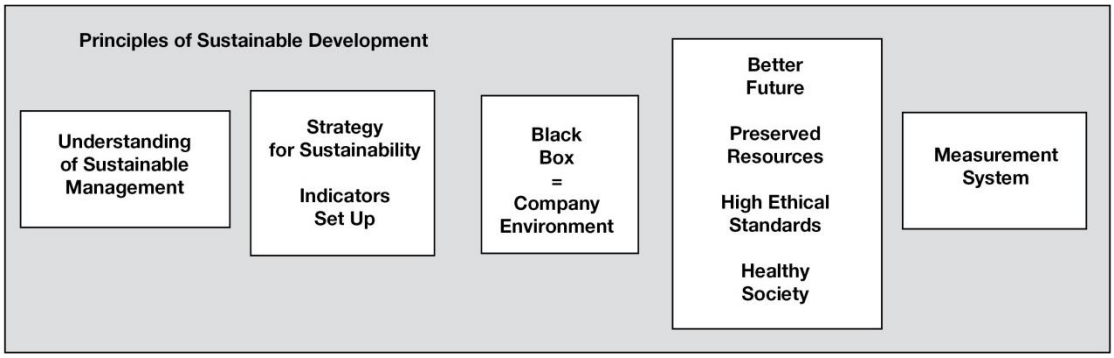

Figure 3: Model of processing sustainability in companies.

As it can be clearly seen, the main challenge is set up of measuring indicators. Indicators are statistics and are used to measure current conditions as well as to forecast. They can be used extensively in analysis to predict changes. There has been specified no rule for the right number of measures to include in a Balanced scorecard. Including too many tends to distract from pursuing a focused strategy. Generally complete balanced scorecard contains three to six measures in each perspective. (Epstein, Wisner, 2001) By creating indicators companies should be specific. Words like efficiency, low cost, and productivity has no real meaning.

The measurement system should make the relationships among the objectives and measures explicit, so the company can manage and validate them. To be comprehensive, the Balanced scorecard must include measures that interact on the basis of an established cause-and-effect relationship.

Each company defines sustainability differently. The performance indicators chosen will be based on strategy and goals of the particular company or organization. The weight given to the various dimensions of the Balanced scorecard will also depend on the goals and culture of each company. (Epstein, Wisner, 2001)

Below this paragraph there is list of indicators, which could be used in companies for measuring sustainable behavior. These are created by deduction from the national/local indicators and some of them represent ideas from brainstorming in every sustainable area.

Sustainable Perspective in BSC	
Goal	**Indicators**
Lowering **energy** consumption	Percentage of Energy Consumption from Renewable Resources Average Consumption of Solar/Water Energy Average Consumption of Energy (year and square meter) Average Consumption of Vehicle Fuel
Lowering **water** consumption	Average Consumption of Drinkable Water Average Consumption of Hot Water Management of Waste Water
Waste reduction	Number of Waste Containers Percentage of Recycled Waste Percentage of Assorted Waste: paper, plastic, glass, bio-waste Average Disposal Costs
Environment preservation	Investments for the Savings of Nature/Environment Percentage of Costs Going Back to the Environmental Protection Percentage of Office Supplies Recycled Percentage of Inclusion in Green Funds
Equality in **society**	Percentage of Local Employees Percentage of Woman in Management Percentage of Material from Local Resources Percentage of Certified Suppliers Number of Safety Improvement Projects
Lowering **noise** and **emissions**	Air Emission Greenhouse Gas Emission Average Work Week Hours Average Overtime Work Hours

Table no.1: Sustainable perspective and sustainability metrics suitable for BSC.

There is also a question of how often should those indicators be measured. The usual recommended measurement is ones a year, but this depends on every company. The limits of measurements lie in special employee or somebody, who is able to measure and control these outputs.

The system of measurement can also pose a problem. If the management focuses only on the results, employees may be preoccupied by hitting the right numbers and not doing the right things. Executives can easily judge the performance only on monthly or quarterly numbers. It can be challenge too to define nonfinancial measures. There may be only few (especially bigger) companies that have experience in using nonfinancial numbers to measure their outcomes. Adding more performance indicators to overworked workforce may make confusion and apathy. Workers spend more time by collecting data and monitoring activities then actually doing their job.

Conclusions

As the Balanced scorecard was being adopted by corporations all over the world to implement corporate strategy, it could be used by companies to implement sustainability strategy to link corporate sustainability objectives with actions and performance outcomes. The output of improved sustainability performance can include for example increased employee satisfaction, lower operational and administrative cost, improved productivity, improved image and reputation, increased market opportunities, better stakeholder relationships etc. In line with the voluntary disclosure theory, it appeals that organizations adopting BSC together with collecting sustainability data have more incentive to provide public disclosure to show their divergence.

The paper summarizes previous findings and introduces three possibilities of implementation sustainability area into BSC. It is up every company, which indicators will be used for measuring sustainability. The paper suggests several indicators, which could be incorporated in each sustainable area.

The main impact for companies is in notification about the importance of such measurement and orientation. It explains in detail, how process of sustainability works and what is needed to do in order to start such direction. This concept is needed not only for organization itself, but also for future generations and society.

The future research work can focus on case studies in practice. It would be useful to summarize real problems, which could emerge during implementation period of sustainability in BSC. There would be also important comparison between all three methods of sustainability incorporation in BSC model. In the end the research of costumers and their satisfaction with green strategy of organizations would also help to improve overall situation in the market and can push more companies in implementation sustainability indicators.

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GOOD PROSPECTS FOR GREEN ENERGY IN ROMANIA

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Abstract

EU has to attain the strategic objectives for 2020: 20% of energy from renewable sources, cutting the emissions of greenhouse gases by 20% and diminishing the dependence on imported fuels, that is why in the last years European Commission has decided that MS should increase the flexibility of programs to promote green energy and cut subsidies. Although wind and solar energy have become more competitive in terms of cost in the last two decades, many production technologies need to be improved, also storage and transport capacities.

Romania has an important potential of renewable energy resources and has introduced a functional mechanism for supporting their development based on a system of mandatory quotas for electricity, combined with trading a number of green certificates, but all the costs are transferred to the consumers.This system may carry an overcompensation for the investors and also an excessive burden on the consumers. Most investments were made in wind and hydro, the fewest in solar and biomass. Market liberalization may create more competition and stimulate the investments in different renewable resources.

Keywords: *green, renewable, resource, certificate, wind, solar, biomass, hydro, market, liberalization, competition*

JEL Classification: D18, D 43, D 47, L11-13, L 52, L94-95, Q42, Q53

Introduction

The article covers the recent aspects of EU and Romania's policies and developments in the field of green energy. The importance of this subject is related to the implementation of sustainable development concept, energy security concept and the provisions of international agreeements and protocols for environment protection. Green energy is a key factor for increasing the security of energy supply and for decreasing the emissions of greenhouse gases. Development of green or renewable energy resources allows the diversification of energy supply and the reduction of excessive dependence on gas, coal and crude oil, for EU countries, implicity for Romania. The article reflects the content of EU official documents and also the numerous opinions already existing in the foreign and Romanian specialized literature.

1. Recent developments of green energy in EU

EU countries are highly dependent on imports of fossil fuels (especially oil and gas) to cover the fuel needs for the transport and also for electricity. In fact, EU relies on energy imports for

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about half of the energy consumed. Moreover, fossil fuels account for a share of 79% of the gross energy consumption within EU.

The current EU primary energy consumption dominated by fossil fuels generates greenhouse gases during the combustion cycle to produce secondary energy. Instead, during their life cycle green energy resources do not emit greenhouse gases or only small amounts of them. The growth of their share in the energy mix will help to reduce the emissions of greenhouse gases and also the so-called "*carbon imprint"* of the Western European economies. A share of 20% of energy from renewable resources could lead to emissions reduced by 600-900 Mt CO2 by 2020.

EU already benefits from an increased range of available fuels for producing secondary energy and also by more supply sources and suppliers. Such diversity restrains the risks of supply reductions and price volatility and encourages the consumption efficiency by increasing competition within energy sector. A share of 20% of energy from renewable sources could cut the EU imports of fossil fuels and could bring about lower emissions by 200 Mt per year in 2020.

In addition, at a time of economic uncertainty, the industry of renewable technologies remains on an upward trend, providing jobs, development of new technologies and contributing, ultimately, for preserving the EU at the forefront of industrial innovation worldwide.

Green energy has also an enormous potential for stimulating EU industrial competitiveness. Development of new sources of low carbon energy is essential to avoid massive costs of climate changes and pollution, while maintaining the EU at the technological vanguard is crucial to the future of its economy.

Development on industrial-scale of very modern technologies for the production of renewable energy brings added value, new green jobs and strengthens EU position in industrial field. European companies dominate now the green energy sector worldwide, with a workforce comprising 1.5 million people and a turnover of over 50 billion €. Having a lasting strong growth, this sector could offer one million jobs more and a double or even triple turnover in 2020.

The European Commission has regulated the development of renewable sources, in this respect two of the most important documents are: *Directive 2009/28/EC on the promotion of renewables* and *Roadmap for Renewable Energy - Renewable Energies in the XXI century: building a more sustainable future* . They established mandatory national targets for the Member States for 2020, by stipulating a share of 20% of renewables in total energy consumption and a share of 10% of renewables in transport fuel consumption.

In its 2012 analysis, "*Renewable energy: a major presence on the European energy market*" on the stage of development of renewable energy in the EU (COM (2012) 271 final), the European Commission noted that, in recent years, renewable energy sources have developed at a pace faster than expected, driven by the economies of scale and technological progress. Accordingly, the EU has decided that member countries should increase the flexibility of programs to promote green energy and cut subsidies, as technology has developed rapidly, and prices fell to a large extent**.** In the above mentioned Communication (COM (2012) 271 final), European Commission has insisted on the idea that the fields and mature technologies that will operate on functioning markets will not need subsidies, but only reforms of aid schemes, for achieving the set objectives at minimum cost.

Despite the traditional perception, there is more and more evidence attesting that at global level renewable resources are not too far to become a viable alternative at affordable prices for fossil fuels. In many countries, land wind energy and photovoltaic solar panels are already on the verge to compete with coal and gas. In fact, in 2012, investments in

renewable energy (excluding hydropower) have surpassed those for fossil fuels, which indicates a deep change of direction to a global economy based on clean energy.

At global level the investments made in power generation capacities of green energy reached a record of 260 billion $ in 2011, according to Bloomberg New Energy Finance, 5% higher than in 2010 and nearly five times higher than in 2004. Surprisingly, in 2011, USA were the first in the top of investors in renewable energies with almost 56 billion $, followed by China, with about 47 billion $. But the boom of renewable energy is a global phenomenon. In the same year, in the South and Central America investments increased by 39% (13 billion$), in India by 25% (4 billion $), and in Middle East and Africa by 104% (5 billion $).

The factor that seems to motivate the investors is that wind and solar energy have become more competitive in terms of cost, compared with coal and gas**.** Thus, the unit cost of wind energy has dropped by 50% over the past 15 years, and wind turbine capacity has increased 10 times. Also, the solar systems for producing photovoltaic energy are currently over 60% cheaper than in 1990.

However, many technologies for renewable energies need to be improved in order to contribute to the yields increase and cutting the costs. The main investment areas considered are wind energy, concentrated solar power and biofuels of second and third generation. It is also necessary the improvement of existing technologies for the purposes of increasing the size of offshore wind turbines, by resizing the blades to capture more wind energy, and improving photovoltaic panels to collect more solar energy. Storage technologies have a major and critical importance. Storage activity is currently more expensive than additional transport capacity, and conventional storage of hydropower energy is quite limited.

Although current legislative framework of EU on renewable energies seems appropriate, its main instrument - binding targets - expires in 2020, and ***Directive 2009/28/EC on renewable energy*** asks to the European Commission to submit a new *"roadmap"* for renewable energies just in 2018, taking into account the state of technological development and experience gained after the application of the Directive. For the post-2020 period the only quantitative benchmark established at EU level is a very ambitious objective of 45% renewable energy share in the total energy consumption by 2030, which is quite unrealistic in our opinion because it requires huge investments.

2. Development and prospects of green energy in Romania

Renewable energy in Romania has been developed at a fast pace, in line with the objectives and targets set by the EU and objectives of our national energy strategy.
This development was supported by the following favoring factors:

1) Important and diversified potential of the renewable energy sources: *hydroenergic*, technical arranged at approximately 32,000 GWh/year, providing more than a third (35.7%) of the country's electricity production, *wind* , installed capacity of 14,000 MW (17% of total) *photo voltaic (*12% of total*), biomass (agricultural and forest origin)* representing 7% of primary energy demand.

2) Improvement of the legislative framework, which considerably increased the interest in this type of investment. Based on the favorable opinion given by the European Commission, it was adopted Goverment Emergency Ordinance no. 88/2011, amending and supplementing Law no. 220/2008 , to make the Commission's support measures compatible with our legislation. This Ordinance may be considered the unlock signal for green energy projects, fundings and transactions designed to support Romania's efforts to achieve, by 2020, the renewable energy targets.

3) Introducing a functional mechanism in supporting the renewable energy development. Renewable energy is supported in Romania by a 10 billion euro scheme, implemented through a *system of mandatory quotas for electricity, combined with trading a number of green certificate**s.*** The supporting mechanism works as follows: the producers of electricity from renewable sources may sell the electricity to suppliers (distributors) of electricity, under the same conditions as any other producer of electricity but in order to cover the production costs, per MWh delivered in the network, they additionally receive a certain number of green certificates depending on the technology used and the type of energy promoted.

In Romania, most investments were made in wind and hydro, the fewest in solar and biomass. Wind power lies the first, as a share of all projects in progress (40% according to the IHA Annual Activity Report), *hydropower* (in the hedged incomplete segment of microhydro plants) holds 39%, *biomass* 16%, *solar energy* 5%. According to an ANRE report, in 2010 Romania registered 65 manufacturers licensed in renewable energy, of which 32 in hydropower, 28 in wind power, 3 in biomass recovery and one in photovoltaic energy with an installed capacity of 520.4 MW. Such economic operators had produced 20.264 TWh, representing 35.24% of the total gross electricity consumption of Romania. For the year 2012 it was planned to reach an installed capacity of min. 2000 MW, of which aprox.1400 MW wind energy.

The most advantageous internal rate of return was recorded at *solar, biomass and ferment gas,* i.e. the renewable energies where it was invested the least money. The lowest internal rate of return was recorded for old hydro-plants, because they were not retrofitted or included in the support scheme regulated by the Law no.220/2008.

Most of the amount of green electricity is generated by large hydropower plants, but there is still a high potential that may be harnessed by micro hydropower plants**.** Article 3 of the Law no.220/2008 sets that the system to promote electricity, produced from renewable energy sources, is applied to electricity supplied to consumers and produced in hydropower plants with an installed capacity of up to 10 MW, as far as wind energy, solar, geothermal, biomass, bioliquids, biogas, landfill gas, for which there is no upper limit capacity.

Therefore, the Romanian legislation favors, directly, the small renewable energy production capacity, in the case of hydro, while for the rest of renewable energies there is no restrictions on capacity size. This aspect influences the investments in the segment of small hydro plants, which are unlimited in other green energies.

Although it was confirmed that wind power is the first choice of investors in Romania, with more than 1,600 MW put into operation (according to data published by Transelectrica, in 15 November, 2012), in the last time solar energy has become the main actor on the Romanian market for renewable energies. ***Photovoltaic projects*** *tend to overtake on the* ***wind projects,*** *due to several factors/comparative advantages: shorter periods for the return of investment, about 5 years compared with 8 years; the support scheme provided by the State, under which for one MWh of generated electricity based on solar radiation are allocated 6 green certificates, while for each MWh produced and delivered by the wind producers, shall be allocated only 2 certificates until 2017, and one certificate from 2018; considerably lower specific investment costs as compared to the wind, including the lack of moving parts; limited negative impact on biosystem as against wind energy, high reliability over a period that may exceed 25 years; solar panels may provide both electricity to remote areas and in cities where they are easily mounted on any structure, occupying areas that usually are not used.*

For Romania, turning into good use of the high potential of renewable energies is meant to increase the security of energy supply through diversification and decrease of imports of classic energy resources, aiming at a sustainable development of the energy sector and also at environmental protection**.** Reducing dependence on imported energy is a a very

important goal as the strategic documents in the field (including the *Energy Strategy of Romania from 2010 to 2035)* have advanced the prospect of an increased dependence on energy imports from about 35-40% today to 60-70% in the medium term, given that the structure and dynamics of current consumption will remain unchanged.

The shale gas and the new gas resources from the Black Sea are not yet taken into account in this Strategy, because these discoveries are of recent date and their dimension and status need to be confirmed, especially in case of shale gas or negotiated in that of the Black Sea gas (licensed mostly to OMV company).

To achieve this strategic goal, the market of renewable energy sources is supported in Romania through direct state intervention on the supply side. The state supports the promotion of renewable energy by means of support mechanisms such as green certificates, but it does not finance this market: all the costs are transferred to the consumers. This kind of interventionism cannot be included in the usual forms of state aid, because it does not involve public money, although the competition is heavily distorted because the regulatory framework favors some producers at the expense of others. This kind of interventionism that combines the incentive on the supply side with the constrain element on the demand side applies in all other EU countries, the only difference is made of specific financial instruments used by every country. A support mechanism similar to that used in Romania is encountered in Italy, Poland, UK, Sweden, Belgium. Most EU countries have adopted, however, the mechanism of "feed in tariffs" (fixed price system for renewable energies).

According to calculations made by the National Regulatory Authority for Energy (ANRE), electricity consumers in Romania will pay in addition 10 billion euro to their bills until 2020 in order to support investments in renewable energy**.** Green certificate support scheme will be applied until 2021. The greatest impact, according to ANRE, will be felt in 2016-2017, when the consumers could pay for energy bills up to 30% more.

The diversification of support scheme by providing a number of green certificates differentiated by types of sources, under GEO no.88/2011, has favored a very rapid development of wind projects, generating significant profits for the foreign investors in this industry (given that domestic investors have neither the necessary capital for investments nor the modern needed technology) and very high costs for the Romanian consumers.

The large number of green certificates allocated mainly to wind and solar energy was established by the legislative body (the Parliament) in a desire to encourage their development. But the criteria were alleatory, allocation not being made on a cost-benefit analysis. This has resulted in adverse situations:

- ***an overcompensation for the investors,*** although it has been shown that in recent years, costs have perceptible fallen for the 2 sources;
- ***an excessive burden on the consumers.*** In Romania green energy proved to be the most expensive one within EU: in 2011 a producer has sold 1 MWh of wind electricity with 137 euro in Romania, while in France the same megawatt cost only 88 euro.

Green energy subsidies may distort the market because they are too high in relation to the cost of the technologies that have been reduced to less than half in the recent years. Authorities have assimilated with some delay this message, announcing the intention to diminish the aid scheme for energy from solar sources. Most likely, from January 1, 2013, the number of green certificates was supposed to decrease from 6 to 4 for each MW, produced from solar sources and delivered in the system. The reason is, as already mentioned, that the photovoltaic industry has greatly expanded, leading to a dramatic decrease of production costs.

Therefore, although legislation sanctiones (post factum) the cases of overcompensation, it is recommended that the promotion of green energies to be made on the basis of an (ante-factum) cost-benefit analysis and through the more rapid adjustment

mechanisms in the number of green certificates, so as to avoid inflation of projects with high costs for households and the achievment of quick profits for investors. In other words, for Romania will matter at what costs will be able to achieve the targets set by the EU regarding the share of renewable energy in total energy consumption.

Development of various technologies in relation to the used source has a different impact on the environment. If solar energy poses no major environmental problems, instead it has a high production cost and a high rate of deppreciation. Energy from other sources has a lower cost but a higher environmental impact. Under these conditions, building the renewable energy market must take into account not only the exploitable source but also the externalities arising from the technology used, the application of investment (site, intervention procedures) and the operation mode in the future (economic and social impact).

Market liberalization creates competition and stimulates the investment of some kind at the expense of others and benefits domestic market or foreign market**.** The market liberalization also allows the export of electricity from renewable resource.

Producers of electricity from green enegies should be given a priority access to the network in order to be able to distribute and sell the product obtained from renewable resources. Under these conditions, the physical connection is very important and also the price paid for the access to the distribution system. For Romania, it is absolutely necessary to increase current capacity of the National Transit System to takeover the electricity from renewable sources, which is currently well below the productive potential, and under the European Directive on Renewables it may be required to engage in this field the investors in green energy. Renewable energy producers generally sell electricity directly to the distribution system, thus avoiding high voltage transmission systems. Consequently, the cost of electricity supplied by these producers may decline compared with the energy obtained in traditional power plants. Such an economic advantage should be taken into account when the network tariff is established.

Most of the electricity generating plants based on renewable resources are much smaller in size than traditional power plants**.** However, in most EU countries the imposed regulations did not take into account any type of resources used or the size of the producers. In some cases, renewable resources require planning and management activities much more laborious than those for conventional plants. *The Revised Directive on Electricity Market attempts to correct this situation requiring to the Member States to ensure that authorization procedures for small plants will take into account the limited size and the potential impact.* Similarly, Directive on renewables requires expeditious procedures and their simplification at the authorities level ***(Application Guide*** for potential investors in green energy from Romania is a comprehensive document and quite unclear, which helps the perpetuation of bureaucratic procedures and leads to a slow and reduced absorption of European funds).

Romania promoted a financial support scheme seen as too generous for the development of the renewable energies.. The scheme has been very profitable to all foreign investors who wanted to recover quickly the investment (e.g. in seven years) founding a favorable ground in Romania, while in Germany the return of investment period reaches 15-20 years. Although in Romania there have been made major investments, the state has failed to win a lot from the billions invested in green energy, excluding VAT. Moreover, the boom in wind power put into great difficulty the operation of coal or gas plants. There were made some steps in the design, construction, roads and so on, but nothing has been done in the field of equipment. Lack of predictability in promoting some projects led to an immeasurably proliferation of wind parks A planning in due time would have helped the appearance of turbine and solar panels manufacturers in Romania.

Moreover, it was found that there is overcompensation in the fields of wind, photovoltaic, hydro or biomass energies. At least this is the opinion of some official

representatives and consumers. If, at the time of drafting legislation to promote green energy, installing a megawatt from photovoltaic sources had a cost of 4.5 - 5 million euro in some European countries, now the cost fell below one million euro per megawatt.

Although the legislation stipulates that the internal rate of return (IRR) for solar parks is 11.6%, for the wind generators 10.9% and for new small hydropower plants 10.2%, some projects presented to ANRE had an IRR of 25%- 27%. At such a rate, we may say that production of renewable energy reached a speculative area. If the IRR exceeds 10% level, indicated by the specific domestic legislation, it is obvious an overcompensation situation, and ANRE may propose to Romanian Government the reduction of the number of green certificates. Under these circumstances, the authorities have decided to reduce the subsidy scheme for energy renewable resources. Legislation for restraining the support scheme is almost completed and it will be reduced the number of certificates for the green energies that benefited from overcompensation: wind, biomass, hydro and photovoltaic.

Some experts have identified several measures that could preserve green energy sector attractive for foreign and domestic investors, even if the support scheme is reduced significantly.

1) Firstly the state should have in mind an increase of Transelectrica capacity to be able to take over the production of these parks, although experts consider that it cannot take more than 3,000 MW while currently there are just over 2,000 MW installed of green energy.

2) Secondly, Romania may sell green energy in countries where there is a strong demand, like Germany who recently announced the intention to give up nuclear power. Romanian Government may start negotiations with German Government in this regard.

3) Thirdly, another solution would be to make a statistical exchange of green certificates under a legislation similar to that existing for carbon emission certificates. Netherlands is one of the states that can not fulfill its quota.

4) Fourthly Romania should avoid the mistakes made by other states, such as Spain and the Czech Republic, and should limit the subsidies for renewable energy producers in order to slow down the price increases in electricity.

Currently, there is a fierce fight between investors in renewable energy on the one hand and consumers and public authorities on the other hand. Basically, one must be ensured a formula for harmonizing the interests of both sides and for providing a balance between sustainability of investment costs and the supportability of costs by consumers.

Romanian authorities have finally realized that the law on granting green certificates should be amended, mainly to provide opportunities for the most important Romanian power producers, which should not be sacrificed for the sake of renewable industry. On one hand there are the households who support the electricity bill, on the other hand there are industrial consumers, which in turn cannot bear anymore the high cost of green certificates included in the final product costs.

In addition, the industry of renewable energy will not be monitored once a year by ANRE, but every half a year, according to a legal order issued by the regulator. Thus it is created such a legal framework that the subsidy granted by Romanian state (and ultimately by every consumer) to be adjusted in the second half of this year.

Conclusions

Future energy system with low emissions of greenhouse gases, will be based, most likely, on a combination of energies, vectors of energy converters, which will be found in different forms in different regions of the world. Several major trends of our energy future could be as follows:

● Energies based on fossil fuels will continue to be used many decades, being favored low-carbon energies such as natural gas. Dependence on imports from Middle Eastern

countries, which hold 65% of current oil reserves will increase. After 2020-2030 years, economic and political tensions could lead to a reduction of fossil resources easy to exploit and to a shift to politically unstable areas, which may harm the security of supply of EU countries and not only of them.

● Capturing and stocking carbon dioxide under economically acceptable technology is the only option likely to allow the use of fossil resources, while limiting CO_2 concentration in the atmosphere, in anticipation of major technological advances.

● Increasing the share of renewable energies is quite sure and almost indispensable, but their importance will depend on the cost reduction and progress in improving existing technologies in the sense of increasing the size of offshore wind turbines, resizing the blades to capture more wind energy, enhancing photovoltaic panels to collect more solar energy and especially creating massive storage capacities of electricity, which is a prerequisite for integration into electric networks of large amounts of electrical energy produced and distributed discontinuously.

● Romania ranks a high place on the EU energy map and has a significant potential in developing the renewable energies. In 2012, Romania imported only 21% of primary energy resources in order to cover their consumption, which places us among the least dependent MS on energy imports. The rate of EU dependency on energy imports was 54% in 2011.

● Romanian legislation favors, directly, the investments and energy production from renewable sources, like wind, solar, biomass, without capacity restrictions and only in small capacities in the hydro case.

● Eolian energy is the first choice of investors in Romania, with more than 1,600 MW put into operation, but lately, solar energy is becoming the main actor on the Romanian renewable energy market.

● The state supports the promotion of renewable energies by support mechanisms such as green certificates, but does not finance this market: all costs are passed on to the customers. The large number of green certificates allocated mainly to wind and solar energies was established by the Parliament in a desire to encourage their development, but the result was an overcompensation for the investors, although the production costs have emphasized fallen for both sources, also leading to high losses for the consumers, raising up the costs of green energy in Romania.

● It is also advisable that the promotion of green energy to be made on the basis of a (ante-factum) cost-benefit analysis and by faster adjustment mechanisms in the number of green certificates so as to avoid the inflation of projects with high costs for households and quick profits for investors. Achieving the targets set by the EU regarding the share of renewable energy in the total energy consumption may involve high costs for consumers. Although on short term, we are witnessing an increase in energy prices due to increased costs required to purchase annual "green certificates", on medium and long term investments in renewable energy will bring major benefits by eliminating the excessive dependence on conventional resources, reducing CO_2 emissions and increasing the safety in power supply to industrial consumers and households, diversification of energy production sources and beneficial social impact from the development of rural areas where wind plants are built .

● Within the European Union, the European Commission proposed the freeze at current levels of the consumption of biofuels from agricultural crops, which would have the effect of halving the target of 10% set for 2020, relying on the idea that the reduction of emissions in the case of some biofuels offers limited benefits compared to conventional gasoline, and the energy efficiency is only slightly higher than the energy used to produce them. Romania has about 3 million hectares, non-cultivated for 20 years, which are in various stages of decay, but if the farmers will have financial support for the establishment of crop species of forestry with short rotation cycle (up to 5 years) they may contribute to renewable

energy in the form of biomass. Further, after a minimum processing, the biogas, resulting from biomass, may be inserted into the natural gas distribution networks and may be used to produce electricity and heat. Biogas plants may be used also for balancing the electricity system, by compensating the supply disruptions of wind and solar power, dependent on weather factors. Romania has enough uncultivated arable land that may be exploited by cultivating the crops which are raw materials for obtaining the biofuels by means of providing incentives to farmers to grow energy plants (in line with the EU practices) and by providing incentives for collecting the agricultural wastes and also the forest wastes. This should not result in a shortage of agricultural products and foods or in an increase of their prices. Another important source for biogas may be created by means of collecting the organic household wastes and using them in biogas reactors.

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CHARACTERISTICS OF THE CONSUMER PREFERENCES RESEARCH PROCESS

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Abstract

Information is one of the most important resources that a company must possess. Some information is hidden deep in the black box - the mind of the consumer, as in the case of information about consumer preferences. Although it seems a concept difficult to grasp, it was shown that consumer preferences can be effectively measured and their research may provide a deeper understanding of the choices that consumers make when deciding to select an offer against another and when deciding to continue in time the relationship with one supplier. The following paper reveals some important aspects regarding the use of information regarding consumer preferences, the fundamentals behind consumer preferences research and the milestones in the consumer preferences research process.

Keywords: *marketing research, consumer behavior, consumer preferences, dimensions of consumer behavior*

JEL Classification: M 31

Introduction

Studying the consumer's behaviour is not an easy task at all, and even less simple is observing only one aspect of this behaviour, like in the present case, the consumers' preference for a certain product, label or organisation. Along the research consumers may express their needs and desires and still may act in a totally opposite way; at times, it's possible that they aren't even aware of the true motivations behind their buying behavior, or they could react to factors determining last minute changes to their buying decision. Although the consumer decisions are relatively easy to notice and quantify, the psycho-physiological processes behind them are very difficult to take into account[1].

Research related to consumer behavior looks upon its different dimensions and their relationship. The final aim of these investigations is to foresee and channel the future reactions of the demand agents, for a precise correlation between demand and supply.In this respect, all dimensions that lead to the manifestation of a certain behaviour must be studied and understood. Each of the dimensions of the consumers' behaviour we want to focus on within a marketing research imprints on it with certain specificity, a special way of approach. Therefore, the features of the consumers' preferences mark the conducted studies with certain specific features in this sense, which we must take into consideration when elaborating and conducting these studies, in view of observing the essence of this dimension of the consumers' behaviour.

1. The necessity of knowing the consumers' preferences

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[1] Kotler, Ph., 2008, *Marketing Principles*, Teora Publishing House, Bucharest.

The preferences of the consumers are a positive motivation, expressed by the affective compatibility towards a product, service or trading form. We're not dealing with an internal bodily function, but a quality of objects that aims to fulfill our needs, quality acquired within the connection between man and the merchandise able to fulfill these needs.

Preferences can be triggered by: the features related to the material substance of the goods (shape, size, print, taste, colour, consistency, package, etc.); elements referring to label, name, use instructions that accompany the product; the statute granted to the person owning and using that particular product[1]. Theoreticians, at some point, had the tendency to limit the preference to the concept of choice; however choice and preference are two radically different entities: the first one is an action and the other one, a state of mind[2]. Preferences are the result of a long-term relationship between the brand and the consumer, as the latter learns to associate the brand with a symbol and perceive it as having high quality. Following these deep connections created over the course of time, a strong emotion is developed which lies on the basis of preferences, remaining present even in the absence of the friendly symbol or of any other component feature.

Although a hardly comprehensible concept, it has been demonstrated that the consumers' preference can be measured effectively, and that their study can provide a more thorough understanding on the choices consumers make, when they decide to select a particular offerer as against the other, or even when they decide to continue the relationship with the offerer in time. Additionally, conducted studies have established various concepts related to the preference, such as the concept of the formed preference which underlines the idea that the consumers' preferences are not better defined, but rather formed along the process of choosing, a constructive point of view which suggests that different tasks and contexts highlight different aspects of the options, the consumer concentrating on different considerations leading to inconsistent decisions[3].

Knowledge of consumer preferences is especially important with respect to the various activities carried out at the organizational level, necessary for its survival.For instance, if an entrepreneur must determine what features must have the product he wants to create, he will interview more potential buyers, asking them to mention the level of preference for each separate feature.The consumer preferences and behavior represent the basis of the pretesting models for the new products (ASSESSOR, COMP, DEMON, NEWS, SPRINTER), which implies determining the functional relationships between the buyer's opinion concerning a product, testing it and the purchase behavior. The level of preferences is one of the variables that need to be taken into account when identifying the strong and weak points of the competitors. By measuring the consumer preferences before and after carrying out an advertising campaign, the transmitter may evaluate its success or failure[4].The preferences towards certain products or brands may constitute the theme of a survey supplying information concerning the relative non-consumers, since attracting these represents an important means of increasing the sales volume up to the maximum limits of market potential. The companies constantly increasing the level of reminding and of preference shall attain an

[1] Cătoiu, I, Teodeorescu, N, 2004, *Consumer Behavior*, Second Edition, Uranus Publishing House, Bucharest, pag. 22.

[2] Hansson, S.O., Grüne-Yanoff, T., 2006, *Preferences*, Stanford Encyclopedia of Philosophy, 4 October 2006, http://plato.stanford.edu/entries/preferences/.

[3] Novemsky, N., Dhar, R., Schwarz, N., Somonson, I., 2007, *Preference Fluency in Choice*, Journal of Marketing Research, Vol. XLIV (August 2007), 347–356,
http://www.atypon-link.com/AMA/doi/pdfplus/10.1509/jmkr.44.3.347.

[4] Kotler, Ph., 2008, *Marketing Management*, Teora Publishing House, Bucharest.

inevitable increase in market share and profitability. The size of profits is less important than managing to consolidate consumer preferences towards its products[1].

More frequent are the situations that emphasize the necessity of knowing this dimension of the consumers' behaviour.

After determining consumer preferences towards a brand, the producer may take the following measures, with a view to increase preferences for that brand: change the product; change beliefs concerning the brand; change beliefs concerning the competing brands; change the importance of features; attract attention towards neglected features; change the consumers' ideals.

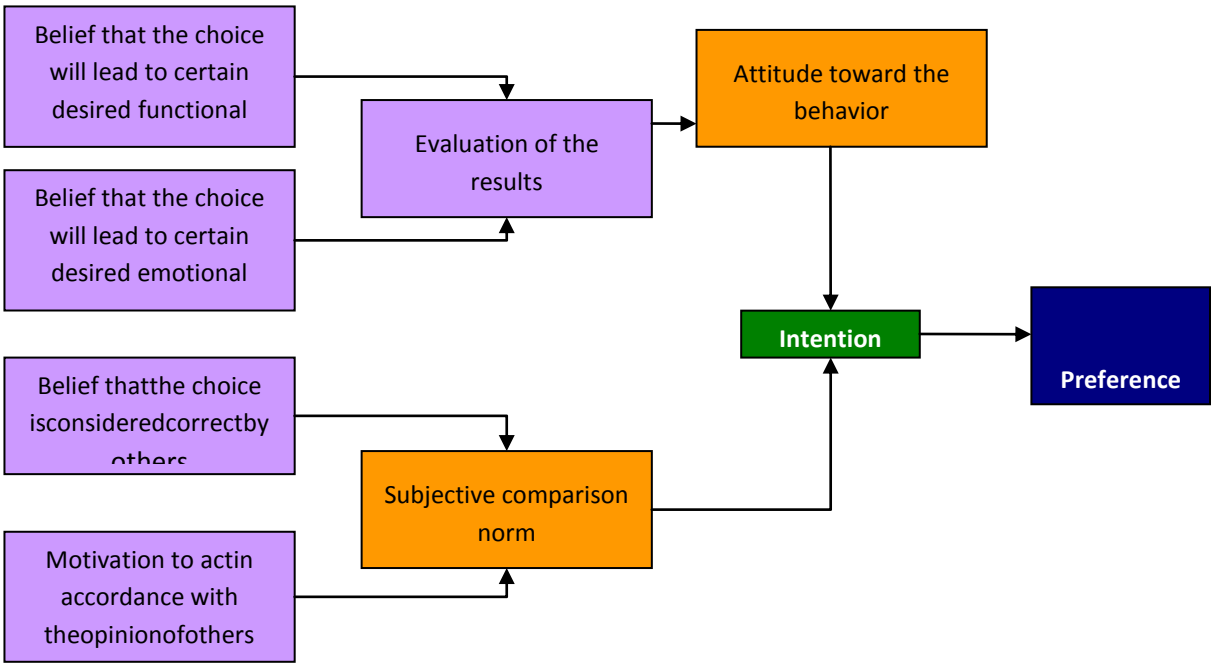
In addition, in order to attract consumers' preferences towards their own brands, producers and retailers may chose the option of "renting" those brands having won the preferences of consumers (names or symbols previously created by other producers, names of celebrities, names of movie characters etc.).

2. Fundamentals of studying the consumers' preferences

The theory of rational choice comprises attitude components which, in the end, represent the basis of forming a preference. This theory gives us a model contributing to a better understanding of the way consumers' preferences are formed and providing us, in an appropriate way, with the necessary means of researching and foreseeing the evolution of the consumers' preferences.

After analysing the way consumers' preferences are formed from the point of view of the theory of rational choice, depicted in figure 1, we can state that, in order to understand the consumers' preferences, it is necessary to determine their demands and desires regarding the performance (functionality) involved in the purchase, the expected emotional results, as well as the subjective standards consumers use to identify the tendency for a product or a service as against the others.

Figure1. *Structural model of how consumer preferences are formed*



Source: *Developing Customer Insight: The Determination of Customer Preference*, International Communication Research, www.icrsurvey.com/docs/Customer%20Preference%20Formation_1205.doc

[1] Voicu, M.C., 2007, *Aspects Related to Researching Consumer Preferences*, Theoretical and Applied Economics, No 9/2007 (514), ISSN 1841-8678 (print edition)/ISSN 1844-0029 (online edition) http://store.ectap.ro/articole/250.pdf.

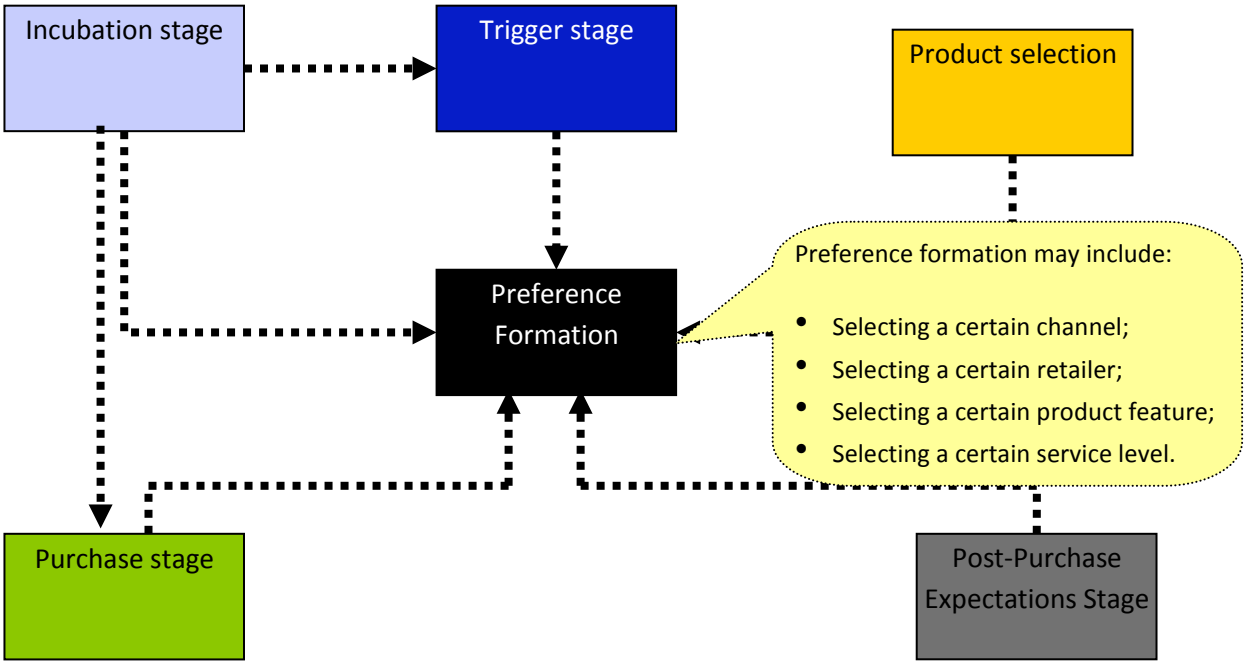
A first hypothesis of the presented model is that individuals perform thought purchases. In some cases, the act of thinking can be minimal when purchasing a product or a service has already become a habit. In other cases, the act of thinking can be extended over a longer period of time, whereas each element is carefully processed before performing the purchase.

We can observe that the presented model is used by the consumer, more or less, whenever he buys and the components that influence a preferred decision are, at the same time, components that interfere in the process of evaluating the performance of the product/service bought, as well as of the organization responsible for it. Hence, to the extent that the components of the preference change, the components that influence the satisfaction change, too, accordingly.

The theory of rational choice takes into consideration the consequences of performed actions. We prefer a product, a person or a service because we have already decided that the object suits best to our needs or demands on the performance, altogether with the emotional demands judged by our standards of comparison. Each step in the purchasing process contains emotional and performance components preferred by the consumers.

If we extend the steps of the purchasing process over the model of the theory of rational choice (depicted in figure 1), we will be able to interpret the evaluation experience by means of the purchase (see figure 2).

Figure 2. *Evaluating the purchasing experience – using the model of rational choice within different stages of the purchasing process*



Source: *Developing Customer Insight: The Determination of Customer Preference*,International Communication Research, www.icrsurvey.com/docs/Customer%20Preference%20Formation_1205.doc

Note: The indicator of preference formation represents a standardized score that varies between 1 and 100.

In reality, the decision of buying is taken by making certain well-thought compromises (compensations) between the levels of fulfilling the consumers' preferences as

against the significant attributes, considered by the consumers as decisive when purchasing a product (the most frequent example is accepting some intermediary levels of performance in exchange for a price suitable to the consumer's purchasing power)[1].

3. Methods used in the study of the consumers' preferences

Since the preference appears only in the context of a strong motivation, the research of preferences covers a more limited but, at the same time, a much deeper area than the study of motivations that subsumes the evaluation of the preference intensity, using also the same instruments as in the case of the evaluation of reasons.

The study of consumers' preferences can resort to *the observation method* (as when analysing the purchasing reasons), being the cheapest way of collecting behavioural information and, at the same time, the most accurate one that assures an authentic motivational image. *The selective enquiry* based on a written questionnaire is also used in studying consumer preferences even though it determines solely the declared behavior of consumers and not the actual one, as in the case of observation.

Measuring consumer preferences for alternative product concepts may be performed by using technique that is more and more widely known, namely the *conjugate analysis*. This is a method of finding out the value in use consumers attach to various features of an object. The respondents are presented with several hypothetical offers obtained by combining certain features, and they must rank these offers according to their preferences.

Testing consumer preferences is based on a variety of techniques such as: simple rank ordering, paired comparisons, appraisal scales, each having specific advantages and disadvantages. *The method of unitary appraisal* supplies much more information than the method of simple ranking and that of paired comparisons. The subject is required to order on a scale his/her preferences for each product. By using this method, we can find out not only the order of preferences, but also the qualitative levels of preferences for each product and the distance between the products. At the same time, this method is easy to use, especially when we must evaluate several products[2].

Investigating preferences may be approached in different combinations with investigations on other dimensions of consumer behavior. For this purpose, one can make use of special investigation techniques, such as contextual methods or psychodrama[3].

The research on the consumers' preferences has lead to a more thorough understanding of several important problems arisen in the research on the consumer satisfaction, especially one related to the fact that the consumer satisfaction in superior conditions at present does not assure the manifestation of the consumer preference in the future.

4. Key stages in organizing a research on the consumers' preferences

Organizing a selective marketing research is an especially complex process. In order to maximize the contribution of the marketing research to the decision-making process, this activity must be organized with most care.

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[1]Daj, I., Stareţu, I., 2002, *Simplified algorithm of applying the analysis method of compensations in the research of the consumer preferences*, National symposium with international participation – Computer-assisted projection, 7-8 November 2002, http://dpr.unitbv.ro/adept/prasic/work/design/d23.pdf.

[2]Voicu, M.C., 2007, *Aspects Related to Researching Consumer Preferences*, Theoretical and Applied Economics, Nr. 9/2007 (514), ISSN 1841-8678 (print edition)/ISSN 1844-0029 (online edition), http://store.ectap.ro/articole/250.pdf.

[3]Florescu, C., Balaure, V., Boboc, Şt., Cătoiu, I., Olteanu, V., Pop, N. Al., 1992, *Marketing*, Marketer Publishing House, Bucharest, pag.164.

Carrying-out the marketing research involves going through certain successive phases, within a complex process, starting with determining the research aim and objectives and finishing with presenting conclusions and recommendations.

➥ *Identifying the issue and defining the research purpose*

Identifying the issues and defining the research purpose is one of the most important phases of the research process, having decisive influences over the subsequent phases. Even if perfect decisions are taken during the other phases, the research is compromised if the issue to be investigated and the research purpose were not clearly defined, and this can only be attained through a close collaboration between the person conducting the research and its beneficiary[1].

In order to exemplify such a research, we will assume that the purpose is:„Research on the preferences of tourism services consumers for the Sinaia mountain resort".

➥ *Defining the research objectives*

In the process of organizing the marketing research, formulating objectives involves determining on an operational level which information is necessary for grounding the optimal decision alternatives for each dimension of the issue investigated. Each objective must be relevant for the research purpose.

Establishing clearly the research objectives is useful in fundamenting the priorities concerning the necessary information and serves as a standard in evaluating the final results.

The objectives corresponding to the research purpose may be formulated as follows:

- Identifying the frequency of visits at the mountain resorts;
- Determining the importance of the mountain resorts' main features;
- Determining the main categories of tourists visiting the Sinaia resort, by age, sex, occupation and income;
- Identifying the main mountain resorts competing with the Sinaia resort;
- Establishing the main categories of visitors who prefer Sinaia, by age, sex, occupation and income;
- Determining the frequency of visits at Sinaia made by tourists who prefer this resort;
- Identifying the minimal length of the stay by visitors who prefer Sinaia;
- Determining the year period when visitors prefer travelling to Sinaia;
- Identifying the minimal number of people accompanying visitors who prefer travelling to Sinaia;
- Determining the main features preferred by visitors coming to Sinaia;
- Identifying the appreciation degree of the main features of the resort by tourists that prefer Sinaia;
- Determining the main reasons of tourists who prefer visiting Sinaia;
- Identifying the way tourists preferring Sinaia appreciate this resort's main features of the tourism services.

➥ *Defining the research hypotheses*

Once the research objectives are set, it is necessary to decide on the hypotheses to be tested within the research. Based on a logical analysis of all possible hypotheses related to the issue under research, those hypotheses that can be tested by the research conducted are selected.

Stating a valid hypothesis may have as a starting point the theory of a discipline, the experience acquired by certain specialists, the results of previous researches or the results of an exploratory research conducted in advance.

[1]Balaure, V., Adăscăliței, V., Bălan, C., Boboc, Șt., Cătoiu, I., Olteanu, V., Pop, N. Al., Teodorescu, N., 2003, *Marketing,* Uranus Publishing House, Bucharest, pag. 133.

For our example, the corresponding hypotheses may include:

- The majority of people are frequently travelling to mountain resorts;
- According to tourists, the most attractive features of the mountain resorts are the natural location and the diverse landscapes, as well as the concentration of tourist attractions;
- Sinaia is on top of the most visited mountain resorts;
- Most of the tourists visiting Sinaia are male persons with an income of 2000 Lei;
- Sinaia is a mountain resort preferred most specially by male persons with ages between 20 and 35 years, working as employees with higher education and with an income of 2000 Lei;
- At least 50% of the tourists, who prefer Sinaia, travel to this resort at least three times a year;
- The tourists are unsatisfied with the services provided at Sinaia mountain resort;
- All year long, the winter season is preferred for the package tours offered by Sinaia mountain resort.

➥ *The research sample*

It is essential in carrying out a marketing research to determine the elements concerning the research sample. Sampling relates to establishing the sample size and structure, so that one basic condition is fulfilled, for the sample to be representative with respect to the population researched[1].In this regard, a sample base (general group, selection group and observation unit) and the dimension of the research, which will produce the best results with minimal costs (does not necessarily ensure the representativity of the information), will be established.

The sample size, apart from its theoretic foundations, must answer to the concrete objectives associated to the study under scrutiny. In practice, while it is possible to determine a sample size ensuring representativeness of all information to be gathered, is very seldom used, due to the costs involved. A compromise is usually accepted between objectives and costs, by choosing that sample size producing the best results.

➥ *The research questionnaire*

The questionnaire is the instrument most frequently used in obtaining primary data and consists in a set of questions the respondents must reply to. The flexibility of such instrument lies in the fact that a question may be asked in countless different ways.

The questionnaire is one of the most important elements the success of a selective research depends upon. Concerning the methodology of elaborating the questionnaire, it is believed it is more of answer art than a science.

Specialists agree that, in order for the questionnaire to be an efficient tool, it must fulfill the following functions:

- to ensure the cooperation and involvement of the respondents;
- to communicate correctly to the respondents what is expected from them;
- to aid the respondents in formulating answers to questions;
- to avoid possible distortions of replies;
- to facilitate the interview operator to carry out his/her task;
- to generate the base necessary for processing the data gathered.

Upon elaborating the questionnaire, aspects such as the following needs to be addressed[2]:

[1]Anghelache, C., 2008, *Treaty of theoretical and economic statistics*, Economica Publishing House, Bucharest

[2]Voicu, M. C., 2008, *The questionnaire – a tool in the survey research*, The Romanian Magazine of Statistics, Supplement May 2008, pp.112-125, ISSN 1018-046x, B+ category, CNCSIS monitored ISI Thomson Philadelphia (SUA).

- ⇨ identifying the characteristics comprised in the survey objectives and program, and their logical ordering. Mentioning the desired information and the research objectives envisage that every objective, hypothesis and variable must reflect in the structure of the questionnaire. Also, another preliminary moment of great importance is when the method of collecting information is established, a phase with great impact on the other stages during the projection of the questionnaires. The questionnaires' content and the way questions are formulated, their type and sequel, the questionnaires' length and other physical features are subject to this phase.
- ⇨ formulating the questions the respondent is to be asked. With this respect, one must take into account:
  - the type of questions that are to be used (closed, open or mixed questions; factual or opinion questions etc.);
  - the quality of questions (to be specific, simple, to avoid ambiguity, vague and tendentious wording, to avoid presumptions or hypotheses etc.);
  - the order of questions (the questionnaire must be elaborated using the "funnel" principle, starting with general questions and continuing with more and more specific questions, or using the "inverted funnel" approach);
- ⇨ choosing the proper sizing, page layout and general aspect of the questionnaire;
- ⇨ coding and elaborating the code list;
- ⇨ questionnaire pretesting.

After applying the questionnaire and processing the data collected, we proceed to analyzing and interpreting the data in order to reach the research conclusions. The research conclusions aim at answering to the objectives and hypotheses set out in the preliminary phase of the research, and shall constitute an important source of data for the decision-maker.

Conclusions

Current debate on consumer preferences research is reduced to a few key points:

- Determining the preferences of the consumers is part of the category of strategic information. This type of information allows organizations to take a decision that would lead to the fructification of preferences, which will ensure its success on the market it activates on.
- The features of the consumers' preferences and, in general, of the consumers' behaviour impose that the marketing research appropriately adapt in order to observe an aspect of the consumers' behaviour, which is more of qualitative nature, and, as a result, hard to discover by means of a quantitative method.
- Along the marketing research it is necessary to take into consideration several key stages, which, if carried through, will influence the obtaining of certain higher qualitative information. Of great influence on the quality of the data obtained by the means of the marketing research are the stages that formulate the problem and the research objectives, as well as the stage when the questionnaire is elaborated – at some point important steps in evidencing the preferences of the consumers.

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AN OFF-LINE DUAL MAXIMUM RESOURCE BIN PACKING MODEL FOR SOLVING THE MAINTENANCE PROBLEM IN THE AVIATION INDUSTRY

George Cristian Gruia*
Michal Kavan**

Abstract

In the aviation industry, propeller motor engines have a lifecycle of several thousand hours of flight and the maintenance is an important part of their lifecycle. The present article considers a multi-resource, priority-based case scheduling problem, which is applied in a Romanian manufacturing company, that repairs and maintains helicopter and airplane engines at a certain quality level imposed by the aviation standards. Given a reduced budget constraint, the management's goal is to maximize the utilization of their resources (financial, material, space, workers), by maintaining a prior known priority rule. An Off-Line Dual Maximum Resource Bin Packing model, based on a Mixed Integer Programming model is thus presented. The obtained results show an increase with approx. 25% of the Just in Time shipping of the engines to the customers and approx. 12,5% increase in the utilization of the working area.

Keywords: *Bin packing, maximization, resources, scheduling*

JEL Classification: L93

Introduction

Scheduling in the field of Maintenance is any variety of scheduled maintenance to an object or item of equipment. Specifically, Planned Maintenance is a scheduled service visit carried out by a competent and suitable agent, to ensure that an item of equipment is operating correctly and to therefore avoid any unscheduled breakdown and downtime.[1]

Aircraft maintenance checks are periodic inspections that have to be done on all commercial/civil aircraft after a certain amount of time or usage, according to Federal Aviation Administration (FAA) in the United States,[2] Transport Canada, for Canadian carriers, or the European Aviation Safety Agency (EASA) for EU carriers. Taking into account that an airplane (or helicopter) engine must be checked and repaired in such a way that the quality of the repair should be nearly perfect and the operational scheduling involved in this field, we've decided to investigate a scheduling problem within a maintenance facility, where the engines must be priority-based scheduled function of the availability of multiple resources.

The present article aims to present a way for solving the problem of maximizing the utilization of the available resources for the maintenance and repairing operations of the

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[1] Wood, Brian,*Building care*. Wiley-Blackwell, 2003.
[2]AFS-600."Chapter 8.Inspection Fundamentals". In *Aviation Maintenance Technician Handbook*, ed. Federal Aviation Administration.2008, 129.

propeller motor engine (for helicopters and small commercial and recreational airplanes)based on a priority rule when entering the company. In order to solve it, a Mixed Integer Programming model is created, but due to the complexity of the problem we try to solve it by an analogy to the Off-line Dual Maximum Resource Bin Packing problem where three novel approaches are used. Then, the model is tested in a Romanian company and results are presented accordingly.

The Bin Packing Problem has been extensively studied in combinatorial optimization. We can state it as follows:

-for a given set of n items with a weight $w_1, w_2, \dots, w_n$ and an unlimited number of identical bins of maximum capacity c, find a way of packing all the items into the minimum number of bins so that no item is left aside and the capacity of the bin c is not exceeded.

This problem has several applications in different areas like production scheduling, manufacturing, hospitals, logistics, but however is a NP-hard problem[1]as Karp[2] showed.

In our case, the above stated problem was modelled as a Dual Bin Packing Problem (DBPP). If classical bin packing problem is about minimizing the total number of bins required to assign a given set of items, the dual one is about maximizing the number of items that can be packed in the available bins, i.e. maximizing the resources utilization for our maintenance operations.

The DBPP has been referred to in the scientific literature[3], as a problem of maximization the number of items packed in a fixed number of bins[4], but also as a problem of unlimited number of bins[5], where we should pack items in as many bins as possible so that the total weight of each bin is at least equal to its capacity. Assmann[6]studied this problem from a discrete point of view. We will however consider the first type of the DBPP in our study case.

There are a lot of applications of the DBPP but until this article was written, the authors didn't find an application in the manufacturing aviation industry where products are scheduled according to their priorities and the workers' performance on their jobs, which in the worst case scenario may increase their time working on a specific assigned product, thus the schedule would be affected.

1. Problem definition

The Romanian company involved in our research, further "the Company", was as many other manufacturing and maintenance companies, hit by the financial crisis. Due to this unfortunate situation, the management had to let go some of the employees and the working floor was redesigned in order to better comply with customers' requirements and due-dates. A problem with the process line occurred when the delayed orders hit a record number of 300 per week (because workers were laid off and human resources together with the financial resources had to be drastically reduced). Also due to the Company's working profile, the maintenance has to be done according to the airspace regulations and ISO 9000 Quality Standards, so a middle way had to be found when scheduling the incoming orders for different types of engines with different problems.

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[6]S.F. Assmann, "Problems in discrete applied mathematics" (PhD diss., Mathematics Department, Massachusetts Institute of Technology, 1983).

The Company's facilities are equipped with a tear-down area, a dismantling dedicated area and several types of equipment for measurement and NDT capabilities. Engines repairs and overhauls are performed using state-of-the art technology. All phases of the repairs are applied according to the requirements: dismantling, stripping and cleaning, visual inspection of components, measurement and/or non-destructive inspection tests. After the preliminary analysis, technical reports are filled in and the replacement of non-reparable parts is made accordingly. The engine is then reassembled and tested in another testing facility for ensuring the required performance as part of the quality assurance process. The Company's testing facilities cover a wide range of tests: test rigs for fuel/oil/hydraulic accessories of the engine, balancing and over-speed equipment, test beds for turbojets and turbo shafts. Similar procedures are applied on specific equipment for Dynamic Components for helicopters.

Assembling of components, subassemblies and final assembling are performed in a dedicated shop area, divided in several working areas (WA), using complex assembling precision specific equipment, where specific personnel works in teams, each team being run by a Team Leader (TL) and each team having assigned one engine at a time. There is also available and used equipment for balancing (shafts, rotors, rotating assemblies) and over-speed tests.

Due to the large number of airplanes and helicopter engines which have been waiting for the maintenance operation to be performed on and also due to a new lucrative contract for the next 5 years with important clients, the management decided to redesign the production and overhaul shop space in parallel with an optimization of the available resources, according to a priority-based rule.

For the production 2,000 sqm were dedicated and for overhaul 4,000 sqm shop space. The assembly shop of the new facility allows forother engines from the same family-types and sizes similar to the engines in current maintenance to be repaired. But in order to do so, the current orders had to be scheduled for maintenance and the delayed orders had to be reduced to zero.

The old and new orders had to be scheduled according to: the priority of each case (late orders had the highest priority, because of every additional day of the one week, i.e.5 working days, guaranteed maintenance time, the Company had to pay 0.01% penalties; and also new orders had high priority, i.e., the customers had the opportunity of paying an extra fee for getting their engines fixed faster than usual), the resource availability (available shop space, equipment, each TL was responsible for his/her engine and each TL had a certain affinity and thus was specialized in a certain engine type) and working time of each team. Due to the constraint imposed by the limited resources compared to the high number of engines which had to be repaired in the same time, a working schedule was implemented for the 8 hours, 5 days a week, working time. Sequencing the maintenance operations on engines and placing them at the right time slots, according to the available resources plays an important role in maximizing their utilization.

In this schedule case it was considered the case of maximizing the resource utilization– for the fixed costs to be as lower as possible, when assigned to final products. In other words, the fixed costs with the resources and the new production and overhaul shop space, are known in advance and taking in consideration that the working overtime would make the management to pay workers their overtime, the goal is to maximize the number of engines that are repaired using fixed working hours through a given set of available resources. Some of the engines which arrived for their annual maintenance procedure had complaints from their owners and had to be subjected to additional tests before the typical maintenance procedure, and so required a delayed start of the maintenance, i.e. delayed start.

The engines when entering the Company's facility are registered in the internal informational system (database) from where are scheduled on a first-come, first-served basis.

The Service department, based on this FCFS policy but also according to the priority of each engine in combination with some engines which had to be subjected to different tests (had a delayed start) had to choose the optimal solution of the sequence of the engines which entered the shop floor. Accordingly, a tool was needed in order to comply with these constraints but also to maximize the resources utilization, as part of the top management's priority.

Our problem is a complex one because it takes in consideration a long term period of time, where the resources can have distinct availabilities, function of different parameters like: delayed materials needed for the repairs, different tools and/ or machines are not in handy for one team because are used by another team, one team cannot work on more than one engine at a time and so the assigned floor space is occupied until the engine is ready to go.

Another constraint is added to the actual problem, i.e., new people are needed to be specialized for the new orders (also because of the lay-offs, it was cheaper to employ and train new workers than to increase the salary of the old ones, which accordingly were laid off) and so they should be able to be trained on the spot within different maintenance operations and the maintenance could have been prolonged.

The article is further organized as follows. A MIP model is presented in the 3rd part, while in the 4th part a simplified example of the DBPP is solved using three heuristic approaches for finding the best possible solution: First Fit Decreasing-based (FFD), First Fit Increasing (FFI) and a new First Fit Best Randomized (FFBR) approach. In the last part of the article conclusions are drawn based on the obtained results and we show that the FFBR is the best possible solution for our example, taking in consideration that DBPP is NP-hard.

2. A Mixed Integer Programming(MIP) model

We've started from our goal of maximizing the utilization of available resources (people, space, fixed working hours) according to the cases' priority and availability. In order to do so we should maximize the number of repaired engines in a given working time-slot according to the resources' availability. Due to the priority constraint, we should maximize the sum of priorities of the scheduled engines as an objective. In this way, weights are given to each engine when entering the facility in order for a priority scale to be made, and use these weights for the model to solve first the highest priority cases and then the lower priority cases. In order to maximize the utilization of the working area and the shipment of the repaired engines, two coefficients are introduced:

$$k_1 = \frac{total\ time\ the\ WAs\ are\ occupied}{total\ available\ time\ across\ all\ WAs} \text{ and } k_2 = \frac{scheduled\ engines}{total\ number\ of\ engines\ to\ be\ scheduled}$$

and will be used is assessing the improvement of the maintenance process after implementation of the three approaches for our DBPP.

Before trying to state the MIP model, several initial conditions should be stated:

- A team can only work on one engine at a time in only one designated shop area.
- A team can repair an engine only if all the members, including the TL is present at work in that day, at that time interval (time-slot).
- Each team is specialized in one engine and when prioritizing this aspect is considered, but every team can also switch the type of engine which will repair in case of increased number of a certain engine type.
- Engines, when entering the facility are prioritized according to the customers' requirements and they are sent to testing facility or to the deposit (where will wait to be processed at a later time) or directly to the WA. Accordingly, we can give 3 levels

of priority to these engines: 1 star to the engines which are not an urgency and can still wait a little time in the deposit, 2 stars for those which should be tested and 3 stars to those, which customers need as soon as possible and for which they paid an extra fee to "be first in the row".

- Each TL has assigned the type on engine at which his/her team is the best and we can predict that the duration of each repair is known in advance.
- In order for the time to be better managed, the working day (8 hours) is divided in 30 minutes time slots obtaining a 16 time-slots for one working day. We have chosen 30 minutes, because this is the average time for checking the parameters of an engine (visual and computer aided process) by performing a basic diagnostic analysis.
- The Company works on a 1 shift, 8 hours a day, 5 day per week, working program.
- An engine can be automatically scheduled for maintenance by the Service department, but also by each of the Team Leaders according to their time availability. As part of the management's motivation scheme, a Team Leader and his/her team can enter the internal competition of "the Best Team" Award, with extra financial benefits, according to the highest number of engines repaired according to their priority. But also the number of engines assigned by the TLs cannot surpass the number of the assigned engines by the Service department.

For a clearer description of the problem, we give a mathematical formulation for the problem. We first give notation used in the formulation (and throughout the paper).

The parameters, indices and variables of the proposed model can be seen from table 1 below:

Variable	Equals to:
$x_{ewatltsd}$	1, if the engine e is scheduled for maintenance in the WA with a team, run by team leader TL, at time-slot ts on day of the week d, 0, otherwise
y_{ewad}	1, if the engine e is assigned to the WA on day of the week d, 0, otherwise
z_{etl}	1, if the engine e is scheduled for maintenance by their TL, 0, if it is not scheduled at all
w_{eS}	1, if the engine e is scheduled for maintenance by the Service department, 0, if it is not scheduled at all

Table 1 – Variables of the MIP model

A start time (St) and an end time (Et) can also be considered for the maintenance process of a given engine.

Indices and parameters:

E Index for engines requiring maintenance e = 1, 2, … , E

WA Index for working areas: wa = 1, 2, … , WA

TL Index for team leaders: tl = 1, 2, … , TL

T Index for teams: t=1, 2, …, T

D Index for days, used for scheduling the maintenance operations: d = 1, 2, …, D

TS Index for time-slots during a working day: ts = 1, 2, … , TS. In our case TS=16, for one shift working day, but we consider a general approach.

I Index for repairing operation: i = 1, 2, … , I

J Index for engine type which will be repaired: j = 1, 2, … , J

S Set of all engines which must be repaired / pass maintenance operation

S^T Set of engines which require additional tests
S_i Set of engines requiring the repairing operation i
S_j Set of engines of type j
S_{tlj} Set of TLs specialized in repairing the engine type j
P_{ed} Priority of engine e in the day d: $P_{ed} \in \{1, 2, \dots, k\}\ stars$ as a priority scale
T_e Total time for maintenance / repair for engine e, required by the best TL and his / her team (we assume that T_e = 1 time slot = 30min)
T_{tl} Time needed by the TL for fixing an engine according to his/ her abilities (skills)
T_T Time for the transportation of the materials, people, engine to and from the WA, before and after the maintenance
A_{tltsd} 1, for the availability of the TL (with his / her team) at time slot ts on day d; 0, otherwise.
E_{tsd} Total equipment (tools, machines, parts, consumables) available for time slot ts on day d
N_{ee} Number of equipment e required for fixing an engine e
Although each TL has his / her own team, on some engines which are in better conditions than others, there is no need for all of the team members to participate in the repairing process, thus we consider that the number of team members is variable and we introduce:
M_{tsd} Total number of team members available at time slot ts on day d
N_{me} Number of team members required for fixing an engine e

Our goal is to maximize the number of engines scheduled in all the WAs during all given working days. This can be noted as follows:
$\sum y_{ewad} P_{ed} = maximum$ subject to :
$\sum_{watld} x_{ewatltsd} \leq 1, \forall\ e, ts$ (1)
This states that an engine can be assigned at any time slot to at most one TL and WA on a certain day.
$\sum_{etl} x_{ewatltsd} \leq 1, \forall\ wa, ts, d$ (2)
That is, at most one maintenance operation can be performed in a WA in a given day and time slot.
$\sum_{ewa} x_{ewatltsd} \leq 1, \forall\ tl, ts, d$ (3)
Any TL can work on at most one engine at a given time slot and day.
$\sum_{wad} y_{ewad} \leq 1, \forall\ e$ (4)
An engine will be scheduled to at most one WA across all days.
$\sum_{tlts} x_{ewatltsd} \leq TS\ y_{ewad} \forall\ e, wa, d$ (5)
A TL works on an engine in a given WA at a time slot on a day no more than the assigned TS for engine e to be repaired in the WA on day d.
$\sum_{wad} y_{ewad} = \sum_{tl} (z_{etl} + w_{eS})\ \forall\ e$ (6)
The scheduled engine will be assigned with its TL to a specific WA on a day d.
$\sum_{watsd} x_{ewatltsd} = (T_e + T_{tl})(z_{etl} + w_{eS}) + T_T\ \forall\ e, tl$ (7)
The total time slots an engine is worked on, equals to the sum of total time for maintenance required by the best TL and the time of the actual TL according to his/ her skills, where the T_e is considered a reserve time slot for additional complications which may appear during the repair.
$\sum_{wa} x_{ewatltsd} \leq A_{tltsd} z_{etl} + A_{tltsd} w_{eS}\ \forall\ e, ts, d, tl$ (8)
The scheduled engines by their TL and the Service department should be repaired only by the Team Leaders who are available.
$S_t \leq ts \sum_{watld} x_{ewatltsd} + TS\ (1 - \sum_{watld} x_{ewatltsd})\ \forall\ e, ts$ (9)

The start of the maintenance operation should not exceed the time slot allowed for the start of its repair.

$$E_t \geq (ts+1)\sum_{watld} x_{ewatltsd} \quad \forall \; e, ts \tag{10}$$

The maintenance of an engine with eventual repair should not exceed the maximum time slot allowed by the timetable and should be longer than the calculated start of the operation, with at least one time slot.

$$\sum_{watltsd} x_{ewatltsd} = E_t - S_t \quad \forall e \tag{11}$$

The time slot allowed for the engine e should be equal to the difference from the end and the start of the maintenance and repair.

$$\sum_{ewatl} N_{me} x_{ewatltsd} \leq M_{tsd} \quad \forall ts, d \tag{12}$$

A certain number of team members are necessary to be present at the time slot tsin the day d, for the maintenance of the engine e.

$$\sum_{ewatl} N_{ee} x_{ewatltsd} \leq E_{tsd} \quad \forall ts, d \tag{13}$$

A certain number of equipment should be available for the maintenance of the engine e to be performed in the allowed time slot ts on the day d.

Due to the conditions of the bin packing problem, we must state that the variables can have only two values according to their specific conditions, i.e., 0 and 1.

We cannot solve the problem due to the NP-hard situation, but we can solve a simplified example where we show our three approaches.

We consider a number of8 engines with different priorities (as given by the customers), but note that the same engines have priorities given by the available time and resources' constraints within the company.

Our methodology for solving this problem can be stated as follows:

1. Assign priorities to the set of engines according to the outside constraints (from the customers who paid an extra fee).
2. Assign priorities according to the estimated repair time, the availability of the TLs and their teams in the certain days and time-slots (inside constraints).
3. Search the local optimum for both of the cases.
4. Compare and combine the local optimums in order to satisfy the constraint of maximizing the resources' utilization, i.e., to find a global optimum.
5. Send the engine e to maintenance to the assigned WA with the available TL in the day d on the time slot ts.
6. Repeat the 1st to 5th step until all the engines are repaired and shipped to the end users.

The constraints for the 8 engines' example for the day d are as follows:

Engine no.	1	2	3	4	5	6	7	8
Customers' priority	3	1	3	2	2	2	3	1
Expected maintenance time in time slots	1	1	1	3	3	3	2	2
Available Team Leaders specialized in these engines*	YES= TL1	YES= TL2	YES= TL3	NO=TL1	NO =TL2	NO =TL3	YES =TL4	NO =TL4
Special equipment available for each specific engine	NO	YES	NO	YES	NO	YES	NO	YES
Available WA in ts	YES	YES	YES	YES	NO	NO	NO	NO
Company's priority**	2	3	2	2	1	1	1	1

Table 2 – An example for 8 engines with their constraints

*) If the TLs specialized in engines 4, 5, 6, 8 are not available; other TLs available will repair these engines.
**) Take in consideration that the company's priority is solved in a very simplistic way, which doesn't correspond to the reality! However in practice we cannot find the priority according to the company's resources and time constraint so easily!
If we try to solve this MIP model we won't be able to get feasible solutions due to the complexity of the model. Also we can make an analogy with the dual bin packing problem. We are able to solve it only for a restricted number of engines which are to be scheduled for maintenance, because this relates to a NP-hard problem.

3. A new approach for solving the DBPP

The DBPP can be solved with different algorithms, but due to the fact that we must choose a way of prioritizing the incoming engines, we've decided to use the First Fit Decreasing, First Fit Increasing and a new First Fit Best Randomized approach. Our solution tries to find a way for repairing the incoming engines and according to our constraints x, y, z, w, which can take only 2 values {0,1}, our DBP problem transforms into an Off-Line Dual Maximum Resource Bin Packing (ODMRBP).

In this off-line variant, we have a limited number of unit sized bins, the working areas, and a sequence of items with sizes in [0; 1], and the goal is to maximize the number of bins used to pack all the items subject to our constraints. A set of items fits in a bin if the sum of the sizes of the items is at most one, where number one can be associated with a fixed engine. In the off-line variant, there must be an ordering of the bins such that no item in a later bin fits in an earlier bin.

Thus we must first sort the items, and in our case this is done with the help of the "stars" scale, where for the engine with the highest priority the engine receives 3 stars and the one with lowest 1 star. Then the first engine e_1 should be sent to the first WA where "fits best" and the maintenance will start according to the available resources and time slot.
We consider and further solve the problem for 4 Team Leaders and 8 engines which must be scheduled on 2 Working Areas in 8 time slots from Monday, i.e, 4 hours.

Team Leader	Availability
TL 1	1-8
TL 2	3-7
TL 3	1-8
TL 4	4-8

Table 3 - Team Leaders availability on Monday

We use the following approaches:

- *First-Fit-Increasing* (*FFI*) allocates engines to WA (bins) in non-decreasing order with respect to their "sizes" (priority and resource availability).

In this case, we must first sort the engines according to the increasing priority as can be seen from Tab.4. With the time availability of the Team Leaders and their teams we find the best way for utilizing the available resources for scheduling the engines on Monday morning.

Engine no.	2	8	4	5	6	1	3	7
Customers' priority	1	1	2	2	2	3	3	3
Expected maintenance time in time slots	1	2	3	3	3	1	1	2

Table 4 – Engines sorted according to increasing priority

The results can be seen from the table below, where "?" signifies an empty time slot, an extra cost the company had to pay if this approach was chosen:

30 minutes time slots	TLs working on e_x engine in WA1	TLs working on e_x engine in WA2
1st	?	?
2nd	?	?
3rd	TL2 on e_2	TL2 on e_5
4th	TL4 on e_8	TL2 on e_5
5th	TL4 on e_8	TL2 on e_5
6th	TL1 on e_4	TL3 on e_6
7th	TL1 on e_4	TL3 on e_6
8th	TL1 on e_4	TL3 on e_6

Table 5 – Results for the FFI approach

- *First-Fit-Decreasing* (*FFD)* allocates engines to WA (bins) in non-increasing order with respect to their "sizes" (priority and resource availability).

For this approach the engines are sorted in a decreasing priority manner, according to Tab.6 and results are in Tab.7.

Engine no.	1	3	7	4	5	6	8	2
Customers' priority	3	3	3	2	2	2	1	1
Expected maintenance time in time slots	1	1	2	3	3	3	2	1

Table 6 – Engines sorted according to decreasing priority

30 minutes time slots	TLs working on e_x engine in WA1	TLs working on e_x engine in WA2
1st	TL1 on e_1	?
2nd	TL3 on e_3	?
3rd	?	TL2 on e_5
4th	TL4 on e_7	TL2 on e_5
5th	TL4 on e_7	TL2 on e_5
6th	TL1 on e_4	TL3 on e_6
7th	TL1 on e_4	TL3 on e_6
8th	TL1 on e_4	TL3 on e_6

Table 7 – Results for the FFD approach

- *First-Fit-Best-Randomized (FFBR)*allocates engines to WA (bins) in a purely randomized, corresponding to the optimistic scenario, where each TL wants to work on a specified engine and they make their schedule accordingly.

We will sort the engines first according to the willingness of the TLs and second according to the customers' priority as can be seen from Table 8. The results one can see from the Table 9 below:

Engine no.	1	3	2	4	5	6	7	8
Customers' priority	3	3	1	2	2	2	3	1
Expected maintenance time in time slots	1	1	1	3	3	3	2	2

Table 8 – Engines sorted according to the optimistic scenario

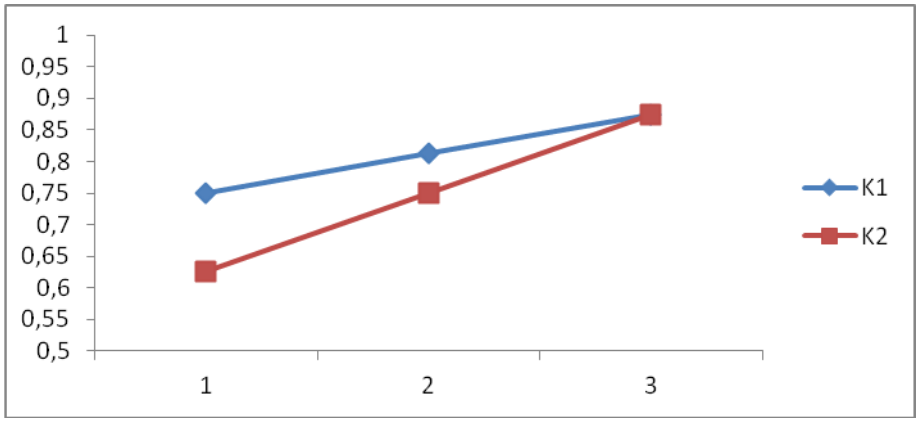
30 minutes time slots	TLs working on e_x engine in WA1	TLs working on e_x engine in WA2
1st	TL1 on e_1	?
2nd	TL3 on e_3	?
3rd	TL2 on e_2	TL2 on e_5
4th	TL1 on e_4	TL2 on e_5
5th	TL1 on e_4	TL2 on e_5
6th	TL1 on e_4	TL3 on e_6
7th	TL4 on e_8	TL3 on e_6
8th	TL4 on e_8	TL3 on e_6

Table 9 – Results for the FFBR approach

Another way of measuring the success rate of our approaches for solving the ODMRBP problem was by computing the two coefficients presented at the beginning of the paper. Also due to the solutions presented above the best values of these 2 coefficients are for the FFBR approach, where workers together with their TLs and Service department schedule their own tasks and try to optimize every day the WA and time slots' utilization.

The obtained results show an increase with approx. 25% of the Just in Time shipping of the engines to the customers and a decrease of the penalties the company had to pay for sending engines with delays and an approximate 12,5% increase in the utilization of the working area, which also increase the resources' utilization and minimizes the fixed costs of the working area when assigned to the total costs of the engines' repair.

The coefficients can be seen from the Graph below:



Graph 1 –Values of the coefficients K_1 and K_2 for FFI, FFD and FFBR approach

Conclusions

In this paper we have offered a possible solution to a multi-resource, priority-based case scheduling problem, which the authors have encountered in a Romanian manufacturing company, where helicopter and airplane engines were repaired. A Mixed Integer Programming model was developed, but due to the complexity of the problem, which is NP-

hard, a solution was described only on a small batch of engines which had to be scheduled on the Monday morning. An analogy with the Dual Bin Packing problem was noticed, more exactly with the Off-Line Dual Maximum Resource Bin Packing problem and three new approaches were used in order to find the best possible solution. As one can observe the best results are when we use the new FFBR approach, as a number of 7 out of 8 engines are scheduled according to the priority imposed by the customers, the working space availability and Team Leaders' working hours. For the previous approaches a number of 5 out of 8 engines are scheduled for FFI and 6 out of 8 for FFD. Even if 7 out of 8 still misses one engine to be scheduled, the authors consider that FFBR approach can be successfully used for finding the optimum solution (with all the engines scheduled), because on a longer time interval, the complexity of the problem increases, but with the help of computational software a good solution can be found.

Due to the intellectual property rights the data presented in this paper were altered and the company's name cannot be stated, but the authors tried to present the ratios, coefficients and results as close to reality as possible.

Future studies are aimed at improving the upper presented approaches, with the goal of developing new software for solving this exact type of problem, where other constraints can be added or removed according to the specific profile of the company where the optimization of the resources is needed on a priority-based rule.

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SPECIAL ISSUES

This section of the journal aims to disseminate business knowledge through the publishing of selected research findings presented in international conferences organized by the prestigious EuroMed Research Business Institute across Europe.

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FDI IN INDIAN RETAIL - AND ITS IMPLICATIONS

Natarajan Chandrasekhar*

Abstract

The health of a nation is gauged not only by the quantum of FDI it attracts but also the trend it follows. In turn this is dependent on the economic policies formulated and practiced and the willingness of all concerned to engage with global economic practices. Since the early 1990's when the government embarked on a policy of liberalization it has been observed that FDI inflows showed a steady increase until the last couple of years when in fact there has been a de-growth particularly 2010 over 2009 by almost 30%. On the other hand China has attracted FDI more than 4 times the quantum of India during the same period.

Investors will look to invest in 'opportunities' as they see bearing the most attractive returns within a given frame work considering both the 'home' as well as 'host' country. Facts and figures very clearly indicate the positive impact even in India for certain sectors when FDI has been embraced. On the other hand, India most urgently requires gathering as much as investment as is possible to keep the momentum of growth going and one such opportunity is the organizing of our retail segment which would support development endeavor in a big way. The issue of embracing partial FDI in retail has seen some level of procrastination which requires more urgent and serious attention. Can India afford to lose this opportunity?

This paper attempts to study the implications for this investment as also providing some suggestions.

Keywords: *Foreign Direct Investment, Organized retail, Traditional retail, Economic policies, Employment, Infrastructure development.*

FDI -A GLOBAL SCENARIO

For the first ever time since this concept of 'FDI' came into existence this world saw the flow of money channelized in the direction it originally was intended to and that is towards economies which are in transition and development. The year 2010-2011 in which about US$ 1222 billion flowed has been eventful for the world in every sense in terms of development, both with the financial markets and the political scenario. The two most important factors for any country in its overall development. The data sourced from UNCTAD and encapsulated below (Fig 1) amply illustrates the current position.

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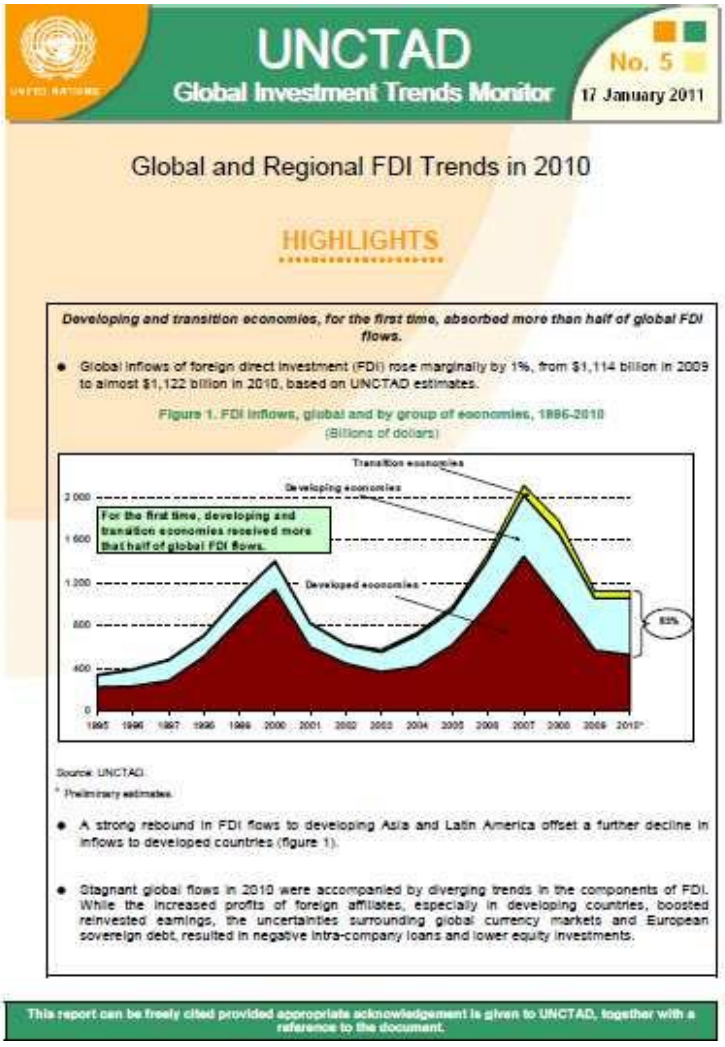
Fig 1. Global and Regional FDI Trends in 2010



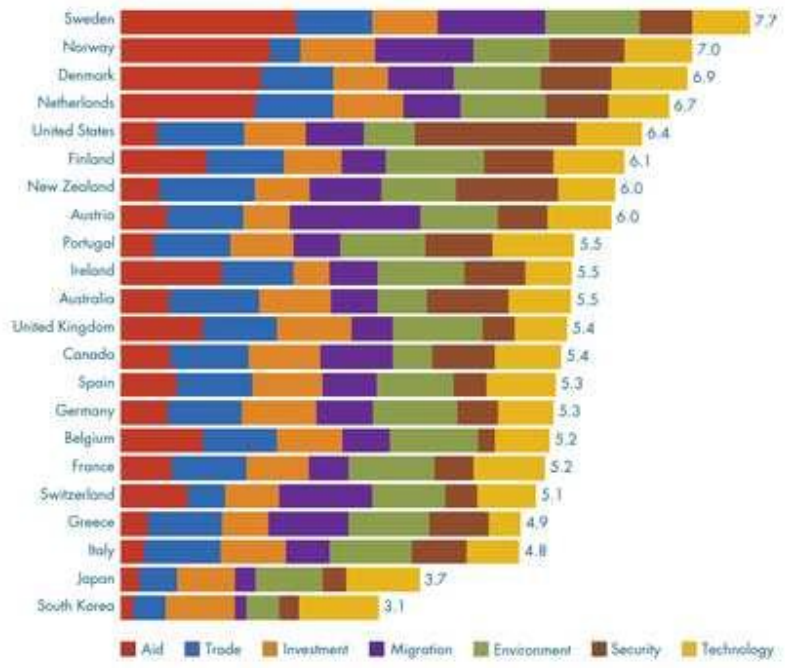
Source: UNCTAD

There are three important observations to be made with the overall global picture of FDI and they are in a way synergizing the very objective/s of this type of investment.

- The flow of FDI into developed and matured economies is declining due to home market saturation.
- Transition economies indicate a halt to their FDI slide with their propensity to adopt more liberal trade attitude and a win-win outcome.
- Developing economies have started receiving better inflows due to huge untapped markets and consumerism besides serving as a profit making opportunity for developed economies.

To add to above factors another aspect of great importance, namely 'The Global Commitment Index `which reflects the mood of leading rich countries is encouraging. A graphical representation is depicted below (Fig 2) which should be read together with the UNCTAD report to understand the great opportunity this type of investment presents to the investor and investee.

Fig 2. Commitment to development Index 2011



Source: Center for Global Development

At 18 of these 22 countries were above average in their disposition. For the purpose of this paper we stay focused on the first three policy areas, namely, aid, trade and investment (FDI) though the other four policy areas Migration policies, Security policies, Environmental policies and Support for new technology cannot be ignored when actual investment is made. So each of this investing country gets scored on seven policy areas which are averaged for an overall score. While a score of 7 is considered good, the average was 5.

The Indian FDI Scenario

Foreign direct investment (FDI) capital flows into India have increased dramatically since 1991, when India opened it economy to FDI, and inflows have accelerated since 2000. FDI inflows to India reached $11.1 billion in calendar year 2006, almost double the 2005 figure, and continued to increase in the second half of the decade. The Indian government had announced a target of $25 billion in new FDI inflows for the 2007–08 fiscal year. Globally FDI has experienced a corresponding resurgence since 2004, recording year-on-year increase of 29 percent in 2005 and 27 percent in 2004, after declining for several years in the early 2000s. Consistent with the global pattern, FDI inflows into India declined between 2001 and 2003, before experiencing a resurgence that surpassed average global growth, with year-on-year increases of 45 and 72 percent, respectively, in fiscal years 2004–05 and 2005–06.

Preliminary data for inward FDI for the 2006–07 fiscal year show FDI inflows of $15.7 billion, representing an increase of 184 %, in rupee terms, over the preceding fiscal year. While there is a large percentage increase compared to the global average, the value of inward FDI flows to India relative to developing countries remains small. However, FDI inflows to India surpassed inflows to South Korea in 2006, making India the fourth largest destination for FDI in Asia, behind China, Hong Kong, and Singapore. The only bad period being 2010 when there was an actual dip in the inflow the quantum being US$ billion 24.2 ,a clear downward spiral over 2008 and 2009 and as a percentage a drop of more than 30 percent. However this could be attributed essentially to the upheaval in the global financial scenario besides the domestic political scenario.

India's investment policy does not permit FDI in the following sectors: housing &real estate except development of integrated townships and settlements, retail trading, lottery business, gambling and betting, agriculture (including plantations other than tea plantation). What must be noted here is that FDI up to 100% is permitted in some sectors under automatic route and this includes medical equipments and drugs and pharmaceuticals and pesticides except those requiring industrial licensing. More recently FDI has been permitted up to 51% in single brand retail. This sector is presently in focus and a subject of national debate with three key players involved in the process. The organized retail association, the traditional retail association and the government.

An Overview of India's Economic and Fiscal position:

Slides marked 'a' to 'm': Snapshot Slides. Source: www.dipp.gov.in

A) Economic Performance a picture of reasonable consistency:

Sustained economic growth

Average last 10 years 6.5%

2004-05 6.9%

Forecast up to 2006-07 >7.0%

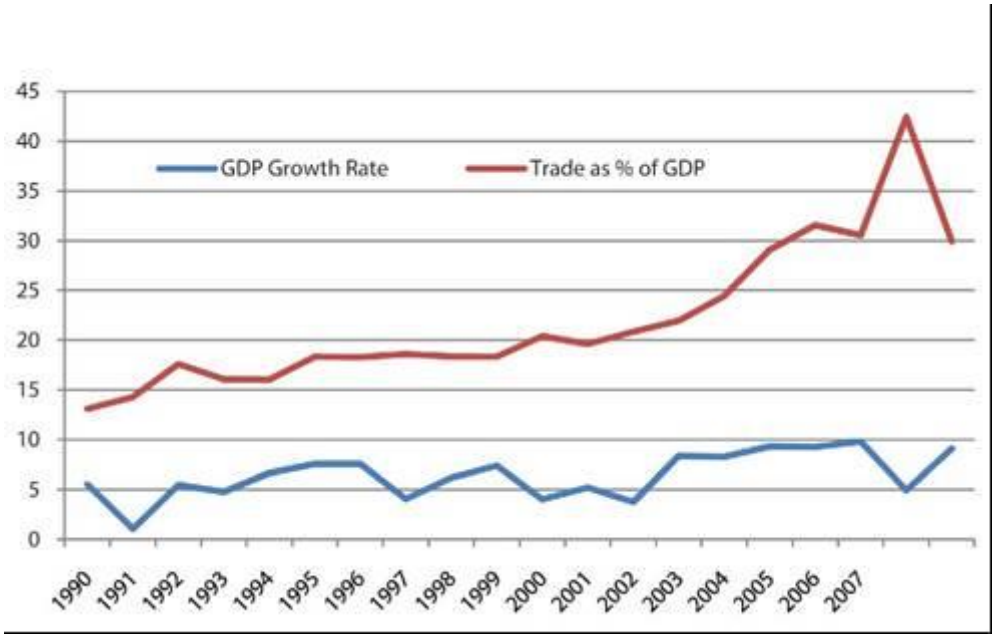
Forecast till 2050 – Goldman Sachs 5 % p.a.

2010 Real growth GDP of 10.1%

Services share in GDP over 50% (52.4% share in GDP in 2004-05)

At mid decade manufacturing sector growth stood at 8.8% in 2004-05 (17.4% share in GDP in 2004-05).

Fig 3. GDP growth rate (%) and trade as a % of GDP



SOURCE: Compiled from world development indicators database

Foreign Trade:

Merchandise exports grew by 25% in 2004-05, (US$80 billion) and the 2009-2010 figure stands at US$ 180 billion.

Imports grew by 36%, (US$106 billion) during the same period and for 2009-2010 stands at US$280. The figure below clearly depicts these facts.

Investment:

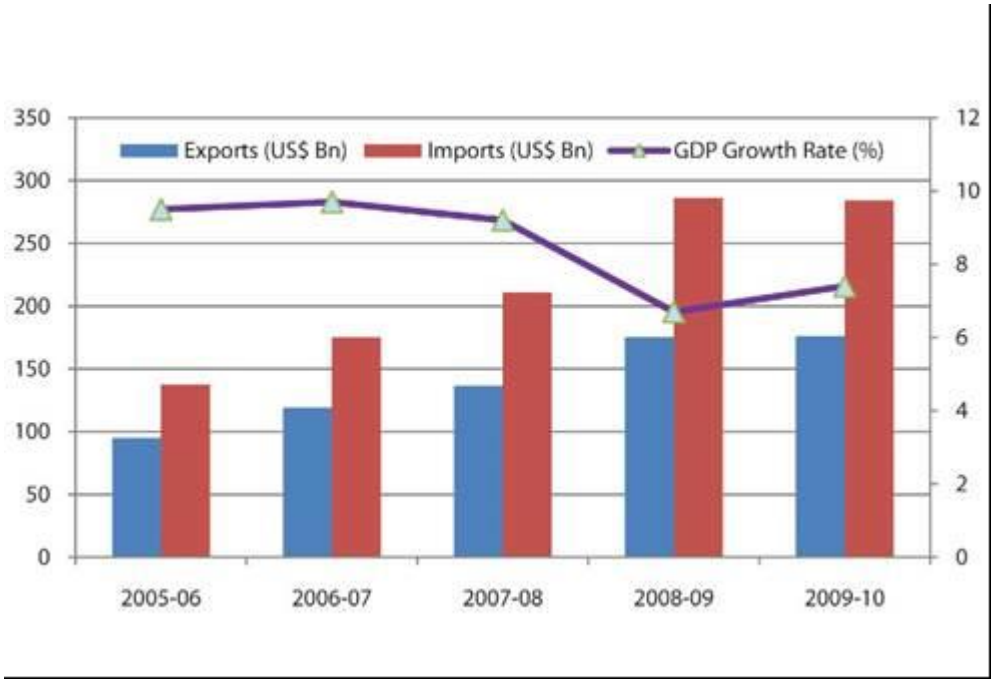
Foreign Investment – over US$14 billion in 2004-05 (FDI US$5.5 billion, FII US$8.9 billion) and for the year 2010 stood at US$ 24.4 billion.

Mature Capital Markets

NSE third largest, BSE fifth largest in terms of number of trades.

A well developed banking system.

Fig 4. India's growth, exports and imports (fy 2005-2006 till 2009-2010)



SOURCE: www.ibef.org

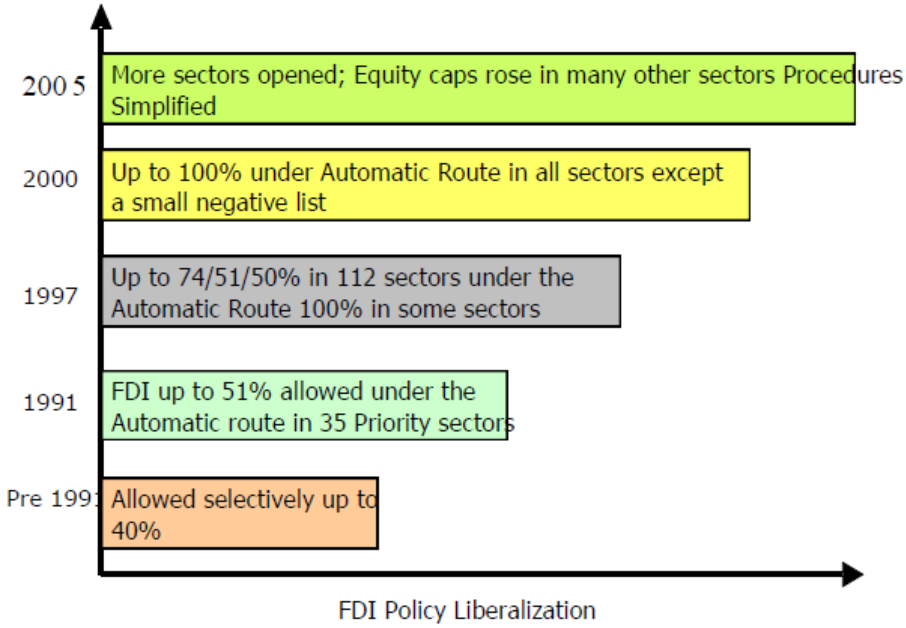
B) Rationalization of tax structure – both direct and indirect
Progressive reduction in peak rates
Peak Customs duty reduced to 15%
Corporate Tax reduced to 30%
Customs duties to be aligned with ASEAN levels
Value Added Tax introduced from 1st April 2005
Fiscal Responsibility & Budget Management Act, 2003
Revenue deficit to be brought to zero by 2008.

C) Industrial Licensing
Progressive movement towards de licensing and deregulation
Licensing limited to only 5 sectors (security, public health & safety considerations)
Foreign Investment
Progressive opening of economy to FDI
Portfolio investment regime liberalized
Liberal policy on technology collaboration
Trade Policy
Most items on Open General License, Quantitative Restrictions lifted
Foreign Trade Policy seeks to double India's share in global merchandise trade in 5 years

D) Exchange Control
All investments are on repatriation basis
Original investment, profits and dividend can be freely repatriated
Foreign investor can acquire immovable property incidental to or required for their activity
Rupee made fully convertible on current account
Taxation
Companies incorporated in India treated as Indian companies for taxation Convention on Avoidance of Double Taxation with 65 countries
E&f

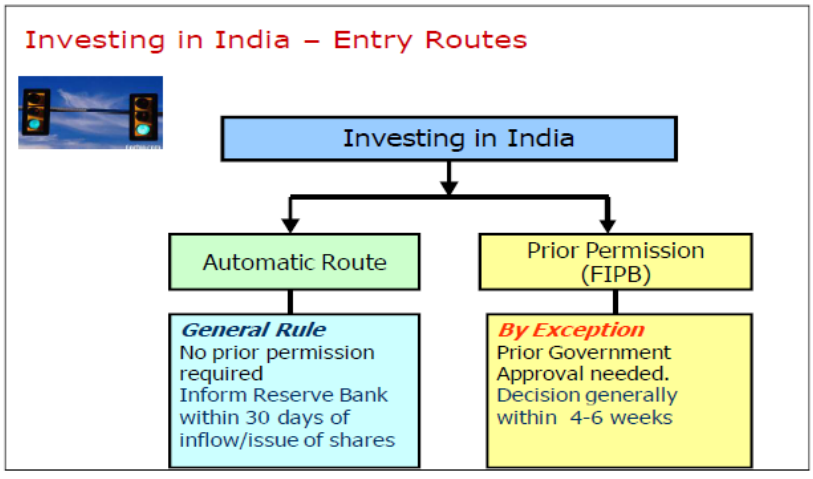
Evolution of FDI Policy

Fig 5. Evolution of FDI Policy



As can be observed from the above diagram (Fig 5) it must be said that India has progressively but cautiously liberalized its attitude towards FDI though we are tempted to ask whether the pace of this liberalization is adequate considering the domestic growth rate projected, the propensity of other developing economies to attract this investment and last but not the least the predisposition of developed economies to invest considering the fact that they see very little growth in their home market at present.

Fig 6. FDI Entry Routes



G) New sectors opened to FDI
Defense production, Insurance, print media -up to 26%
Development of integrated townships up to 100%
E-commerce, ISP without gateway, voice mail, electronic mail, tea plantation - 100% subject to 26% divestment in 5 years
FDI equity limits rose
Private sector banks rose from 49% to 74%
Drugs and pharmaceuticals from 74% to 100%

Advertising from 74% to 100%
Private sector refineries, Petroleum product marketing, exploration, petroleum product pipelines – 74% to 100%
Procedural simplification
Issue of shares against royalty payable allowed

H) FDI in domestic airlines increased from 40% to 49%. Automatic route allowed
FDI up to 100% allowed under the automatic route in development of townships, housing, built up infrastructure and construction development projects
Foreign investment limit in Telecom services increased to 74
FDI and portfolio investment up to 20% allowed in FM Broadcasting. Hitherto only Portfolio investment was allowed.
Transfer of shares allowed on automatic route in most cases
Fresh guidelines for investment with previous joint ventures
A WTO (TRIPs) IPR regime compliant in position since 2005 – Patents Act amended to provide for product patent in pharmaceutical and agro-chemicals also.

I) FDI up to 100% allowed under the 'Automatic Route' in all activities except for
Sectors attracting compulsory licensing
Transfer of shares to non-residents (foreign investors)
In Financial Services, or
Where the SEBI Takeovers Regulation is attracted
Investor having existing venture in same field
Sector specific equity/route limit prescribed under sect oral policy
Investments made by foreign investors are given treatment similar to domestic investors

J) FDI equity limit-Automatic route
Insurance – 26%
Domestic airlines – 49%
Telecom services-Foreign equity 74%
Private sector banks-74%
Mining of diamonds and precious stones-74%
Exploration and mining of coal and lignite for captive consumption-74%

K) FDI requiring prior approval
Defense production – 26%
FM Broadcasting -foreign equity 20%
News and current affairs-26%
Broadcasting-cable, DTH, up-linking – foreign equity 49%
Trading-wholesale cash and carry, export trading, etc., 100%
Tea plantation – 100%
Development of airports-100%
Courier services-100%

L) Foreign technology agreements also allowed under Automatic route:
Lump-sum fees not exceeding US$2 Million
Royalty @ 5% on domestic sales and 8% on exports, net of taxes
Royalty up to 2% on exports and 1% also permitted for use of Trade Marks and Brand name, without any technology transfer
Wholly owned subsidiaries can also pay royalty to their parent company

Payment of royalty without any restriction on the duration allowed.

M) 2nd most attractive investment destination among the Transnational Corporations (TNCs) - UNCTAD's World Investment Report, 2005
3rd most attractive investment destination – AT Kearney Business Confidence Index, 2004
Up from 6th most attractive destination in 2003 and 15th in 2002
2nd Most attractive destination for manufacturing
Among the top 3 investment 'hot spots' for the next 4 years
UNCTAD & Corporate Location – April 2004
Most preferred destination for services -AT Kearney's 2005 Global Services Location Index (previously Offshore Location n Attractiveness Index)

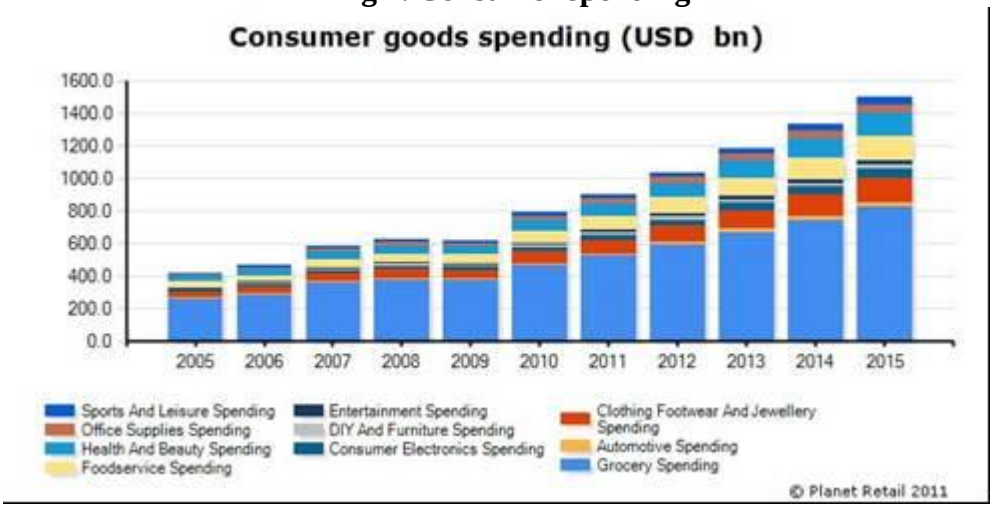
The above scenario is clearly indicative of the potentially optimistic outcome for the investee and investor.

Retail Scenario – India

Retail in India still does nnot enjoy the status of 'Industry' and is essen ntially dominated by traditional stores and the late est estimate is that this could be to the extent of 95%. There are a few large Indian corporate house es who have ventured into the domestic retail sspace with organized format and some of them are e well entrenched to capitalize this early entry a advantage. This being the broad domestic retail p picture the government is under constant pol litical pressure when discussing the issue of permittting FDI in the retail sector. It is estimated that thhere are more than 12 million traditional stores acro oss all categories of products which together contr ribute about 8% of the total national GDP besides be eing the second largest 'employer' only next to the agricultural sector.

The graphical representation (Figure 7) depicted below furnishes a visually picture for different categories together with the expected or forecasted spending well into the year 2015. Again this serves to confirm the potential the country offers. It must be mentioned here that it is interesting to observe the anticipated growth in dollar value terms.

Fig 7. Consumer spending



SOURCE: Planet Retail

The Indian retail sector is one of the least concentrated in the world. Together the top five domestic corporate retailers h have a combined market share that is a single d digit. The Indian retail scenario is one of contrasts, fragmentation and heterogeneous with the

predominant role still played by the traditional set of family run stores and hawkers who through their trade associations are vigorously opposed to the entry of foreign retailers or their investment in this sector.

Despite this resistance there has been rapid growth with some domestic regional players setting up different retail formats leading to a future possibility of retail market getting concentrated and more organized.

Currently the Indian government has allowed 51% FDI in single brand retail and 100% in Cash & Carry that is B2B operation. It must be pointed out that a number of domestic organized players have also entered into collaborative arrangements with international retailers to take advantage of the huge retail market opportunity which the Indian market is projected to throw up. So to say just waiting on the sidelines.

The opportunities arising by virtue of getting organized by inviting international retailers and the consequent implications that this could have on the Indian economy is just one of the compelling factors for this paper.

As per the 'Mumbai Mirror' report dated 24th of February 2009 FDI inflow in 2008-2009 is likely to exceed US $25 billion despite the financial meltdown impacting the global economy. In fact it is expected that this quantum is likely to exceed US $25 billion that came in during 2007 – 2008. To quote N N Prasad Joint Secretary in the Ministry of Commerce, Government of India 'our FDI will be more than US $ 25 billion. It is a very good sign ...'. To make another interesting connection the program of 'Vision 2020' prepared by the Chemical and Fertilizers ministry to make India one of the top 5 global innovation hubs requires huge investment including substantial participation from the private sector under the public – private partnership model. This is what the Chemicals and Fertilizers minister, Government of India Ram Vilas Paswan had to say: 'the present state of infrastructure and R & D of the pharmaceutical industry in the country is rather weak. We need to bolster it immediately. Once this proposal comes through, India will become a global pharmaceutical hub. Five out of ten drugs being discovered in the world will be in India. We will also ensure patenting of our own drugs'. Hence there is a huge potential for FDI in the healthcare sector including its retail element and the policy body should not have any hesitation in permitting the same. When we consider the pharmacy retail there is a temptation to argue that it is a very specialized retail and directly impacts the welfare of mankind but on the other hand a closer look will reveal that all retail is concerned with the end consumer and does impact him one way or the other. Ultimately it is best quality at the most affordable price whether it is a prescription drug or a branded consumer product.

Even for a moment if one does consider organized retail just on healthcare retail front alone a myriad of associated activities are revealed. There is no going back on the fact that there is a dearth of educated and trained retailers who will by necessity have to be multi skilled. This in turn will call for competent human resource personal that are not only experts in their domain but in associated skills. A complete new breed of human resource professionals we require to generate.

Getting organized implies addressing the training issues of the existing unorganized employees as well as making provision for future requirements. Issues such as supply chain management very much a part of organized system will throw up huge opportunities both in terms of infrastructure and transportation development, not to underscore the role of information technology which is the very back bone of organized retail. The fact that we get access to modern and latest technology cannot be overlooked which once again would result spawning linked industrial sectors like barcode manufacture, RFID, electronic instruments and gadgets etc. One should not overlook the advantage of 'a learning experience on a golden plate' as these investors have been through the maze. That is a huge experience in different formats and markets is shared which would otherwise take decades and consume valuable

time.

With good inflow of FDI in retail sector and the employment opportunities directly and indirectly interlinked it is very likely that the impact of FDI in retail will not be restricted only to the direct retail level but is more likely to be strongly felt by interlinked sectors. As mentioned in the earlier paragraph there will be a large requirement of Information technology professionals, experts in supply chain management and logistics system, transportation and communication besides the core implementation personal from the regulatory side. For example 'Vision 2020' for the pharmaceutical industry mentioned earlier on in this paper talks of Rs 5000-10000 crore being the investment amount and restricts itself with only' drug development' and mentions about 5 lakh jobs being created in 4 years time. India ranks the lowest in terms of per capita total health expenditure as well as per capita government health expenditure. We have a very long distance to go which in itself is an opportunity and will have economic ramifications if this issue is not addressed with urgency (reference to Working paper number 198 ' Impact Of Preventive Healthcare on the Indian Industry and Economy'- Alka Chadha et al). Take the health insurance industry it reveals that there are 800,000,000 individuals not covered by any insurance scheme. Some well know management authors and gurus have referred to this segment as 'the bottom of the pyramid' or simply BOP. If we have a healthcare system which is possible only if the retail is organized where the pharmacy forms part of the system a substantial number of these can be brought into the insurance umbrella with suitable models. A huge opportunity for employment generation due to infusion of funds into retail. In fact employment generation could be exponential as it will not be restricted only to the retail alone.

In a very recent article in 'Hindustan Times' dated 27th of December 2011 by Pankaj Mullick under the title 'Ready, get set and give retail a go' the potential of this sector if it receives FDI and the treasure trove it is, is revealed. He sums up with the following figures:

- Around $8 billion to $10 billion of fresh investments could come into the country in the next 5 to 10 years
- About 35 million people are hired by the Indian retail industry. Allowance of FDI could add at least another 10 million jobs in the next 5 to 7 years
- Employees at the managerial level in the retail sector can expect their salaries to rise 25% to 40%

Clearly the sectors which have been allowed FDI in the process of liberalization have done well. There is no indication to the contrary in any case. The probable hurdle here would be the future and role of existing retail workers in general. For example there is scope for attracting FDI in the healthcare retail segment alone in excess of US $2 billion taking care of its deployment over a period of time and canalizing the same into specific activities associated with retail (funding JV's with traditional stores, funding training of employees of unorganized segment, funding formal and informal education centers). A time window of 2 to 3 years should be observed to usher in this change. This time frame is essential taking into consideration the social fabric of India. Extending this logically to the balance of retail market would indicate huge opportunities both in terms of lifting the economy and generating employment exponentially.

The government should step forward and take active part in creating awareness for organizing retail at the bottom of the pyramid thus gradually improving the standard of living, leading to encouraging demand and thereby fueling supply.

The time to act is now with India exhibiting a very high global services location index which could enable us to get substantial FDI, useful in upgrading our current living standards while generating employment opportunities exponentially.

Implications for India

As would any investor expect it is only fair that he would take for granted a decent rate of return on investments made with a reasonable assurance of safety coupled with the fact that this return would be for a period which would substantiate the efforts. Embracing this investment would entail embracing the system in totality save the peculiarities related to and impacting the host culture and in turn the return on investments. This implies technology, infrastructure, manpower, and other related or interlinked aspects.

It is widely believed in the retail sector that for every one person employed directly in retail there are nine others who are indirectly employed like supply chain, cold storage warehouse, transportation, back office support and other activities which actually aid in selling the product to the end consumer. This actually sums up the huge employment potential in this sector though it is beyond this paper to arrive at a specific figure in these related employment opportunities. All these activities would require huge investments which could be attracted as FDI.

In the case of India the problem is neither its lack of attractiveness as a destination for FDI nor the real need for the same. Both these aspects are apparent. But what really are the crunch issues then?

The primary issue is with the introduction of FDI in retail the investor will demand a level of organization of the retail leading to disturbing the existing traditional retail employees and due to the system of operations demanding better productivity which means better or improved margins for the retailer thereby cutting away margin eating activities of the existing system. This implies direct sourcing where the so called middle men (estimated to cost 10 to 15 %) of the total cost will be saved. This can translate into better prices for the consumer. A direct but distinct advantage of the organized chain concept.

Hence being a serious socio-economic issue these implications will need to be addressed if we intend going ahead and taking the reforms in our stride.

Issue 1: Retail sector being the second largest employer in India, close to 35 million people will be impacted directly if we 'do away' with traditional stores. So how do we gainfully engage them and in the process assure them their livelihood?

Issue 2: Will the government be truly supportive of other developmental issues which go to support issue 1?

Issue 3: The impact the above mentioned decisions 1 &2 will have on different stake holders not excluding different political parties.

It must be realized that international retail corporate entering India will have to work in tandem with governmental authorities and other associations for a predetermined timeframe in rehabilitating those individual businesses which are likely to be impacted within a given physical area depending on the location in the host country of the International retailer.

A super store is typically 'a put together' of a number of different stores offering different categories of consumer products under one large format. Whatever the extent of automation there will be a dire requirement of skilled personal and this human resource could be drawn from these existing traditional stores. This implies that such personal while having adequate experience may not have the required professional skills. Here comes the involvement of international and other governmental agencies to fully take part in 'retraining' such individuals. One method is to (as part of the permission to permit FDI) set aside a budget for this purpose which could be used in the upgrading of such individuals and the other could be supporting organizations which do so. Modern retailing also requires learning skills not directly involved with retailing, like warehousing, cold storage operations, bulk breaking and logistics. Investments are required here for training and upgrading which could be carried out in a continuous manner. By adopting this strategy a sizeable number of existing traditional

stores would get adsorbed and later absorbed into the modern system where their past 'local neighborhood' experiences can be exploited by international retailers. For instance, local choice of brands, sentiments, culture etc…which have often been a huge deterrent to international retailers success in different countries? Examples of failures, Carrefour in South Korea and Wal-mart in Germany. The abundance of traditional store retail employees could very well be a boon to these international operators. This issue requires addressing the interests of different stakeholders involved in the process and work out a suitable and detailed plan. It is an issue of building a 'win-win' situation. For one, the existing employees of the traditional retail outlets could look at opportunities of getting employed formally and acquiring new skills.

On the second issue it is a question of how swiftly the government can and is willing to act. This could be in terms of further freeing up FDI norms in infrastructure development and modernization efforts, technology implementation, swift and committed clearances where required and perhaps looking at special terms for a fixed time period to motivate the investor. The other important issue but hidden from sight is the aversion of the 'next' generation in line to take over and run family owned stores. This is becoming increasingly obvious with rapid growth in technology and the younger generation not following the footsteps of the earlier members of the family. There is an increasing trend for them to educate themselves formally and get better recognized rather than just being 'shopkeepers'. This is in fact a huge social pressure not obviously seen but felt. With more than 60% of its population in the 'young age group' segment it is imperative for the government to address this aspect with the next 5 years in mind. Also it should be noted that the government is indeed having to put up with 'revenue leakage' of substantial proportion as a bulk of such traditional stores do not generate any income for the government on one hand but avail all social services and other benefits expected by any citizen. Hence by formalizing retail such aspects would also get addressed.

This two pronged approach would not only protect the 'interests' of the impacted population but also speed up the development of the nation in many ways. Scientists have long ago formulated laws in Physics (Newton's first law of motion) as well as human resource experts have supporting studies to show and demonstrate the 'reluctance to change'. We have time and again been hearing that 'only change is constant'. The need of the hour is to usher in the introduction of FDI in a phased manner taking into concern the issues of direct stake holders in this case the existing traditional retailers without political parties practicing 'vote bank ' politics. The nation's development cannot and should not be held back but in conclusion take care of the 'consumers' offering them the best of choice, price and service which would only be possible with inclusive organization.

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IN THE SHADOW OF OFFSHORING: AN EXPLORATORY STUDY OF THE EXPECTATIONS OF PROVIDERS

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Raquel Meneses[**]

Abstract

Offshoring strategies are an emerging trend in the context of global business. Although the literature on this subject is vast, very scarce research has been made to understand the providers' perspective of an offshoring relationship. The goal of our study is to fill this gap in the literature through an exploratory research based on grounded theory, enabling us to understand the expectations of providers when they started working with foreign firms and compare those expectations with their perceptions of reality. A purposive theoretical sampling technique was used to select 7 Portuguese offshoring providers, from different sectors, sizes and ages. Data collected was then coded and analysed using and three broad categories of expectations and perceptions of reality emerged: business-related, firm-related and client-related. Creation of business and acquisition of skills were the most referred categories, both as expectations and as perceptions of reality. However, several expectations don't match the providers' perceptions of reality, as well as some perceptions weren't part of the providers' initial expectations.

Keywords: *Offshoring, Offshore Outsourcing, Providers, Expectations*

Introduction

Multinational organizations are continuously transforming themselves into nimble, global competitors, through a process that is enabled by the practice of outsourcing and offshoring strategies (Couto et al., 2008).

Offshoring refers to the completion of business tasks, functions or processes outside the firm's home country, but it is no longer just a labour arbitrage strategy. For more and more companies, offshoring is turning into a means to gain access to qualified personnel and to increase organizational flexibility and competitiveness (Farrell et al., 2006; Lewin and Peeters, 2006; Lewin and Couto, 2007; Bunyaratavej et al., 2007; Manning et al. 2008; Couto et al. 2008; Lahiri and Kedia, 2011).

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Despite the extant literature, to our best knowledge, the complex dynamics of this phenomenon is not well understood (Manning et al. 2008). Although providers play a crucial role determining the success of an offshoring partnership (Lahiri and Kedia, 2009; Lahiri et al., 2012), most of the published research is focused on the clients' perspective and unnoticed the dimension of the providers (Mao et al., 2008; Lahiri and Kedia, 2009; Aundhe and Mathew, 2009; Lahiri et al., 2012).

Considering this gap in the literature, the goal of our research is to analyse the context of the Portuguese providers, which is particularly pertinent after the identification of the country as one of the eleven developed countries better prepared to receive globally sourced services in the IT sector[1]. Particularly, we would like to analyse the expectations of these providers, when they engaged in offshoring activities.

Given the absence in the literature of formal theories addressing the particular case of the expectations of offshoring providers we propose an exploratory approach, based on Grounded Theory.

This paper is divided into five main sections. In Section 1 we introduce the research subject. In Section 2 we make a literature review on Offshoring: first by defining its key concepts (2.1), and then by analysing the main aspects framed in the literature (2.2). In Section 3 we present the methodological approach we propose to apply in our research; in Section 4 we describe our main findings; and in Section 5 we conclude.

Literature Review on Offshoring

Definition of key concepts

Globalization has been influencing the competitive behaviour of firms in their different aspects: supply chain, marketing, corporate strategy and organizational structure (Bunyatarajev et al., 2007). Particularly, the increasingly competitive global business environment led companies to focus on cost-cutting strategies, such as offshoring (Lewin and Peeters, 2006). However, nowadays reducing labour costs is no longer the single strategic driver behind offshoring implementations, and other factors like assessing pools of highly-skilled workforce, or increasing organizational flexibility are gaining importance (Farrell et al., 2006; Lewin and Peeters, 2006; Bunyaratavej et al., 2007; Lewin and Couto, 2007; Manning et al. 2008; Couto et al. 2008; Lahiri and Kedia, 2011).

Likewise, literature has revealed that companies are increasingly recurring to outsourced activities to create value and to fuel their accelerated innovation needs (Couto et al. 2008; Manning et al. 2011), and therefore outsourcing "has expanded rapidly in recent years, offering client firms the opportunity to select from a range of full-service and specialist providers for specific needs" (Manning et al., 2011, p. 382).

Thus, these two concepts, offshoring and outsourcing, are occasionally confused

[1] Source: Gartner, Inc., Gartner's 30 Leading Locations for Offshore Services, 2012, Ian Marriot, January 16, 2012.

(Bunyatarajev et al., 2007; Manning et al. 2008). While offshoring denotes the performance of tasks and business functions across national borders (Manning et al., 2008); outsourcing consists on the delivery of products or services of the firm by a specialist third-party provider, within or outside of the firm's national border (Manning et al., 2008; Lahiri and Kedia, 2009).

In this work we propose to analyse providers whose foreign clients have outsourced their activities in Portugal. This means we will be dealing with the concept of offshore outsourcing, which according to Manning et al. (2011, pp. 382) "means that client companies choose to source functions and processes supporting domestic and global operations from outside their home countries, using third-party service providers".

Considering that the goal of our study is to gain further understanding of the offshoring phenomenon through assessing the expectations of the providers, the analysis of the concept of expectations is also of crucial importance.

The concept of expectations is greatly studied in the marketing literature about service quality, since service quality has been defined as the difference between the perceptions and the expectations of service level (Parasuraman et al., 1985; Parasuraman et al., 1988; Brown and Swartz, 1989; Carman, 1990; Teas, 1993; Parasuraman et al., 1994; Donthu and Yoo, 1998). Considering the gap in the offshoring literature with regards to the conceptualization of expectations, we analysed the service quality literature, aiming to find a definition of expectations to be used in the context of our study.

If we analyse the service quality conceptualization of expectations under the light of the thematic of our study, we reach our own definition of providers' expectations. Thus, providers' expectations may be defined as believes, predictions, desires or wants of providers, i.e., what they feel an offshore outsourcing relationship should offer them or what are the desired attributes of that relationship. These expectations function as standards or reference points against which performance is judged. Plus, providers may form their expectations either on the basis of their own past experience, or by observing or being informed about other provider's experience in offshoring.

The definition of these two key concepts, offshoring and expectations, play a very important role in the subsequent sections of our study. First, because we limit our concept of offshoring to offshore outsourcing, that is, to the performance of outsourced activities by a third-party supplier located outside the home country. Second, because from now on we bear in mind that the expectations of the providers are believes, desires and standards that emerge both from the provider experience and also from observation and exchange of experiences with other providers. We should take this into account in our following literature review.

Main aspects framed in the literature

This section continues our literature review, by analyzing the main aspects framed in the offshoring literature. Our goal is first to investigate the generic literature about offshoring, identifying the seminal aspects and the more recent trends; and then to give a special attention

on the scarce literature focusing on the dimension of the providers.

Offshoring research has given place to extent literature (Lahiri and Kedia, 2009). Farrell et al. (2006) point out that this subject causes controversy among policy makers, business executives and thought leaders. Much has been said, for instance, about the past, the present and possible future of offshoring and the drivers behind its decisions (Lewin and Peeters, 2006). Lewin is also the lead principle investigator at Offshoring Research Network (ORN), an annual survey conducted since 2004, that collects firm-level data on the offshoring experiences of companies across industries, aiming to track: the drivers behind offshoring decisions, the impact on employment, the drivers behind location choices and the risks firms perceive before and during their engagement in offshoring activities (Lewin and Couto, 2007).

But the scope of literature is wide. Other questions, like the factors that contribute to the location choices (Bunyatarajev et al., 2007); the unbalanced dynamics for supply and demand for offshore service talent (Farrell et al., 2006); the use of offshoring to globally source Science and Engineering talent (Manning et al., 2008); the stability of offshoring relationships (Manning et al., 2011); or the impact of trust (Lee and Choi, 2011) and control (Mao et al., 2008) in offshore outsourcing relationships, have also been deeply analyzed. Although these studies have dealt with relevant aspects of offshoring, Manning et al. (2008) claim that the complex dynamics of this phenomenon is not well understood. A fact that stands out is that most of the published research has focused on the clients' perspective and unnoticed the dimension of the providers (Mao et al., 2008; Aundhe and Mathew, 2009; Lahiri and Kedia, 2009; Lahiri et al., 2012). Table 2, gives us an overview of the reviewed literature about offshoring.

From Table 1, we understand that the offshoring literature focusing on the providers is not only scarce, but it is also somehow disintegrated, making it difficult to find connections between researchers.

For instance, some authors (Lahiri and Kedia, 2011; Lee and Choi, 2011; Manning et al., 2011) chose to analyse both the dimensions of the client and the provider to understand the offshoring phenomenon. While Lahiri and Kedia (2011) developed a framework to explain the co-evolution of institutional and organizational factors in offshoring, Lee and Choi (2011) focused on the impact of trust in IT outsourcing relationships, and Manning et al. (2011) analysed the role of relation specificity and client control.

In the same vein, Mao et al. (2008) had already focused on the impact of trust and control in offshore outsourcing, but in this case the authors analysed only the vendor's perspective. Also, the remaining authors who focused only on the perspective of the providers, analysed unrelated subjects: while Lahiri and Kedia (2009) investigated the impact of resources and partnership quality on the provider's performance, Aundhe and Mathew

(2009) shed light on the risks in offshore IT outsourcing, and Lahiri et al. (2012) assessed the impact of management capability on the performance of offshoring providers.

This disintegration and shortage of literature about offshoring focusing on the dimension of the providers increases the relevance of our study, and supports the conduction of an exploratory approach.

However, to refute this tendency in the literature, in 2008 the Offshoring Research Network launched a report based on a survey conducted in the previous year to offshoring service providers. It was "the first comprehensive examination of offshoring from the service provider perspective" (Couto et al. 2008).

Following the same line of thought, Lahiri and Kedia (2011) also suggest that more than simply analysing the drivers behind offshoring, it is of crucial importance to study the factors that are present both on the client and on the provider side, that together explain the decisions to engage and continue offshore outsourcing activities. Therefore they developed a framework based on the coevolution perspective aiming to explain how institutional and organizational factors coevolve and contribute to the engagement in offshore outsourcing (both for clients and providers).

Their position is that clients and providers are interdependent actors and their behaviour influences and is influenced by the interaction of environmental determinism resulting from institutional and organizational factors.

If we use these insights of Lahiri and Kedia (2011) to shed light on the focus of our study that is analyzing the perspective of the providers, we recognize that providers must continuously evaluate their client's environment to track changes, specific requirements and needs. This allows them to improve its own resources and capabilities and to take corrective actions, based on the feedback and on the knowledge transferred through client interactions, in the constant attempt to be the clients' dependable business partner.

Table 1: Overview of the empiric literature about offshoring.

Reference	*Topic*	*Year*	*Thematic*	*Unit of analysis*	*Methodology*
Lewin, A. Y., and Couto, V.	*Drivers of offshoring decisions and location choices, impact on employment and risks perceived by firms (ORN Survey Report)*	*2007*	*Drivers, Location, Impacts*	*Client firms in the U.S., U.K., Germany, Netherlands and Spain*	*Quantitative - Exploratory*
Couto, V., Mani, M., Sehgal, V., Lewin, A. Y., Manning, S., and Russel, J. W.	*Examination of offshoring service providers (ORN Service Providers Survey Report)*	*2008*	*General Overview of providers*	*Service Providers in the U.S., Europe, India, China, Brazil and other countries*	*Quantitative - Exploratory*
Bunyaratavej, K., Hahn, E. D., and Doh, J. P.	*Drivers of location choices of service offshoring*	*2007*	*Drivers, Location*	*Client firms in the U.S.*	*Quantitative - Causal*
Lee, J. N., and Choi,	*Bilateral perspective on the*			*Service receivers and*	*Quantitative –*

B	*impact of trust in IT outsourcing*	*2011*	*Trust*	*service providers*	*Causal*
Manning, S.; Lewin, A.Y.; Schuerch, M.	*The role of relation specificity and client control on the stability of offshore outsourcing relationships*	*2011*	*Relationship and Control*	*Service Providers in the U.S., Europe, India, China, Latin America and other regions*	*Quantitative – Causal*
Mao, J. Y., Lee, J. N., and Deng, C. P.	*The impact of vendor's trust and client's control on the vendor's performance*	*2008*	*Trust and Control*	*Offshored Information System Projects in China (from Japanese clients)*	*Quantitative – Causal*
Lahiri, S., and Kedia, B. A.	*The impact of internal resources and partnership quality on the performance of offshoring providers*	*2009*	*Resources, Partnership*	*Indian Business Process Outsourcing Providers*	*Quantitative – Causal*
Lahiri, S., Kedia, B. A., and Mukherjee, D.	*The impact of management capability on the performance of offshoring providers*	*2012*	*Management Capability*	*Indian Business Process Outsourcing Providers*	*Quantitative – Causal*
Lahiri, S., and Kedia, B. A.	*Co-evolution of institutional and organizational factors in explaining offshore outsourcing (both for clients and providers)*	*2011*	*Institutional and Organizational factors in the Relationship*	*Indian Business Process Outsourcing Providers*	*Quantitative – Causal*
Aundhe, M. D., and Mathew, S. K.	*Risks in offshore IT outsourcing from the perspective of service providers*	*2009*	*Risks*	*IT Service Providers*	*Qualitative – Case Study*

Source: own elaboration

Nonetheless, in 2012, Lahiri et al. still argue that "very little attention, however, has been accorded to understand the context of offshore service providers" (Lahiri et al., 2012, pp. 1). In the same vein, we can argue that very little attention has been accorded to understand the context of offshore providers in general, which further enhances the relevance of our study.

To fill this gap in the literature, Lahiri and Kedia (2009) and later Lahiri et al. (2012), intended to broaden the understanding of offshoring, through analyzing the factors that allowed providers to better respond to their client's needs.

It is their belief that offshore providers contribute to the value creation mechanism of their clients and that the success of offshoring relies on their performance. Particularly, they analyzed the effects of internal resources of the company, such as human capital, organizational capital and management capability, and its interaction with partnership quality (between client and provider) and measured their impact in the performance of the company (Lahiri and Kedia, 2009; Lahiri et al., 2012).

Thus, we may conclude that, first Lahiri and Kedia (2009), and then Lahiri et al. (2012), considered that it was important to fill the gap in the literature about the offshoring providers, through assessing the factors that affect the provider's performance.

Previously, Mao et al. (2008) had already analyzed the impact of the vendors' trust in their client and the client's control over the vendor affecting the vendor's performance, in a study conducted with Chinese outsourcers working for clients in Japan. They claim that the interactions between clients and providers are of crucial importance to determine the success of an offshore outsourcing relationship. Likewise, we can argue that the expectations of the providers may impact their performance.

Mao et al. (2008) researched the practices and behaviours that influenced a vendor's perception of trust and identified a number of trust building mechanisms: information sharing, communication quality and inter-firm adaptation. They argue that the client's willingness to be open in sharing domain and process information (information sharing); the importance the client's personnel attach to the communication with the vendor (communication quality); and the efforts of the client in adapting to the vendor's constraints (inter-firm adaptation) influence the vendor's perception of the relationship and have a positive impact on the vendor's trust in the client.

The findings of Mao et al. (2008), about the impact of trust and control on the performance of the suppliers, make us believe that to fully understand the complexity of the offshoring phenomenon, multiple dimensions should be looked at, which enhances the relevance of studying the expectations of providers and the role they play.

Another of these dimensions framed in the offshore outsourcing literature is the risk involved in offshoring partnerships. Given our focus on the providers, the work of Aundhe and Mathew (2009) about the risks in offshore IT outsourcing on a provider perspective is particularly relevant.

Aundhe and Mathew (2009) believe that "outsourcing partnerships carry risks as evidenced by reported failures of such engagements" (p. 419). These risks are mostly caused by the assumptions (or expectations) taken into account in the definition of outsourcing contracts, that carry a limited understanding about the future. Therefore, the success of offshoring engagements will depend on the understanding of the risks involved in the partnership and on the strategies to attenuate those risks.

To prove this belief, Aundhe and Mathew (2009) collected data from five Indian providers, which allowed them to identify three categories of risk faced by the offshore service providers: project specific, relationship specific and macroeconomic risks.

Aundhe and Mathew (2009) argue that it is important to understand the categories and contents of risk involved in offshoring, because only through that comprehension it is possible to draw the above mentioned risk mitigation strategies, with significant managerial implications. We may argue that the importance of studying the expectations of providers in offshoring is based on the same belief.

Research Method

To the best of our knowledge, not only has very few attention been drawn to understanding the provider's perspective in offshoring, but also their expectations when engaging this type of partnerships haven't been analysed at all. For this reason, we conducted an exploratory approach based on Grounded Theory (GT), which is "used to generate theory where little is already known or to provide a fresh slant on existing knowledge" (Goulding, 1998, p. 51).

A purposive sampling technique was applied to select the firms to be approached and finally seven were interviewed. This selection aimed to include companies from different sectors, from different sizes and from different ages. One of the interviewed firms had already ceased its activity. Two of the interviewed firms were also producing for their own brands, while the others devoted all their production to outsourcing clients. Since our goal was to study the Portuguese providers, we restricted our analysis to companies totally owned by Portuguese capital, who had been providing offshore outsourcing activities for foreign clients for at least 3 years, which was the period used by Aundhe and Mathew (2009).

Data was collected via unstructured interviews to the managers of each firm. However, a protocol was employed to ensure the same themes were covered on each interview. The aim was to assess what were their previous expectations and their perceptions of the current reality of their firms. After seven interviews, theoretical saturation was reached: no new or relevant categories of data emerged from the final interview. For triangulation purposes additional information was collected via alternative sources, such as news in the press. The characteristics of the firms are presented in Table 2.

Table 2. Firms' characteristics *887 in Portugal + 2793 worldwide

	Sector	*Year of Establishment*	*No. of workers*
Alpha	***Plastic Injection***	***1993***	***60***
Beta	***Textile***	***1972***	***250***
Gamma	***Footwear***	***1947***	***108***
Delta	***Pharmaceutical***	***2001***	***180***
Epsilon	***Textile***	***1997 (ceased activity)***	***30***
Zeta	***Textile***	***1984***	***490***
Eta	***Health & Beauty car and packaging***	***1965***	***3680****

Our analysis procedure consisted on the content analysis of the transcription of each interview, using QSR NVivo9 software. Initially, data was classified into nodes, corresponding to categories of expectations and perceptions of reality. The categories resulting from this initial coding were then grouped into broader categories: business-related, firm-related and client-related.

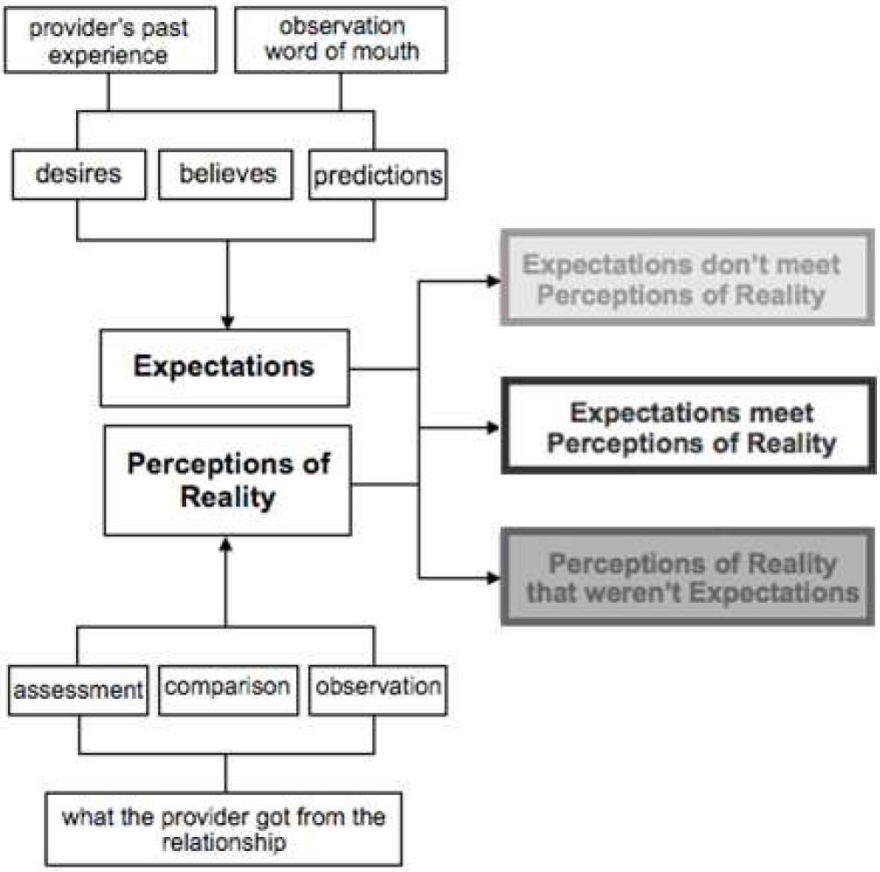


Figure 1. Framework for comparison between expectations and perceptions of reality

Following these coding, we then compared the expectations and perceptions of reality of each category, to assess which ones matched or not, but also to identify the perceptions of reality that the providers didn't have has initial expectations. Figure 1 represents the framework used for this comparison. This framework was then applied to the three categories of expectations and perceptions of reality.

Research Findings

The major expectation revealed by the firms we interviewed was to they most expected when starting an offshoring relationship with comparison framework applied to the business-related categories.

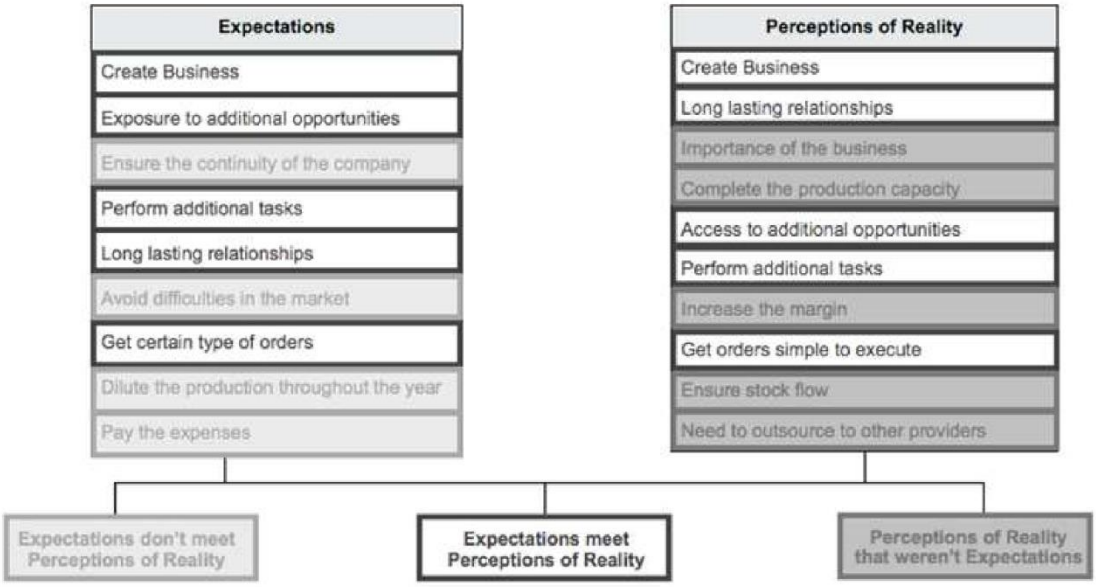


Figure 2.
Comparison between business-related expectations and perceptions of reality

Other significant nodes emerging as business-related expectations are the exposure to additional opportunities, the performance of additional tasks and to have long lasting relationships. These expectations, along with getting certain types of orders, are the ones that meet the perceptions of reality.

Although the expectations to avoid difficulties in the market and to dilute the production throughout the year don't meet the perceptions of reality, these nodes have only few references. We stress the fact that only one firm identified the insurance of the continuity of the company and the payment of expenses as expectations for new offshoring relationships. This was firm Epsilon that eventually ceased activity, and these expectations didn't meet any perception of reality.

The creation of business is also the more relevant perception of reality from all three categories. Besides, firms reveal that the offshoring relationships have allowed them to have important business, to complete their production capacity, to increase their margin, to ensure stock flow and to outsource their production to other suppliers. These were aspects that they didn't initially expect.

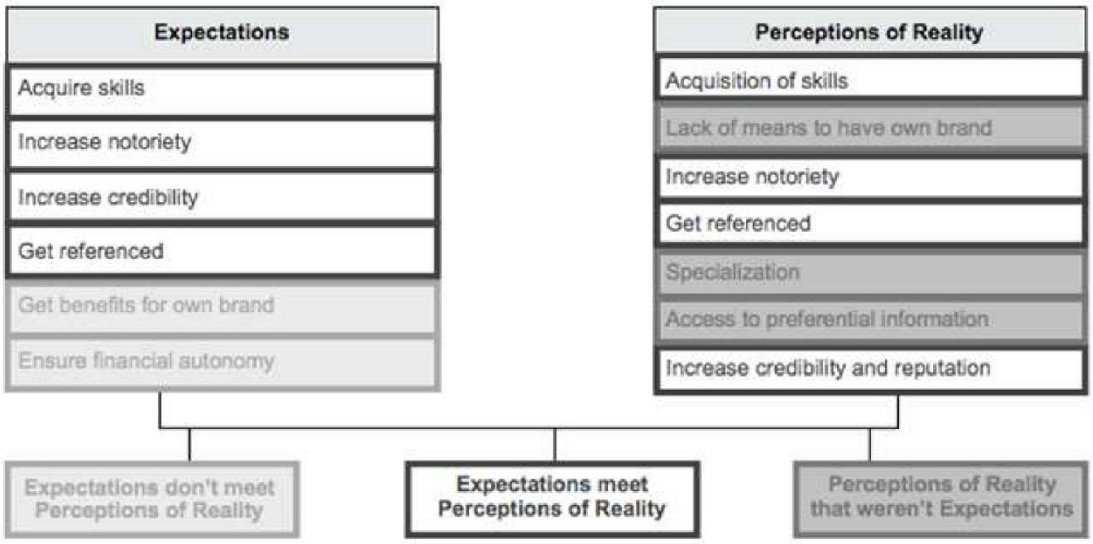


Figure 3. Comparison between firm-related expectations and perceptions of reality

On the firm-related level (Figure 3), the acquisition of skills was the expectation and perception that was referred the most. Firms revealed the belief that they would become a more capable company if they worked as offshore outsourcing providers and, looking back, this is something they perceive as having achieved. This expectation, along with the notoriety and credibility increase, and the reference to other clients, are the ones that meet the perceptions of reality.

While the insurance of financial autonomy was an expectation that wasn't mentioned as a perception of reality, the hope for benefits for own brand, mentioned by the two firms that had own brands, might be indirectly represented in the perceptions of acquisition of skills, increased notoriety and credibility, get references and access to preferential information, that may benefit an own brand, although this wasn't directly mentioned as a perception of reality.

Plus, although a few firms revealed lack of means to have a brand, only firm Epsilon mentioned an increase in its degree of specialization.

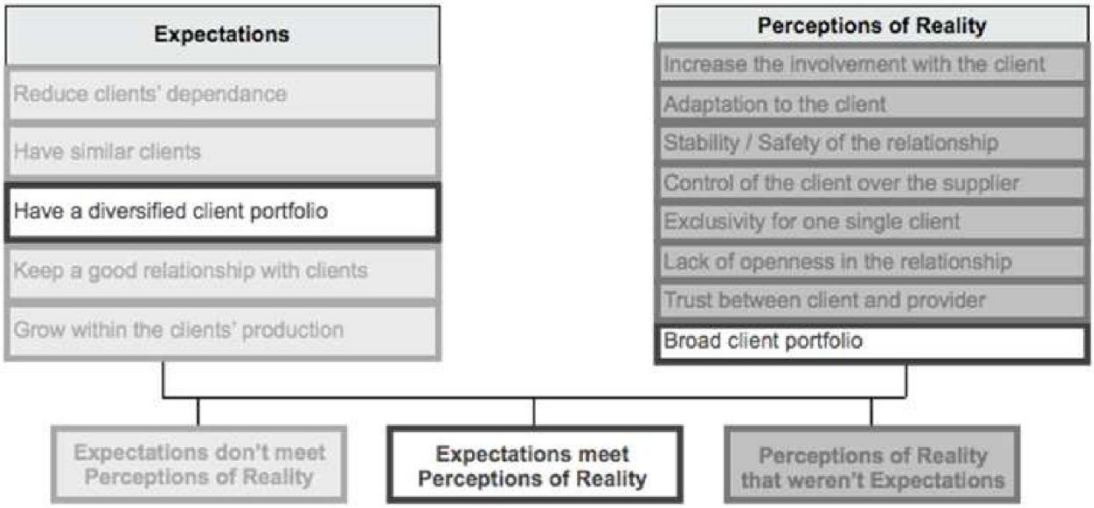
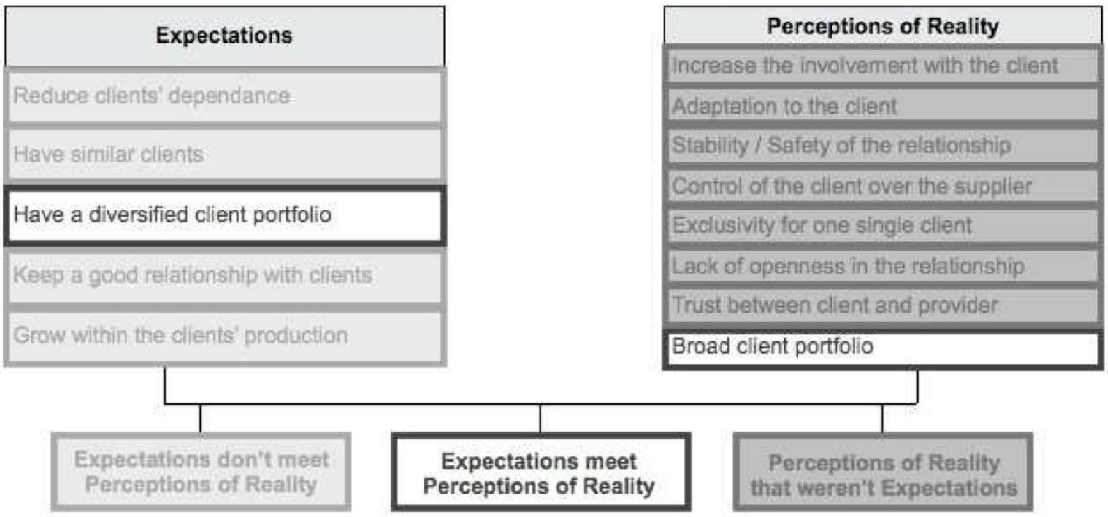


Figure 4. Comparison between client-related expectations and perceptions of reality



The client-related (Figure 4) category is the one where there is less matching between expectations and perceptions of reality, only one category matches: having a diversified client portfolio.

Still, we believe that although the expectations of reducing clients' dependence, having similar clients, keeping a good relationship with clients and growing within the clients' production don't show up as perceptions of reality, this doesn't mean they didn't happen at all, but only that providers don't perceive them, or didn't mention them.

However, several perceptions of reality that weren't initial expectations emerge; most mentioned being the increased involvement with the client. Besides, some of the other perceptions that appear may be considered divergent: adaptation to the client, stability/safety of the relationship, control of the client over the supplier, exclusivity for one single client,

lack of openness in the relationship and trust
between client and provider. This may happen because of the different typology of clients each case had.

Conclusions and Implications

The goal of our research was to fill that gap in the literature regarding the impacts of offshoring in a provider-perspective. Specifically, we would like to assess the case of Portuguese providers, following Lahiri et al. (2012) suggestion of future research, in the form of a qualitative study.

Given the absence of formal theories in the literature regarding this subject, we carried out an exploratory approach on the expectations of providers and compared them with their perceptions of reality, aiming to extend the literature about this matter. We identified three broad categories of expectations and perceptions of reality: business-related, firm-related and client-related.

Our study revealed that both on the business-related and firm-related categories, there isn't a major gap between expectations and perceptions of reality, with a considerable number of matching categories. From these, we highlight the creation of business and the acquisition of new skills, as the more significant categories emerging in the data.

On the other hand, on the client-related categories, there is one single match, in an inexpressive category: diversified client portfolio. By contrast, the more significant category of expectations for providers starting new offshoring relationships was to reduce their dependence to their current clients. However, interviewees revealed an increased involvement with their clients as their main perception of reality in client-related category.

The implications of these findings are wide: offshoring providers may be a source of competitiveness for one economy, since they are bringing business and promoting the acquisition of skills in the country and so, Governments may want to stimulate this business model.

However, it would be interesting if further studies could research the reason why some expectations don't meet reality: are there gaps of communications between clients and providers? Or is it a matter of perception and management of expectations? We believe a clear empirical investigation of these aspects would give us an even broader understanding of the offshoring phenomenon in the provider-perspective.

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INTERNATIONAL BUSINESS OF BANKING: THE PRICING EXAMPLE OF RETAIL CURRENCY SPREADS

Enn Listra*

Abstract

In this paper the pricing of a specific service of currency exchange based on the retail exchange rate spreads is studied on the example of four international banking groups. The aim of this study is to explore pricing of currency exchange services based on bid-ask differences in some commercial banks and possible price discrimination in this segment of market comparing the behaviour of Western mothers and Eastern daughters in European international banking groups. The retail currency rate spreads in different bank groups and countries are compared with each other. The main results of the study are that statistically significant differences exist in the spreads set by banking groups in different countries. All banking groups in the pilot sample offer more favourable rates in Western countries indicating that the pricing policy of bank groups may be discriminatory. The volatility of spreads over different currencies suggests that different decision making mechanisms may be present in the groups depending on the location of banking unit. The results of this pilot study suggest that further research is needed to understand the extent and the mechanism of findings.

Keywords: *international business, pricing, discrimination, commercial banking, currency rates, spreads.*

Introduction

It is well known fact, that the international pricing strategy is a dominant component of marketing mix of multinational companies (Hill, 2009). The main objects of research of this study are the spreads of retail currency exchange rates (that is a way to price the service) offered to customers in commercial bank groups both in Western and Eastern Europe. The retail currency markets of countries seem to be separated from each other and the banks seem to use discriminatory pricing when setting retail currency spreads in these countries.

The study is based on the premise that the currency exchange rates and bid-ask spreads are mainly determined by underlying macroeconomic factors influencing banks in a country in a similar way and by the internal policies of MNC-s that may or may not be discriminatory. Lyons (2001) describes three major approaches to exchange rates: goods market, asset market and market microstructure approaches. The structure and processes of relevant financial markets and institutions should be taken into account to understand the

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conflicting aims of profit seeking and policy making as forces determining the market outcome.

The processes going on in and the convergence of the financial sector in EU have been subject to number of studies but, surprisingly, the currency rates that the banks charge and pay their customers have almost left out of the interest by academic researchers. The retail exchange rates of commercial banks have not been studied much and the focus has been on the country level and the interbank market. The situation is understandable if one takes into account fact that only about 5% of currency market is connected to economic needs of agents and remaining 95% is driven by speculative motives (Krishnan et al, 2009). Example topics of the research on influence of currency rates on economy are relationship between trading volumes and rates' volatility (Bjønnes et al, 2005) and relationship between currency rates and stock prices (Stavarek, 2004).

The branches or subsidiaries of foreign banks have dominant positions in many of Central and Eastern European countries' banking markets today (Barisitz, 2009). The main hypothesis in the paper is that the differences in exchange rate spreads between banks of the same banking groups in Eastern and Western Europe are significant. The aim of this exploratory paper is to study pricing of currency exchange services based on bid-ask spreads in commercial banks and the existence of possible price discrimination. It is suggested in the paper that exchange rates in banks of Western Europe are more favourable for clients than in Eastern Europe. Following main research questions were kept in mind:

1 to explore the pattern of behaviour of different banking units in retail exchange sector inside of same countries;

2 to compare retail currency spread inside the banking group units in different countries;

3 to compare based on retail currency spreads the behaviour of MNC banking units;

4 to prepare methodology for the second stage of study.

In the section 2 an overview of relevant literature is given that is followed by the description of the sample and methodology of comparison. The limitations that derive from data collection process are discussed and data and sources are described in section 3. The results of comparison of banks in the countries under study are described in the section 4. The section ends with the comparison of currency rate spreads in the banks of groups of countries dealing with aggregated differences on the level of country groups. The short discussion of results is given in conclusions part 5.

Overview of related literature

The area of the study is relatively unexplored despite the fact that enormous amount of literature exists on the related fields of research. Extensive literature on the interbank currency

exchange market (that is a major factor influencing also retail rates) exists today with detailed studies on the influences of different factors on the currency rates and currency rate spreads. The main features have been long quoted even in textbooks – "spreads on the interbank market are based on the breadth and depth of a market for a given currency as well as on the currency's volatility" (Clark, Levesseur, et. al., 1993, p. 147). Levi (1990, p. 37) mentions without further discussion that banks charge their customers more than interbank ask rate and pay less than bid rate and that the size of the spread depends mainly on the volume of retail transactions. Lyons (1995) finds that inventory risk is main determinant of currency rate quoted spreads.

Currency rates became important object of research after the breakdown of the Bretton Woods fixed-parity system both because of policy considerations and because of the needs of international financial management in MNCs (Multinational Corporations). The research on the relationship between exchange rates and (goods) prices has been developing rapidly during recent decades (Menon, J., 1995; Goldberg and Knetter, 1997). Either exchange rate pass-through (Goldberg and Knetter, 1997) or the pricing-to-market as termed by Krugman (1987) are main strands of literature.

Studying financial integration in Europe Pichler, Steiner *et al* (2008) mention that "integration and the single market for financial services *per se* are the ultimate objective of the EU's integration efforts". While Horobet, Joldes *et al* (2008) find some exchange rate convergence in Central and Eastern Europe, the findings of this paper contradict to these results in retail markets.

It is well know that if international bank groups have certain degree of monopoly power in their markets then they can increase the profit discriminating against the customers in a particular country of operations (Hill, 2009). The literature on price discrimination has long history and it is customary to speak of three major types of price discrimination beginning from Pigou (1920). Detailed typology of price discrimination was provided early by Cassady (1946) and Machlup (1955). The literature on pricing of (retail) currency exchange services in international setting is far less extensive compared to previous topics despite the fact that the topic is raised on the textbook level.

Main factors influencing the bid-ask spreads have been identified by the microstructure theory: order-processing costs, asymmetric information costs, and inventory holding costs (Koutmos and Martin, 2011). Deeper analysis of determination of spreads is given by later market microstructure literature that counts three or four components for the spreads: inventory risk, operating costs (and profit margin), monopoly power, and adverse selection (Huang and Stoll (1997), Harris (2003)). Monopoly power is frequently excluded in currency microstructure literature (Rime, (2003)). The first prominent study of currency bid-ask spreads by Glassman (1987) showed that these increase with volatility and trading volume.

Example topics of the research on influence of currency rates on economy are relationship between trading volumes and rates' volatility (Bjønnes et al, 2005) and relationship between currency rates and stock prices (Stavarek, 2004). Two important results from recent literature apply to our study.

The spread is dependent upon the type of client (Fan and Lyons, 2003) and upon the level of activity (order flow) influences the size of the spread (Osler, 2006). Based on this result we divide research object and consider in our study separately the big (GBP, JPY, USD) and the small currencies (NOK, SEK, DKK, CHF).

The sample, data, and the methodology of comparison

The sample was composed according to the objective of the study but the number of constraints had to be taken into account when finalizing the sample. Table 1 illustrates the population. The attempt is made to include into the sample both Western and Eastern European countries and the EU banks where the headquarters of the banks are located in Western part of EU and the daughter companies in Eastern Europe.

	Banks	*Western countries*					*Eastern countries*				
		A	*B*	*C*	*D*	*xxxx*	*E*	*F*	*G*	*H*	*I*
Western mother	*1*	*A1*	*B1*	*C1*			*E1*		*G1*		
	2		*B2*	*C2*	*D2*	*Xxxx*	*E2*	*F2*	*G2*	*H2*	
	3	*A3*		*C3*	*D3*	*Xxxx*			*G3*	*H3*	
	4		*B4*		*D4*	*Xxxx*					
xxxx		*xxx x*	*xxx x*	*xxx x*	*xxx x*	*xxxx*	*xxx x*	*xxx x*	*xxx x*	*xxx x*	*xxx x*
Eastern mother	*5*	*A5*	*B5*			*xxxx*		*F5*	*G5*		
	6		*B6*	*C6*	*D6*	*Xxxx*	*E6*	*F6*		*H6*	
	7					*Xxxx*		*F7*		*H7*	*I7*

Table 1. The structure of the population of the banks.

Seemingly, the potential data set may be enormous. Closer inspection shows that only few banks can easily be incorporated into the study and sample selection is influenced by availability of data. Many banks have subsidiaries or branches in Eastern Europe but only few of them in Western Europe, homepages of Western banks tend to be uninformative about currency rates, and last, only selected retail currency rates are public in majority of banks;

	Unicredit	*Erste Group*	*Raiffeisen*	*Commerzbank*
Czech Rep.	*X*	*X*		
Austria		*X*	*X*	
Poland			*X*	*X*
Germany	*X*			*X*

Table 2. Countries and Bank Groups in the sample.

The sample's structure was designed symmetrical with the country and bank pairs described in Table 2. Germany and Austria represent Western Europe in the study, Czech Republic and Poland represent Eastern Europe. The four countries were chosen because of the geographic and economic closeness. The differences (*spread*) from the daily exchange rates of European Central Bank were calculated for all the banks' retail currency rates being compared. Average spreads were found based on the daily time series (January – March, 2010). The analysis and comparison of banking units is based on these averages. Student's t-test was used to control for statistical significance of findings with confidence level of 0,05 (the results given in Table 5). For the in-country, in-group, and between countries comparisons the differences of corresponding larger and smaller spreads quoted by banking units were found.

Four international banking groups were chosen into the sample – Unicredit Bank, Erste Group, Raiffeisen Bank, and Commerzbank (called Unicredit, Erste, Raiffeisen, and Commezbank in following sections and Tables for simplicity). Each of these banks runs business at least in two of sample countries and each of countries has two banking units from the sample's bank group present. In all cases the headquarters of banking groups are located in the West and daughter companies are in the East.

Unicredit Bank Czech Republic belongs to the Unicredit Group with Italian roots (History of the Group, 2010). The data were drawn from Unicredit Bank Czech Republic complete Exchange rates (2010). Another bank from the country is Erste Group's Česká Spořitelna (Erste Group, 2010), the data are obtained from Česká Spořitelna exchange rates (2010). From Poland BRE Bank and Raiffeisen Bank Polska S.A. (70% of BRE Bank's shares are owned by Commerzbank) were chosen. Data come from BRE Bank exchange rates (2010) and from Exchange Rates of Raiffeisen Bank Polska S.S. (2010). From Austria Raiffeisen Zentralbank Österreich and Erste Group were included into sample. The data come from Raiffeisen währungen (2010) and from Erste Bank Market Overview: Currencies (2010). HypoVereinsbank (HVB, called Unicredit below for clarity reasons) and Commerzbank are the two banks from Germany. The data come from Commerzbank Devisen-Marktkurse (2010) and from HypoVereinsbank Währungen (2010).

The data set in the study contains approximately 6950 retail currency rate values. Two types of currencies were chosen for study to control possible size effects based on the results of order-flow literature of market microstructure above. "Big" currencies are GBP, USD, and JPY. "Small" currencies are CHF, DKK, SEK, and NOK. As a benchmark, currency rates quoted by European Central Bank or national Central Banks outside the Euro area were used throughout the study. The data come from European Central Bank Euro foreign exchange reference rates (2010).

The analysis was carried out based on differences of bid currency rates and those of

Central Banks (spreads). First, the currency rates of non-Euro countries were transformed to Euro bases using the local Central Bank's Euro versus home currency rates. Second, to make all data comparable the spreads with ECB rates were calculated. Actual comparison of banks and countries was made using these spreads.

As a first step of the study average spreads and the coefficients of variation (standard deviation divided by average value of corresponding spreads) for the sample were calculated for all spreads over banks, countries and currencies (Table 3). The results indicate that systematic differences exist in the behaviour of bank units in the sample.

Bank	*CHF*	*DKK*	*GBP*	*JPY*	*NOK*	*SEK*	*USD*	*Average*
Poland Raiffeisen	*3,152*	*3,143*	*3,151*	*3,156*	*3,084*	*3,135*	*3,176*	*(17,4)*
	(16)	*(16)*	*(18)*	*(18)*	*(18)*	*(19)*	*(16)*	
Poland Commerzbank	*2,942*	*2,771*	*2,436*	*2,84*	*2,743*	*2,775*	*2,488*	*(13,0)*
	(11)	*(11)*	*(16)*	*(18)*	*(10)*	*(10)*	*(16)*	
Czech Erste	*1,796*	*1,835*	*1,838*	*1,729*	*1,765*	*1,761*	*1,749*	*(27,2)*
	(19)	*(16)*	*(27)*	*(51)*	*(20)*	*(21)*	*(36)*	
Czech Unicredit	*1,983*	*2,012*	*2,014*	*1,962*	*1,921*	*1,938*	*1,767*	*(23,5)*
	(17)	*(14)*	*(25)*	*(39)*	*(18)*	*(19)*	*(34)*	
Austria Erste	*0,500*	*0,376*	*0,314*	*0,526*	*0,338*	*0,359*	*0,340*	*(35,4)*
	(14)	*(2)*	*(55)*	*(51)*	*(42)*	*(37)*	*(48)*	
Austria Raiffeisen	*0,186*	*0,015*	*0,393*	*0,629*	*0,248*	*0,327*	*0,430*	*(74,34)*
	(88)	*(121)*	*(58)*	*(68)*	*(73)*	*(55)*	*(57)*	
Germany Unicredit	*0,197*	*0,272*	*0,299*	*0,353*	*0,302*	*0,275*	*0,367*	*(51,44)*
	(35)	*(4)*	*(65)*	*(81)*	*(56)*	*(64)*	*(55)*	
Germany Commerzbank	*0,137*	*0,268*	*0,205*	*0,189*	*0,245*	*0,227*	*0,201*	*(54,79)*
	(41)	*(3)*	*(72)*	*(106)*	*(50)*	*(47)*	*(64)*	

Table 3. Average spreads and coefficients of variation of daily spread (standard deviation divided by average spreads; in brackets, %, January-March 2010).

In-country and in-group comparison of currency rate spreads

First, the results of the comparison of different bank's spreads inside the countries are discussed. The currency rates in the same country are driven by the same factors except in-group policy factors and other possible influences that are derived from belonging to a certain banking group. In this subsection we compare the banking units with the aim to uncover differences of spreads of different banking groups operating in same environment. The data indicate that the different banks' views on suitable currency rates in the same country differ from each other considerably but the differences remain smaller compared to the differences between countries as we will see later in this paper. The bank groups and group units seem to have different policies of towards their clients in different locations.

In Czech Republic Unicredit's and Erste's banking units were compared with each other. Unicredit's spreads are larger in the case of all currencies in sample as can be evidenced on the Figure 1. The spread is the largest for GBP (2,014%) and the smallest for

USD (1,767%) in Unicredit. Erste's the largest spread is also for GBP (1,838%) and the smallest for JPY (1,729%). The spreads' differences are significant only in the cases of "small" currencies (Table 5).

The retail currency rate spreads of sample banks in Poland are very similar to those in Czech Republic. In all cases the spread is larger in one bank, Raiffeisen, but the differences of spreads are larger compared to the case of Czech Republic (Table 4). In Raiffeisen the spread is the largest for USD rates (3,177%%) and the smallest for NOK rates (3,085%). Coommerzbank's the largest spread is for CHF (2,94%) and the smallest for GBP (2,436%). Thhe differences are statistically significant for all currencies (Table 5).

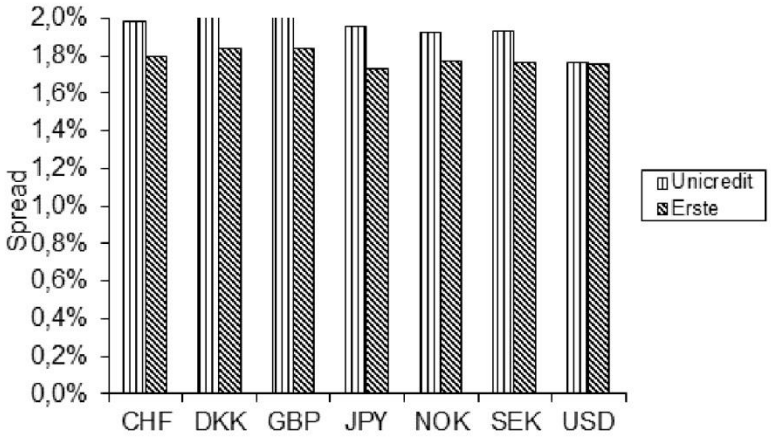

Figure 1. Comparison of average spreads in Czech banks.

The pattern of the spreads is very different compared to the earlier resuults in the case of Austrian banks (Figure 2) being distributed unevenly with Erste having largger spreads in the case of 4 currencies and Raiffeeisen in the case of 3 currencies. Also the level of spreads is smaller having the maximum below 0,65%. Both banks have their largest spreads in the case of JPY (Raiffeisen – 0,629% and Erste – 0,526%). Erste's the smallest spread is for GBP (0.314%) and Raiffeisen's the smallest spread for DKK (0,015%). Except JPY and SEK t he differences of average spreads are statisticallly significant (Table 5).

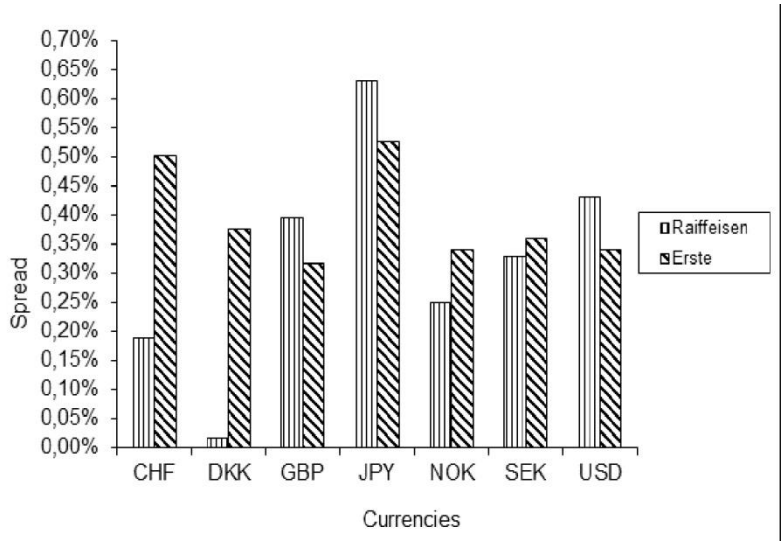

Figure 2. Comparison of average spreads in Austrian banks.

Retail currency spreads in Germany's banking units are distributed very si milarly to those in Austria but the level of spreads is lower. The spreads are larger in Unicredit foor all currencies in sample. The largest spread in Unicredit is for USD (0,367%) and in Commerzbank for DKK (0,268%). The spread is the smallest in Unicredit for CHF (0,197%) and in Commerzbank also for CHF (0,137%). All differences are statistically significant (Table 5) except of NOK and SEK.

The results of pair wise comparison (statistical significance) are described in Table 5. The reasons for the results are not clear but it seems to be of importance for future research that in the case of smallest banking sector (Czech Republic) the differences were not significant for the big currencies and that in the case of biggest banking sector (Germany) in the sample the differences were not significant only for the two small currencies. The different distributions of spreads in country groups cannot be explained only by macroeconomic factors and they exist most probably due to the in-group policies. The bank groups seem to have different inter group policies toward their customers in two parts of Europe. These policies can exist only if these markets are separated enough and the customers are not able to take advantage of the arbitrage opportunities.

	Czech Rep.	*Austria*	*Poland*	*Germany*
	Unicredit-Erste	*Raiffeisen-Erste*	*Commerzbank-Raiffeisen*	*Commerzbank-Unicredit*
CHF	+	+	+	+
DKK	+	+	+	+
GBP	-	+	+	+
JPY	-	-	+	+
NOK	+	+	+	-
SEK	+	-	+	-
USD	-	+	+	+

Table 5. Statistical significance of differences of spreads (Students t-test, 95% confidence).

Other important questions are whether the banking groups act differently in different countries and to what extent. If price discrimination is present in the data it could be evidenced by comparison of currency spreads of the subunits of same banking group in different countries. The objective is in this subsection to compare the spreads of the same bank group units acting in different countries. The aim is to understand whether the spreads

are mainly determined by the membership in a group or they depend on the location. In all cases the first banking unit compared is the Western mother bank and the second is the Eastern daughter bank.

The comparison of the units of Unicredit group in Germany and in Czech Republic (Table 1) showed that the levels of spreads in these countries are considerably different over the countries but very similar over the currencies under study. In Germany the spreads are between 0,19% - 0,4% and in Czech Republic between 1,8% - 2,1%. The differences of spreads are distributed evenly (Table 6). The comparison between units of Erste in Austria and Czech Republic showed that the pattern is very similar to the previous one. In Austria the spreads were between 0,31% - 0,53% and in Czech Republic between 1,72% - 1,84%. The Commerzbank's spreads in Germany are 0,13% - 0,27% being more evenly distributed compared to Poland (2,4% - 3,0%). The analysis of data from Raiffeisen group gave similar results compared to those above. In Austria the spreads are between 0,01% - 0,63% being most volatile in the whole sample. In Poland the spreads are more evenly distributed and are between 3,08% - 3,18%.

The results of this section indicate again that all bank groups in the sample have different policies towards their Western and Eastern customers (Table 6).

	Unicredit	*Erste*	*Commerzbank*	*Raiffeisen*
	Germany-Czech Rep.	*Austria-Czech Rep.*	*Germany-Poland*	*Austria-Poland*
CHF	***1,79***	***1,30***	***2,81***	***2,97***
DKK	***1,74***	***1,46***	***2,50***	***3,13***
GBP	***1,72***	***1,52***	***2,23***	***2,76***
JPY	***1,61***	***1,20***	***2,65***	***2,53***
NOK	***1,62***	***1,43***	***2,50***	***2,84***
SEK	***1,66***	***1,40***	***2,55***	***2,81***
USD	***1,40***	***1,41***	***2,29***	***2,75***

Table 6. Comparison of differences (% points) of average spreads from ECB rates.

To finalize the analysis the spreads are compared by countries in this paper. We compare the banking units in two pairs of similar countries and also between the country groups (Eastern Europe and Western Europe).

The spreads quoted by the banks under study in Czech Republic and Poland are compared first. Here, the spreads are calculated based on currency rates of local central banks (National Bank of Poland fixing, 2010 and Selected exchange rates ..., 2010) instead of ECB. It is evident from Figure 3 that the spreads are larger in Poland being also statistically significant. Czech spreads remain between 1,7% - 2% and in Poland the spreads are in interval 2,8% - 3%.

The spreads are distributed very differently in the case of Austria and Germany (Figure 4) compared to the Eastern countries. First, Germany's spreads are distributed more evenly compared to Austria's ones. The volatility over different currencies is considerably higher in relative terms in Western Europe. The levels of spreads are lower compared to those in Eastern Europe indicating that

banks have different policies depending on the country of location.

The difference of spreads in two groups of countries is very large – spreads in Eastern Europe are clearly higher (Table 7) compared to spreads in Western country. Relative volatility is higher in Western countries when different currencies are compared. Higher relative volatility over currencies and considerably lower spreads in Western units of bank groups indicates that in-group policy rules in the West and in the East are different in the groups under study.

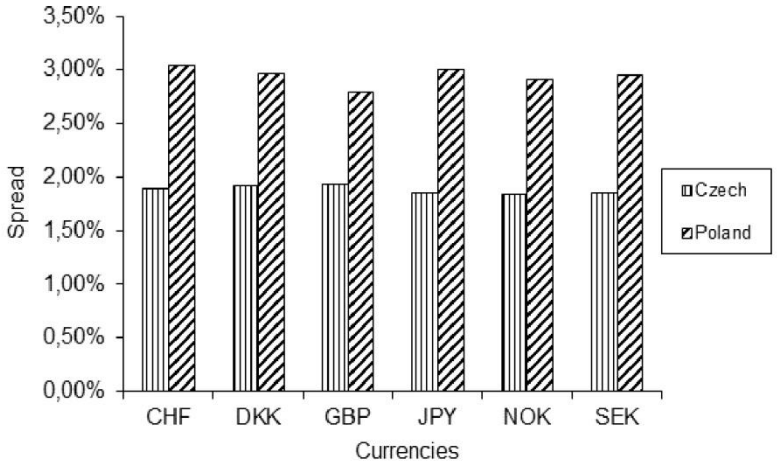

Figure 3. Averrage spreads in the sample from Czech Republic and Poland.

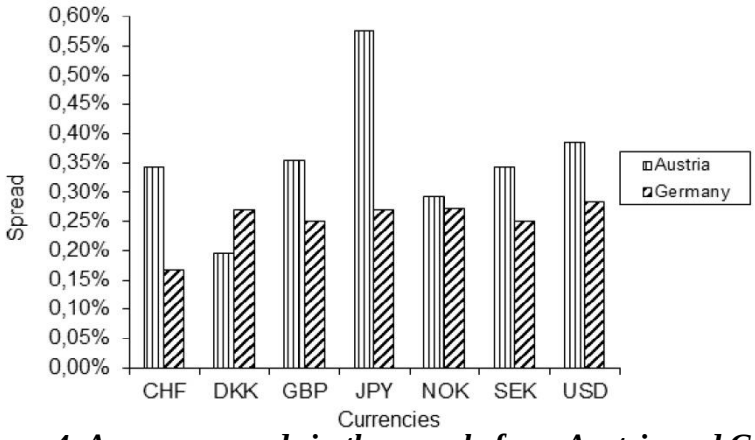

Figure 4. Average spreads in the sample from Austria and Germany.

	Czech Rep.	*Poland*	*Eastern Europe*	*Austria*	*Germany*	*Western Europe*
CHF	***1,890***	***3,047***	***2,469***	***0,343***	***0,167***	***0,255***
DKK	***1,924***	***2,957***	***2,441***	***0,195***	***0,270***	***0,233***
GBP	***1,926***	***2,794***	***2,360***	***0,354***	***0,252***	***0,303***
JPY	***1,846***	***2,998***	***2,422***	***0,578***	***0,271***	***0,424***
NOK	***1,843***	***2,914***	***2,378***	***0,293***	***0,274***	***0,283***
SEK	***1,849***	***2,955***	***2,402***	***0,343***	***0,251***	***0,297***
USD	***1,758***	***2,832***	***2,295***	***0,385***	***0,284***	***0,335***

Table 7. Average spreads from ECB currency rates in Eastern and Western Europe sample banks (January-March 2010, %).

Conclusions

The aim of this paper was to compare the behaviour toward the customers of different banking groups having businness in Eastern and Western Europe. In the case of full integration of the market customers of baanks should get similar services with similar pricces not depending on which part of market (country) they are located. As the bases for comparison the retail currency exchange rate spreads were used.

Under the constraint of data availability a symmetric sample of four countries (Austria, Czech Republic, Germany and Poland) and of four international banking groups (Unicredit, Erste, Commerzbank and Raiffeisen) having business at least in two countries of the sample was formed with the headquarters located in Western Europe in all cases.

The average retail currency exchange rate spreads were compared among the banking units and countries to study the banks' units' behavioural patterns. The retail currency spreads should be same in all parts of the market in the case of fully integrated markets. If the spreads are different, the price discrimination is most probably the reason.

Main results of the study were following:

In-country comparison of the banking units showed that the pattern of spreads belonging to different MNC-s (banking groups) was similar inside the countries. The statistically significant differences existed in most but not in all cases of currency-country pairs;

1 In-group comparison of retail currency spreads showed that banking groups offer more favourable terms to their Western customers (the spreads in Western banking units were lower compared to their Eastern counterparts). In all cases the differences of spreads were statistically significant and larger compared to in-country differences;
2 The spreads in Western banking units seem to be based on discretion and in Eastern banking units the decision making seems to be rule based over the currencies; considerable differences in volatility over currencies in East and West are bases of this conclusion;
3 The comparison of the aggregated data by countries showed that the differences of spreads in banking groups under study were more different between the Western-Eastern country pairs compared to Eastern-Eastern and Western-Western pairs.
4 Differences in currency exchange rate spreads between Eastern and Western Europe within chosen countries are very significant. It was found that exchange rates in Western Europe are more favourable for all analysed currencies in the case of all analysed banks.
5 One currency (DKK) can be considered as outlier in this study for unknown reasons.

The results of pilot study are contradicting to the assumption made in currency market microstructure literature (Rime, 2003) that monopoly power should be excluded as a factor determining the spreads. The results show that the assumption is most probably not correct in case of retail currency market and the theory should be improved to fit the reality of retail markets.

All results of the pilot study indicate that commercial banks' in-group policies may be discriminatory and the integration of banking markets at least in retail currency exchange area is not achieved.

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BOOK REVIEW

PAUL KRUGMAN WANTS A QUICK END OF THE ECONOMIC DEPRESSION[1]

Petre Prisecaru*

1. Krugman's main considerations on crisis and economic recovery

In his book *End This Depression Now!* Paul Krugman tries to find some solutions to the lasting economic depression, mirrored by a low rate of growth and high level of unemployment. It is obvious that during the last three years (2010-2012) the economy of the most developed countries passed through a disappointing stagnation with a major contribution of austerity policies. But Keynes said that austerity had to be applied during the economic growth not when the economy was decreasing, and based on this idea Paul Krugman pleads for more government spending in order to support private sector and economic recovery.

Paul Krugman has resumed part of his assessments made in his previous book *The Return of Depression on Economics and The Crisis of 2008* referring to recent financial and economic crisis. He questions Ben Bernanke optimism about economic outlook expressed in an interview in March 15, 2009 and afterwards and also his view on so called *the economy of happiness.* From USA to China the most pressing matter is now the high level of unemployment, and Krugman refers to involuntary unemployment and combats with stupid ideas of some American right wing politicians and economists that many unemployed people do not want to find jobs. How many unemployed people exist now in USA? Nobody knows exactly, the official figure was over 13 million in December 2011, (12.2 million in December 2012), compared with 7 million in the fall of 2007, but many people have now part time jobs and this represents a kind of hidden unemployment. In June 2011 Democracy Corps made a survey and found that over 40% of total American families had been affected by the cuts in the number of worked hours, salaries level and non-wage benefits. Long term unemployment is a painful reality and its social effects are extremely negative, especially when it concerns many young and even graduated people. A protracted period of unemployment can badly affect for a long time the vocational career and even the life of many young people.

In 2008 and 2009 the contraction of economy, measured by GDP decrease, was quite impressive and the recovery was slow and limited. In USA the estimation of real potential of GDP made by the Congressional Budget Office at the beginning of 2012 indicated a deficit of 7% in the operating potential of American economy, which means a loss of 1000 billion $ per year and a total loss of at least 5000 billion $. This huge loss signifies goods, salaries, profits not achieved or materialized. For Krugman paying attention mainly to long term perspective is a mistake, because short term difficulties, economic and social, will badly impact on long term economic development. The loss of investor confidence, the decrease of funds assigned for education and health, postponing infrastructure projects will have very negative effects on the future economic development. European Union was also seriously disturbed by the crisis and now Southern Member States are facing a lot of difficulties caused by the deficits, public debts and high unemployment. We may see a certain revival of extremist and nationalist movements due to the dissolution of middle class, but their risk is not comparable with that of the totalitarian regimes from 20th century. For Krugman there is a huge human disaster caused

[1] Paul Krugman, *End This Depression Now*, Publica, Bucharest, 2012.

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by the crisis but there is no excuse for political leaders not to take appropriate measures because we have the necessary knowledge and action tools for solving the economic problems and to end the depression as soon as possible.

After *The Great Depression of 30's* Keynes noted that we had enough resources but not enough expertise in the field of economics, while nowadays we have even more resources and much more knowledge in economics but we have serious deficiencies or troubles in the organization and coordination of market economy. Krugman believes that economic morass is the result of decades of applying wrong policies and bad ideas, harmful to most people but useful for a small minority. Solving the crisis is not easy and also not very difficult because it requires intellectual clarification and political will. For Krugman everything revolves around demand, the decrease of consumer demand led to output and investment reduction, diminution of public expenditures, economic recession. He combats the stupid assertion that general lack of demand cannot affect the economy and gives a famous example with the babysitting association in order to draw the following conclusion: *your spent money is my income and my spent money is your income.* If this clear conclusion is ignored and citizens and governments spend less, deficits and troubles will occur sooner or later. Less demand means low capacity utilization and less income. Now economy is facing coordination failures more than the lack of output capacities. Due to the losses recorded during financial crisis many people have reduced their demand, they spent less revenue, buy less goods and save more money. The amount of credit has been drastically reduced due to the banks attitude and debtors difficult position, forced to cut their expenses, as a result incomes and employment collapsed and the only solution seemed to be the strong increase of money supply. Since 2008 Fed has tripled the money base without any visible effect, that is why a legitimate question looms: *can we revive the economy with more money?* The answer is very simple: we cannot now due the liquidity trap.

Before the financial crisis, US economy had two engines: housing construction and consumer expenses based on higher and higher prices of houses, but the breaking of housing bubble led to economic depression. Fed tried to increase money supply and reduced the reference interest to almost zero in 2008. We have a liquidity trap when there is enough money or liquidity but the demand remains at very low levels due to the fact that there are too many debts, less borrowed money, less consumer spending, less confidence of creditors and investors.

There are structural problems related to modern economy, produced by a rapid increase in labor productivity, but it is not retraining a part of labor force and moving it in other sectors the main problem of American economy but the strong demand contraction that induced a setback of private sector despite the increase of money supply. After 1937 depression, American economy revived during the Second World War when the administration had strongly increased its military expenses which fueled a powerful economic recovery. For Krugman governmental expenditures create consumer demand which is the engine of economic growth.

Do we have now a new economic thinking or have we returned to the ideas of famous past economists like John Maynard Keynes, Irving Fisher or Hyman Minsky? Why is a great economist like Minsky, long time marginalized, so important and useful now? Because he launched the financial instability hypothesis based on the increase of indebtedness for supporting investments during the economic stability periods. The accumulation of debts in relation to assets and income or the increase of indebtedness finally leads to financial and economic crisis. Krugman thinks that making financial debts for investments and growth is a good thing, but for a family or a company is not suitable to accumulate high debts which make you vulnerable to difficult situations like loss of assets value or sales volume.

It was the great American economist Irving Fisher who disclosed in 1933 that a sudden economic decline may lead to a debtor race or panic for hastily paying their debts and consequently to a deflation period mirrored by a general decrease of prices and an increase in currency purchasing power. More the debtors try to pay more they are indebted. For Krugman the difficult situation of world economy is revealed by the fact that the debtors cannot spend and the creditors do not want to spend. Within EU highly indebted countries, like Greece, Spain, Italy, cannot easily borrow money now due to their difficult financial situation, they are assisted by European Central Bank and other euro countries, like Germany, through European Stability Mechanism, but they were forced to apply tough austerity programs. But austerity measures were enforced also by other EU countries with a low public debt, like Romania, or with a relatively strong financial position, like Germany, which may badly affect global demand.

Borrowing money is not a risky activity when there is a boom of economy, although it may provoke a future crisis, especially when a break of a speculative bubble appears and the high risks of debts blow out. The Minsky moment or Wile E.Coyote moment is the truth moment when an economic collapse happens due to high debt risks assumed by the population and economic agents.

Between 1929 and 1955 the debt of population increased 4 times in US, but due to inflation and economic growth its share in GDP had marked decreased. The huge boost of private debts between 1929 and 1933, during the Great Depression, points to manifestation of deflation by debts when depression and deflation aggravate the debt burden. Krugman blames Republican Party policy after 1980 focused on deregulation, liberalization and accumulation of huge public debts starting with first Ronald Reagan Administration.

Is the austerity and prudent attitude based on cutting the expenses and costs and paying the debts the only solution for remedying the difficult financial situation of population? Krugman considers that *the combination of liquidity trap with prolonged effect of excessive debts pushed us to fail on the realm of paradoxes.* One of them is the saving paradox, when there is an economic depression saving much more money does not stimulate the investments and leads to income contraction and economy restrain. Other two paradoxes are: the de-indebtedness paradox revealed by Fisher and the flexibility paradox described by Gauti Eggertsson, referring to the effect of wage cutting on employment. For Krugman cutting the wages through labor flexibility is a mistake because it leads to income reduction while the debt level remains the same. Someone needs to spend more and borrow more money and this is the state, so Krugman embraces Keynes opinion favoring more government expenses for overcoming the economic depression and deems that a certain level of inflation will diminish the debt burden and have other positive effects.

Krugman blames Alan Greenspan for misinterpretation of the role of financial derivatives which led to the reckless lending, huge debts and high credit risks. Due to what happened with commercial banks during the Great Depression, new and important legislative regulations were adopted in the 30's, but starting with the 80's the deregulation process and the delay of regulation updating played an evil role in the massive increase of debts and the following crisis.

People who invest money have to choose between liquidity and earnings, but a bank provides liquidity for deposits and earnings by giving credits or loans. But a sudden loss of trust on behalf of depositors or a panic situation may cause massive withdrawals of deposits, strong devaluation of bank assets, bankruptcy of many banks. The ratio between equity and raised funds within bank assets had considerably decreased in more than a century, from 20-20% to around 5% and this explains banks vulnerability to panic situation and creating a lender of last resort(central banks). US Congress adopted in 1933 Glass-Steagall Act

(abrogated in 1999) in order to protect the banks and economy against massive withdrawals, also by setting up a public agency to guarantee bank deposits-FDIC, by establishing a system of deposit insurance and by limiting banking activity to granting loans. The activity of commercial banks was clearly separated from the activity of investment banks and other savings and credit institutions. The deregulation activity which started in some service sectors in the 70's leading to an increased competition and efficiency had stimulated the deregulation of banking activity which attracted to taking high risks. A strong increase of loans and risks involved in lending activity created great difficulties in many banks. Clinton Administration supported the removal of prohibitions separating activities of commercial banks from those of investment banks which encouraged risky derivative operations. In 2007 non-regulating *parabanking sector* surpassed in size the traditional banking sector, but the risks amplified and the debts accumulated to a large extent and financial crisis finally erupted.

In Krugman's opinion *The Big Lie* of financial crisis is to blame the US Congress for market deregulation and liberalization and not the banks for disastrous lending policy. Poor people had benefited from legislative deregulation and from cheap lending but there were many assets and markets unrelated to lending to the poor. Most risky credit activities were carried out by deregulated private creditors and not by Fannie Mae and Freddie Mac, the two public agencies involved in the procurement of housing loans. Financial deregulation started in 1982 with Garn-St.Germain Act for supporting savings and loans of popular banks but this led to a classic case of moral hazard. A lot of credits were granted to real estate developers and finally taxpayers had to cover losses amounting to 130 billion $. In the 90's commercial banks were facing serious difficulties due to huge loans offered to the developers of commercial premises. In 1998, when the financial crises haunted in East Asia, the failure of an important hedging fund like Long Term Capital Management was avoided with the financial assistance of New York Federal Reserve. Financial leaders, like Alan Greenspan, praised deregulation excessively, on the ground that it would have led to improved economic performance. Financial deregulation had a small contribution to economic growth and household income, but a great contribution to the extraordinary income growth of some few people from financial sector.

The *second gold age* started after 1980 but only for very few people, like managers of hedging funds, investment banks, commercial banks, other financial agents and some few personalities close to them. It has been recorded an impressive income increase, but only for the top financial elite and their henchmen, representing 0.1% and 0.01% of US population. While financial leaders pathetic attempted to justify huge income differences and increasing social inequality on the base of higher education, Occupy Wall Street Movement claimed to defend the interests of 99% of population. Office for Budget of Congress (OBC) showed in a recent report that between 1979 and 2007 the share of the top 1% within the total net income increased from 7.7% to 17.1%. Based on Gini index in the same period half of total income growth was displaced for the top 1% of population. Very few among the top 0.1% have become enriched by creating valuable products or services, most of them are corporate managers who set their own salaries which are not tied to management performance. As for the managers of hedging funds, investment funds and banks the remuneration packages are extremely stimulating regardless of performance achieved, they may engage in very risky activities without any liability or penalty. Credulity of investors and depositors, lack of regulation and supervision by the authorities, large tax cuts for high incomes are the keys of their financial prosperity irrespective of their real contribution to the general welfare.

Paul Krugman considers the right wing orientation in politics may also explain the sudden and massive increase of high incomes, the financial deregulation, the proliferation of new financial institutions and financial derivatives. Increasing income inequality could have

contributed to the accumulation of too many debts by the middle class and to a lower saving rate. A lot of money buys more political influence and this explains why politicians were blind to the risks of financial deregulation. Some important American authors, who have analysed the causes and implications of income inequality, are mentioned by Krugman. What it is very interesting and was noticed not only by Krugman is the fact that enough financial leaders had become important decision makers in public institutions, took important decisions in favor of financial sector and then returned to (other) financial corporations where they could effectively lobby politicians. Krugman has quoted Matthew Yglesias opinion on political leaders like those from EU countries who have lost the trust and respect of their own people but are valued by Davos Group, IMF, other supernational institutions, like Europeans ones, thus being able to get very good jobs in international institutions after leaving the office as a reward for their docility in applying austerity programs (maybe under the unspoken slogan: *I do not serve my country, I serve only the masters of universe)*. Krugman defines himself as a social liberal and severely criticizes the Republican Party for becoming the party of the rich in the last three decades.

One of the lessons and achievements of Great Depression is *macroeconomics,* which George Lucas jr. believed it could prevent new depressions, assertion that proved to be false, especially as many economists have frantically argued for financial deregulation. Krugman coined a suggestive expression: *a dark age of macroeconomics,* possible due to unfortunate combination between politics and theoretical sociology. Long time Keynes ideas were repudiated by right wing ideologists and their supporters from universities based on so-called similarities between state intervention in the economy and socialism of central planning and radical redistribution. In 1943 Michal Kalecki, a socialist thinker, spoke about the blackmail with the lack of confidence of economic agents or businessmen in government policy, today the same argument is used to fight against any regulation and state intervention. Very wealthy people do not accept Keynes ideas mainly on creating jobs by state. State intervention is strongly blamed, even monetary policy is rejected by keen conservatives as an effective tool to stabilize the economy. While Keynes did not like the idea of leaving financial markets at the mercy of speculators, nowadays liberal economists, like Eugene Fama, University of Chicago, blindly believe in efficient markets hypothesis, although large and rapid fluctuations and speculative excesses ought to raise serious doubts on markets rationality.

Krugman does not put a great value on econometric models that have been highly fashionable in recent decades. Theoretical model developed by finance economists, so-called *Capital Asset Pricing Model,* for determining capital value, was used for financial investments on Wall Street, for selecting securities portfolio, to value derivatives, to get Nobel prizes for its creators. Blind faith that modern science of finance economics keeps everything under control and markets recover quickly to normal operation after any depressive relapse is specific to notorious and influential persons like Greenspan and Fama. In the 60's and 70's the vision of monetarist school, led by Milton Friedman, was rather close to Keynes vision on recessions and markets, but meanwhile macroeconomics divided into two factions: *salty water economists* with a Keynesian vision and *fresh water economists* with an ultraliberal vision. Fresh water economists would be the purists of *laissez faire* philosophy, they consider ordinary people as rational human beings and markets as functional, they take for true one cannot have situations of general failure of demand and inflation is guilty of workers and firms confusion and implicitly of temporary recessions (as Robert Lucas jr. said in the 70's). Long time they questioned the value and utility of Keynesian theory, spreading a vision dominated by real business cycle theory which says recessions are a rational, even effective, reaction against adverse technological shocks. Neo-keynesian theory, opposed to Robert Lucas ultraliberal vision and questioning the perfect markets and their perfect

rationality, was hosted by universities like MIT, Harvard, Princeton and by Fed and IMF. Neo-keynesian economists, like Christina Romer and Ben Bernanke, were able to advance useful response measures to recent crisis.

Although Paul Krugman is a great admirer of monetary policy he recognizes the limits of monetarist vision of Milton Friedman and the limits of monetary policy effectiveness in counteracting economic recessions. Tax incentives and government expenses, supported by neo-keynesians, have been rejected or hardly challenged by neoliberal or monetarist economists as potential effective tools in combating recessions.

Paul Krugman has investigated US Administration response to the recent crisis and thinks it was quick but not sufficient, if we take into account the high level of unemployment. In US and EU the governments and central banks intervened with cheap money policies and bank bailouts, but these actions could not create jobs and reduce unemployment significantly. Krugman disapproves Administration timidity on economic recovery measures and the rigid and inflexible position of right ideologists, economists, politicians on any state intervention. He analyzes the effects of real estate bubble bursting on housing and financial assets prices, the impact of Lehman Brother bankruptcy on banking sector, the generous and substantial financial assistance offered to banks by Fed and Administration (TARP), the absence of a solid recovery and stimulus plan for real economy(only 787 billion $) .Krugman and Stiglitz were not wrong criticizing Obama feeble plan because unemployment exceeded 10%, GDP growth rate was low, the increase of federal spending share accounted mainly emergency assistance given to citizens in need. It seems absurd for Krugman the attempt to save the economic system of 45 trillion $ (3 year GDP) with only 787 billion $. Achieving political compromise between Democrats and Republicans in US Congress was and still is extremely difficult and deterred Obama Administration to offer a greater financial assistance to real economy. Krugman advocates for a direct reduction of mortgage debts for more than 10 million Americans and shows the lamentable failure of Administration specific program. For him it is obvious that political games and intellectual confusion would have blocked economic recovery actions in USA.

The previous high public and private deficits became even higher during the crisis due to bailouts and other programs and led to public expense cuts and to a weak financial support for job creation. Krugman believes the lack of jobs is much worse than the burden of high deficits which are not an essential issue during an economic depression. The fear of budget deficits is enhanced by the fear of any attack from bond vigilantes, investors who sell a country's bonds when they have lost the confidence in its monetary and fiscal policies. But for US the costs for selling treasury bonds are very low so the Department of the Treasury may borrow more money and increase the public debt within a favorable market situation. The campaign for cutting the public expenses of debt hawks was based on a future and hypothetic raise of borrowing costs which has not materialized, the interest rates being at very low levels between 2008 and 2011 when US Administration borrowed more than 5000 billion $. At the end of 2011 and beginning of 2012 the borrowing costs were at the lowest level ever recorded.

The liquidity trap reveals the large amount of private sector savings, retention of firms to invest and the need for government borrowing and spending which expands the aggregate demand and consequently leads to absorption of excess of savings supply. The private sector savings provided the money for government borrowing in US due to 1000 billion surplus recorded per year (the difference between savings and investments). Krugman sees no competition for getting funds between budget deficits and private sector, as the government tries to use the savings surplus of private sector. The difference between short term interest rates (controlled by Fed) and long term interest rates (influenced by investors confidence) and

their impact upon economic recovery explain why both remained very low in the last years. Albeit the deficits and debts are very high (as a share in GDP) US do not have any payment incapacity risk and it is in a better financial position than Japan and Great Britain. Euro countries like Italy, Spain, Portugal, Ireland and even Greece, with lower public debts, proved to be more vulnerable because they do not have their own currencies.

Krugman deems there is no problem with increasing the level of public debt when recording economic growth and inflation. As it was demonstrated the debt must not be paid but transferred to future generations, it has a high cost and it will burden the future but any fast payment may cause great economic difficulties. Krugman draws the attention upon the recklessness to concentrate on short term deficit. Due to liquidity trap a reduction of public expenses by 100 billion $ leads to a GDP decrease by at least 150 billion $ which involves a weaker economy, less revenues and a net debt cut of no more than 50 billion. When there is an economic recession any expense cut is not a good solution for strengthening the fiscal position and could harm the future economic recovery. To reduce the real debt value one may resort to partially debt canceling or to a higher inflation, or to replace a part of private debt with public debt. After Second World War the depression did not return in US because the robust economic growth and enhanced inflation had reduced the debt relative to GDP.

A good part of American right political spectrum, headed by Raul Paul, a proponent of Austrian School of Economics, is rather fearful of inflation caused by high deficits, huge bank reserves and dollar devaluation and blames Fed's hypothetic inflationary policies. But between 2009 and 2012 inflation rate did not exceed 2.0% on average and there is only one explanation: the liquidity trap. Fed has not printed money but bought financial assets, like treasury bonds, and gave loans to commercial banks against transfer of ownership of bonds. Fed acquisitions may lead to inflation by credit expansion in a period of economic boom, but now we have a prolonged recession. We do not have a stagflation period although energy and food prices have strongly increased due to the fact they haven't propagated to salaries. Consumer Price Index is used for calculating the inflation rate but Krugman brings into question *the core inflation*, without taking into account food and fuel prices, for measuring inflation inertia. Krugman is critical to those who challenge the official figures of US Bureau of Labor Statistics supported by MIT (Billion Prices Project) and advance aberrant figures on inflation. He thinks we need a higher inflation rate, around 4%, also considering the opinion of Olivier Blanchard, IMF chief economist. Firstly a higher inflation will stimulate borrowing money and will give more room for maneuvering monetary policy, secondly a higher inflation will help in reducing the real value of debts, thirdly the employees accept more easily a higher inflation than nominal wage diminution. The wages have not diminished in US, on the contrary they have increased to a certain extent and this explains why there was no deflation in US. But we cannot neglect the contribution of food and energy prices and of companies policy to cut the costs and not the prices.

Krugman makes a brief history of European integration and believes that European elites have overestimated the single currency gains. But for a country giving up to its own currency surely removes the devaluation policy as a means of adjustment to an economic shock. Instead one needs to cut the nominal wages to gain competitiveness and this is extremely difficult to accept by employees. Krugman insists on *optimal currency area,* concept introduced by Robert Mundell in 1961 which focused on labor mobility. Comparing EU with US one can notice the low labor mobility, lack of fiscal integration, poor economic governance. Cheap money policy, pursued by European Central Bank was a great mistake since it led to high indebtedness of Southern Member States and to huge housing bubbles. Large capital inflows fueled speculative bubbles and overgrowth of labor costs, and also recording of growing trade deficits within euro area. With the onset of the crisis production

and employment have dramatically decreased, it swelled bank bailouts, debts burden and cost of financing them. For Krugman the *Great Illusion of Europe,* consists in the wrong belief that the sovereign debts crisis was caused in EU by fiscal irresponsibility, which may be true only for Greece. Until 2007 the public debt of GIPSI group as a share in GDP has decreased constantly, but once the crisis started it has sharply grown up. Although on overall the public debt and private debt are smaller than in US, inflation rate is quite low and current account is balanced, the situation differs depending on the considered country. For Germany dislikes the adjustment through inflation it remains only the solution of deflation for states with financial difficulties, hard to attain in the context of wages rigidity. In Iceland the strong devaluation of crown led to an important reduction of wages denominated in euro while in Ireland and Spain the wages have decreased only very slow and to a small extent with high long-term unemployment price. The heavy burden of high debts may be successfully tackled only through a combination of inflation and rapid economic growth. The single currency has still a drawback: some countries are extremely vulnerable to self-validated panic, they are not able to refinance their short and medium term debts due to the lack of interest of foreign investors or banks for their new issued bonds. EU Member States which have not adopted euro are doing better than the single currency countries while new recent members, like Slovenia, pass through great difficulties likewise. Saving the euro depends mainly on European Central Bank policy, the implementation of European Stability Mechanism, the fiscal and structural adjustment measures of Southern States, IMF financial assistance and access to private capital markets. Austerity measures focused on cutting the expenses and increasing the taxes could not have good results, on the contrary they emphasize the economic and social decay.

Much of bankers and financiers decided almost overnight to become the followers of austerity measures and in the spring of 2010 OECD recommended to US Administration a massive cut of budget deficit and to FED a high growth of short term interest rate, but the guidelines were not observed. Not the same thing did Great Britain and European Central Bank that had not taken into consideration the extent of unemployment and the consequences of austerity measures. Other institutions, like Bank for International Settlements, and influential economists and businessmen have argued in favor of austerity through tightening of monetary and fiscal policies. Krugman remarks lack of consistency of the arguments and frequent changing of explanations for *austeriens.* It is obvious that Greece bad example is used by the austerity adepts like a fright for imposing an urgent cutting of the deficits and debts based on ruined reaction of markets. One cannot deny the high cost of debts (public and private) but it is hard to believe or demonstrate with solid arguments that austerity could lead to economic expansion. Ireland and Canada are offered as good examples for reducing public deficits, but this was achieved during an economic boom as a result of a strong increase of fiscal revenues. Prime Minister of Great Britain David Cameron imposed an austerity program in the field of public expenses but the trust of companies and investors fell to a very low level and the economy has remained in a visible stagnation. On February 13, 2013 in a desperate attempt to revive the economy, Bank of England started a program for directly financing the corporations, including banks, by buying their bonds amounting to 50 billion £. When monetary policy is focused on targeting the inflation it is difficult to understand why OECD and ECB insisted on interest rate growth. Krugman does not agree with Raghuram Rajan from Chicago University who seems convinced that US must undertake deep structural reforms for improving supply side and not to revive former demand patterns. Schumpeter, Hayek and Rajan are included by Krugman in so-called *liquidatorist stream,* which considers one should not do anything to mitigate the consequences of a depression. John Maynard Keynes had explained why David Ricardo opinion on the fact that *an economy may not suffer from an inadequate demand,* although it is not truthful, has become a sort of axiom. All

austerity policies are in favor of creditors (bankers), while central bankers and financial officials do not like excessive expenses and low interest rates.

Krugman proclaims his optimistic view on economic recovery, but recognizes that reducing income disparities is a difficult task and will take a long time. The optimistic official signals since 2009 proved to be soap bubbles as long as the employment rate of people between 25 and 54 year old remained around 75%. In Krugman's opinion private sector in US does not want to spend enough money for full utilization of productive capacity and for offering enough jobs to millions of people. Krugman believes the government should take the initiative to spend more instead of private sector. More government spending means more GDP and more jobs, rising of consumers and companies confidence, funding from central and local level of enough projects with spillover effects. Krugman suggests a temporary and massive increase of public spending, especially for financial aid given to local and state authorities with the aim to create new jobs, to develop infrastructure projects, to increase unemployment benefits. Caught in a liquidity trap at the beginning of 90's Japan had passed through a long stagnation period and in 2000 professor Ben Bernanke criticized Bank of Japan (central bank) for not taking appropriate measures, like those suitable for FED: increasing money supply for quantitative easing and offsetting the tax cuts, low interest rates (under 2.5%) for long term bonds, devaluation of dollar by means of central bank interventions, a higher target for inflation rate (3-4%) for a ten year period. As the Chairman of Fed, Ben Bernanke has adopted a passive position and not a resolute one, partly because of institutional conservatism within Fed and partly due to fierce Republican opposition. Refinancing or reducing mortgage loans proved not to be easy in US, although Obama Administration introduced Home Affordable Refinance Program, which was too cautious and too restrictive, while Federal Housing Finance Agency, charged with overseeing of Fannie Mae and Freddie Mac, had a totally inappropriately activity. Krugman also draws other action proposals, like a rougher attitude towards China in trade field, more severe environment regulations, policies for creating new jobs, promotion of sustainable development.

If US is a center-right country one could not accept major initiatives for new government spending, and electoral considerations usually limited any bolder actions in the field of economic and social policies. For Krugman the best strategy is the one not approved by target groups researchers or by prestigious newspapers, like Washington Post, but the strategy that brings good results. The quality and efficiency of economic policies depend on the color of US Administration, its control on Congress or what kind of majority exists, theoretical guidance of President's counselors, internal process of decision within the Administration, lobby of interest groups. Krugman is deeply convinced that economic recovery is impeded by a lack of intellectual clarity and political will and that increased government spending would be critical for economic recovery, the evidence is offered by what happened during the wars and arms race. The level of taxes, on which depends the government spending, is in inverse proportion with the level of unemployment.

Krugman is firmly convinced that austerity impedes recovery, the only solution being a massive increase of government spending. IMF researchers identified 173 cases of fiscal austerity in the developed countries and discovered that after austerity policies there were recorded economic contraction and unemployment rise. Krugman cites Stiglitz and Romer as theoretical allies in supporting his ideas on fiscal policy role and importance of fiscal stimulus in creating new jobs and also on negative effects of budget deficit reduction on economic growth. Unfortunately according to IMF chief economist Olivier Blanchard and IMF economist Daniel Leigh, IMF used a mistaken calculation coefficient that led to underestimation of the negative effects of the crisis. The used multiplier is the coefficient

linking the evolution of public spending or tax level to economic growth rate which may be in times of crisis 3 times higher than that used by IMF.

2. Some conclusions on Krugman's ideas

Definitely Paul Krugman is a demand-sider and also very fond of monetary policy, albeit he pretends to have a great admiration for Keynes and to be a social-liberal. Though one cannot deny the importance of monetary policy within macroeconomic policy one should mention that monetary policy is not able to solve any crisis or to prevent a new one when a speculative bubble will burst. He is absolutely right considering high unemployment as the main problem to be addressed to and to be resolved in US and other countries. The economic and social impact of the crisis was very high and was somewhat statistically measured, but Krugman talks about a huge human disaster and about the need to rapidly solve the economic difficulties and to resume a robust economic growth. It is true that consumer demand is the engine of economic growth and its contraction, due to high private debts, loss of revenues and jobs, led to economic depression. In US and EU increasing the money supply by the central banks could not revive the economy due to liquidity trap (demand is low due to high debts and lack of investors and consumers trust). Important past economist like Minsky, Fisher, Keynes are mentioned by Krugman for their valuable contributions to analysis of debts impact on crises, demand, public and private spending, while other famous economists, like Schumpeter and Hayek, are considered advocates of non interventionism during the economic depressions.

IMF is excessively and repeatedly praised by Krugman for its interventionist position of Keynesian inspiration. Maybe Krugman has not forgotten it was IMF that had imposed austerity policies in many emerging and transition economies which had benefited from its financial assistance, and the evil results of such policies were remarked even by IMF economists. Perhaps Krugman was disappointed when IMF economists have recently shown that IMF overall policy was wrong because it underestimated the negative effects of the crisis by using an incorrect fiscal multiplier. I was quite puzzled when I found out there was a study entitled "Growth in a time of debt" published in 2010 by two reputable economists from Harvard University, Carmen Reinhart and Kenneth Rogoff, former employees of the IMF, that was used to justify the austerity policies from USA and EU, which proved to be wrong, because it showed that in the countries with a debt of more than 90% of GDP the economic growth is negative, when in reality it turned out, three years later, that these countries may achieve a growth up to 2.2% per year. I think Kenneth Rogoff is right when he says that the huge public debt of USA may affect the whole planet and anyhow represents a real threat for the country's capacity to face future shocks. Another contradictory position of IMF economists is related to the correlation between fiscal deficit and current account deficit, the business cycle model GEM points to no short term effects and very reduced medium term effects of fiscal deficit on current account deficit, while the model developed later on by Michael Kumhof and Douglas Laxton indicates an instant impact of fiscal deficit.

In the past decades US and EU economies had three engines: housing sector, foreign trade sector and finance sector, the first and the third one facing enormous speculative bubbles caused by inflation targeting policy (cheap money), bankers greed and their risky activities (derivatives), financial deregulation and weak public supervision. After three decades of economic growth the main beneficiary of impressive income growth was the financial elite, representing only 0.1% of population but having a strong political influence. Krugman blames huge income differences and increasing social inequality because they were not based on true economic performance and a real and consistent contribution to general welfare. On the other hand many national political leaders have become the accomplices of financial oligarchy and

a sort of mercenaries of international and supernational institutions. I could also mention the radical opinions of John Perkins who believes that political leaders from USA and probably from many other countries and people working within important national and international institutions (like World Bank) have become promoters of the interests of large corporations, which treat the citizens of developing states as slaves and are only interested in getting huge profits derived from the exploitation of their natural resources and cheap labor. For all less developed countries entered in the sphere of globalization and to the attention of international corporations, prosperity is a distant dream and only accessible by small and privileged categories that are very obedient and respond quickly to any foreign demands.

Krugman speaks about dark age of macroeconomics due to strong politics and ideology interference into field of economics. Keynes, the father of macroeconomics, was contested by right ideologists and ultraliberal economists, like Robert Lucas jr., and proliferation of econometric models induced the wrong idea that markets and economy are under an effective control. For Krugman salty water economists have a Keynesian vision while fresh water economists have an ultraliberal vision, although one can find ultraliberal economists also in universities like Harvard and MIT.

Krugman blames small financial assistance offered by Obama Administration under different programs, also its focusing policies on deficits reduction and the excessive anxiety of inflation. In EU cheap money policy of ECB and national central banks, speculative housing bubble, speculative capital inflows, persistent trade deficits explain the troubles from Euro Zone. Krugman criticizes the austerity measures and reveals the strong vulnerabilities of less competitive countries which adopted the single currency and recommends a higher inflation rate and stimulating economic growth. To exit from liquidity trap Krugman still envisages some monetary measures and to encourage economic growth he proposes a massive increase of public spending, opinion which is contrary to that of the libertarians challenging the efficiency of fiscal stimuli over time as generating a crowding out effect: the government spends funds that would be allocated more effectively by the private sector, and governmental investments focus too much on GDP quantitative component detrimental to qualitative one and to medium/long term productivity of investment programs. But on short term any quick economic recovery needs strong stimuli from the government given the reluctance of private sector to invest or to increase the output in the context of reduced consumer demand. One may discuss on the nature or specificity of these stimuli but I do not think about their necessity. Paul Krugman opposes to supply side policies, like those suggested by Raghuram Rajan, although he accepts the importance of financing targeted projects in the field of infrastructure or green energies. As regards the confrontation between demand-siders and supply-siders one cannot deny that the implementation of demand side policies, through accelerated expansion of credit, led to the financial crisis and there is an acute need for a reindustrialization process and also for sectoral policies in sensitive fields, such as energy, environment, competition, innovation, which requires significant changes on supply side. Maybe Raghuram Rajan is right when he says: "the worst thing the governments can do now is to oppose the adjustment, by supporting non-viable companies or by supporting through cheap credit the demand for the products of non-viable industries".

It is not clear that Krugman wants a tax increase because it seems to me that he does not like the classic tax reduction (on profits) proposed by supply-siders like Mundell and Lucas. It is obvious that due to the high burden of public debts and its financing costs, the public deficits must be reduced to a large extent and the growth of government spending cannot be achieved otherwise than through tax increases and/or large domestic and external loans. It is easy to criticize the austerity policy but it is difficult to find a viable alternative, any fiscal expansion may lead to a deterioration of fiscal deficit and current account deficit, to

more borrowing and to worsening of public and private debt burden. On the other hand the government capability to influence the size of private deficits and debts, and their proper solution, remains very limited in the near future.

Another important source of revenues is represented by the funds raised through a complex policy, both at national/European level and at international level, against tax evasion, estimated at about 2000 billion euro for EU and at 2000 billion $ for USA . But the main tax dodgers are multinational companies and OECD intends to prepare an ambitious action plan in the first semester of 2013 to reorganize the international norms, poorly adapted to globalization and digital economy, that too often allow international corporations to escape entirely from paying taxes, particularly through transfer pricing policy. In February 2013 during G 20 meeting from Moscow, Angel Gurria, Secretary General of the OECD, said that during these difficult times of budgetary austerity the tax burden is likely to fall on the shoulders of SMEs and on the middle class if multinational companies pay small or no taxes at all due to legal subterfuges. Much of the money obtained from tax evasion could be found in offshore fiscal heavens where quite recently have been identified a lot of hidden funds, amounting to about 32,000 billion $. Another phenomenon is threatening the fragile situation of the middle class. At the end of 2012, in USA, corporate profit margins hit an all-time high (exceeding 11% of GDP as against 3% in 1985) while wages were at an all-time low (descending to 43.5% of GDP as against 53.5% in 1970). The corporate race after short term profits at the expense of paying more to the employees badly affects the consumer demand and implicitly the future economic growth. A legitimate question arises: if the middle class is heavily eroded by the crisis and budgetary austerity, will capitalism remain a truly democratic society?

I may agree with Paul Krugman when he considers the liberalization of capital flows may create financial vulnerabilities through sudden exit or entry of capital into a country, but I have serious doubts that a large public debt does not have harmful effects on the economy. USA may print and use their currency, dollar, to pay or cover any external deficit, and also may sell bonds for covering internal deficit to many other countries in the world, it is not the case with the other countries. It is obvious we are the witnesses of a fierce confrontation between the followers of Keynes and those of the Austrian school of economics. While the first ones are in favor of increasing the government expenditures for stimulating the economy, the second ones are accepting the essence of business cycle theory developed by Ludwig von Mises and Friedrich Hayek: the cheap money policy of central and commercial banks leads to unsustainable growth of money supply and to wrong investment decisions of private actors, financial crises appearing when supplying money can no longer be supported, recessions representing the necessary corrections for a more effective reallocation of resources.

One cannot deny that Paul Krugman and Joseph Stiglitz are right when they conclude that austerity policies have led to economic contraction in Southern Europe and to economic stagnation within the EU, but is fiscal expansion a viable alternative for euro countries when deficits and debts are very high? Any form of fiscal expansion, external or internal financed, may aggravate the public deficit and public debt and is practically impossible under the present financial circumstances when banks, markets, investors and consumers lost their confidence in the success of economic reform measures. In my opinion the debates and confrontations on economic policies may continue a long time but it is hard to find quickly any realistic solutions for getting out of the current economic situation and resuming a robust and sustainable economic growth. Do we face now with a crisis of capitalist system or a crisis of growth? Here's a tricky dilemma to be solved in the near future by the great specialists in economics, like Paul Krugman.