ROMANIAN ECONOMIC AND BUSINESS REVIEW

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The *Romanian Economic and Business Review* (ISSN 1842-2497) intends to provide a forum for academic analysis of the economic phenomena and institutions affecting the world economy in general, and Romania, in particular. *REBE* examines a wide variety of phenomena related to economic growth and business development and attempts to publish high quality research focusing on the role of institutions and public policy, within both a national and international context. *REBE* encourages cross-disciplinary research work of Romanian and foreign scholars.

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1.1.1 Author Information

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ROMANIAN ECONOMIC AND BUSINESS REVIEW

CONTENTS

THE ROMANIAN SOFTWARE APPLICATIONS AND THE BUSINESS REPUTATION

Mariana Balica [1]

Abstract

The paper presents the results of the analysis of the way in which new communication and IT technologies are used in the service domain from Romania. The analysis was made at the level of some public alimentation services (restaurants) from Bucharest that are using the existing communication and IT technologies at this moment. It will present the advantages and disadvantages of using some ERP-s (MicroRestaurant, Alfa Software) and software progammes (POSnet, Soft OK, BITS2OFF, PYn, DeverFood, Rikeeper, WizRetail, CostGuard, Sedona). The paper has also as purpose to find solutions of increasing the performance of employees and customer satisfaction through the implementation of some new IT technological solutions. The managers of these companies want the IT specialists to come with some modern solutions which could lead to obtaining some economical results. The collaboration between these ones must be an active and responsible one. Finally, the paper presents an IT technological solution and a communication one found in a development stage in some restaurants and in an implementation stage in others. The analysed IT solution is the result of the collaboration between IT specialists and restaurant managers without whom the results would not be possibly measurable.

Keywords: IT innovation, business reputation, business applications, technological change

JEL Classification: M15, O39.

1. Introduction

The present paper makes an analysis of the way in which the IT and communication technology is exploited by the restaurant managers from Bucharest in their daily activity. The ERP-s and software programmes which are offered at this moment answer to a great part of the identified problems. On one hand, employees must be supported by an IT technological solution in order to be more efficient and to satisfy the customers' requirements in a short time, without affecting the quality of services. On the other hand, customers are more and more attentive to the quality of services wanting to be served fast and well.

The competition in this field is very big and makes the management be preoccupied to find solutions of improvement of developed activities. Lack of personnel management has become a problem that must be solved. Their reputation is given by the human resource that is increasingly hard to find.The restaurant management is interested to keep a record of waiters' orders, of receipts, stocks and raw material, of necessary products, paid bills, different daily/weekly/monthly reports, customers, suppliers,

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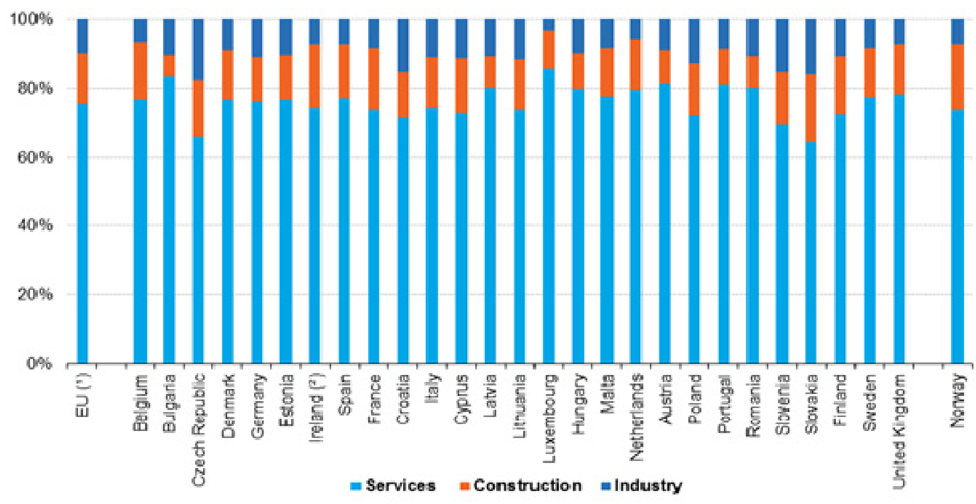
promotional offers, etc. Another objective of the management is a control over employees. Knowing the number of orders taken by waiters daily, of receipts, splitting orders into bar and kitchen ones, taking over more orders and the flexibility in taking orders are several answers which these solutions offer to the restaurant management.

2. Applications business software in the service sector

The service sector from Romania has known a significant development in the last years due to its development at a global level. Thus, in a monthly report of the National Institute of Statistics, they stipulate that "in the first three trimesters of 2015 in comparison with 2014, the service branch participated to the GDP growth with 2.7 per cent compared to the following branch (industry) which particiated only with 0.5 per cent of a 3.7 per cent total registered increase" [INS, (2015)]. This report emphasises also the volume of the turnover for services "Hotel and restaurants which met an increase of 107.3 per cent in 2015, which is 13.1 per cent more than in 2014"[INS, (2015)].

Regarding the evolution of the number of companies from this sector in report with the others, at the level of the European Union (2013), the situation is presented in figure no. 1.



(¹) EU-28 excluding Greece
(²) Ireland - 2012 data.

Source: Eurostat Statistics Explaind: Structure of active entreprises by sector, business economy, 2013 (%)

We can notice that in all the EU countries, the number of companies which have activities in the service sector surpasses 60 per cent of the total of active companies, reaching 80 per cent in Romania next to Hungary, Portugal, the Netherlands, Bulgary and others. The fewest service companies are in Czech Republic, Slovenia, Slovakia, but even here they reach over 60 per cent of the total developed economical activities.

This growth forces the service companies to offer quality and differentiated services in order to deal with the tough competition. It is necessary to make, implement and improve some IT technological solutions in this domain. Managers must adapt to the new innovations from the technology domain and they must apply them in their companies. A good manager will know how to deal with the customers' requirements and to develop the business using technological inovations. Specialists from the IT domain are interested in answering the managers' requirements and in developing also other solutions adapted to the business developed by them.

2.1. Applications business software in present

The present study is the result of the analysis of the web-sites of some companies which offer technological solutions for restaurants, publications from the IT domain, web-sites of some restaurants from Bucharest, as well as the result of some interviews with the managers from the restaurants which have IT systems implemented in the activity that they run.

The purpose of this research is to evaluate the IT technological solutions implemented in restaurants.

The objectives of the study were:

1. Identifying the IT technological and communication solutions implemented in the restaurant.
2. Evaluating the advantages and disadvantages of using these solutions at the level of consumers and of company management.
3. Identifying some IT technological and communication solutions which could improve the current Erp-s and software programmes applied in the restaurant.

The evalution of restaurants is made at the moment by specialists in the domain, by ambient, quality and way of presenting the offered food and service quality. The analysed forums regarding the customers' opinion concluded that the most serious problems of the restaurant managers are: lack of personnel, lack of qualified personnel who could answer the customers' needs, waiting for the kithen orders for too long, the quality of the offered food, etc. I did not see on any forum unsatisfactions regarding location or ambient, most of them being strictly conneted to the restaurant personnel. Regarding the IT system used in the restaurant, there are implemented ERP-s and software programmes.

Among the implemented ERP-s I identified: Alfa Software (an ERP for bussines solutions and not necessarily for restaurants which works for touchscreen and mobile devices with Android/IOS) and MicroRestaurant (for restaurants, taking over from tablets and mobile phones). These IT solutions solve a series of management problems of restaurants such as: they offer a control of waiters regarding the orders taken by them, receipts, orders split into bar and kitchen, situation of stocks of raw material and goods, necessary supply, different reports that the management needs. They also present the graphic representation of the tables from the location, taking orders by waiters on touchscreen or mobile phones, splitting orders into bar and kitchen, issuing the bill, issuing the receipts and invoices (for the customers who ask for an invoice).

Among the advantages identified in using the current ERP-s: optimisation of customers' waiting time, waiters' much higher working speed, automatical splitting of internal orders (bar, kitchen), fast operation of orders if waiters take over orders on telephones, control of waiters, obtaining sales reports fast, more efficient management activity, promotional offers, sales on product groups, keeping some primary accounting, emphasising sales on more workstations, possibility of paying the bill cash/card/meal tickets/loyalty bonuses, using the integrated equipments (printers at the bar and kitchen, cash register, POS, barcode readers), increase of customers' satisfaction, etc. Among the identified disadvantages: running out of phone battery (in the case of some waiters the phones run out of a battery twice in an 8 hour working day and they have to take orders on paper after which they introduce them on touchscreen and this is how the time of transmitting orders to the bar or kitchen and of course the customers' waiting time increase), errors between the touchscreen and the cash register (differences due to the software), erors on some reports (due to the incorrect operation of waiters), long time for preparing waiters for using ERP-s without generating operation errors.

Among the software programmes used in the restaurants from Bucharest, I identified: SEDONA (developed after 2010, applications on Android and IOS), Wiz Retail Front-Office Restaurant, MENU (the waiter has a tablet with the updated application and menu), Pyn, DeverFood, Rikeeper, BITS2OFF, Soft OK, Freya Restaurant, POSnet, APPY, etc. These software programmes also ensure the administration of the restaurant activity, help obtaining complex information regarding sales, stocks of raw material, goods and finite products and they allow taking orders faster (on touchscreen, but most of them allow taking orders on tablets as well if they have a WiFi connection and if they are approximately 350 m far from the router). Other things that the software programmes do are to allow customer loyalty, to monitor the waiters' activity (if they do not use their colleagues' password when they introduce orders), to integrate a series of equipments necessary for developing the activity (cash registers, fiscal printers, barcode readers, scales), to define recipes for the products from the kitchen, bar, etc.

The advantages of using these software programmes are: more efficient operational activity, increasing sales, supporting the activity of managers in taking decisions, decreasing the customers' waiting time, not mixing the orders from the kitchen, using the full capacity of the restaurant, decreasing the number of unsatisfied customers, differentiation on the market, obtaining a constant quality, improving the reputation of the restaurant and of course the customers' trust. The identified disadvantages would be: limiting production, the hired personnel could not know the way of using the software or they could hurry up to introduce orders and could not allow the proper attention, the personnel could also not use their own password, hence the sales reports could not be real. A part of these disadvantages can be eliminated if the management do their best to train and control the subordinated personnel.

See below the flow of a restaurant from receiving the customers to their leaving the restaurant (figure 2):

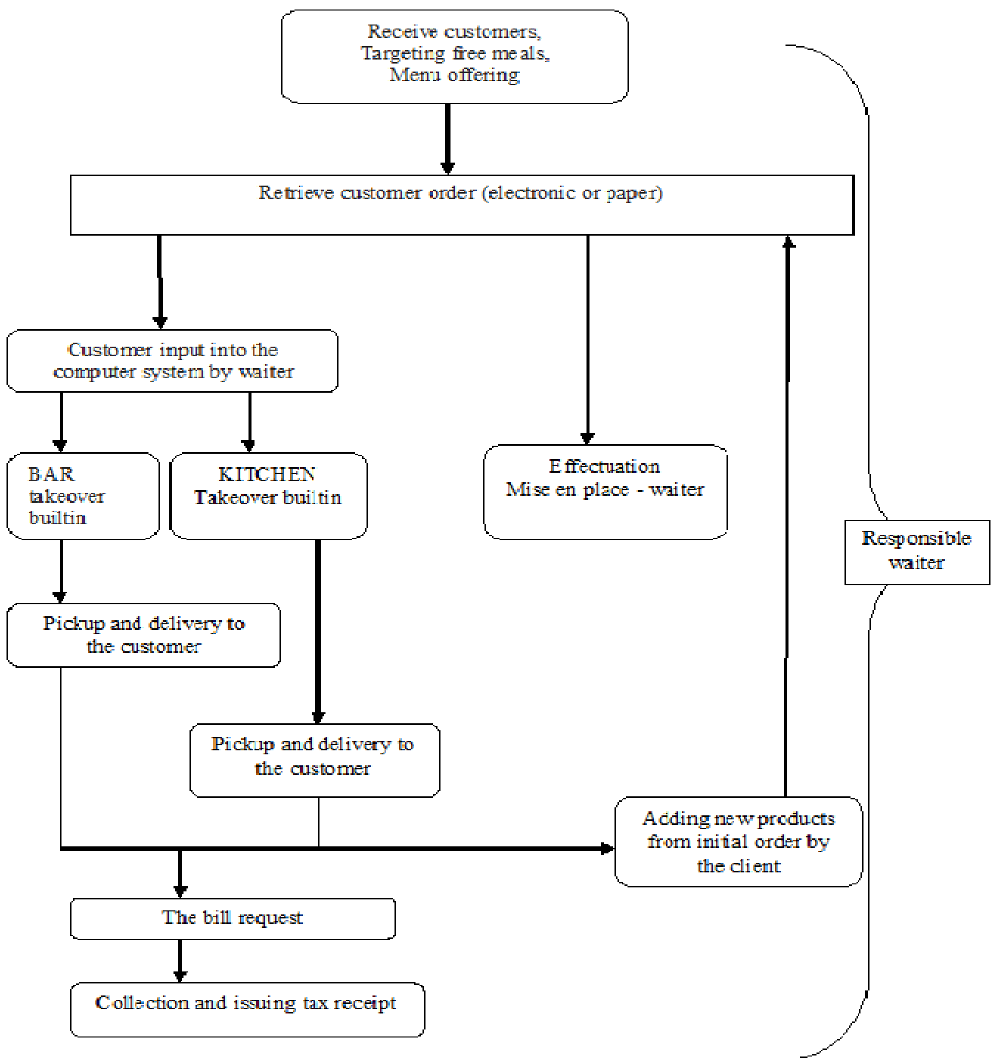


Figure 2. Flow of customer receiving-leaving, responsible employee (waiter)

In the author's opinion the restaurant management must be preoccupied to hire qualified personnel that has to be familiar even from the beginning with the working procedures and software/ERP used in the location. Even if the time spent with training such personnel is longer, the following results will be positive for the location. Their present problem is exactly the qualified personnel that starts missing. Due to the fact that there are no vocational schools in the domain, the number of specialty highschools is small, the qualification courses are expensive for those who are interested, companies are forced to hire unqualified personnel and qualify them at the job and to pay for the short term qualification trainings (3 months). A solution to the personnel problem could be implementing an IT system that could transmit a part of the responsibilities directly to the customer.

2.2. Applications business software in the future

As a solution to the problems that the restaurant managers are facing at the moment regarding the lack of personnel and the lack of qualified personnel, I identified the use of the new existing technologies in the business. Both technology and and the existing innovative techniques can be optimum solutions for this activity. The preoccupations of IT specialists to create new solutions in order to ease the activities from any domain are continuous.

The development of the equipments necessary to the IT applications created the managers' possibility to be involved and open. The collaboration between IT specialists and managers is vital and recognised by both parts. No solution can be efficient if there is no possibility to be practically tested. Due to this managers must be open minded to new things. The companies' owners must receive explanations that these new things need additional costs that will be paid off in a short period of time.

The more and more performant tablets, the mobile phones with the possibility of saving new IT applications are the managers' solution for the moment. Another solution would be the use of AiAi robots as the customer's personal assistant, but at this time the solution would be a little less expensive because it must be adapted to the activity of restaurants, although there are specialists who are saying the contrary. The development of a network that should not block the traffic, a network with a password that is accessible from all corners is part of the conditions that help running such a project. It is also needed to avoid power outages by installing UPS-es, to have a performant equipment for the central nod of the network, finding the perfect spot for placing the tablet that will be used by the customer are other mandatory conditions that have to be solved before implementing such a project.

Among the advantages of implementing such a project we can mention: reducing costs with the hired personnel, decreasing the customers' waiting time, increasing the customers' satisfaction, optimising the stocks of goods, raw material and materials, accessibility, decreasing the costs of the business.

I consider that, any of these equipments can handle an application with the updated menu, with the value of the order and minimum information necessary for customers. One of these equipments is the tablet which can be put at the customers' disposition by the restaurant. A problem would be finding a spot to place this so that customers could use it easily and could not deteriorate it in the time spent in the restaurant. Another problem would be the sanitation of the tablet after the customers leave so that the tablet does not break.

Another equipment would be the mobile phone (of the customer or of the restaurant) for which there should be a QR code which could allow the download of an application directly on it or, a website where the customer could directly download the application. There are applications for the mobile phones already implemented in order to be used by waiters so, they would not need very important modifications. In general, all the customers have a mobile phone so this could not be an obstacle in implementing the project. Only the network could be a problem here: it should be a performant one, it should not block when there are more customers who order at the same time. The problem of location would be gone and the customers' satisfaction would totally increase.

The restaurant manager plays an important role in applying one of the proposed solutions. If managers accept one of these solutions, they will solve the problem of personnel, regardless of the fact that they are unqualified, unsatisfied or incompetent and they generate customers unsatisfied with the offered services. However, the relationship between the IT specialist and the restaurant management must be a tight one in order to make the application adapted to the specific of their activity and to the more and more special requests of the customers.

The flow of receiving the customer-the customer's leaving, regardless of the used equipment should be according to figure 3, where the responsibilities are split between the employees and the customers of the restaurant.

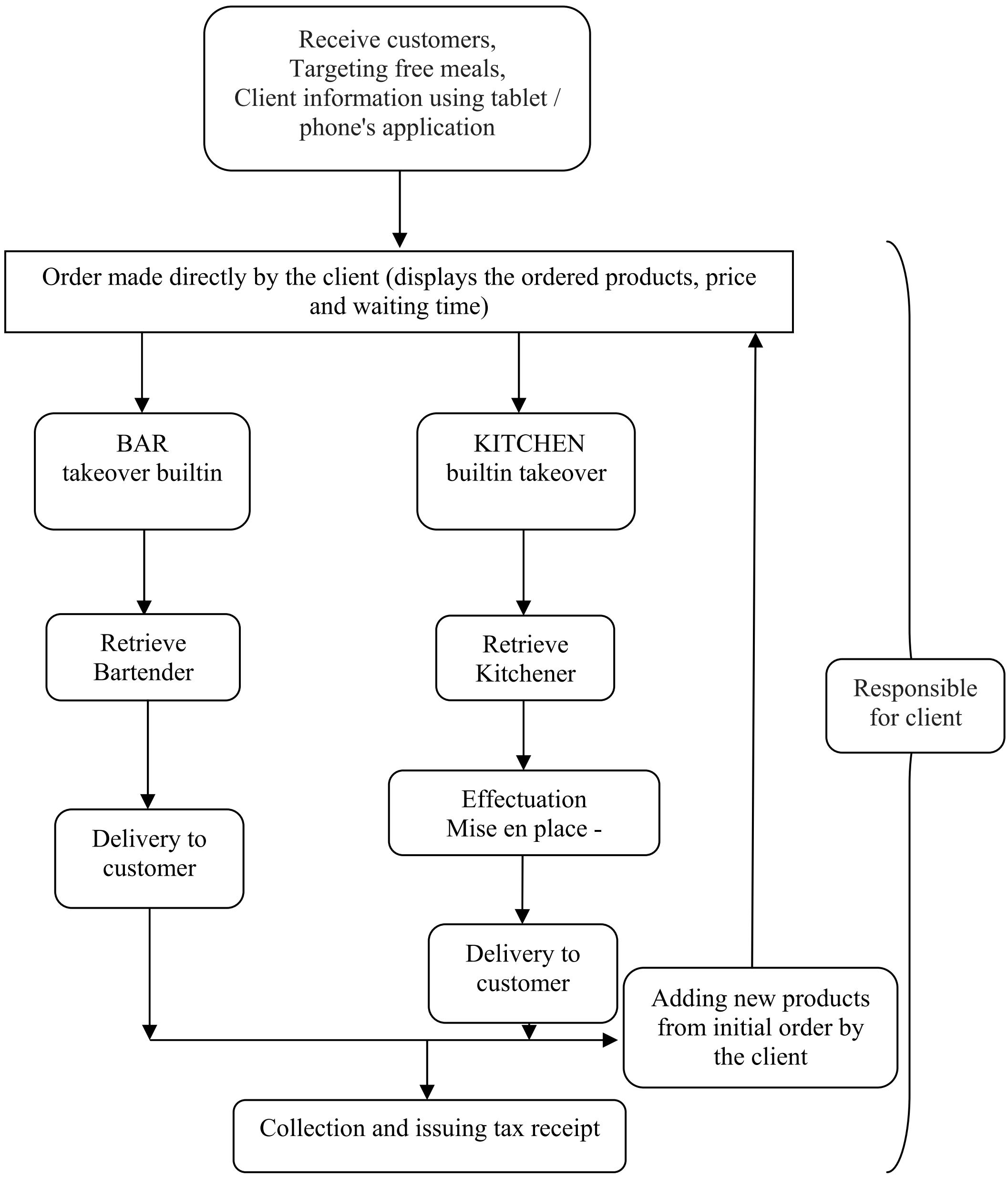


Figure 3. Flow of customer receiving-leaving, responsible for client

As shown in the research made up to now, IT solutions were already implemented in the restaurant management abroad. Thus, in the Applebee restaurant chain they have already been using tablets instead of waiters in Europe and Asia since 2013 and they want to develop this in the entire chain, USA included. The tablets are used by the customer for ordering appetizers, desserts or for having fun. In San Francisco (August, 2015) a completely automatical fast food restaurant was open. In the customers' sector, there is only one advisor for the customers who have problems in using the tablets or taking over orders. Fewer eployees are used just because of the implementation of this IT system. Another chain of 823 restaurants i.e. Chilli uses tablets instead of waiters.

In Italy they have used tablets in the Il Marchesino restaurant (even since 2010) allowing customers to make their order a particular one if they are allergic to a specific ingredient of a product. The Elements restaurant from London offers customers the possibility to order by themselves from tablets. Tablets are put at the customers' disposition without any additional costs. The managers from these locations have understood that the investment will be paid off and this will bring only benefits on a long term.

In Romania they tried implementing such solutions at the end of 2012 although IT specialists came with solutions even from 2010 (Sedona). The Nargila Grill & Bar restaurant implemented such a solution. Unfortunately the managers of that period are no longer the employees of the place and I could not identify the limits or the reason for giving up on this system.

Due to the made research, I also noticed that, there is one more cost for the customers who go to such a restaurant, i.e. the use of tablets cost. In some situations the employees of the restaurant ask for the customers' ID until they leave the place (in order to avoid the stealing of the tablets).

As seen in the analysed forums the customers' opinions are different. Some of them consider tablets very useful and interesting if they have the menu of the restaurant and no extra costs are charged. They become useless in the customers' opinion when they have only internet for accessing some web pages or for having fun. The customers say that it should be forbidden to use mobiles in a restaurant so that you can socialise and have conversations with the people with whom you came. There are also opinions that the waiter should not disappear. Among the locations identified in Bucharest to use tablets (not with the complete solution proposed above), most of them are coffee shops (they offer some food, but very few) such as: Lollypop Café, White Café, Mon Amour, Mon Cher, Alys or the Nargila Bar & Grill restaurant. I did not identify a restaurant that uses mobile phones for the customers, but only for the waiters to take orders.

The managers of some restaurants whom I talked to (Nargila Bar & Grill, Ramayana Cafes, Piranha Club) are open to the IT solutions that are on the market. In the Piranha Club there are negociations with an IT developer in order to introduce tablets for customers and to ease the waiters' activity because they lack personnel. In the Ramayana

Cafes they introduced a system in which customers let the waiters know if they want something else, asking for the bill inclusively and they are seriously considering to develop other IT solutions in the future.

In conclusion, regardless of the solution which managers implement, the new discoveries in the IT domain are for sure some support in their activity and not only. Diminishing the limits and exploiting the advantages of using the communication technologies must become the preoccupation of the implementation specialists.

3. Conclusion

The new communication and IT technologies are a solution for the business management in the restaurant domain. Managers are preoccupied to introduce them in the business that they are running, especially in the situation in which they face the problem of lack of personnel. The customers' satisfaction is a continuous preoccupation of the managers. For a company, a satisfied customer means the increase of the reputation of the restaurant and gain of profit.

References

1. Institutul National de Statistica. 2015. "Buletin Statistic Lunar". No 11: pp 11/84, http://www.insse.ro/cms/files/arhiva_buletine2015/bsl_11.pdf, accesed 22.08.2016;
2. Eurostat Statistics Explaned. 2016. Accesed http://ec.europa.eu/eurostat/statistics explained/index.php/Business_demography_statistics. 09.06.2016;
3. xxx-http://www.business24.ro/gadget/stiri-gadget/video-restaurantul-care-vrea-sa-inlocuiasca-ospatarii-cu-tabletele-1538763, accesed 11.09.2016;
4. xxx-http://www.antena3.ro/high-tech/italia-un-restaurant-a-inlocuit-meniurile-traditionale-cu-tablete-ipad-106419.html, accesed 11.09.2016;
5. xxx-https://www.idevice.ro/2012/12/04/un-restaurant-din-londra-le-ofera-clientilor-tablete-ipad-pentru-utilizare-in-timpul-meselor/, accesed 15.08.2016;
6. xxx-www.startupcafe.ro, accesed 22.08.2016;
7. xxx-www.aparaturafiscala.ro, accesed 22.08.2016;
8. xxx-www.pyn.ro, 23.08.2016;
9. xxx-www.deversoftowarerestaurant.ro, accesed 21.08.2016;
10. xxx-www.gestiune-restaurante.ro, accesed 21.08.2016;
11. xxx-www.asw.ro, accesed 16.08.2016;
12. xxx-http://micro-erp.ro/soft-gestiune-restaurant/, accesed 16.08.2016;
13. xxx-www.bit-soft.ro, accesed 16.08.2016;
14. xxx-www.softok.ro, accesed 18.08.2016;
15. xxx - www.freyasoft.ro, accesed 15.09.2016;
16. xxx - https://posnet.ro, 15.09.2016.

A COMPARISON BETWEEN WOMEN EXECUTIVES IN JAPAN AND ROMANIA

Irina Roibu,
Paula-Alexandra Roibu*

Abstract

Around the world, entrepreneurship, and more specific women entrepreneurship is promoted as a solution for economic problems. In Japan, since 2013, Prime Minister Shinzo Abe has been a ceaseless advocate for the increase in the number of female entrepreneurs for the revival of the economy, and many governmental programs in support of working women have been put in place. However, the traditional Japanese management systems of lifetime employment, enterprise unions, seniority systems, together with a group-oriented and risk-adverse orientation make things change slowly.

In Romania, the second country analyzed in this article, women entrepreneurs also face professional stereotypes, difficulties in getting specific jobs, traditional prejudices and a collective mentality related to women's place in society.

This article explores and compares how Romanian and Japanese cultures, societies, and economies have either encouraged, or discouraged, the growth of female entrepreneurship on their own territories, and analyzes how the best emerging female executives can be supported in the future in order to maximize their potential.

The analysis is based on the data provided by OECD, the World Bank, the Global entrepreneurship monitor, Japan statistics, the legislations of the two countries and the literature related to the two social environments.

The findings indicate that although there are many similarities between the two countries, the percentage of female executives in Japan is much smaller than the one in Romania. This is due to the fact that Japan, with all the governmental programs in action, for the moment, still has a stricter social and work environment, a weaker maternity and childcare legislation and a higher gender gap.

Keywords: women executives, Japan, Romania, Japanese business culture, Romanian business culture

JEL Classification: J01.

1. Introduction

All around the world, the companies with more women in senior executive positions report stronger financial performance, better reputation and brand advantages. However, the number of female CEOs remains very small: on a global perspective, women make up only 5% of Fortune 500 CEO's and only 24% of senior management

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positions (IMF). This issue is generally the effect of the "cultural and organizational issues that prevent [women] moving through the corporate pipeline" (*Women matter: An Asian Perspective*, 2012, p. 3). Also depending on the geographical area, the society, the culture, etc., the barriers that women executives face can be stronger or weaker, allowing them more or less access to high-level jobs.

Regarding the two specific countries that are the subject of this analysis, Japan and Romania, in the first chapter we chose to explore how the Japanese mentality, culture, politics and economics affected women entrepreneurship and the number of female executives, as well as the barriers that they have faced, etc. The second chapter analyses the same aspects in Romania, while the third chapter compares the situation in the two countries, presents the similarities and the differences at the level of female entrepreneurship, and at the same time,suggestsideas on how the situation of female executives can be improved and how they can be supported to maximize their potential. The hypothesis that guided the analysis is that, despite the different historical, economic and cultural backgrounds, the situation of female executives in both countries is very similar.

The reasons for choosing these two countries begin with the interest of the authors in the topic of female entrepreneurship, one for the Romanian side and the other for the Japanese one, their location (one in Romania and the other in East Asia) and the worldwide enthusiasm in topics related to Japan.

The analysis has been performed based on the specific literature related to the two countries' environments (social, political, etc.), the legislations of the two states in this field and on the data provided by the Global entrepreneurship monitor, Statistics Japan, OECD and the World Bank.

2. Women executives in Japan

The present times are of major transitions for professional women, even in countries as culturally and socially strict as Japan. Womennow have the chance to deny the "conventional notions of femininity and to negotiate new gender roles" (Aronsson, 2015, p. 1), to break through the glass ceiling and become an example for the next generations of women to come. Also, with the support of *Abenomics*[1], which pushes the companies to accept more female employees and to promote women in high positions, their success and acceptance seems inevitable. However, the traditional culture and mentality is hard to change and it might be raising certain obstacles. Therefore, let's begin by analyzing how the Japanese society and culture has encouraged or discouraged the growth of female executives until now.

Traditionally, a Japanese woman's work life was short: only until her marriage. If she continued working afterwards, it was considered a big loss of face to her husband. Due to this cultural expectation, employers would not "train female employees for jobs beyond making tea or greeting customers" (Subhash and Norton, 1993, p. 254). At the same time, women were and, in many cases, are still considered as only part-timers and had/have jobs of auxiliary nature, with no supervisory capability (Ibid, p. 267), smaller salaries and lesser

[1] The term is a blend of words of Abe and economics (similar to Clintonomics and Reaganomics) that refers to a set of policies of the Japanese Prime Minister Shinzo Abe.

opportunities for advancement. Moreover, because the Japanese companies use seniority (that discriminates the short-term employees) and life-time employment systems, women do not have many chances of becoming equal to men at work and gaining promotions to managerial positions. Last but not least, women are excluded from in-company rotation and company training programs that are necessary in order to advance. The training they receive is a minimal one, only related to the way of greeting customers, how to bow, how to use the polite language and perform reception activities, such as answering the phone. One of the reasons for this is the fact that the training is expensive for the company and the costs can be balanced only after a new employee has gained several years of experience. Therefore, in the case of women, where the chance of quitting is high, it would be considered a loss for the company (Subhash and Norton, 1993).

However, as anywhere else in the world, in Japan too, the role and status of women has been continuously changing based on economic, cultural and historic conditions. For example, if after the Second World War, Japanese women were needed in the workplace and a high number of them were employed, in the 1960's, when the country became prosperous, women were sent back home by their husbands in order to look good in terms of social status (Cook and Hayashi, 1980) and as a sign of the family's affluence. From the 1980s however, women began going back to work again and becoming approximately 50% of the labor force in 1990 (The World Bank).However, in the post bubble economy, they were laid off again, women being the first to lose their jobs in harsh economic situations.

Due to to the 1985 Equal Employment Opportunity Law (EEOL) that guarantees equal treatment and opportunities for women, Japanese women have been employed in professional career tracks for many years. However, the institutionalized prejudice has kept them on lower positions than men, the access to high position jobs having been open mainly to men. If in the Unites States, the glass ceiling is an obstacle during a certain stage in a woman's career, in Japan, this barrier exists throughout a woman's life (Arronson, 2015). At school, girls are "pushed" to choose the major that is more feminine, such as arts, and boys to choose the one that is more masculine, such as science. At the university level, the trend of choosing the "appropriate" major based on the student's gender seems to continue. Women tend to study secretarial skills, English, international relations, psychology, literature and economics (OECD), which gives them less chances of finding a good job with access to advancement in a company after graduation.

For men, however, their choice of major does not affect their career options, being able to obtain positions in government, banking, etc., even if they had an unrelated major at the university. In many cases, the university or college finds jobs for the female graduates, and generally those jobs are as OLs (Office Ladies). The duties of an OL are usually to serve tea and do some clerical work. If they refuse the job, the college and the family will lose face, so they are not given much other choice but to accept it. Moreover, as the common mentality believes that the purpose of attending a good school is to find a good husband, usually having a job as an OL is considered a better choice for women, because they will quit it anyway after getting married or becoming pregnant (Aggarwal, ed., 1999).

On the other hand, the employers consider OL jobs to be temporary or part time positions and pay their female employees smaller salaries and provide them with less benefits than for their male counterparts. Also, for being part time employees, women are excluded from the internationally known Japanese resource practices, such as lifetime employment, job rotation, group bonuses, seniority promotions, and from the informal communication and decision making processes (which generally take place at night gatherings and dinners, when women are generally missing, in some cases due to house chores) (Aggarwal, ed., 1999, p. 217). At this level it is very important to mention the "male network" that keeps men informed at all times, in touch with other members of the same or similar level from other companies, and which includes activities generally performed by men: dinners, visits to karaoke rooms, playing golf, etc. The women who are granted access here are of a high status given by a high position in the company, government, etc. Nevertheless, as Cook and Hayashi (1980) said, Japanese women are perceived as inferior due to the fact that they don't hold jobs of the same status as men do.

However, some companies accepted women to hold managerial positions, but not in the same positions as men and sometimes not even in the same department, but in a division specially created for women. Also, the women that are in managerial position are generally employed in medium and small size firms, not in large Japanese corporations. An analysis made in 1999 indicated that "most women managers work in their own family-run businesses (33%), or are employed by foreign firms (67%)" (Aggarwal, ed., 1999, p. 215).

Also, as mentioned before, the most common types of companies run by women were and still are in fields such as clothing, real estate agencies, beauty industry, etc. The number of female presidents in the beauty sector amounted to 35.1% in 2014, 34.4 % in the cosmetic retail business and 29.9% of the total in the senior health care field (Kameda, 2014).

Unfortunately, the Equal Employment Opportunity Law (EEOL) mentioned above was not supported by affirmative action policies, measures of enforcement and punitive measures, being rumored that it was only created in order to satisfy the ratification of the United Nation's Convention to eliminate all forms of discrimination against women and that it has been strongly opposed by the Japanese academics and politicians of that time, who argued that the changes could "alter the unique successful culture" of Japan (Rawstron, 2011, p. 4). Also, as a reaction to this law, Japanese companies created a system called "Two track employment system", in order to mask a gender-based discrimination. The system works as follows: the new recruit can choose between an integrated or management track (*sougoushoku*) with long hours of work, opportunity to be transferred and fierce competition (that is usually proposed to men) or a general, or clerical track (*ippanshoku*), with shorter working hours, rare transfers and limited promotions, which is generally proposed to women (Ibid.).

In 1995, the Labour Standards Law was revised and changes have been made regarding the number of overtime hours for women per annum (until the revision, the limit was 150 hours), of the working time (before, women could not work between 10 p.m. and 5 a.m.), approval to work during holidays or in "dangerous" occupations such as mining (Rawstron, 2011). These changes generated many debates regarding women in the Japanese overwhelming working environment and whether they can really be a part of it or not. Japanese women are expected to shoulder the majority of household burdens, in a country where men work some of the longest hours in the developed world (OECD) and at the same time women are also supposed to be in charge of the chores inside the house, take care of the family's elders, the education of the children, house management, etc. All of these aspects, together with the high costs of life and education, the lack of high quality childcare options and childcare leave benefits, and the lack of opportunities to reenter regular employment after maternal leave, determine young Japanese women to postpone marriage, delay parenthood and have fewer children (OECD Better life index).

However, it is important to mention that Japanese women are not held back only by patriarchy. Many women from wealthy places like Tokyo prefer to stay at home and enjoy the *sansokuhirunetsuki* (three meals and a nap) life style, instead of the stressful *salaryman* one (*Japanese women and work. Holding back the half the nation, 2014*). Mariko Brando, the author of the book "The dignity of a woman" points out that many women who are married with high-ranking executives of big companies prefer to have a part time job in a small company or even a supermarket, considering that they don't need a high-status job to enjoy a high status (*Ibid.*).

Another reason for women preferring to stay at home could be represented by the fact that, although during university the Japanese women are accepted and treated equally with men and are told that they can do whatever they want to in the work place after graduating, the reality is much different. Soon after employment (more or less two months, experts say), many Japanese women seek psychiatric help for depression and lack of self-esteem, due to discrimination, dull assignments and fear of losing face in case of quitting (Renshaw, 1999).

Among other reasons emphasized during the present research, the most important are: the lack of a system that ensures an easier access to loans for women, some banks being hesitant of lending money to women due to their gender(Kameda, 2014); lack of mentors and fright to start a business[2]; intimidation by the majority of people's choices[3]; fear of maternity harassment (or *matahara*in Japanese - in a survey conducted in 2014, 26.3 % of women reported experiencing *matahara*and 27.3 % said they know somebody who has experienced it (Ryan, 2015); the Japanese concepts of harmony preservation and conflict avoidance, which make many women give up instead of fighting for their rights; long working hours; *nominication*(*nomu* = to drink andcommunication) – which is an essential part of maintaining interpersonal relationships with the colleagues, customers, etc. and usually takes place after work, until late at night; short vacations, etc. For married women and working mothers these last mentioned obstacles are very difficult to surpass, due to the housework that also needs to be done by them and the time and attention their family needs.

However, in the last years (more specifically since 2013), Abe Government has been encouraging more women to enter the workforce and has created hundreds of thousands of new jobs under *Abenomics*, even though many of these are part time. However, the rising demands of working women, do not come with better opportunities

[2] As Donna Fujimoto Cole, president and CEO of Cole Chemical, pointed out in her interview for Brookings, at http://www.brookings.edu/events/2016/02/08-womenomics-female-entrepreneurs-japan

[3]Fujiyo Ishiguro, president and CEA of Netyar Group Corporation, pointed out in her interview for Brookings, that in Japan many women tend to choose what they can do, not what they really want to, due to the cultural expectations for a woman but also to the group mentality and unwillingness to be different than others. Video at http://www.brookings.edu/events/2016/02/08-womenomics-female-entrepreneurs-japan

and work conditions provided by the Japanese corporations. In order for real changes to take place, the society has to be shaken to the core. Or at least, the companies that fail to meet the governmental requirements of the newly created environments should be punished.

Nevertheless, the government has set a target of "30% female leadership representation in various fields of Japanese society" by 2020, when Tokyo will host the Olympics (*Japan: Women in the workplace,* 2015).

Be that as it may, the numbers are ambitious, especially in a country where female representation in the parliament's lower house was 8 % in 2013, the female manager ratio was 10 % in 2013 and where the labor-market gender gap is second among the advanced countries, next to South Korea. Also, Japan is well known for a slow promotion pace, the age limit for getting promoted tending to be higher, especially in case of women (Ishizuka, 2014). Nevertheless, the Japanese Government has taken a step forward in including more women in the economic field and in creating more gender diversity atthe management level, in order to fix the mounting fiscal deficits and the population problems (Ibid.).

3. Women executives in Romania

Romania is a former communist country that is still struggling with a deeply corrupted environment. The long years spent under communist control reduced the female entrepreneurial capacities and in many cases, successful modelsfor the young generations are missing. However, by becoming a member of NATO since 2004 and of EU since 2007, new challenges have arisen and the country had to learn how to activate and compete with its European counterparts. Also, by beginning to have access to structural funds from the EU, a financial support platform was createdfor opening new businesses and improve theirskills (Piti,2015).

In time, women started to get more and more involved in different fields and have access to higher-level jobs. However, an analysis made by the European Commission in 2014 indicated that in Romania men receive a monthly payment with 9.7% better than women, with only 9% of the companies' board members and 11% of the CEO's being women. Moreover, Romania ranks 27 by the number of women in the Parliament (11.5%), as shown in the research performed by The Permanent Electoral Authority in 2013. Why these low numbers?

As in many other countries, women entrepreneurs from Romania are equally qualified and have similar competences with men, but at the decision level, the relations are discriminative and asymmetrical. The legislation that supports equality between sexes exists[4] and is observing the strict standards of the European Union. However, in reality, it is just a "law for display" (MihaelaMiroiu[5] in Sova, 2015). The gender wage gap still exists (10% in 2014, OECD) and in some cases women receive a job just because the legislation requires that a certain type of company, political party, etc. should include a

[4]Title 1, Article 4 of the Constitution (since 1991) "(2) Romania is the common and indivisible homeland of all its citizens, without distinction of race, nationality, ethnic origin, language, religion, sex, opinion, political affiliation, wealth or social origin."

[5] Professor at National School of Political and Administrative Studies Bucharest, expert in feminism and gender studies.

certain number of men and women. Moreover, the mentalities according to which women are not capable of intellectual creations, only of teaching others the ideas and theories created by men(MihaelaMiroiu in Sova, 2015), and proverbs such as “Men should wear pants and women skirts”[6] and “A woman’s place is in the kitchen,”[7] indicate that the image of a Romanian woman is behind her man, working outside to support and deliver his work, or inside the house, as a wife, mother, housekeeper for him and the family.

During communism, the party and the state supported women getting involved in the public sphere, breakingthe economic barriers imposed by the old traditions and leaving the children in the care of public organizations, naming them “equal socialist workers” and “mothers of the nation” (Massino*,* 2014).

There are two distinct phases during the communist regime regarding the status of women: 1. policies for empowerments at the beginning of communism (1948-1965) and 2. aggressive pro-natalist policies (decree after anti-abortion 1966-1989).

The first phase represents the period when in Romania there was an acute need of women labor and so an intense propaganda of emancipation and freedom for women through work began. Women, through their efforts as producers, mothers and wives, contributed to the meeting and exceeding of the plan, to the blossoming of communism and of the country.Paid employment became the solution for the emancipation of women and the way to demonstrate equality with men (Padurariu, 2014).

The second period (“Golden Age”) was characterized by a strict pro-natalist policy. In 1966, the anti-abortion decree was implemented and it represented a new stage in the standardization of the brutal status of women. They became reproductive beings, were kept under strict control and were supposed to have at least four children by the age of 45, making Romania one of the strictest communist countries regarding abortions.

In 1973, during a meeting of the Communist Party’s Central Committee, Nicolae Ceausescu defined the women’s status and role: “The highest honor for women is to give birth, to give life and raise children. There can be nothing more dearly for a woman than being a mother” (Banciu, Chipea and Bancila, 2012). He understood well the power, determination and the talents of women as an important element in the construction of communist Romania.

After the fall of communism, many laws related to equality of chances had been adopted. In 1999 - the law concerning the paternity leave, in 2000 – the law concerning the prevention and sanctions against discriminations, in 2003 – the labor code, in 2006 – The National Strategy for equality between sexes 2006-2009, in 2010 – The National Strategy for equality between sexes 2010-2012 and in 2010 – the law concerning the child care leave and the monthly allowance for children, etc.

Concerning the maternity leave, the 2005 law (updated several times until 2015) consists of: 63 days of pregnancy leave before birth and 63 days of maternity leave after birth. The monthly child allowance represents 85% of the net average income earned in the last 12 months.There is also a parental leave that both mothers and fathers can take: up to 2 years, with an allowance of 85% from the average net income earned in the last 12 months, maximum 1.200 lei / month (around 300 $)(European Commission).

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[6] In Romanian: Omul să poarte nădragiişi femeia fustele.
[7] In Romanian: Locul femeii este la cratiță.

One of the most important aspects for a working woman is the law that prevents the employer from firing someone that is pregnant or is currently on maternity leave / parental leave. The company has to receive her back on her (or his, in case of fathers that take parental leave) previous position after the leave is finished. Statistics indicate that 95% of the persons that take the parental leave resume their work at the end of it (Marinescu, 2016).This support is extremely important for women that want to combine career with motherhood.

Regarding the Romanian career women, their profile is as follows: ambitious, married, with children, average age 36 years, university graduate, devoted to business, working 60 hours/week, independent. The main motivations for Romanian women to open a business are as follows: to be their own boss, personal desire to start a business, opportunity to increase the quality of life, money, contribution to society, etc. (Ramadani, Gërguri-Rashiti, Fayolle, 2015). Their strong points are social networking, intuition, patience, more experience gained from multitasking and child rearing, chance to create women friendly corporations and businesses for other women and minorities.

The barriers that they encounter are related to educational choices (women tend to choose more feminine fields that also come with smaller incomes and less access to executive positions), vertical and horizontal occupational segregation[8], social perception of a woman's strength, knowledge and skills, difficulty in accessing capital and lack of positive examples (Cojocaru, 2014).

In terms of entrepreneurship (both female and male), in 2013, Romania was the first country from the EU regarding entrepreneurship intentions, 27% of Romanians declaring they wanted to start a new business. However, the problem arises in the sustainability of entrepreneurial initiatives, where the country is located on the last but one place in Europe (European Commission) (Scarlatescu, 2013).

4. Comparative analyses between women executives in Romania and Japan

As seen in the previous chapters, both Romania and Japan, by their history, traditions, cultures, and religions, have discouraged women working in executive levels, but their governments have tried hard, for the improvement of their economies, to advance the conditions of work for female employees and to give them the necessary support to continue working and being promoted.

As noticed in chapters 2 and 3, there are many similarities but also differences in the conditions and the barriers that women executives face in the two countries, due to the specificity of each society and culture.

In order to see clearly what the differences and similarities are, some more statistical information is required.

[8] Horizontal segregation refers to masculine and feminine professions, while vertical segregation means exclusion of women in higher level jobs (even in typically female professions).

Country name	**Japan**	**Romania**
Population in 2015	127.02 mil	19.87 mil
Female population	51.4% (2015)	51.6% (2015)
Female graduates from tertiary education	48.2% (2014)	52.9% (2014)
Female labor force	49% (2014)	49% (2014)
Total fertility rate	1.4 children / woman (2014)	1.32 children / woman (2014)
Female representation on boards	1.1% (2014)	11.9% (2013)
Female CEOs	7.4% (2014)	10.0% (2013)
Self-employed women	0.9% (2015)	29.1% (2013)
Gender pay gap	26.59% (2014)	10.0% (2014)

Table 1. *Statistical information: South Korea and Romania. Source: World Bank – www.worldbank.com, Trading Economics – www.tradingeconomics.com and European Commission – http://ec.europa.eu/, Instat - http://www.instat.gov.al/, OECD - https://data.oecd.org/eduatt/adult-education-level.htm#indicator-chart,*

As it can be observed in the table above, there are almost no differences between the percentage of female population and female labor force, the fertility rate, indicating similar environments. Regarding the female labor force, it is important to mention that the difference in between the two countries comes in the type of employment: in Japan, 36.9% of the total are employed in part time jobs, while in Romania the percentage is of only 5.5% (OECD, 2015).

This difference appears from the fact that the Japanese women leave the labor force when they get married or become mothers and then rejoin the labor force (generally in part time jobs) after their child has grown, creating an M-shaped curvein the female labor participation by age groups, as follows:

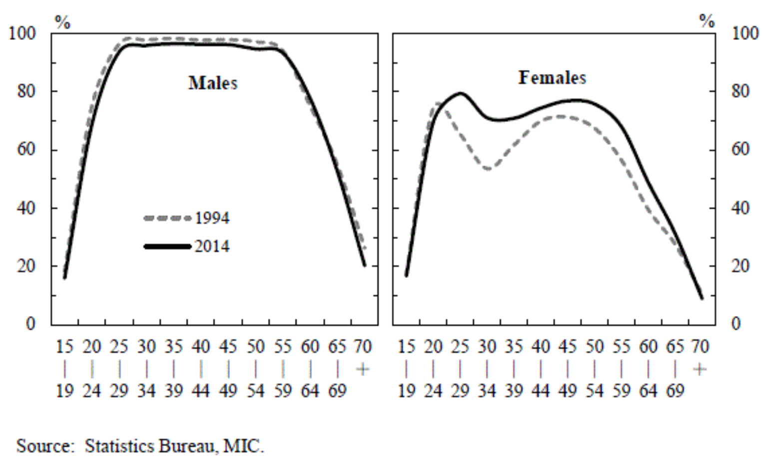


Figure 1: Labor Force Participation Rate by Gender in Japan.
Source: Statistics Japan: http://www.stat.go.jp/english/data

Returning to the information from table 1, we can observe other differences in the number of female representation on boards, where Romania ranks ten times higher, in the number of female CEO's, where Romania is just around 3% above and in the number of self-employed women, where the difference is very high, more than 28 times.

Here it is also important to mention the fact that, based on a research made by Credit research agency Teikoku Databank in 2014, 50.9% of the Japanese women in top positions took the job from their husband or a blood relative. Only 34.7% built the business from scratch and only 7.9% are in their position due to internal promotions (Kameda, 2014).

Another aspect to take into consideration when analyzing the differences is the fact that Romania has a more relaxed work environment, shorter extra working hours, no compulsoriness to socialize after work, higher support in maternity leave and the security of still having the job when returning.

Regarding the gender pay gap, the last element in the table above, the difference is more than double, indicating a higher level of equity and gender equality concerning payment in Romania. However, in both countries,despite the educational gains, women continue to fall behind men in income, politics, employment, business ownership, etc. This is due to cultural norms and societal expectations, but also to the fields they choose to study. For example, men dominate majors such as engineering, computer sciences, manufacturing, while women focus on education, humanities and arts, health and welfare, fields that are less remunerative.

Moreover, analyzing the percentages of male and female employed persons by occupation, Japan Statistics 2014 indicated that men are more prominent in construction and mining (98.4%), transport and machine operation (97.3%), while women were prominent among medical, health services (75.3%), clerical work (59.7%) and accommodation, eating and drinking services (62.1%).

In Romania, women are prominent in health and social assistance (59%), private household (67%), other services (52%), education (49%), hotels and restaurants (42.6%) (Popescu, 2016).

Compared to their Romanian counterparts, Japanese women are the managers of the family and the house, they assume total responsibility for the family, giving freedom to the husband to only be in charge of the economic production andno other aspects (Renshaw, 1999, p. 28). On the other side, Romanian women share with their husbands both the economic production and the house management, giving more time to women for other activities.

The present social trends in Japan present a new type of men and women, called herbivore men and carnivore women. Carnivore women refer to women that are active and more internationally minded, while men are taking low-responsibility jobs and do not want to get married and live in the old model breadwinner / housewife style (Economist).

Japanese women, as the author Lefcadio Hearn said, are the most wonderful aesthetic products of Japan (16). They are seen by foreigners and Japanese men as "precious possessions, pleasing to behold, docile and manageable" (Renshaw, 1999, p. 16). Also, the term *Ryosaikenbo,*which means good wife, wise mother, introduces the traditional idea of a woman as house organizer, child and husband caretaker. Another expression, *onna ha sanposagatte,* meaning that a woman should walk 3 steps behind her husband, represents the traditional view of how a couple should behave in public and what is the place of each of them in the society: man first, woman second. Moreover, the Confucian belief supported the supremacy of men and said "As a samurai, be with a woman in public itself is bad", indicating again the place of a woman far from the man. All these theories indicate that a woman's place is not near a man, in the public space at least, this mentality also being applied to the work environment.

This adds to the idea of the filmmaker Juno Itami, who declared that a Japanese woman is supposed to renounce men and family in order to succeed "on the rough road to corporate success" (Renshaw, 1999, p. 16), indicating the society's inflexibility towards women working.

Moreover, in a country like Japan, where the people's opinionhas a big influence upon others, if the attitudes toward women working are negative, in many cases they will give up trying, therefore, to reluct against this socio-cultural issue is the biggest challenge for female entrepreneurship in Japan.[9]

5. Support for female executives to maximize their potential

As mentioned before, in the last years the Japanese Government tried to encourage women with business and career aspirations through a series of policies, such as promoting women leaders, funding and support to nurture female entrepreneurs. The press has been naming the prime minister's approach as "Womenomics" (increased participation of women in the economy), and is considered a pillar for the prime minister's campaign for economic revitalization.

However, as the 2015 Female Entrepreneurship Index indicates, Japan ranks only forty-fourth place, substantially lower than other comparable economies. Romania, on the other hand, ranks 10 places higher, even though the political discourse is not focused as much as the Japanese one is on women empowerment (GEDI, 2015).

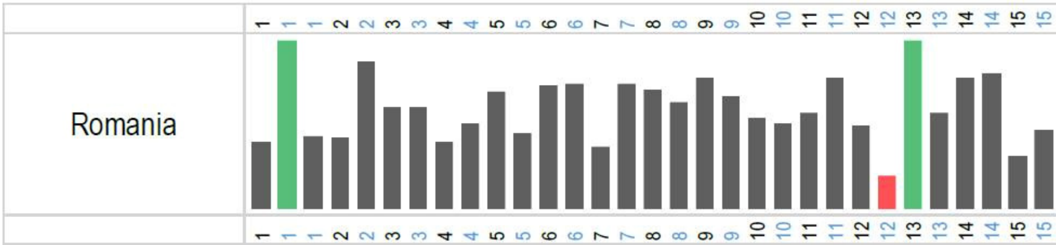
Also, the FEI analysis by country indicates the fact that Japanese women rank low in the Opportunity Recognition and high in the Willingness to start, while Romanian women are positioned low in the field of R&D Expenditures and high in Equal rights and Business Gazelles, as follows:

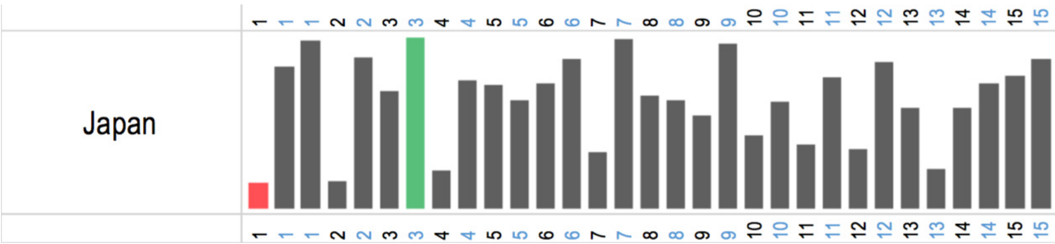
FEI Results by Country

Pillar	Indicator	Pillar	Indicator	Pillar	Indicator	Pillar	Indicator
1	Opportunity Recognition	4	Know an Entrepreneur	8	Highly Educated Owners	12	New Technology
1	Equal Rights	4	Internet and Networks	8	SME support and training	12	R&D Expenditure
1	Market Size	5	Executive Status	9	Innovativeness	13	Business Gazelles
2	Perc. Of Skills	5	Access to Childcare	9	Monopolized Markets	13	Female Leadership
2	Secondary Education	6	Opportunity Business	10	Entrepreneurship Ratio	14	Export Focus
3	Willingness to Start	6	Bus Freedom & Movement	10	Labor Force Parity	14	Globalization
3	Business Risk	7	Tech Sector Business	11	New Product	15	1st tier financing
		7	Tech Absorption	11	Technology Transfer	15	3rd tier financing

Individual level indicators are listed in black; Institutional level indicators are listed in blue Highest score Lowest score

[9] http://gemconsortium.org/country-profile/76





In order to propose ways to support the future women executives in both countries, a deep analysis of the indicators from the above tables could help us see the areas where each country is failing and work on creating policies and programs to fix them. For example, Romania needs to work on increasing the expenditures in research and development, improve the financing system, training in the Tech sector businesses and creating networks for women to meet other entrepreneurs and learn from their experiences. In what Japan is concerned, with the exception of the opportunity recognition that was mentioned before, other fields that need improvement are the perception of skills (which indicates the access to training for women who wish to become entrepreneurs), the network to meet and discuss with other entrepreneurs and the support for female leadership.

Another issue to be improved in both countries is the increase of day care centers to support women to come at work in higher numbers after the end of maternity paid leave. If the creation of more facilities is not easy to be made, another option could be softer immigration rules for nannies, in Japan's case. Or perhaps implement the usage of the "Yokohama method" (Fumiko Hayashi, the mayor of Yokohama, managed to reduce,after her election in 2009, the city's child-care waiting list, the longest in the country at that moment, to zero in just over three years. She managed to do that by bringing private firms into the sector and creating the day care facilities that were necessary) in many other locations.

Based on OECD's report, in 2014, Japan increased childcare leave benefits from 50% to 67% of the wages (comparable with Romania that has 85% of the average net income over the last 12 months) in support of a better work-life balance and labor market participation for women. Also, the Japanese Government has established a "new certification system for employers who create an employment environment that is favorable to raising children and encourages a better work-life balance" (OECD).

However, the 2014 Global Entrepreneurship Monitor (GEM) report indicated as challenges for the Japanese entrepreneurs the social and cultural pressure and negative influence that impacts them greatly and pushes them to give up the idea of entrepreneurship

(GEM, Japan). This indicates the fact that even if there are many policies and support from the government, the aspects that have to change are the mentality of the society regarding working women and the Japanese corporate world, which for the time being is more appropriate for men and not attractive enough for women.

In the case of Romanian entrepreneurs (not only for women, but for men as well) the next three elements: more supportive government policies, promotion of entrepreneurial education and easier access to finance sources, were the main challenges to focus on in the near future (GEM, Romania). Another issue to work with are the physical infrastructure (roads, utilities,waste disposal, and communication), aspects which support the new developing firms and which are in need ofurgent improvements, Romania ranking the lowest in between the countries from the same category, as follows: Croatia, Hungary, Lithuania and Poland (GEM, Romania).

In the end, it is important to mention the fact that if the two countries do not work harder in accepting and promoting women in executive positions, they might lose a big number of high level and well prepared graduates to foreign companies. In Japan, if the international companies understand the necessity of complying with the working needs of Japanese women, such as support and encouragement to not quit working after marriage, the same training and promotion opportunities as for their male colleagues, support in career development, no compulsory socialization or client care after work,so that women can also take care of their families (Subhash and Norton 1993), they can benefit greatly from the high number of highly educated Japanese women. In the case of Romanian women, there are many who tend to emigrate,considering the country poor, corrupted and without opportunities (Stanculescu and Stoiciu, 2012), Romania thus loosing a high number of well trained and educated women who could contribute to the economic growth of the country.

6. Conclusions

The time for change has come. Not using women in the labor force represents a waste of talent, money and time. In both countries analyzed in this article, half or more of university graduates are female and both countries are in need of well-trained executives in order to improve their activities in the fast changing business environment and in the purpose of economic growth.

In order for this to happen, the two countries need to find ways of changing the mentality of their own population regarding working women, provide more understanding and support towards working mothers, sharing the household and children rearing responsibilities, better child care services, etc.

Programs such as the ones suggested by the Japanese Prime Minister ShinzoAbe to increase the number of women in executive positions in the next years, are a step forward and make way to new perspectives. However, without the legal mechanisms and institutions to monitor and penalize discrimination of any kind against women at work, no major changes are possible. Problems such as maternity harassment (*matahara* in Japanese) and forcing women to quit working after getting married, not accepting them back on the same position after returning from maternity leave are urgent and need to be dealt with as soon as possible. Other issues are related to the traditional Japanese management systems of lifetime employment, where women are not included, enterprise unions, seniority systems, a group-oriented and risk-adverse orientation, the culture of maintaining the group harmony and conflict avoidance, as the expression *shikataganai* (there is nothing I can do about it) implies and finally the mentality of "the stake that sticks out gets pounded", indicating the conformity of the Japanese society.

Romania ranks a little better on this level, with stricter protective laws and real implementation, support for women to take parental leave and come back to continue their work afterwards. Also, the work environment is more relaxed and there is no compulsory after work communication. However, Romanian women face discrimination regarding educational choices, vertical and horizontal occupational segregation, social perception of a woman’s place, difficulty in accessing capital and lack of positive examples, challenges which are also encountered at their Japanese counterparts.

Despite their different backgrounds, the Romanian and Japanese women seem to have a similar fate and tend to be hindered in their successful careers by resembling barriers related to societal pressure and male attitudes towards working women. If these aspects will not change, the economies of both countries will have to suffer and will not have the opportunity to gain the economic growth they desire.

Bibliography:

Books

1. Aggarwal, Raj (ed.) (1999), Lituchy, Terri (), *Japanese women in the workplace,* in *Restructuring Japanese business for growth: strategy, finance, management and marketing perspective*, Springer science + business media, New York
2. Aronsson, Anne Stefanie. (2015). *Career Women in Contemporary Japan*, Routlegde, New York
3. Cook, Alice Hanson& Hayashi, Hiroko. (1980). *Working Women in Japan: Discrimination*, *Resistanceand Reform*, Ithaca NY: New York School of Industrial and Labor Relations, Cornell University.
4. Ramadani, V., Gërguri-Rashiti, S., Fayolle, A., *Female Entrepreneurship in Transition Economies: Trends and Challenges,* Palgrave Macmillan, 2015
5. Renshaw, Jean. (1999). *Kimono in the Boardroom: The invisible evolution of Japanese women managers.* Oxford University Press, New York
6. Subhash, Durlabhji, Norton, Marks (1993), *Japanese Business. Cultural perspectives.* State University of New York Press, Albany

Websites

1. Banciu, Viorica, Chipea, Floare and Bancila, Ionut. (2012). The Social Status and Image of the Romanian Woman Presented in the Nationalist Discourses of the Dictator NicolaeCeauşescu. *IPEDR* vol. 34: 112-116. *http://www.ipedr.com/vol34/022-ICHHS2012-H10036.pdf.* (Accessed June 2016)
2. Cojocaru, Florentina-Georgiana. (2014). *Women entrepreneurship – a solution for Romanian economy development.* http://www.strategiimanageriale.ro/images/images_site/articole/article_be77209b9ad7c43df9b66aaffa2b9954.pdf. (Accessed June 2016).
3. Ishizuka, Hiromi. (17 Jul 2014), *Are women really ‘shining’ in Japan?,* World Economic Forum, https://www.weforum.org/agenda/2014/07/gender-diversity-management-japan/. (Accessed July 2016).

4. Kameda, Masaaki. (12 Aug 2014). *Only 7.4 percent of Japanese companies have female leader.* Japan Times. http://www.japantimes.co.jp/news/2014/08/12/business/7-4-percent-japanese-companies-female-leader/#.V4iKSZN97Vo.(Accessed June 2016).
5. Ryan, Kyla. (11 Febr 2015). *Maternity Harassment in Japan*. The Diplomat. http://thediplomat.com/2015/02/maternity-harassment-in-japan/.(Accessed June 2016).
6. Marinescu, Carmen. (15 Febr 2016). *Doar 4,5% dintrebarbatiiromaniopteazapentru un concediu de crestereacopilului (analiza). [Only 4,5% of Romanian men opt for parental leave (analysis)]*. Agerpres.http://www.agerpres.ro/social/2016/02/15/doar-4-5-dintre-barbatii-romani-opteaza-pentru-un-concediu-de-crestere-a-copilului-analiza--10-57-57.(Accessed July 2016).
7. Massino, Jill. 2004. *Anonimatulfemeii in esteticaRomanieiCeausiste [Women's anonymity in Ceausescu's Romania's aestetics]*. Bucharest University. http://ebooks.unibuc.ro/istorie/ciupala/anonimatulfemeii.htm. (Accessed January 2016). (Accessed June 2016).
8. Pădurariu, Cezar. (2014).*Statutulfemeii in Romania Comunista.* [*Woman's status during Communist Romania*.] *http://adevarul.ro/locale/iasi/statut-emancipat-1_531b15fe0d133766a8b878a7/index.html*. (Accessed June 2016)
9. Piti, Marius. 2010. *Antreprenor "made in Romania*" ["Made in Romania" entrepreneur]. Fundatia post-privatizare [Post-privatization Foundation]. http://www.postprivatizare.ro/romana/antreprenor-made-in-romania/). (Accessed July 2016).
10. Popescu, Irina. (8 Mar 2016). *How many women do business in Romania and in what sectors.*Romania Insider. http://www.romania-insider.com/how-many-women-do-business-in-romania-and-in-what-areas/. (Accessed June 2016).
11. Rawstron, Kirsti (2011), *Evaluating women's labour in 1990's Japan: The changing labour standards Law,* University of Wollongong, Research Online. http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1273&context=artspapers. (Accessed June 2016).
12. Sova, Liviu. (2015). *MihaelaMiroiu: Femeilesa nu chiuleasca de la bucuria de a traidupasufletullor*[MihaelaMiroiu: Women shall not miss the joy of living as their soul desires]. Agerpres. National Press Agency. http://www.agerpres.ro/social/2015/03/04/interviu-de-martie-mihaela-miroiu-femeile-sa-nu-chiuleasca-de-la-bucuria-de-a-trai-dupa-sufletul-lor-12-08-51. (Accessed July 2016).
13. Scarlatescu, Mircea. 2013. *Antreprenoriatul in Romania* [Entrepreneurship in Romania]. http://sisc.ro/antreprenoriatul-in-romania/. (Accessed July 2016).
14. Stanculescu, Manuela, Stoiciu, Victoria. (2012). *The impact of the economic crisis on the labor migration from Romania*. http://www.fes.ro/media/publications/Carte_migratiei_EN__final.pdf. Accessed March 2016.(Accessed June 2016).
15. *Japanese women and work. Holding back the half the nation. (29 March 2014),* The Economist. *http://www.economist.com/news/briefing/21599763-womens-lowly-status-japanese-workplace-has-barely-improved-decades-and-country.*(Accessed June 2016).
16. *Japan: Women in the workplace.* (6 July 2015) Financial Times. http://www.ft.com/cms/s/0/60729d68-20bb-11e5-aa5a-398b2169cf79.html#axzz4E0Mjmusn. (Accessed July 2016).
17. *Women matter: An Asian Perspective* (June 2012). McKinsey & Company, New Media Australia. http://www.mckinsey.com/global-themes/women-matter. (Accessed July 2016).
18. European Commission. Maternity: http://ec.europa.eu/social/main.jsp?catId=1126&intPageId =3261&langId=en
19. Female Entrepreneurship Index 2015 Report. The Global Entrepreneurship and Development Institute (GEDI). https://thegedi.org/female-entrepreneurship-index-2015-report/
20. Global Entrepreneurship Monitor. Japan. http://www.gemconsortium.org/country-profile/76
21. Global Entrepreneurship Monitor. Romania. http://www.gemconsortium.org/country-profile/103

22. IMF. http://www.imf.org/external/np/speeches/2014/091214.htm
23. OECD Better life index, http://www.oecdbetterlifeindex.org/topics/work-life-balance/
24. Statistics Japan, http://www.stat.go.jp/english/data/handbook/c0117.htm
25. http://www.oecd.org/edu/skills-beyond-school/48630719.pdf
26. http://data.worldbank.org/
27. http://ec.europa.eu/justice/gender-equality/files/womenonboards/womenonboards-factsheet-ro_en.pdf
28. https://www.oecd.org/gender/data/genderwagegap.htm
29. http://www.instat.gov.al/media/257410/women_and_men_in_romania.pdf
30. https://data.oecd.org/emp/part-time-employment-rate.htm#indicator-chart
31. http://www.stat.go.jp/english/data/handbook/c0117.htm
32. http://www.brookings.edu/events/2016/02/08-womenomics-female-entrepreneurs-japan
33. http://repec.business.uzh.ch/RePEc/iso/ISU_WPS/82_ISU_full.pdf

A USEFUL TOOL FOR BOLSTERING INVESTMENT DECISIONS – MODIFIED IRR (MIRR)

Iuliana Militaru*

Abstract

The need of firms of all sizes to compute *rate of return of an investment project is addressed by corporate finance, which provides firms' management everywhere – at least, everywhere there is a market economy – with such a tool as internal rate of return (IRR) index, which, as well as its several variations (EIRR, FIRR), is useful as far as simply determining rate of return size.*

On the other hand, IRR does not address the problem of linking quantitative approach of ascertaining (internal) rate of return to that essential quantitative approach of defining cost of long-term financing sources, namely weighted average cost of capital (WACC); built around WACC, the IRR model which solves this problem is known as modified IRR (MIRR).

Keywords: investment decisions, modified internal rate of return, weighted average cost of capital

JEL classification: D81, E22, G31, L25

Introduction

The need to determine, with sufficient precision, value of an investment project yielded IRR (Internal Rate of Return) index, which can be employed alongside of NPV index, and – optimally – in some cases, instead of NPV.

Central concept of IRR index – exactly, of its *prototype* – is the necessity of determining level of discount rate for which ***future benefits equal initial costs***[1](e.g. *future* costs, from a strict chronologic perspective) – in other words, for which NPV = 0 – , as *minimal* benchmark needed for implementing, in every firm, an effective management; basically, and *financially*, this benchmark is nothing *less* than required (firm) effectiveness for $NPV \geq 0$.

Computing required effectiveness for condition $NPV \geq 0$ to be fulfilled requires, in effect, nothing more than computing present value – in these conditions – of project's return rate, namely *internal* rate of return. IRR formula, in the logic of this rationale, is (where CF stands for cash-flows recorded by firm – CF_0 being costs and $CF_1, \ldots, CF_N$ benefits received by firm)[2]:

$$NPV = 0 = CF_0 + \frac{CF_1}{(1+IRR)^1} + \ldots + \frac{CF_N}{(1+IRR)^N} \Leftrightarrow$$

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[1]Ehrhardt, M.C., Brigham, E.F. (2011), p. 387.

[2]Ibid.

$$CF_0 + \frac{CF_1}{(1+IRR)^1} + ... + \frac{CF_N}{(1+IRR)^N} = 0$$

Formula above should not, and we can state *cannot* constitute a distraction; namely, internal rate of return *is* not opportunity cost of capital in disguise, because these two notions are individuated, to the effect that[3]:

I. internal rate of return is a measure of the *effectiveness* of an investment project;
II. opportunity cost of capital is, on the other hand, only an effectiveness *standard* for an investment project, which is included in the formula given it is used to compute (financial) *value* of investment project.

Content

The basic picture of modeling investment decisions comprises this fact: these two indexes – internal rate of return and opportunity cost of capital –, although distinct, are used simultaneously for process of decision taking; this implies that firm's management *will* make use of typical instruments needed for a comparative analysis of its own planning, on one side, and economic and financial projections (i.e. for its *future* planning), on the other side.

From this point of view, decision of investment of a certain amount of financial funds, in order to build up a certain investment project, will be *adopted* only *if* it can be verified opportunity cost of capital is smaller than internal rate of return[4].

In other words, using notations used above, *investment*, and not *saving*, financial funds is decided only when financial measurements attest that:

$$r < IRR$$

Having underlined this, IRR index is a better instrument – from a mathematical point of view – than NPV, but it is, itself, less than perfect; because, in first place, the imperfections that 'plague' IRR are structural rather than (merely) operational, being generated by the very theory this index is build upon – according to which internal rate of return *exist* – and, therefore, is *useful*– only if NPV index is used under certain conditions (e.g., NPV = 0).

In second place, though, firm's management will confront itself with a bit of a (potential) crisis if its investment decision(s) will depend on IRR value *only*, if the firm deals with an atypical dynamics, one which, for more clarity, can be quantitatively appraised only in improper circumstances, IRR value being able, as a result, to supply firm's management with (only):

a. unsure or practically useless quantitative data;
b. intelligence valid only in short term – more precisely, valid during a period shorter than:

[3]Brealey, R.A., Myers, S.C., Allen, F. (2014), p. 116.
[4]Ibid., p. 117.

i. period in which firm must support costs of investment project, respectively
ii. period in which firm receives, or, eventually, amortizes firm's benefits (positive – that is, profit, or negative – that is, loss).

As for the query of analysis of dynamics of financial structure (main) factors, the circumstances in which IRR index *prototype* is not adequate for determining *quality* of investment projects are the following[5]:

1. when *output* of investment project is not yielded on a continuous basis – in long term –, as far as obtaining/recording profits, given for *a* specific project IRR quantification provides management with – sometimes – *several* values of IRR, or even with *no value* at all;
2. if firm, insofar as its investment policy goes, has to choose between mutually exclusive projects, whose (financial) perspectives, on one hand, and(financial) requirements (e.g., costs), on the other hand, are not comparable proper, or are simply divergent (e.g. do *not* relate to *similar* levels – of output, cash-flows, etc.), IRR index is unable to prove useful, due to fact no matter what the computed IRR value is for *any* two or more investment projects, any project can prove, in the long run, more profitable than any other;
3. situations in which *cost of capital* of cash-flows recorded in near future is different from that computed for cash-flows to be recorded in long-term perspective;
4. situations in which *opportunity cost of capital* of cash-flows recorded in near future is different from that computed for cash-flows to be recorded in long-term perspective.

These perspectives and conditions are not always easily identified, respectively taken into account – not all in the same time, or, at best, not with maximum efficiency. This is main reason which determined theorists to further their researches *starting* from IRR model – e.g. *the* prototype –, so as to give firms the chance to quantify (internal) rate*s* of return more suitable to firms'/projects' specifics than IRR.

As for this analysis, we observe in relevant literature one correction is considered most needed among all (possible) corrections for improving IRR *model*, namely an overhaul proper of IRR model's premises regarding efficiency of benefits' use – benefits generated by investment project – or, in other words, the profitability of financing source *it* (i.e., the investment project) stands for.

A firm's management that uses IRR will face real and not quite negligible difficulties whenever it must take a decision as to investment of financial funds for building up of an investment project, as result of the fact *mechanism* of decision-making process –i.e. once it is assumed to be build around IRR model – is inherently instable, as its structure routinely acts in two distinct – and divergent – tendencies:

A) IRR *theory*' pledges' benefits yielded by *new* investment *can* be used for financing new investments, this operation generating for firm a profitability

[5]Brealey, R.A.,Myers, S.C., Allen, F. (2014), pp. 130-131.

rate equivalent not to an (average) interest rate, but to an interest rate *equal to IRR*;

B) *In practical terms*, however, financial market behaves to the extent that value of IRR, computed for investment projects *approved* for financing – e.g., implementation – is, in general, of larger size than *true* value of rate of return for *financing* investment projects.

The least one can hold about pledge described above is that it is (extremely) difficult to meet in real (economic and financial) terms; as for real economy firms work – and, eventually, develop/grow – in, it affects firms' decision-making process, mainly, through the upward bias on corporate projections; this evolution is, directly or indirectly, instrumented through quantification of IRR value – or, either EIRR (Economic IR) or FIRR (Financial IRR).

For this to ever be actually rectified, economist perceived the need to overhaul premises of IRR *model*, the goal being to enhance *reflecting* capability of(computed values of)*internal rate* of return as to *profitability* rate of investment projects in general; the results of this *demarche* is – arguably – index which goes by the name of ***modified internal rate of return*** (Modified IRR – MIRR).

MIRR is unlike any other variations of internal rate of return – e.g., EIRR and FIRR –, its defining characteristic being fact discount rate, in this case – applicable in process of reinvesting benefits yielded by the *functional*(completed) investment project –, is (equal to)weighted average cost of capital (WACC)[6].

Thus, MIRR formula is (where C_0stand for *initial* costs of investment project, $C_1,...,C_T$ costs of maintaining the (accomplished) investment project, B benefits yielded by investment project and T life of project – i.e., number of periods)[7]:

$$\sum_{t=0}^{t=T} \frac{C_t}{(1+WACC)^t} = \frac{\sum_{t=0}^{t=T} B_t \cdot (1+WACC)^{T-t}}{(1+MIRR)^T} \Leftrightarrow$$

$$\Leftrightarrow MIRR = \sqrt[T]{\frac{\sum_{t=0}^{t=T} B_t \cdot (1+WACC)^{T-t}}{\sum_{t=0}^{t=T} \frac{C_t}{(1+WACC)^t}}} - 1.$$

In this point, we must observe index known as weighted average cost of capital (WACC), designed for computing cost of financing sources acquired and/or used by a firm in the long run – i.e. by a *listed* company – is based on a concept developed – not in

[6]Ehrhardt, M.C., Brigham, E.F. (2011), p. 393.
[7]Ehrhardt, M.C. andBrigham, E.F.(2011), p. 395.

the least, for analysis of decisions taken as to *capital budgeting* – as a *resultant* of following premises[8]:

1) different types of long-term financing sources constitute, in fact, different *types* of *capital* – that make up, together, firm's capital –, more or less fraught with risk;
2) as a result, for each type of capital exists a certain (size of) *rate of (expected) return*;
3) the expected return of various types of capital *must* record a dynamics to the effect that it will, eventually but decisively, contribute to *maximization of stock (i.e., share/equity)price*, which requires, in its turn, designing of a certain (or optimal) *capital structure*–considering *typical*[9] elements of firm's capital being the following[10]:
   i. (long-term) debt (D – in WACC formula)
   ii. common equity (AO)
   iii. preferred stock (AP), and WACC formula is (where w stands for *target weights* for different types of capital, r for cost of owing and using these types of capital and T for marginal tax rate as to tax levied on firm's interest revenues):
   iv. $WACC = w_D \cdot r_D \cdot (1-T) + w_{AO} \cdot r_{AO} + w_{AP} \cdot r_{AP}$.

On this basis, cost of long-term financing sources owned and used by firm is the weighted *average* of *costs* generated by ownership and use of different components of firm's capital.

Conclusions

From this perspective, financial technique needed to forge (optimal) financial structure of a firm, *the* basis – at least, in theory – of diminishing costs of long-term financial sources contracted/owned and used by firm comprises following levers and procedures[11]:

1. Using long-term debt to benefit from *tax advantage of debt* – which has a positive impact as long as firms do *not* record the so called ***financial distress cost***[12];
2. Advancing on the path of accessing long-term financial sources in form of long-term (bank) loans, up to the moment WACC value reaches its minimum – viz. the moment firm's *value* increase reached its *maximum*.

What is more, it must be observed MIRR model yields, for an investment project, a *single* value, that is *it cannot* yield two (distinct) values – or more; this is, certainly, a highly valuable trait of MIRR model, for any firm's management.

[8]Ehrhardt, M.C., Brigham, E.F. (2011), p. 337.
[9]Ehrhardt, M.C., Brigham, E.F. (2011), pp. 368; 399.
[10]Ehrhardt, M.C., Brigham, E.F. (2011), pp. 358-359.
[11]Ross, S.A., Westerfield, R.W., Jordan, B.D. (2013), pp. 541-542.
[12]Op. cit., p. 543. This type of cost is within average firm's realm of (economic and especially financial) endurance *if* it can muster, in a similar proportion, its *tangible assets* – i.e. the type of assets than can be sold *to (be able to) settle firm's debt* in absence of firm's value's deteriorating.

Finally, last but not least, through its use of WACC, MIRR yield values of internal *rate* of return *comparable* to cost of capital, feature of no little importance for any managerial team and even more so for any management *strategy*, both badly needing a sound tool, in order to take financial and investment decisions aware of all economic intricacies, both inside firm and outside it.

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Bibliography

1. Brealey, R.A., Myers, S.C., Allen, F., "Principles of Corporate Finance (11th Global Edition)", McGraw-Hill Education (UK), 2014
2. Ehrhardt, M.C., Brigham, E.F., "Corporate Finance: A Focused Approach (4th Edition)", South-Western, 2011
3. Ross, S.A., Westerfield, R.W., Jordan, B.D., "Fundamentals of Corporate Finance (10th Edition)", The McGraw-Hill Companies, Inc., 2013

ECO ART

Maria Răducanu

Abstract

In the second half of the 20th century, the general population started to feel concern for environmental issues caused by urban agglomeration as well as the development of an increasingly consumerist society. In the midst of all this, artists stand side by side with those who are in the battlefield for a clean environment. Through the use of artistic expression, and of natural and recyclable materials in their works, artists are able to convey the dangers that environmental degradation poses to our society.

Key words: Eco art, land art, environment

JEL Classification: Z11.

In the second half of the 20th century, the general population started to feel concern for environmental issues caused by urban agglomeration as well as the development of an increasingly consumerist society. Throughout the modern and contemporary age, polluting industries and mass production of goods led to residues in large quantities being left behind causing environmental pollution.

Up till now, we have not seen a common and coherent political movement for environmental protection and very little has been invested in its cause, all of which has contributed to the damage of the natural environment and the quality of life.

In the midst of all this, artists stand side by side with those who are in the battlefield for a clean environment. Through the use of artistic expression, and of natural and recyclable materials in their works, artists are able to convey the dangers that environmental degradation poses to our society.

Artists from around the globe, including Romanian and Japanese artists have created works with militant characteristics displaying man's relationship with his environment, as well as that of nature with industry; all of which warns the public of the dire need to protect the environment.

Eco Sculpture has risen in prominence in the recent decades due to the common citizen's desire for a clean environment, a healthy and harmonious atmosphere, and integration of nature into urban life, as well as dimensions and aesthetics in urban planning that contribute to the quality of life for the ecomental system.

Through the works of Eco Art, Land Art, Earth Art and Sky Art, artists inspire us to participate in the healing of planet earth.

The concept of Land Art first appeared in the United States after 1950, and it refers to the creative linking of art and nature by placing objects in landscapes in an organic manner.

Visual artist Miya Ando has created an installation utilizing 1000 fluorescent ficus leaves which she let float on water. The leaves blend in with the natural scenery during the day. They were painted with a fluorescent, non-toxic substance, allowing the leaves to absorb sunlight and to glow during the night, creating a magical atmosphere. The installation titled “Obon” lasted just one day.

In his project, “Coexistence” ceramic artist Mineo Mizuno combines ceramic material and several types of moss to create living miniature landscapes. The Japanese artist’s minimalistic sculptures have become a place of meditation centering around the symbiotic relationship between art and nature. The viewers find themselves emphatically imagining the creative process of these sculptures, as they observe them.

From 1970 and onwards, many artists in Romania began focusing on the relationship between art and nature and started to create Land Art and Earth Art.

In 1974, in Timișoara, the Sigma Group designed and developed structures out of natural materials with the purpose of integrating them into the landscape. Ștefan Bertalan reshaped nature around him by building a living artifact.

During the 70’s, after gaining influences from constructivism, Stefan Bertalan began to study nature, which he percieved as the universal being. The artist observed the processes of growth, evolution and finally, decomposition of plants. He communicates and identifies with the whole of the botanical world found in the forests, from the individual leaf, all the way to the tuber. He has declared:

“The energy of trunks and branches overlaps life in motion, universal breaths, and my whole cosmos. It is then, that I paint a landscape (a politico-ecological encephalogram)”.

For Bertalan, nature also represents a storage of personal and collective memories, as is communicated to us in his works titled “The forest”. In this setting, the scenery becomes a place of remembrance, and communication with loved ones; with the mother and the father. It becomes a transtemporal space in which the artist enters a disccusion of the present and seeks to understand the thought process of his community.

His drawings contain scientific observations, and also include animism, as he is ever concerned about the well-being of plants. The artist seeks to enter into a world free from constraints, in which he is able to discover the similarities within himself and human society.

For Stefan Bertalan, biology and geometry in the constructvist, as well as the fractal sense convene in a single drawing; one that appears to search for the very reality of life. Harmony and pain seem to be the opposite poles that govern his art. A society that does not seem to understand him, and an eternal search for a place that truly resonates with him; these are the existential obstacles for the artist that is Stefan Bertalan.

His curiosity about the living world, and its organic development is not limited only to the principle of growth, but also involves that of decomposition; the transition to non-existence. The stories of plants depicted in his drawings, and calligraphy are composed of lines that seek to decipher more than to specify form. These lines provide context, and a metaphor of a world created by people which is transferred into the botanical realm. His stories about plants reflect the imperfection of humanity, which the artist obsessively evokes in his work.

In Bucharest, Wanda Mihuleac opened her extensive exhibition at the Bucharest Art Collections Museum in 1980. The majority of the works ranged from drawings, objects, photography to installations; with the main theme being artistic intervention through the use of objects within nature. One of the works exhibited titled “The Moebius Band” (1980) is displayed as a large spiral strip coated with a layer of earth and moss.

The transition from sculpture-specific materials such as wood, stone and metal, to materials found in nature represents an important step in the artistic community; an openness to unconventional materials and to alternative art, both of which will no doubt, see a continued increase in exposure in the late twentieth century. The artist’s workspace is no longer represented solely by the traditional workshop, but by a natural space in which the art dwells. This natural context, thus, acquires the value of an exhibition space.

Eco Art can be minimalistic works or complex constructions. From the object, installation, and to the environment, all is perfectly integrated into the natural interconnected setting. If I were to choose, I would refer to the installations of Hideo Kumaki to exemplify this idea. His installations not only protect the exhibition space, but also effectively contribute to the protection of its surrounding environment.

For the Biennale of Art in Venice in 2015, Chiharu Shiota created the work titled, “The key in the hand”. The installation demonstrates the concern and anxiety revolving around the theme of life and death. The two boats represent the hands that collect all of the painful memories (represented by the keys) left behind by those who have passed away. The work points the audience to the Tohoku earthquake in 2011, in which many lost their lives.

Another work that militarizes for environmental protection is that of the artist Isana Yamada titled “Samsara”. The six whales positioned in a circle represent the cycle of life, and the actions of people and their consequences. The title of the work itself signifies reincarnation or rebirth. The artist warns about the imbalanced relationship between humans and nature. For materials, transparent resin was used to emphasise the interior of the whales which represent a small part of the universe.

Delia Popa is part of the younger generation to whom the experimenting, the sociological art, and the art projects viewed either as an educational process or as related to nature and urban space, all equate to the field of research and the visual representation.

“The secret life of plants” is an interactive project that Popa initiated; a catalog of text-images displaying the answers of her fifteen interviewees from nine countries. The individuals participated in her questionnaire concerneing their relationships with the botanical world. The images also show the locations where the interviewed people reside; places of physical and spiritual communion with the plants, the garden, and their fragments of the natural world which they take excellent care of.

Through this project we can observe how people have fond memories with plants, are friends with them, and have confidants in them. They love, protect, and have deep feelings for them. They are convinced that plants can react to and exchange energy as well knowledge with humans; that plants offer joy to people.

In the introduction of the catalog, Delia Popa informs, "Plants talk to us about mobility and adaptability."

In terms of Eco Art, the point of view of the sculptor, Darie Dup, who was also my professor during my Master’s program stands out as noteworthy. Concerned with ecology, the artist signs sculpures which highlight the danger caused by the destruction of forests.

“On the one hand, the “Axis Mundi” exposition is about a social issue, the destruction of ecological and forest heritage. And on the other hand, it’s about an issue

that involves morality, the individual conscience. There are things in our lives to which we are not only witnesses but also perpetrators" (Darie Dup)

In the same spirit, the artist Marilena Preda Sanc, who has created several works with the theme of eco-politics and geo-mental ecology, has stated:

"I believe that the human being and the quality of life will be enriched once the self / geo / political consciousness will be fully integrated into an ecological mind of a new identity of a Man reborn." (Marilena Preda Sanc)

The Abiko International Open-Air Art Festival takes place in the city of Abiko, 50 km from Tokyo. Now in its 15th edition, the project promotes a balanced artist-nature-society relationship. During the festival, the public is invited to watch various exhibitions, as well as the symposiums that take place.

In Japanese culture, the garden representes a place of contemplation and meditation. Inside zen gardens, the white sand is often utilized and represents water. The Japanese garden is a universe at a human scale, an Eco-Art environnement.

In 2012, Romanian artist, Emil Dobriban, was invited to Japan to hold a conference regarding Land Art. An associate professor at the University of Art and Design of Cluj, Emil Dobriban also organized the first Land Art camp in Transylvania in 2006.

Some of the well known Eco Art events that have taken place in Romania after 1990, are the Live Art Festival at Saint Ana Lake and the Land Art Symposium from Sangeorz Băi organized by Maxim Dumitraş.

The aggressive tendencies that society forces up on us, and the many compromises that we are bound to make, all exist as facets of human identity; the identity which we must assume. Ultimately, humans are the result of either pleasant experiences or less favorable ones that are shared with each other. Nature and the efforts to protect it; whether it be the recycling of garbage or the conversion of cultural and industrial spaces, oblige us as artists to get creatively involved.

There is a need for a new aesthetic for cities; one that involves central focus on intertwining urbanism with environment issues. We all desire a green city with ample artistic interventions in public space.

Bibliography

1. Adams, Clieve. *A Brief Introduction*, Green Museum, 2002
2. Arta – revistă de arte vizuale, *Arta în Spaţiul Public*, nr.1/2011 Editor Uniunea Artiştilor Plastici din România, Bucureşti, 2011
3. Berleant Arnold. *The Aesthetics of Environment*. Temple University Press, Philadelphya, 1992
4. Călin, Răzvan, Teodor, Cristian. *Politica de Mediu*. Tritonic, Bucureşti, 2007
5. Christoff, Peter. *Ecological Citizens and Democracy*, Routledge, Londra, 1996

6. Destination Art, Dr. Andy Dempsy, Thames and Hudson. *A powerful work of art can take you on a journey. It can take you to another dimension and provide insight into another world, time, place or way of thinking*
7. Jeffry Kastner, Brian Wallis, *Land and Environmental Art,* London: Phaidon Press, 1998
8. Erwin, Kessler, *Ştefan Bertalan-emigrarea interioară*, Editura Vellant, 2016
9. Pinitilie Ileana, *Ştefan Bertalan-fotografie experimentală din anii 1970-1980,* Timișoara, 2015
10. Preda-Sânc, Marilena. *Arta urbană contemporană*, Editura Unarte, 2008
11. Smithson, Robert. *Frederick Law Olmsted and the Dialectical Landscape. The writings of Robert Smithson,* New York University Press, 1979
12. Wines, James. *Green Arhitecture,*Taschen,2008
13. Unmonumental. *The object in the 21 st century*, Ed. Phaidon
14. Ute Klophaus. *Fluxus*, Ed. Ifa, Berlin, 1995

Sites

1. Miya Ando, "Obon", http://www.miyaando.com/#/public-art/
2. Mineo Mizuno, "Coexistence", http://samuelfreeman.com/exhibitions/mineo-mizuno-coexistence/
3. Hideo Kumaki, http://www.archdaily.com/421607/green-screen-house-hideo-kumaki-architect-office
4. Chiharu Shiota, "The key in the hand", http://www.chiharu-shiota.com/en/
5. Isana Yamada, "Samsara", http://isanayamadasamsara.strikingly.com/
6. Darie Dup, "Axis Mundi", http://www.modernism.ro/2014/07/08/darie-dup-axis-mundi-2-galeria-de-arta-contemporana-muzeul-national-brukenthal/
7. Marilena Preda Sanc, http://www.predasanc.ro/index.php/component/content/article/80-works/74-capitolul-4
8. Abiko International Open-Air Art Festival , http://www.leopellegatta.org/abiko-international-open-air-art-exhibition-2015/ ; http://abikoe.com/access.html

THE ANALYSIS OF THE LIQUIDITY INDEX AT THE LEVEL OF THE FIRST THREE ROMANIAN COMMERCIAL BANKS

Ioana Raluca Sbârcea[1]

Abstract

The issue of the liquidity risk is widely debated, both at international level and at the Romanian banking system level, especially with the onset of the financial crisis of 2007-2008, after which it was highlighted a lack of consistent monitoring of this risk. The purpose of the analysis that I performed in this article is to highlight how the Romanian commercial banks managed their liquidity risk until the implementation of the newest international banking regulations, respectively the Basel Agreement III, using the liquidity index. The approach is part of a broader research that I carry out, which aims to highlight how the Romanian commercial banks adapt to the international regulations. Starting from the financial situations of the first three banks in the Romanian system (BCR, Transilvania Bank, BRD), I decided to analyze the method of management of the liquidity risk of the liquidity index, both individually and in comparison, in order to highlight their exposure to liquidity risk.

Keywords: liquidity risk, liquidity index, maturity bands

JEL Classification: G21, F33, F65

1. Introduction

One of the risks with significant importance in the banking activity is the liquidity risk, the risk which was not very exactly regulated until the onset of the financial crisis of 2007-2008, but which, through its manifestation, was one of the causes that started the crisis. In this work I analyzed the methods used in measuring the liquidity risk using the liquidity index. The analysis is structured as follows: a presentation of the concept of liquidity risk, a presentation of the calculation method of the liquidity index, and finally the calculation of the liquidity index in evolution, based on official financial data, at the level of the first three banks in the system in terms of the value of their held assets, respectively BCR, Transilvania Bank and BRD. The analysis allowed me to emphasize both the exposure to the liquidity risk in evolution for each bank individually and also in comparison for the three banks.

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2. Measuring the liquidity risk using the liquidity index at the level of the first three commercial banks in Romania

The risk of lack of liquidity is manifested from the mismatch of the maturities between the asset and the liability. In practice, the phenomenon of extending the maturities to assets and reducing those to liabilities is manifested. If the loans and interests are not paid according to the plan, the bank is facing short-term liquidity needs that have to be financed. The effects are also similar when customers withdraw large sums from the bank deposits. [Dardac, Moinescu, (2007)]

Liquidity risk has several meanings:

- the possibility that a bank's earnings and capital to be affected, because of the inability to meet its obligations on time without facing unacceptable losses;
- the bank's inability to finance the asset portfolio on maturities corresponding to interest rates and the bank's inability to liquidate the position at the right time and at a reasonable price;
- mismatching the maturities between revenue and payment flows;
- the potential loss of income and / or capital as a result of failing to respect the obligations assumed and arise from insufficient reserves compared with the need for funds.

The indicators aimed at exposing the liquidity risk are: index of liquidity, liquidity ratio, the average transformation of maturities, the coverage ratio of the breaches and the coefficient of their own funds and permanent resources.

In order to illustrate the situation of the banks chosen in the study reported to the exposure to the credit risk, using the public data from financial reports, from these indicators I will analyze the liquidity index.

Liquidity Index is calculated as the ratio between weighted liabilities and weighted assets. [Dardac, Moinescu, (2007)] Weighting is done either using an average number of days, corresponding to each maturity band, or using the current number of the respective maturity.

$$I_L = \frac{\sum Pi * ai}{\sum Ai * bi} x100 \qquad [1]$$

where:

I_L – liquidity index
Pi – liabilities with maturity i
Ai – assets with maturity i
ai – the weighting coefficient of the liabilities with maturity i
bi – the weighting coefficient of the assets with maturity i

The liquidity index may take subunit or above unit values, the interpretation method of it being as follows:

- a liquidity indicator equal to 1 (a very rare situation actually) or that tends to 1 (the optimum situation) indicates a corresponding correlation of the bank assets and liabilities in terms of maturities and shows a liquidity risk almost nonexistent;

- a liquidity indicator below unit indicates a situation where the bank transforms the short-term liabilities into long-term assets, a situation which exposes the bank to liquidity risk, but that may generate an additional income, particularly when the long term interest rates are bigger than the short-term ones;
- a liquidity indicator greater than one reflects the situation in which the bank turns the long-term liabilities attracted into short-term assets, this is a situation that does not generate liquidity risk but produces the disadvantage of diminishing the interest margin, when the long-term rates are higher than the short-term ones, advantage only existing when the order relationship between the interest rates on deadlines is reversed.

In analyzing the liquidity risk exposure I will determine the liquidity index for 3 of the analyzed banks (BCR, BRD and Transilvania Bank). For BRD and Transilvania Bank, the public data from the financial statements, allow determining the liquidity index in the 3 years preceding the implementation of Basel III (2012.2013 and 2014), but for BCR, the situation of the assets and liabilities based on maturity ladders is presented only for the years 2012 and 2013 and for 2014, the bank communicates only the report for total liabilities reported to total assets, so that for 2014 is not possible to determine the liquidity index. Through this analysis I want to emphasize the correlation degree of the banking assets and liabilities in terms of maturities.

2.1. The analysis of the management method of the liquidity risk at BCR using the liquidity index

According to the information sent through the accounting policies – the risk management in the Financial Statements of 2012 and 2013, BCR examines the exposure method to the liquidity risk through:

- the analysis of the assets structure in terms of their liquidity;
- the analysis of debt volatility;
- the analysis of major currencies liquidity;
- correlating the structure and maturities of investments and resources;
- monitoring liquidity indicators according to maturity, based on future cash flows.

BCR elaborates, for the purposes of managing liquidity risk, a strategy for managing liquidity in normal conditions and a strategy for managing liquidity under stress, respectively in crisis conditions.

Regarding the index of liquidity, determined using the percentage of the current number of the maturity band (I chose this way of weighting, rather than the one using the average number of days from the maturity band, in order to ensure comparability, as some banks use 5 maturity bands and others 6), the situation in 2012 and 2013 is presented in tables 1 and 2.

Table no.1 – The liquidity index in case of BCR in 2012

Maturity	Personal debts and equities (billion lei) (P_i)	Assets (billion lei) (A_i)	Share (a_i, b_i)	Weighted liabilities (P_i*a_i)	Weighted assets (A_i*b_i)
< 3 days	10,07	12,23	1	10,07	12,23
< 3 months	22,12	5,15	2	44,24	10,3
3-12 months	10,49	8,59	3	31,47	25,77
1-5 years	13,53	17,24	4	54,12	68,96
> 5 years	7,17	27,33	5	35,85	136,65
Total				**175,75**	**253,91**

Table no.2 – The liquidity index in case of BCR in 2013

Maturity	Personal debts and equities (billion lei) (P_i)	Assets (billion lei) (A_i)	Share (a_i, b_i)	Weighted liabilities (P_i*a_i)	Weighted assets (A_i*b_i)
< 3 days	13,2	11,31	1	13,2	11,31
< 3 months	19,05	2,85	2	38,1	5,7
3-12 months	8,02	5,86	3	24,06	17,58
1-5 years	12,08	18,29	4	48,32	73,16
> 5 years	3,66	25,19	5	18,3	125,95
Total				141,98	233,7

Source: my own processing after BCR - Consolidated and individual financial statements, 31 December 2013, pg. 83,86,87.

$$I_{L2012} = \frac{175.75}{253.91} x100 = 69{,}21\% \qquad [2]$$

$$I_{L2013} = \frac{141.98}{233.7} x100 = 60{,}75\% \qquad [3]$$

Analyzing the liquidity clues in the 2 years and of course structuring the balance sheet items on maturity ladders, it is highlighted an exposure of BCR to the liquidity risk, the liquidity index being below one, the exposure recording an increase in 2013 compared to 2012. Exposure to liquidity risk is mainly generated due to the significant difference between the liability items with maturity over 5 years and the placed assets on this maturity. The largest share in the assets with a maturity of more than 5 years is held by loans, typically granted on long term (especially the investment loans) that are not supported by resources attracted on long term.

2.2 The analysis of the management method of the liquidity risk at BRD using the liquidity index

BRD considers the liquidity risk to be associated with the difficulties to obtain the necessary funds in order to meet its commitments, or with the inability to achieve a financial asset in a timely manner and a value close to the fair value. BRD constantly monitors the current liquidity gaps between the bank's assets and liabilities and makes predictions about the following situations that it may go through, ordinary situations or stress scenarios.

The assets and liabilities necessary for determining the liquidity index are presented in table no. 3, 4 and 5.

Table no. 3 – The liquidity index in the case of BRD in 2012

Maturity	Personal debts and equities (billion lei) (P_i)	Assets (billion lei) (A_i)	Share (a_i, b_i)	Weighted liabilities (P_i*a_i)	Weighted assets (A_i*b_i)
< 1 month	27,07	11,81	1	27,07	11,81
1-3 months	5,99	2,65	2	11,98	5,3
3-12 months	6,22	8,7	3	18,66	26,1
1-5 years	2,52	14,27	4	10,08	57,08
> 5 years	0,63	9,11	5	3,15	45,55
Total				**70,94**	**145,84**

Table no. 4 – The liquidity index in the case of BRD in 2013

Maturity	Personal debts and equities (billion lei) (P_i)	Assets (billion lei) (A_i)	Share (a_i, b_i)	Weighted liabilities (P_i*a_i)	Weighted assets (A_i*b_i)
< 1 month	26,14	12,54	1	26,14	12,54
1-3 months	5,71	2,08	2	11,42	4,16
3-12 months	6,48	8,99	3	19,44	26,97
1-5 years	3,42	10,58	4	13,68	42,32
> 5 years	0,15	11,62	5	0,75	58,1
Total				**71,43**	**144,09**

Table no. 5 – The liquidity index in the case of BRD in 2014

Maturity	Personal debts and equities (billion lei) (P_i)	Assets (billion lei) (A_i)	Share (a_i, b_i)	Weighted liabilities (P_i*a_i)	Weighted assets (A_i*b_i)
< 1 month	25,24	10,77	1	25,24	10,77
1-3 months	4,79	1,46	2	9,58	2,92
3-12 months	7,06	6,70	3	21,18	20,1
1-5 years	2,44	13,83	4	9,76	55,32
> 5 years	0,14	11,24	5	0,7	56,2
Total				**66,46**	**145,31**

Source: my own processing after BRD - Consolidated financial statements for the end of the year at 31 December 2013, page 74, 76, 77 and consolidated financial statements for the end of the year at 31 December 2014, page 77.

$$I_{L2012} = \frac{70.94}{145.84} x100 = 48{,}64\% \qquad [4]$$

$$I_{L2013} = \frac{71.43}{144.09} x100 = 49{,}57\% \qquad [5]$$

$$I_{L2014} = \frac{66.46}{145.31} x100 = 45{,}73\% \qquad [6]$$

In the case of BRD the exposure to liquidity risk is higher, given mainly the existence of the resources attracted on longer term, at a lower level than in the case of the leader of the Romanian banking market. The situation of the liquidity index records a slight degradation in 2014, compared to the years 2013 and 2012. Analyzing the situation of the maturity ladders assets it can be seen an increase of those with average maturity (1-5 years), equally unsupported by increasing the funds raised in this term.

2.3. The analysis of the management method of the liquidity risk at Transilvania Bank using the liquidity index

According to the accounting notes from the individual financial statements of Transilvania Bank, liquidity risk is defined as being generated by the bank's inability to meet its outstanding liabilities at their maturity. Bank officials say that there is access to diversified funding sources; funds are raised using a range of instruments such as deposits of clients or of partner banks, loans from development institutions and financial institutions, and also social capital. The bank attempts to maintain a balance between the continuity and flexibility of obtaining funds through contracting debts with various maturities and in different currencies and also continuously controls the liquidity risk by identifying and monitoring the changes in funding and by diversifying the funding base. The Bank has in its organization a committee for the administration of assets and liabilities which is responsible for the regular analysis of the liquidity indicators and for establishing corrective measures to the balance sheet items, in order to ensure a prudent management of liquidity.

The situation of the assets and liabilities of Transilvania Bank, based on maturity ladders, necessary to determine the liquidity index is presented in Tables 6, 7 and 8.

Table no. 6 – The liquidity index in the case of Transilvania Bank in 2012

Maturity	Personal debts and equities (billion lei) (P_i)	Assets (billion lei) (A_i)	Share (a_i, b_i)	Weighted liabilities (P_i*a_i)	Weighted assets (A_i*b_i)
< 3 months	17,73	16,85	1	17,73	16,85
3-6 months	3,55	2,76	2	7,1	5,52
6-12 months	1,98	5,91	3	5,94	17,73
1-3 years	1,82	3,84	4	7,28	15,36
3-5 years	1,51	2,29	5	7,55	11,45
> 5 years	0,14	5,62	6	0,84	33,72
Total				**46,44**	**100,63**

Table no. 7 – The liquidity index in the case of Transilvania Bank in 2013

Maturity	Personal debts and equities (billion lei) (P_i)	Assets (billion lei) (A_i)	Share (a_i, b_i)	Weighted liabilities (P_i*a_i)	Weighted assets (A_i*b_i)
< 3 months	19,95	18,29	1	19,95	18,29
3-6 months	3,77	2,58	2	7,54	5,16
6-12 months	1,91	6,41	3	5,73	19,23
1-3 years	1,12	4,52	4	4,48	18,08
3-5 years	1,76	2,84	5	8,8	14,2
> 5 years	0,4	6,29	6	2,4	37,74
Total				**48,9**	**112,7**

Table no. 8 – The liquidity index in the case of Transilvania Bank in 2014

Maturity	Personal debts and equities (billion lei) (P_i)	Assets (billion lei) (A_i)	Share (a_i, b_i)	Weighted liabilities (P_i*a_i)	Weighted assets (A_i*b_i)
< 3 months	21,04	20,09	1	21,04	20,09
3-6 months	4,2	2,46	2	8,4	4,92
6-12 months	2,72	4,12	3	8,16	12,36
1-3 years	1,4	5,86	4	5,6	23,44
3-5 years	1,89	3,95	5	9,45	19,75
> 5 years	0,57	7,4	6	3,42	44,4
Total				**56,07**	**124,96**

Source: my own processing after Transilvania Bank – Individual financial statements at 31 December 2013, page 74, 75, 76 and Individual financial statements at 31 December 2014, page 34

$$I_{L2012} = \frac{46.44}{100.63} x100 = 46,14\% \qquad [7]$$

$$I_{L2013} = \frac{48.9}{112.7} x100 = 43{,}38\% \qquad [8]$$

$$I_{L2014} = \frac{56.07}{124.96} x100 = 44{,}87\% \qquad [9]$$

Analyzing the situation of the liquidity index for the Transilvania Commercial Bank, we still notice a below unit level, which reflects a long-term financing of the assets from liabilities attracted over short terms, respectively a certain exposure to liquidity risk. The situation is caused by the type of banking activity carried out, respectively attracting short-term resources and placing them in long-term assets or investment loans, real estate loans / mortgage loans. The situation of distribution of assets and liabilities on maturity ladders has worsened slightly in 2013 compared to 2012, aspect which can also be explained by the increase in the exposure for longer terms than 5 years, but also the exposure on medium term, between 1-3 years. The situation of the index improves in 2014, but still remains below the level recorded in 2012.

Comparatively analyzing the situation of the 3 banks analyzed from the perspective of exposure to liquidity risk, we notice a relatively similar situation with liquidity indices below unit, which reflect a long-term asset financing from liabilities attracted on short-term. So I appreciate that there is a medium degree of liquidity risk. This aspect can be explained both through the typology of the three banks, namely universal banks, focused both on attracting deposits and also on granting loans. Another explanation of this practice is represented by the momentum that the long-term investment loans (mortgage / real estate loans) have had on the base of the economic development and accession to the European Union before the end of 2008. In addition to these aspects, it is worth mentioning the method of saving in Romania, which is generally a short-term saving, which affects the liquidity index. Thus, approximately 50% of the total deposits attracted by the commercial banks in Romania come from residents and are short term (NBR, RSF - 2013 pg. 38), while about half of the loans granted are long-term (NBR, RSF 2014, pg 42). These issues generate challenges for each bank in terms of liquidity risk management and the careful management of assets and liabilities elements.

But when discussing about the liquidity risk, an analysis of the liquidity index is not enough. BNR asks the banks, according to Regulation 25/2011, to report a liquidity indicator, calculated as a ratio between the effective liquidity and the necessary liquidity. In determining the effective liquidity and the necessary liquidity different coefficients of adjustment are applied, that relate both to the ability of assets to be converted into liquidities, but also to the risk of early repayment of liability elements. Reporting this indicator will only be made at the level of the banking system by the BNR, or only at the level of some banks, which is why I only limited myself to evolutionary analyzing the liquidity index.

3. Conclusions

The liquidity risk is one of the risks to which any bank is subjected, being one of the most difficult risks to commensurate, on the one hand due to the operation protocol of banks in general (attracting short-term deposits and granting long-term loans) but also because of the unpredictable possibility of withdrawal of deposits by the depositors.

In this article I performed an analysis of one of the management indicators of the credit risk, namely the liquidity index. Considering the situation of the liquidity index, at the level of the 3 banks, in comparison, I can state that BCR presents the highest liquidity index, which we can amply state that tends towards 1 (although there is a great difference up to this level, it is still the only bank which has the level over 0.5). This can be justified because BCR is the largest Romanian bank in terms of assets and market share, having confidence from the public consumer of banking products, a trust that enables it to attract resources more easily with longer deadlines. But I consider that all 3 banks must carry out a permanent monitoring of the assets and liabilities on maturity bands and especially to carry out stress scenarios, which may reflect vulnerabilities in the case of the onset of other financial crises. The financial crisis of 2007-2008 revealed that liquidity risk should be as well regulated and monitored as the credit risk, both nationally and internationally, an aspect which I will detail in future research.

References:

1. Dardac, Nicolae, Moinescu, Bogdan – *Monetary politics and banking techniques*, Lecture notes, Bucharest, 2007, pg. 145
2. BCR - *Consolidated and individual financial statements*, 31 December 2013, pg. 83,86,87.
3. BRD - *Consolidated financial statements* for the end of the year at 31 December 2013, page 74, 76, 77 and *Consolidated financial statements* for the end of the year at 31 December 2014, page 77.
4. NBR – *Financial Stability Report*, 2013, pg 38
5. NBR – *Financial Stability Report*, 2014, pg 42
6. NBR - *Regulation no. 25 from November 8th 2011*, Official Gazette, Part I 820 November 21 2011, entry into force at January 1, 2012 regarding liquidity in the credit institutions.
7. Transilvania Bank – *Individual financial statements* at 31 December 2013, page 74, 75, 76 and *Individual financial statements* at 31 December 2014, page 34

FINANCIAL ADVANTAGES OF SOFTWARE PERSONALIZATION

Larisa Gavrilă,
Sorin Ionescu*

Abstract

Software personalization is considered to be a must have for B2B (Business to business) clients and suppliers. Clients need personalized applications in order to gain competitive advantage on the market but also this is needed due to existent complex IT infrastructure where the applications need to be integrated and implemented. Suppliers on the other hand in order to keep their market share they need to offer software personalization solutions. In order to determine the advantages of software personalization a framework is proposed in this article then the article looks into analysing three software companies listed on NASDAQ stock exchange. The analysis is focused on identifying the financial advantages a software company has by being involved in software personalization activities.

Keywords: software personalization, customization, monetary value of customization, software customization importance, software personalization advantages.

JEL Classification: M15.

1. Introduction

Customizing software applications has become a necessity, especially for the business to business (B2B) segment. Unlike a domestic user, business clients are facing an increased complexity of the IT infrastructure in which new applications must be implemented and integrated, so that software customization under the most simplistic form could be translated into its adaption in the existent IT infrastructure.

Providers in order to maintain their market share must be aligned to the new requirements and provide customization services for software applications. As accounting standards do not include specific accounts for software personalization activities, these activities are incorporated in different segments.

The article proposes a framework model describing the relationship between suppliers and clients and their connections within the software personalization context. The model is built to determine the advantages of software personalization.

In the following, it will analyze three companies active in the segment of "Computer software", precisely in order to emphasize the forms under which software application is customization. Going forth the authors will analyze the amount of revenue

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from customization of software applications, their evolution over time and their share in total revenue achieved in 2015.

Moving forward three companies active in the segment of "Computer software" will be analyzed, precisely in order to emphasize the forms under which software customization can be identified. Going forth the authors will analyze the amount of revenue generated by software customization activities, their evolution over time and their share in the total revenue achieved in 2015.

2. The client- supplier relationship within software personalization segment

The Customer-Supplier relationship in the context of software personalization is transposed in Figure 1- Customer-Supplier relationship in the context of software personalization, the figure is represented below and it is a proposal for a framework that describes the connections between customers and suppliers.

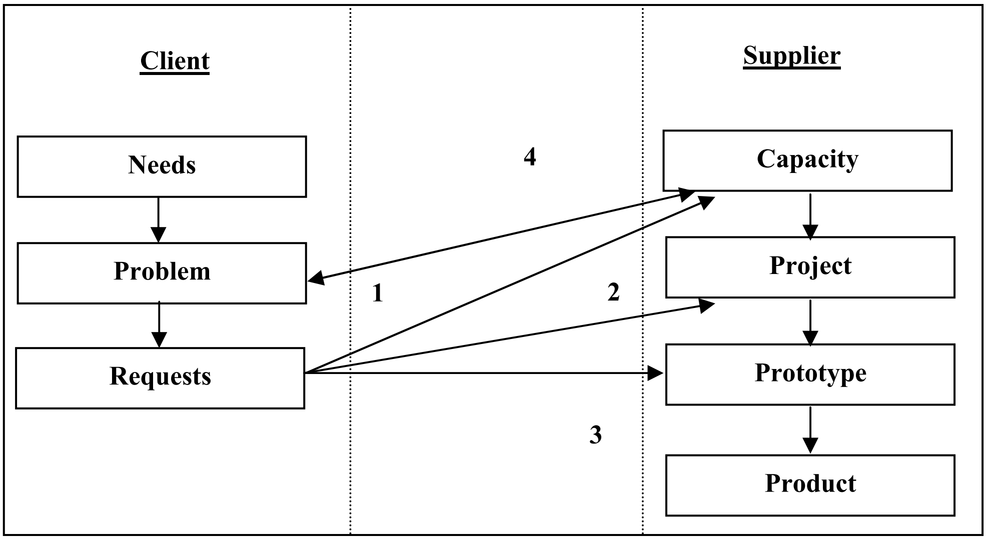

Figure 1: Customer-Supplier relationship in the context of software personalization

Customer needs are transposed into problems that require one or multiple solutions (4), these solutions can be identified via a provider's capacity (through skills and capabilities).

After defining the problem and identifying solution, we can go further in defining the requirements themselves. These requirements can be transposed into a new product (1), in a co-design initiative (2) or into the adaptation of an existing product or prototype (3).

The nature of the connections is given by the value added resulted from software personalization activities and the timeframes and costs associated with these types of activities. The success of cohesion denotes positive customer experience in relation to the contracted supplier.

3. Software personalization forms and shapes

The Ultimate Software Group Inc – is a cloud solutions provider in the human capital (HR) segment. In the annual report of 2015 the company The Ultimate Software Group Inc. describes their software personalization capabilities as it fallows:

- Rich and Highly Configurable Functionality. UltiPro has rich functionality built into the solution and provides extensive capabilities for configurability. As a result, the customers can avoid extensive customizations and yet are able to achieve a highly tailored solution to meet their specific business needs. Since UltiPro's feature-sets are unified, their customers are able to streamline their management of the total employment cycle and can generate strategic HR and talent management reports from UltiPro as their primary, central system of record for their employee data. [1]
- Flexible, Rapid System Setup and Configuration. UltiPro has been designed to minimize the time and effort required to set up and configure the system to address individual company needs. Largely because the UltiPro solutions deliver extensive functionality that can be configured to align with the customers' various business models with few customizations, the setup of new customers is faster and simpler than implementations typical of legacy, on premise software.
- Rich End-User Experience, Ease of Use and Navigation. The products are designed to be user-friendly and to simplify the complexities of managing employees and complying with government regulations in the HR, payroll, and talent management areas.[1]

All software personalization related activities (customization, configuration, implementation and integration) are mentioned under the umbrella of professional services:

Ultimate's professional services include system setup and activation (i.e., implementation), executive relationship management (“ERM”), and knowledge management (or training) services; the setup and activation consulting services are differentiated from those of other vendors by speed, predictability and completeness. [1]

Within the profit and loss account the software personalization costs and revenues are reflected in the services account.

MicroStrategyInc- the leader in the segment of enterprise software platforms, this company stands as having the capability to produce applications that can be customized and integrated into existing business intelligence structure:

- Customizable applications and integrated into business intelligence systems: the company offers software applications that a client can customize to a large scale; this allows organizations to incorporate their own brand in the mobile and web applications, as well as to integrate these applications into other corporate systems [2].

The fact that this company offers its clients the possibility to incorporate their own brand, the option of integration with other systems and single sign-on has led to an increase in deployment options and enables IT groups to implement the programs throughout the companies in a customized manner while the clients can continue to leverage their investments in other technologies [2].

When it comes to accounting reporting, the revenues and costs generated by software personalization activities are included in "other services" account.

Tyler Technologies Inc- is a solutions and services leading provided for information management systems in the public sector. Within the annual report the company Tyler Technologies concentrates its software customization activities in software services category:

- Software services – the company provides a variety of professional IT services to clients who utilize their software products; all of their client's contracts include installation, training and data conversion services in connection with their purchase of Tyler's software solutions [3]. The complete implementation process for a typical system includes planning, design, data conversion, set-up and testing; at the culmination of the implementation process, an installation team travels to the client's facility to ensure the smooth transfer of data to the new system; installation fees are charged separately to clients on either a fixed-fee or hourly charge basis, depending on the contract [3].

The company reports the revenues that are being generated by software personalization activities in the category entitled software services.

Going through this analysis of the tree company, we could notice that within software personalization activities are mentioned the types of activities described in Figure number 2- Software personalization activities:

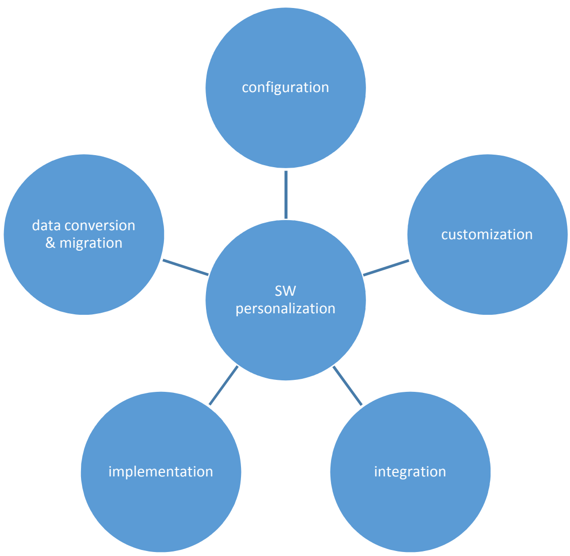

Figure 2: Software personalization activities

4. Software personalization revenues' evolution and their share within the total revenues

To determine the income evolution from software personalization activities, it has been taken into account the revenues declared in the annual reports.

Ultimate software and MicroStrategy have mentioned their income from the period 2015-2013. Tyler Technologies company mentioned only revenues from the years 2014-2015. MicroStrategy company revenues were adjusted with losses from Exchange rate differences as it fallows: for the year 2015 it has been added to the sum of $ 7 357, for 2014 it has been added the sum of $ 1 078 and for 2013 it has been added to the amount of $ 859.

All amounts are expressed in the same currency (US dollars). All types of income reported as revenue from software customization activities contain income from training activities in order to use custom applications.

The total revenues and the revenues generated by software personalization activities from the three companies fall under the same value range which allows us to compare the three companies, this value range can be noticed in figure number 3 – Graphic representation of revenue segmentation.

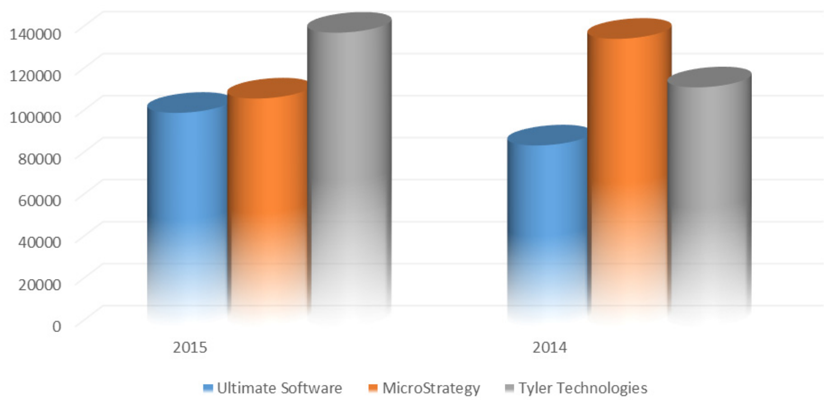

Figure 3: Graphic representation of revenue segmentation

From the analysis of the evolution of income in accordance with Figure No. 4-The evolution of income generated by software personalization activities – it can be noticed that 2 out of the 3 companies have achieved further growth in this area:

- Ultimate Software Inc. has seen a 15% increase
- MicroStrategy Inc. recorded a decrease of 26%
- Tyler Technologies Inc. recorded an increase of 19%
-

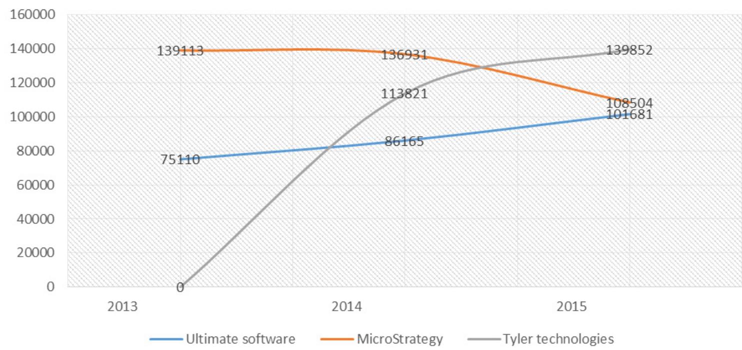

Figure 4: The evolution of income generated by software personalization activities

We could draw a first conclusion that software personalization constitutes a growing segment. To study the importance of this kind of income we need to turn our attention towards the shares taken up by these kind of revenues in the total income. A consolidated view is offered by table number – The shares of software personalization revenues in total income.

Company	2015 (% total income)	2014 (% total income)	2013(% total income)
Ultimate software	16.5%	17.0%	18.3%
MicroStrategy	19.1%	23.4%	24.0%
Tyler Technologies	23.7%	23.1%	/

Table 1- The shares of software personalization revenues in total income

We can see a decline in software personalization revenue shares over the years as follows:

- Ultimate Sofwatre Inc. recorded a share of 18.3% in 2013 dropping towards 17% in 2014 and 16.5% in 2015 but we can notice a 15% increase of the nominal value between 2014-2015.
- MicroStrategy Inc. recorded a share of 24% in 2013 going down in 2014 to 23.4% and in 2015 to 19.1% , the massive loss of recorded in the period 2014-2015 can be put and on account of the decrease in income's nominal value with a considerable percentage (26%)
- Tyler Technologies recorded a share of 23.1% in 2014 and then this grew up to 23.7% in 2015, in conjunction with an increase in the nominal value of 19%.

In accordance with Figure 5- Maximum and minimum values of software personalization revenue shares in total income - we can notice that the share of such income in total income belongs to the range 16% to 24%, which foresees increased attention and maximizing revenues from this area in the future.

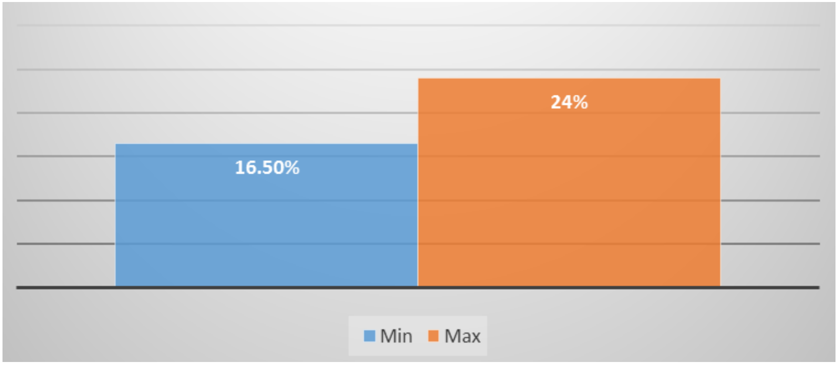

Figure 4: Maximum and minimum values of software personalization revenue shares in total income

5. Conclusions and future directions

The article proposes a model that describes the client-vendor relationship put in the context of software personalization. From the analysis of three IT companies that were listed on NASDAQ stock exchange, a series of ideas about the importance and benefits of software personalization activities were sketched

With regards to future directions of study, the analyzed database should be more broadly extended in order to obtain a significant statistic sample and to build and test a range of hypothesis driven from the ideas expressed above. A parallel analysis focused on costs is another future direction as this would underline how much it costs to run software personalization activities and the significance of cost savings

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When it comes to the proposed framework, the connections between suppliers and clients will need be heavily analyzed as they have a major impact over the customer experience with a vendor and its products and solutions.

References

1. Ultimate Software Group Inc, RaportAnual 2015, https://www.sec.gov/Archives/edgar/data/1016125/000101612516000168/ulti-20151231x10k.htm
2. MicroStrategyInc, RaportAnual 2015, http://files.shareholder.com/downloads/MSTR/2103749483x0x887383/BB63505E-1B63-486A-AE5D-DBB3B45E1595/MSTR_2015_Annual_Report_-_Final.pdf
3. Tyler Technologies Inc, RaportAnual 2015, https://www.sec.gov/Archives/edgar/data/860731/000156459016013137/tyl-10k_20151231.htm [1] Author1, Author2,Title, Book, Publisher, City, Country, Year of publishing;

QUANTITATIVE EASING LIMITS. EVIDENCE FROM JAPAN

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Abstract

In the post-crisis reality, the Quantitative Easing (QE) has started to be used as a tool for boosting credit activity and to revival the economic growth. While QE initiatives have been enforced by some advanced economies (U.S., Japan, EU) our paper aims to assess their success, basing its assumptions mainly on the Japanese experience. Our analysis will briefly review several important theoretical contributions to this particular topic presented in the recent scientific literature and will further evaluate, through a SWOT analysis, the strengths and the weaknesses of this unconventional monetary policy. In the final part of our research we will assess the possible success of the European Central Bank's (ECB) QE initiative through a comparative analysis which takes into account the "lessons learned" from the Japanese experience. .

Key-words: quantitative easing, inflation, credit activity, Japan economy

JEL Classification: E, E5, E58, E59

1. Introduction

While in the post-crisis era the economic growth remained sluggish in most of the advanced states and even in the emergent countries, the monetary policy started to be used in order to boost economic growth. Since the classical monetary policies failed to deliver the expected results[1], many Central Banks (CBs) resorted to a series of experiments with unconventional monetary tools to stimulate the economy, among them being the quantitative easing.

According to the consensus of the international economic and financial experts (Smaghi, 2009), "conventional" measures of monetary policy refer to the assembly of actions used in "normal" times[2] by a central bank by setting a target for the overnight

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[1] It should be noted that during the peak of the international economic crisis, some Central Banks (for instance Bank of England and Fed) lowered their interest-rates to almost zero, but this failed to boost economic recovery.

[2] Such as those registered during the pre-crisis periods.

interest rate[3] in the interbank market, adjusting the money supply to it and reducing the short term interest rate. Such monetary operations are destined to encourage consumption and investment. By contrast, as during periods of financial stress traditional monetary policies demonstrated their inefficiency to reach the central banks' goal, hence they turned to unconventional policies (such as QE). Some authors (Gangon, 2016) underline that while QE may boost monetary bases to alleviate financial pressures or to provide an additional stimulus to growth, it may also increase private sector spending and generate the return to inflation target.

Consequently, since specialists consider QE as an effective instrument during time of financial tensions, many developed economies started to use it during and after the financial crisis albeit the national QE programs differed across CBs and relied upon the specific structures of the economies and on the individual reasons for the QE operations. However, there are some common worldwide motivations for QE actions employed in the aftermath of an economic crisis which are not related to the specificity of national economies as long as through its three specific channels this process aims to directly reduce: *i) exposure to market panic propagation ii) expectations of the future short-term policy interest rate iii) the supply of long-term bonds in the market.*

In other words, by purchasing substantial amounts of long-term bonds, central banks tried to reduce long-term borrowing costs, thus simultaneously addressing two outspread specific targets which were actually interconnected: restoring the proper functioning and intermediation of financial markets, and providing further monetary policy accommodation at *zero lower bound (ZLB)*[4] in times of sluggish economic activity and financial tensions. Both of the two mentioned targets were purposed to sustain macroeconomic stability and to lower the risks associated with the peak of the crisis, such as the collapse of the financial system, deflation etc. (IMF, 2013).

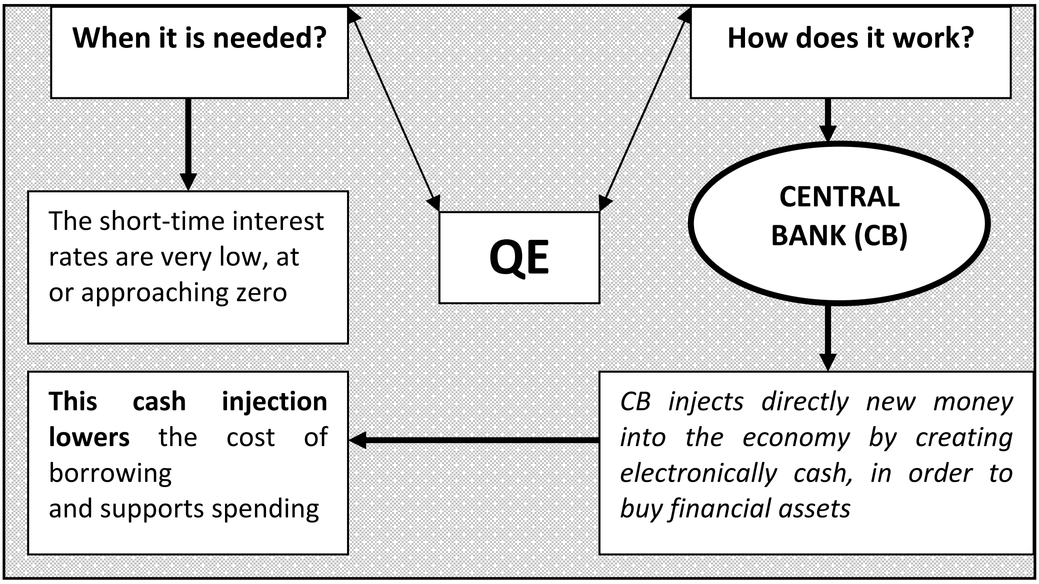
Having their interest rates at zero lower bound after the crisis and since all other measures failed to generate economic growth, various CBs in the developed countries started to purchase government securities from the banking sector in order to increase cash reserves that the banks held into the system. The purpose was that by raising the reserves, eventually this would spill over into lending the resulted cash flow in the national economy, supporting drive asset prices up and removing deflationary forces (Joyce et al., 2012).

Some authors (Schuman, 2010) define QE as an influx of money into the economy conducted by CBs that create money via electronic cash, by buying government securities (e.g. government bonds) or other banks securities from the financial markets. What differentiates QE from standard monetary policy is that the liquidity is infused in the economy not by lowering the interest rate or by printing money, but by creating electronic money that did not exist before. The new created liquidity is added to the bank reserves

[3] Also called the key interest rate, the overnight rate represents the interest rate at which large banks borrow money, short term, among themselves or the interest rate the central bank charges a financial institution that borrows money overnight.

[4] The zero lower bond (ZLB) arises in an economy when the short-term interest rate is at or approaching zero, generating a liquidity trap and lowering the central banks' capacity to stimulate growth. Thence, because financial markets are generally designed to operate under positive interest rates, the ZLB has recently proved to be an obstacle for the monetary policy.

through the quantity of purchased assets, hence through the "quantitative"[5] easing (See Figure 1).



Source: Authors' synthesis, based on the studied literature

Figure 1: How the Quantitative Easing works

Some analyses point out that unlike the process of money printing that generates banknote denominations, QE uses "invented up money" and therefore it does not lead to hyperinflation. However, QE is not always considered to be a favourable measure for the economy, as we are about to highlight in the following section of our paper.

2. Quantitative Easing as Tool for Stimulating Economic Growth: PROS and CONS

One of the positive effects of QE is related to that the new created money may raise stock prices while lowering interest rates, a process that could boost investment. The QE's most concrete results are the increased interest rates on government bonds and even on corporate debt.

Related to the QE effects, some authors (Schuman, 2010) showed that such unconventional monetary policy may "convince markets that the Central Bank is serious about fighting deflation and high unemployment, also boosting economic activity by raising confidence". In the economic debate, other authors have argued that while QE may boost economic growth on short term, there is also a "dark side" of this unconventional policy (See Figure 2).

[5] The term is used to underline the fact that quantitative easing involves the creation of central bank money on a large scale.

For instance, Snyder (2010) points out the weaknesses of QE by analysing the U.S. experience. Snyder argues that while QE could stabilize the economy in the short-term, it may not "crank the debt spiral".

According to Snyder, QE is not able to lead to an economic recovery relied on a solid financial principle, but rather on a growth based on "debt principle" that will increase inflation and cause speculative asset bubbles. Therefore, according to his opinion, it is not going to fix what is wrong with the economy, as the U.S. case has shown[6].

Analysing the U.S. experience, Snyder observed that while money is a store a wealth, if it is artificially created (e.g. the QE case) and not through a productive activity, then such wealth is devaluated: "eventually, there will be a day of reckoning because we are spending way beyond our means and at some point we'll have to pay the price". Some analyses (The Economist, 2015) have underlined that European Central Bank (ECB) initiative regarding the QE (in 2015, ECB has released a QE package of EUR 1.1 trillion) may not produce the targeted effects (offering a boost to credit activity by injecting liquidity into the European banking system).

Even if in the context of the Greek crisis, the European bank needed an impulse to restart the borrowing activity, the mentioned analysis shows that "QE will start a fall in prices that would inflate the real value of borrowers' debts, nudging some of them into default". In other words, the QE's critics argue that such a type of monetary policy is rather good for banks then for the ordinary citizens.

However, not even banks may be considered the undisputable winners of QE enforcement, given the fact that if consumers defer spending in the hope that the items they want to buy will soon be cheaper, all business, including banks, will be harmed. Moreover, QE may also damage bank's marginal profit.

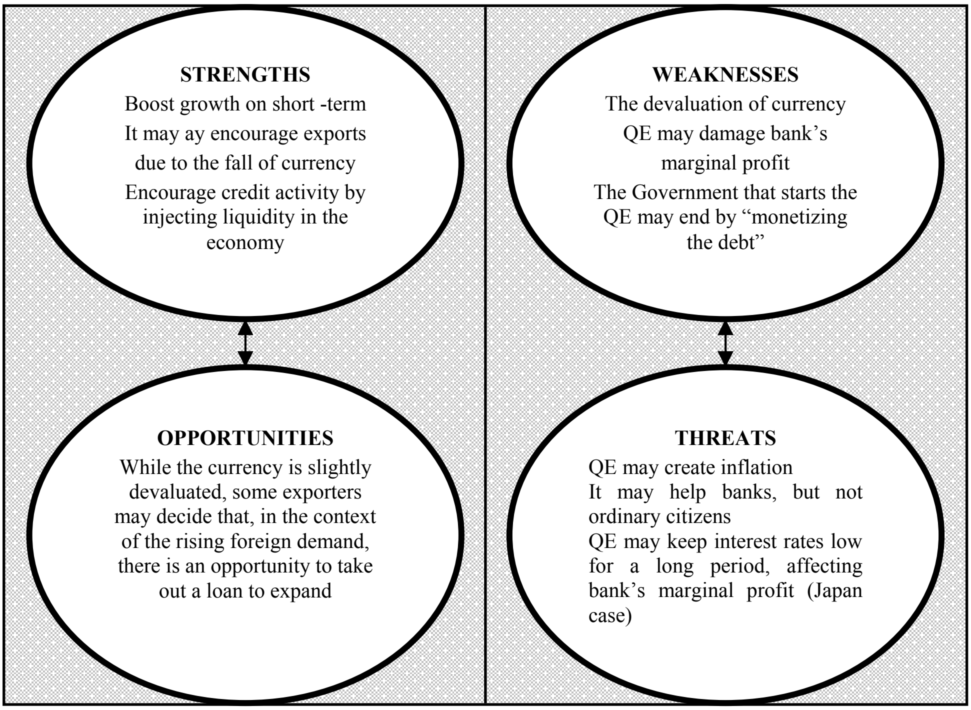
It is commonly agreed that a lender's profitability is driven by the gap between what it charges borrowers and the interest paid to the depositors. If, due to QE the interest rates are almost zero, few depositors are getting any interest at all on their savings, hence becoming more difficult for banks to offer them attractive rates.

At the same time, borrowers will expect cheaper loans and as a consequence the whole system may experience a blockage. Both U.S. and Japan have used QE repeatedly. Those countries experiences show that interest rates may stay "lower for longer" and hence dramatically reducing the difference in rates for loans of different maturities together with banks' opportunity to profit (in Japan and U.S. long spells of QE have left interest margins at their lowest levels in decades).

In the Japan's case, some authors (Andolfatto& Li, 2014) have pointed out that QE has led to unusually large purchases of assets by Central Bank of Japan (BoJ) and that the majority of these assets were Japanese government bonds.

Andolfatto&Li consider that if a QE programme is not reversed at some future date, then the Japanese government is effectively printing money (instead of raising taxes or cutting government expenditures) to pay its debt.

[6] Up until presently, all the QE rounds from U.S. have failed to boost the credit activity for both businesses and individuals, while monthly U.S. home sales have continued to register low levels.



Source: Authors' synthesis, based on the studied literature.

Figure 2: SWOT analysis of QE effects

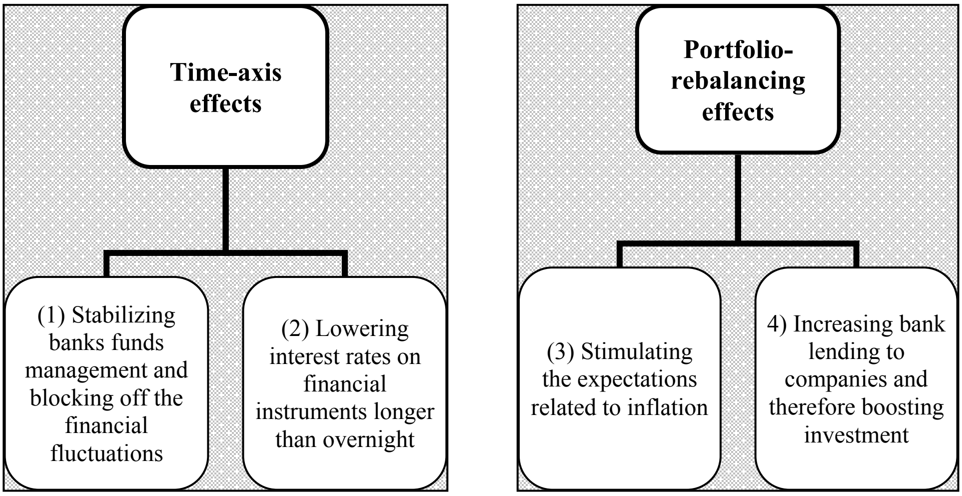
3. Quantitative Easing in Japan – Historical Evidence and Lessons Learned

In the effort to retrieve its long-term stagnant economy[7] on the basis of the long period of a solid economic growth that lasted for almost three decades (until 1990), in 2001, Japan embarked on an original experiment of uncustomary monetary policy by pioneering quantitative easing instruments and strategies to stop internal deflation through a national programme that lasted until 2006 (QE1).

Under this new policy BoJ started to purchase Japanese Government Bonds (JGB), using this action as a tool to achieve their operating target of current account balances held by commercial banks and other financial institutions at the BoJ in excess of their required reserve levels. Thus, in return of BoJ purchasing their bills and government bonds there was a significant growth in the amount of funds that the mentioned institutions kept in their currents accounts at BoJ (Japan Echo, 2006), operations that had a strong effect on diminishing the already low overnight rate to almost zero. The mentioned monetary measures had as main targets to increase the liquidity of commercial banks and to promote private lending.

[7] Japan suffered from severe recession for a whole decade (1991-2000), a period commonly known as the "lost decade".

Regarding the estimated effects of QE the policy innovation, the BoJ classified them into four types (pillars), according to the operational measures undertaken and with the transmission channel through which each specific effect was realized (Ugai, 2006) – as summarized in Figure 3.



Source: Authors' synthesis, based on the studied literature.

Figure 3: Estimated effects of the Japanese quantitative easing policy (QE1)

As we already mentioned, the fundamental purpose of QE1 measures undertaken by Japan in early 2001 was to expand the extent of BoJ' balance sheets by increasing the outstanding accounts balances of the Japanese commercial banks and other financial institutions but also to reshape its structure by increasing the acquisition of long-term government bonds. Accordingly, during the five consecutive years when central bank applied this giant programme of unconventional monetary policy, the BoJ increased its current account target as following (see Table 1).

Table 1: Movements in the BoJ current accounts balances during 2001-2004

Date	**Changes in current account target of the BoJ** (JPY billion)
March 2001, when the programme was launched	From JPY 4,000 to JPY 5,000
August 2001	JPY 6,000
December 2001	At around JPY 10,000-15,000
October 2002	At around JPY 15,000-20,000
March 2003	At around JPY 17,000-22,000
April 2003	At around JPY 22,000-27,000
May 2003	At around JPY 27,000-30,000
October 2003	At around JPY 27,000-32,000
January 2004	At around JPY 30,000-35,000

Source: BoJ Database (2006).

As we can notice from the data presented in the Table 1, between March 2001 and December 2004, the BoJ lifted its current account target by almost nine times, until it reached the upper limit of JPY 35,000 billion.

Bearing these considerations in mind, we could notice that the primary and obviously goal of the above-mentioned policy was that of increasing the monetary base, fact that generated a high purchase of short-term assets, which could be run off once a durable recovery was in place. But, as some specialist concluded (Dudley, 2013), there was also a negative aspect of this method, namely it did not manage to generate the intended major alteration into the commercial banks' balance sheet because the policy emerged rather in a form of interchanging a short-term risk free asset for another, having thus only a minor direct effects on the financial conditions.

As the empirical analyses conclude, the time axis effect was produced and the commitment associated to the lower than expected declines in longer-term interest rates (short to medium term) were reached. But the opinions of the specialists are mixed when it comes to the results related to the expectation of inflation or portfolio rebalancing, considering them (if any) limited correlated with the results and dimensions of the engagement (Ugai, 2006).

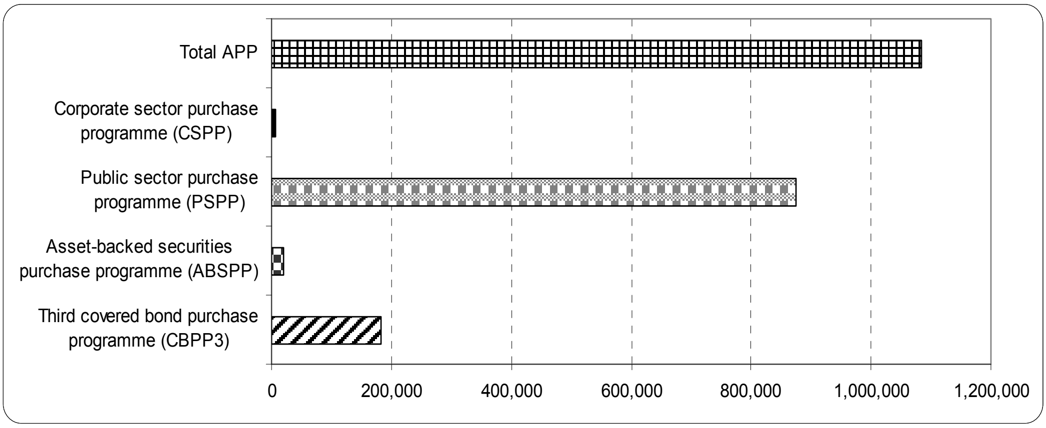
Summarizing the conclusions of the specialists that have analysed the spread and the effects of the first episode of QE ever launched by a central bank, it might be considered as a failure (Gros at al., 2015). But the lack of success of such a policy is difficult to quantify because the effects were never precisely evaluated. Nevertheless, as BoJ itself stated, this monetary policy was not as efficient as prior expected, both because of its size and of the fact that QE failed in its fundamental goal to stimulate the demand enough to eradicate the perpetual deflation.

Subsequently dismissing this unconventional monetary policy for several years as being ineffective, Japan adopted a different phase of QE (2) in 2008, in order to increase the monetary base and thus to reach the 2% inflation rate goal. Therefore, BoJ started a new huge intervention in the market by purchasing different asset classes, measures undertaken to boost the monetary base by almost 20% of national GDP by the end of 2012. Later on, in 2013 when Shinzo Abe was back in power for his second stint as prime minister, BoJ initiated the most challenging QE programme in the modern history (Gros et al., 2015) – as the second arrow of "Abenomics" – intended to almost double the monetary base in only two years. Accordingly, BoJ expanded the amount injected into the system each ear to JPY 80,000 billion a year up from JPY 60-70,000 billion a year previously, mainly through the purchase of government bonds. The initial deadline of the programme was 2015 but because of the recent downward effect of oil price on inflation[8], it was postponed to mid-2016. Besides, as BoJ stated, the programme would last "as long as it is necessary" in order to maintain the 2% inflation target in a "stable manner". But as inflation trend was only slowly moving up and the stimulus on the real economy were moderate so far, the question that arises is for how long BoJ can afford to continue with such an ample and unprecedented programme.

[8] The inflation dropped to around zero just before the original deadline of BOJ to reach the 2% inflation target.

4. Is QE a Solution for the Post-Crisis Economic Challenges in the European Union?

As we have shown in the previous subsections of our paper, there are pros and cons in the economic debate regarding the QE effects on the economic growth. In the post-crisis period, the European economy was faced with a slowdown both of the credit and of the economic activity. Confronted with that reality, ECB has put in practice a programme of QE, consisting mainly from the expanded *asset purchase programme (APP)* that includes all purchase programmes under which private sector securities and public sector securities are purchased in order to address the risks of a too prolonged period of low inflation. While APP is part of a package of monetary measures that also includes targeted longer-term refinancing operations, its main purpose remains the purchases of marketable debt instruments in order to inject liquidity into the banking system. APP is divided in four different programmes as shown in Graph 1.



Source: Authors, based on ECB database (2016).

Graph 1: APP holdings in June 2016 (at amortized cost, EUR million)

All those purchase programmes are designated to enhance the functioning of the monetary policy transmission mechanism, to support financing conditions in the euro area, to facilitate credit provision to the real economy and to generate positive spill over effects to other markets. However, as shown in Graph 1, all those purchase programmes initiated by ECB are requiring an important financial effort for the European Union.

In this context, it is only legitimate to try to estimate if they are going to be successfully. Based on other countries experiences, some analyses (The Guardian, 2015) assess that ECB initiative of launching a QE of about EUR 1 trillion, several years after other world central banks embarked on such monetary stimulus, shows a very optimist approach. This initiative could be successful if the U.S. experience[9] could be repeated in the European

9 The U.S. Federal Reserve (Fed) started the QE in November 2008 in order to save the world's largest economy from the depths of the financial crisis. As the U.S. backdrop steadily improved in the aftermath of the Fed's cash injection, the central bank gradually slowed its bond-buying programme from USD 85 billion a month to USD 15 billion a month.

space (in U.S., the QE coupled with low interest rates, freed up capital and encouraged an important rise in risk appetite, helping US shares prices to rise markedly since 2009).

However, the Japanese experience shows the dark side of QE, revealing what could go wrong with European QE initiative. It is commonly known the fact that Japan could be considered the "pioneer" of QE enforcement. In Japan, the QE aimed to restart growth and get prices rising again. The first QE has started in 2001 and lasted five years. Anyhow, those QE programmes failed to rid Japan of its persistent deflation. Based on the Japanese experience the QE's critics argue that this unconventional monetary policy will probably not deliver the expected results in the Eurozone. The most recent QE in Japan began in 2013 when BoJ started a large such initiative (of USD 1.4 trillion) in order to buy government bonds each month using electronically created money. To put things into perspective the US Fed was spending only a little more per month at USD 85 billion, compared with USD 70 billion allocated in Japan by the BoJ, but the US economy is almost three times the size of Japan's.

It should be noted that not all the authors are pessimistic about the possible success of ECB's QE initiative. Tasker (2015) shows that "the first visible sign in Japan's experience that quantitative easing is working is a massive increase in foreign visitors attracted by the bargain basement currency. So, as the Eurozone embarks on its programme of aggressive monetary reflation, probably the most important lesson is the need for patience among politicians and voters". Tasker optimism is supported by its opinion that "Abenomics has delivered tangible results and the mood is set to brighten as real incomes turn positive and output rises" the author considering that a similar result could be possible in the Eurozone. However, it is our opinion that the structural differences between Japan's economy and the Eurozone should not be underestimated in terms of QE impact (See Table 2).

JAPAN	EUROZONE
Japan has not embraced immigration as a solution for an ageing population	As Europe has encouraged immigration after World War II, it is currently confronted with an immigrants crisis of high proportions
Even in the most troubled periods (during the so called "lost decades") the Japan has not been confronted with such a high unemployment as in the Southern states of EU	There are high levels of unemployment in the states affected by the sovereign debt crisis (Greece, Spain, Italy)
In terms of wealth distribution, Japan is a relatively egalitarian country	There is a widely spread concern over the idea that QE could exacerbate inequality between the wealthy and the poor countries of the EU
Japan does not have the Eurozone's unique problems of uncoordinated fiscal policy	The Eurozone is confronted with political resistance to financial transfers from surplus to deficit countries.

Source: Authors' synthesis, based on the studied literature

Table 2: Japan and Eurozone – structural differences and impact on QE possible success

Based on the Table 2 comparative analysis, we may asses that it is difficult for the Eurozone to extrapolate the Japanese experience regarding the QE benefits. As Tasker (2015) pointed out "the ECB may be able to copy the first of Mr. Abe's famous "three arrows[10]", monetary easing, but there is no European equivalent of his second and third arrows of fiscal policy and structural reform".

5. Conclusions

While QE is a relatively new type of monetary policy, many of analyses related to its potential short and long term effects are just now making their way into the literature, but we may underline that are several patterns that could be depicted. First, it is undeniable that fact that the real effects of QE are associated with empirical evidence that the introduction of or advances in this unconventional monetary policy have been related to some measurable declines in longer-term interest rates.

These have been associated with both changes in private sector' expectations of future interest rate levels and with purchases of "nonstandard" assets, such in the Japan case has (longer-term JGBs). Second, there appears to be evidence that Japanese QE program aided weaker banks and generated a greater risk-tolerance in the national financial system.

However, Japan case also shows what could go wrong with QE initiative. While it may offer a short term "oxygen bubble" to the economy, it may not be able to eliminate deflation. As some analyses (previously mentioned in our paper) have shown, there is some sort of twisted relationship between lowering interest rates at around zero and inflate rate expectation.

Japanese experience is an example of the fact that QE may fail to reach is goal because when inflation expectations exceeded the threshold, interest rate expectations may respond only gradually to inflation rate expectations (for instance, in 2006, when Japan ended its first QE initiative the y-o-y CPI inflation rate was only 0.5%).

The case of Japan may be considered as an important lesson regarding QE limits while proving that the effectiveness of such unconventional monetary policy may delay to produce the expected results despite the large amount of liquidity available. The most evident cause (in the case of Japan) is related to the frail status of the banking sector.

The managers of commercial banks from Japan preferred to wait for stable economic conditions before taking advantage of the monetary easing coming from the BoJ. Faced with those evidences delivered by the Japanese experience, we may conclude that ECB QE initiative could produce some effects but only if the market confidence is rising. As the Japan case has proved a policy of large-scale assets purchases may not always boost economic confidence or fight domestic deflation. However, other QE initiatives (the UK one) have shown how such monetary policy may contribute to boost the labour market, conducting to a decrease in unemployment rates.

Also, if Japan has a long history in using QE to aid its economic recovery and to fight against the threat of deflation, EU is still a novice as it has never before embarked

[10] The key parts of Abenomics can be summarized in three arrows: dramatic monetary easing, a "robust fiscal policy" and policy for growth and for increase private investment.

on such a programme. Accordingly, EU was more sceptical to the benefits of such a policy even before its implementation.

Moreover, given the complexity of current macroeconomic environment in the EU it is premature to conclude if ECB QE will attend its goal, but as the Japan case has showed, even if some positive results are registered they would have only limited effects on the commercial banks' confidence and none concerning the escape from the deflationary trap.

Bibliography

1. Andolfatto, D., Li, L. (2014), *Quantitative Easing in Japan: Past and Present,* Economic Synopses, No.1, available at: https://research.stlouisfed.org/publications/economic-synopses/2014/01/10/quantitative-easing-in-japan-past-and-present/ ;
2. Dudley, C. W. (2013), *Lessons at the Zero Bound: the Japanese and U.S. Experience,* Speech delivered by the President and Chief Executive Officer of the Federal Reserve Bank of New York at the Conference on Japan Society, Federal Reserve Bank of New York. 21.05.2013. New York;
3. (The)Economist (2015), *Quantitative easing has both good and bad implications for Europe's banks*, available at: http://www.economist.com/news/finance-and-economics/21641271-quantitative-easing-has-both-good-and-bad-implications-europes-banks-easing;
4. Gagnon, J. E. (2016), *Quantitative Easing: An Underappreciated Success,* Policy Brief, Peterson Institute for International Economics, Washington DC;
5. Gros et al. (2015), *Lessons from Quantitative Easing. Much ado about so little?* Centre for European Policy Studies (CEPS) No. 330, March 2015, available at CEPS website: www.ceps.eu;
6. (The) Guardian (2015), *Quantitative easing around the world: lessons from Japan, UK and U.S.*, available at: https://www.theguardian.com/business/2015/jan/22/quantitative-easing-around-the-world-lessons-from-japan-uk-and-us;
7. International Monetary Fund (IMF, 2013), *Unconventional Monetary Policies-Recent Experiences and Prospects,* April 18, 2013, available online at: www.imf.org/external/np/pp/eng/2013/041813a.pdf;
8. Japan Echo (2006), *An End to Five Years of Quantitative Easing,* Political Currents Volume 33, No. 3, June 2006, available online at: http://www.japanecho.com/;
9. Joyce at al. (2012), *Quantitative Easing and Unconventional Monetary Policy – an Introduction,* The Economic Journal 122 (November), Royal Economic Society. Blackwell Publishing. Oxford;
10. Schuman, M. (2010), *Does QE work? Ask Japan*, Business Time, available at: http://business.time.com/2010/11/04/does-qe-work-ask-japan/;
11. Smaghi, L. M. (2009), *Conventional and unconventional monetary policy.* Keynote lecture at the International Center for Monetary and Banking Studies (ICMB), 28 April 2009, Geneva;
12. Snyder, M. (2010), *The 9 Reason Why Quantitative Easing is Bad for the US Economy*, The Economic Collapse, Nov. 5, available at: http://www.businessinsider.com/why-quantitative-easing-is-bad-for-the-economy-2010-11 ;
13. Tasker, P. (2015), *Japan's big lesson for the Eurozone*, Financial Time, available at: http://www.ft.com/;
14. Ugai, H (2006). *Effects of the Quantitative Easing Policy: A Survey of Empirical Analyses.* Bank of Japan Working Paper Series No. 06-E-10/July 2006. Bank of Japan. Tokyo.

THE BATTLE OF ASIA: JAPAN VS SOUTH-KOREA ON THE INTERNATIONAL AUTOMOTIVE MARKET

Vlad Cârstea*

Abstract

For a long period of time, Japan, was the only Asian automotive manufacturing country, recognized at the global level. The Japanese cars are synonymous with quality, reliability and performance at a reasonable cost. In sale figures this translates into top positions on all markets throughout the world. During the recent years South-Korean car manufacturers have become a real force on the international market and they succeeded in offering the Japanese automotive industry a run for its money.

Key words: *Japan, South-Korea, automotive industry, international market.*

JEL Classifications: F1, F12, F13, F15, F21, F23, F63.

1. Background. Japan's automotive industry is represented throughout the world by companies like Toyota, Nissan, Mazda, Suzuki, Honda, Mitsubishi, and Subaru. Although they are multinational companies that offer their products on the global market, not all of them share the same success. For example, in order to better compete with the American luxury brands on that market, Toyota, Nissan and Honda created their premium car brands. At the time, the Japanese cars were quite popular among the American consumers, but it would have been almost impossible to market a Toyota or a Nissan as a worthy competitor for a Cadillac or a Lincoln. As a result, today we have Lexus, Infiniti and Acura.

Hyundai and KIA form one of the most important South-Korean automotive groups in the world. For years the group offered cars that had a great value for money, and they had small operating cost, but with a very boring design. Nowadays the cars are still great value for the money but the design improved dramatically, especially for KIA that benefits from Mr. Peter Schreyer, who was the chief designer in the Volkswagen Group.

2. Market analysis – United States. Regarding the sales figures, on the United States' market, **Toyota** has been the bestselling car manufacturer for years in a row, thus constantly increasing its market share. The best year for Toyota, in America, was 2007 when the company sold over 2 million cars (2.161.467 cars to be exact). For the first six months of 2016, Toyota recorded a slight reduction in sales of 3.73%. If this trend will continue until the end of the year, unfortunately the Japanese car manufacturer will have to record another year of bad sales.

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Japanese brands' sales on US' market[1]

Brand	2005	2008	2015	2016[2]
Toyota	1.800.915	1.843.669	2.098.545	1.008.516
Lexus	302.895	260.087	344.601	151.564
Nissan	940.268	838.361	1.351.420	733.136
Infiniti	136.401	112.989	133.498	64.978
Mazda	258.339	263.949	319.183	145.354
Suzuki	82.101	84.865	-	-
Honda	1.252.862	1.284.261	1.409.386	713.362
Acura	209.610	144.504	177.165	78.994
Mitsubishi	123.995	97.257	95.342	51.934
Subaru	196.002	187.699	582.675	279.458

Lexus, the premium car division of Toyota, entered the American market in 1989, when it was created. In 1983, Lexus was just the name of a project that involved the development of a luxury sedan. Six years later it became a brand on its own, that offered a full range of cars, from a sporty 2-door car, up to a full size SUV (Sport Utility Vehicle).

In terms of sales statistics, Lexus followed the mother company's developing trend, which means that 2007 was recorded as the best year, with 329.177 cars sold. The following years recorded one loss after another, reaching the lowest point in 2011, with only 198.552 cars sold, which is close to the level recorded in 2000. Afterwards, the sales began to boost up and 2015 recorded the biggest sales volume with over 340.000 cars.

Nissan entered the American market in 1958, when it sold just 52 cars. But year after year the Japanese car manufacturer tried to push the envelope even further which in today's sales figures translates into the second biggest Japanese car manufacturer in the US after Toyota.

In 2005, Nissan sold little over 950.000 cars which in terms of market share translates into roughly 5,5%. Unlike Toyota, Nissan was affected by the economic crisis two years earlier, in 2009, when 689.011 cars were sold. For the following years the sales improved constantly, culminating with the last year's sales of 1.351.420, the best year for Nissan in the US.

Unlike other Japanese competitors, **Infiniti** produces in America only one model from its portfolio, while the other models are imported from Japan. Although this can lead to higher operational costs, it has the advantage of maintaining the high degree of build quality that the Japanese car producer is renowned for.

Since its introduction on the American market in 1989, Infiniti has been on an upward sales trend which allowed the division to acquire 0,89% of the market share in 2010, while the biggest sales volume was recorded in 2005 with 136.401 cars sold. The low point was recorded in 2009, with only 81.089 cars, which was quite similar with the sales from 2002.

[1] Source: www.left-lane.com
[2] Based on my own computation as statistical data goes as far as July 2006

The next year offered the company a much needed sales recovery having sold a bit more than 100.000 cars. Unfortunately the victory was short-lived as 2011 offered a bad surprise: the sales dropped by 4.7%, which means 98.461 cars.

Although the mother company, Nissan found its way into recovery from the economic crisis, Infiniti was a little unstable with the sales figures, but since 2013 Infiniti has been on an upward trend, the first half of 2016 recording a 1.1% increase compared with the same period of 2015.

Mazda is currently the fifth Japanese car manufacturer that entered the American car market. Compared with Nissan, or Toyota, Mazda does not have an entire group that can support the activity at the same level as the big companies do. As a result, Mazda does not have such an extended car range to cover all the market's segments and focuses only on the ones that are profitable.

During the analyzed period (2005 – first half of 2016), Mazda recorded the highest sales volume in 2015 with over 319.183 cars sold and the lowest in 2009 when there were sold only 207.767 cars. It must be said that this is not only the lowest value in the recent years, but since it has been on the American market.

The downward trend strikes again during the first half of 2016 as the sales dropped by 8.5% compared with the first half of 2015. If this trend will not change, the end of the year will bring to the American division of Mazda the first loss since 2009.

Due to low sales volumes, **Suzuki** is the only unsuccessful Japanese automotive constructor that entered the North-American market. The main reason of this failure is the fact that the company did not offer competitive cars. By trying to cover as many market sectors as possible, Suzuki "borrowed" different types of automobiles from a range of manufacturers and sold them under the Suzuki name. The consumers reacted accordingly and from 2007, which can be considered the best year (101.884 cars sold), the sales plummeted dramatically until 2014 (the year of its collapse) when it sold just 5.432 cars and exited the market.

Honda is another powerful Japanese competitor on the United States' automotive market, the second most important one after Toyota. Since its introduction, Honda gained its reputation by offering reliable and well built cars with a sporty touch. Let's not forget that Honda equipped their first car with a motorcycle engine. Today this sporty tradition still lives on, but in the same time the company tries to build (and succeeds) cars that have a smaller impact on the environment. For instance, Honda builds a small hybrid sport car, called CRZ, which combines an electric motor with a gasoline engine that will ensure a more fuel efficient functioning.

Regarding the sales, the US division, during the analyzed period, has been on an upward trend until 2008 when the sales dropped by 6.3% and continued to reduce until 2011 when there were only 1.023.986 cars sold, which is similar to the figures from 2000.

After the worst year in terms of sales from the last decade, Honda had found its way to success and the sales have been improving year after year since 2012. As a result, 2015 recorded a bit more than 1.4 million cars sold which means 8.07% market share. It must be said, that it is very possible that Honda will lose its position as the second biggest Japanese car manufacturer in favor of the American division of Subaru.

Acura is Honda's passport into the premium automotive segment in the United States and it was simultaneously introduced in Northern America and Canada in 1986.

Some of its models are imported from Japan while others are produced in the US.

In terms of sales, Acura sticks with its elitist character grabbing an average of 1.5% market share. During the period took into consideration, Acura has recorded sales losses from 2005 until 2009, when it sold only 105.723 cars, similar to the 1987's sales which was the second year after its creation.

Although 2015 was a good year in terms of sales, as it is the fourth consecutive year of growth, the sales are still not up to expectations. 177.165 cars were sold in the US which means that, in terms of sales' statistics Acura has gone back in time to 2001-2003.

At the beginning of its activity on the North American market **Mitsubishi** was just another Japanese automotive company that wanted to become an important player. The consistent increase in sales volumes, although the figures never matched Toyota or Honda, established Mitsubishi as a constant presence, offering really competitive sport cars or off-road vehicles that were derived from the competition automobiles. But, unfortunately, since 2002, the Japanese manufacturer's sales have declined one year after another.

During the analyzed period (2005-first half of 2016), the lowest sales volume was recorded in 2009 with 53.986 cars sold which very similar to the volume recorded in 1984. The sales began to pick up the pace in 2013 and continued on that trend in 2016 as well, since the company sold during the first half of the year 51.934 cars compared with only 49.544 the year before.

Subaru is considered by the experts the biggest success story on the American automotive market, not only from the Japanese manufacturers but from all the mass-production manufacturers, as well. Although the company does not have a very large portfolio of cars that can cover every segment of the market, Subaru has kept only the models that sell really well and stayed true to its technical creed, "Permanent all-wheel drive". This means that cars handle better than any other normal car both on-road and off-road

In terms of sales, the economic crisis' effect on Subaru was minimal, since only 2007 was considered a "bad" year and the company sold 187.208 cars, which means a 6.7% reduction.

In 2008, Subaru began to live up to its name and marked a sales increase of 0.2%. Of course one can argue that this increase can be considered a very small one and not worth mentioning. But this was the beginning of another period of a few successful years in a row, culminating with 2015 when Subaru sold almost 600.000 cars.

The only South-Korean car brands that are sold in North-America are Hyundai and Kia. Although they are part of the same automotive group, each division has its own path to success and, of course, different market segments.

Out of the two **Hyundai** is the most successful one and has been on the market longer than KIA. This success was partly toned down due to the fact that the demand for cars exceeded the company's sales' possibilities. This problem may be addressed by building the most successful models of the range in the United States, while others are being imported from South Korea.

South-Korean brands' sales on US' market[3]

Brand	2005	2008	2015	2016[4]
Hyundai	455.012	401.742	761.710	374.060
KIA	275.851	273.397	625.818	328.327

Analyzing the sales volumes, one can see that during 2005-2016, the only year that had a slowdown in sales was 2008, when the company sold 401.742 cars, which means a 13.9% reduction. But in 2009 the sales increased by 8.3% and continued on that upward trend until 2015 when it recorded 761.710 sold cars.

Although **KIA** is part of the same group as Hyundai and benefits from the same technology, the brand somehow remains one step behind. But, this situation is very close to end as KIA has been on upward trend in terms of build quality and customers' perception, just like Hyundai, which in the end means more cars sold.

2008 was the worst year for KIA, in terms of sales, with a 10.5% reduction, which meant 273.397 cars. Of course, following its sister-brand, Hyundai, KIA, began to gain more customers every year, having sold 625.818 cars in 2015.

3. Market analysis – European market. Despite the American success and the sales volumes recorded on that market, in Europe, **Toyota** has to settle for the last places in the Top 10 "Bestselling brands". Although the car portfolio is quite extensive covering all the important market sectors, in Europe, the perception that the best cars are German, still lingers.

From 2005 until 2015, Toyota recorded a downward trend that began in 2008 when there were sold 830.286 cars, which means a 16.4% drop. The sales kept on reducing until 2013, when the manufacturer sold only 509.862 cars, similar to 1999.

In 2015, Toyota seemed to have found the way to increase their sales, and the recipe seems to work in 2016 as well, since for the first half of the year Toyota has an 8.4% increase compared with the same period from 2015.

In Europe, **Lexus** is not very popular as a luxury brand, but as a hybrid car manufacturer that appeals to those that have a green approach to mobility. The European customers are still reserved regarding Japanese cars, despite the manufacturers' efforts and real qualities of their cars and this is reflected by the sales figures. For example, in Europe, Lexus sells roughly ten times less than in United States.

2006 and 2007 were the best years for Lexus Europe as it sold just over 40.000 cars each year. Unfortunately the upward trend did not maintain as the economic crisis' effects began to appear. As a result, the sales plummeted 2009 and 2010, when they reached 19.185 cars.

[3] Source: www.left-lane.com
[4] Based on my own computation as statistical data goes as far as July 2006

Japanese brands' sales on the European market[5]

Brand	2005	2008	2015	2016[6]
Toyota	905.805	830.286	556.480	314.653
Lexus	23.340	29.682	39.255	22.636
Nissan	387.325	338.169	554.046	297.468
Infiniti	595	453	5.427	6.898
Mazda	239.655	242.144	209.290	126.555
Suzuki	244.617	247.161	177.686	101.526
Honda	274.312	264.009	130.808	88.685
Mitsubishi	148.902	116.343	132.975	63.699
Subaru	54.324	50.904	38.033	19.653

2015 recorded a spectacular increase in sales volumes compared with 2014, by 24.7% and by the looks of things 2016 will also benefit from this upward trend.

Nissan is a real competitor for Toyota's European market share and if the trend will maintain, the brand will become the bestselling Japanese brand in Europe.

Although sales have been fluctuating during the analyzed decade, Nissan managed to maintain or increase its market share which reinstates the brand's success.

The worst year in terms of sales was 2007, when only 313.437 cars were sold while the biggest sales volume was recorded in 2015 with 554.046 sold automobiles

Regarding **Infiniti,** the luxury brand was not as fortunate as its mainstream sister, as the sales have been far smaller than the Japanese rival, Lexus.

In 2015 the Japanese brand sold 5.427 cars, which in terms of market share translate into 0.04%. As mentioned earlier, Lexus sold 19.185 cars in their worst year, 2010.

In Europe, **Mazda** was on a downward trend for a few years, from 2009 until 2012, selling around 200.000 cars per year, the lowest being 2012, when there were only 123.859 automobiles sold.

2013 brought a new hope for Mazda as the newly launched compact SUV CX-5 and the mid-size sedan Mazda 6 helped boosting up the sales. The increase in sales volumes was present in 2014, 2015 and in the first half of 2016.

Suzuki, which in Europe is famous for its small city cars like the Alto and the Swift, or the compact SUVs like Vitara or S-Cross was on an upward trend in 2005, when it sold 244.617 cars. The sales pattern remained unchanged in 2006 and 2007, but in 2008 the sales dropped by 13%.

In 2009, the manufacturer succeeded to increase the sales compared with 2008, but the victory was short lived as the sold volumes began to reduce dramatically until 2013. The explanation for this situation is the fact that the offered cars although are pretty affordable in terms of acquisition and running costs, they are no longer up to date and the customers turning to other car manufacturers that have better products.

The face-lifted Swift and launch of the New Vitara, in 2015 as well as different promotions for other cars in the manufacturer's portfolio helped increasing the sales

[5] Source: www.acea.be

[6] Based on my own computation as statistical data goes as far as July 2006

volumes in 2014 and 2015 when 177.686 cars were sold and the upward trend is maintained in the first half of 2016, as well.

Compared with the other Japanese brands, in Europe, **Honda** has not been successful, at least in the last decade.

2005 was a good year for Honda Europe since the manufacturer managed to increase the sales volumes by almost 4.8%. Increased sales were recorded in the following years as well, until 2007, when Honda sold 311.801 automobiles, the biggest volume since 1990. Afterwards the sales began to decline and not even the launches of the new generations of Civic (the brand's compact car), or the CR-V (compact SUV), could not stop this scourge. As a result, 2015 witnessed another record for Honda, the smallest number of cars sold since 1990: 130.808.

In Europe, **Acura** is not imported officially and as a result there is no official date regarding the brand's sales.

For years, **Mitsubishi** was associated with the World Rally Championship, where the Lancer model was really competitive and why not with their really capable off-road vehicles that were competing in another famous race: the Paris-Dakar rally. The victories obtained by those cars in competitions were perceived as a guarantee of the cars' performances or reliability. Naturally, this translated into bigger sales. Unfortunately, the brand has no longer officially participated in those competitions and the sales were affected.

In 2005 Mitsubishi's sales were on a downward trend as they have been since 1999, which was the brand's best year. The string of losses appeared to stop in 2011 when the sales increased by 11.4%, or 117.387 automobiles. Unfortunately the sales dropped even more the following year, to a record breaking 77.229 automobiles, but only to pick up and remain on that trend until 2015.During the first half of 2016 the sales dropped again by 8.5% compared with the same period of 2015.

Just like all the Japanese car manufacturers analyzed before, **Subaru**'s sales in Europe is no way near those from the United States. Moreover, the sales fluctuated from one year to another without any apparent reason or pattern. As a result, when analyzing the brand's sales one can see that the worst year since 2005 has been 2014, when there were only 32.907 cars sold, while the best year was 2006, when 55.153 people have bought a new Subaru.

Concerning 2015, the sales improved by 15.5% compared with 2014, and they still maintain this trend for the first half of 2016 as there were 4.4% more cars sold.

Apparently the South-Korean managers from **Hyundai** have found the recipe for success since their sales in Europe have been increasing, just like in the United States. The fact that some of the cars in the company's portfolio are produced in Europe (which means no more duty taxes), combined with a fresh and bold design and an unlimited 5 year warranty sets the pre-requisites for a very competitive package.

South-Korean brands' sales on the European market[7]

Brand	2005	2008	2015	2016[8]
Hyundai	384.427	257.686	466.167	257.774
KIA	264.657	226.507	383.047	229.159

In 2005, Hyundai sold 384.427 automobiles gaining a 2.38% market share, but afterwards the sales began to decline for three consecutive years until 2008 when there were only 257.686 cars sold, while the market share shrunk to 1.78%.

Beginning with 2009 Hyundai gained back its momentum and the sales increased until 2015 when there were 466.167 cars sold, the best year yet for the manufacturer.

2016 is going to record another increase in sales as well as in market share.

KIA, the brand sister of Hyundai, is also a powerful competitor on the European market both for the Japanese car manufacturer but for the European ones as well.

In terms of sales, the lowest sales volume was recorded in 2006with 239.488 cars, a 9.5 decrease from 2005. In 2007 there was an increase in sales up to 250.831, but in 2008 the sales dropped again.

2015 was the best year for KIA, as the manufacturer sold 383.047 cars and had a 2.71% market share.

Conclusions

On the North-American market the top three Japanese car manufacturers cannot be surpassed yet by the South-Korean ones since the sales volumes recorded by Toyota or Nissan are twice the value compared with the South-Koreans'. The situation however will not remain the same for too long since Hyundai and KIA launch new cars that are more and more competitive and more appealing to the general public.

Concerning the European market, the combined sales value of Hyundai and KIA are very close to the ones recorded by the Toyota Group, currently the bestselling Japanese automotive brand in Europe. Moreover if one sums up the market share that Hyundai and KIA have it is quite easy to see that Toyota Group lost the battle.

It is quite possible that during the next years we will witness an intense battle for new market shares between these Asian giants.

References:

1. European Automobile Manufacturer Association - Yearly reports from 2005-2016, available at: www.acea.be
2. Murtha, Philly – 2016 Initial Quality Study: Korean Brands Outperform Others in Infotainment, Connectivity, available at: http://www.jdpower.com/cars/articles/jd-power-studies/2016-initial-quality-study-korean-brands-outperform-others
3. Phillips, David – U.S. auto sales break record in 2015, available at: http://www.autonews.com/article/20160105/RETAIL01/160109995/u.s.-auto-sales-break-record-in-2015

[7] Source: www.acea.be

[8] Based on my own computation as statistical data goes as far as July 2006

4. The International Organization of Motor Vehicle Manufacturers - New passenger car sales statistics, available at www.oica.net
5. The Wall Street Journal – Market Data Center - Sales statistics for the United States' market, available at: http://online.wsj.com/mdc/public/page/2_3022 autosales.html#top
6. Wardlaw, Christian – Top-Ranked Cars, Trucks, and SUVs in the J.D. Power 2016 U.S. Apeal Study, available at: http://www.jdpower.com/cars/articles/jd-power-studies/top-ranked-cars-trucks-and-suvs-jd-power-2016-us-apeal-study
7. www. left-lane.com – US automotive sales statistics.

UTILITY OF NET PRESENT VALUE (NPV) FOR FIRMS IN TODAY'S ECONOMY

Iuliana Militaru*

Abstract

In last forty or so years firms made use, in their pursuit of building their investment decisions around a quantitative approach, of such an model – and respective index – as internal rate of return (IRR), and, of course, of its main derivative products of basic IRR model, such as financial IRR (FIRR), economic IRR(EIRR), sqq. This being said, quantifying a *rate of returnfor* any *investment project is, at least sometimes, not enough; in such cases, there is still a pressing need to compute net present* value *of investment projects, and not only for the sake of investment strategy, but in the benefit of general development strategy of a firm.*

Keywords*: net present value, rate of return, investment.*

JEL classification: D81, E22, G31, L25.

1. Introduction

In our times, market economies are constantly – through diligence of their administrations –fighting off distortions and all pitfalls that can be possibly imagined, not to mention the aftereffects of 2008 economic and financial crisis; but, if economies themselves fare more or less satisfactorily, firms, being, as they are, is a far less dominant position as to economic environment and (toxic or simply unfavorable) influences, are, in comparative terms, pushed to the wall – save for a number of instruments they can use, some of them designed for rational management of firm itself, some for rational management of firm's projects.

In first case, financial structure can be considered an instrument in its own right; for, in second case, Net Present Value (NPV) *index*– and *not* IRR or (its) derivative indexes – is an instrument *whose* very existence, arguably, is more or less built *around* financial structure.

Dynamics of determining factors of financial structure is, verily, directly linked to very conceiving of NPV index, given investment process is, usually, one designed and implemented on a multi-annual basis, with the result it can be analyzed in an adequate manner using *any* mathematical instrument able to compute, the *actual* value of an investment project:

a) whose application *begins* in present
b) which will be completed in a moment in *future*, after several years will have past.

Estimating actual value is essential for firm´s management, which needs to take decisions regarding the *choice* of investing its financial funds in a *specific* investment

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project – i.e. one firm will be sure to benefit from – fully aware of circumstances and variables one must take into account *before* actually investing anything. As NPV index measures size of *net* present value of a project, it is an adequate tool for firm´s management.

The technique of NPV use comprises following stages:

I. the *value* of NPV is computed, using NPV formula and data regarding the specific investment project (where r stands for interest rate[1]– as (reasonable)[2] approximation of *discount rate*, PV for size of present value, B for benefits produced by investment project, C for costs generated by same project and t, respectively T number of years in which firms *must* bear costs, respectively receive benefits)[3]:

$$NPV = PV_B - PV_C \Leftrightarrow$$

$$\Leftrightarrow NPV = \left[\frac{B_1}{(1+r)^{t+1}} + \ldots + \frac{B_T}{(1+r)^T} \right] - \left[\frac{C_1}{(1+r)^1} + \ldots + \frac{C_t}{(1+r)^t} \right].$$

II. Decision of investing firm´s financial funds in a specific investment project is taken once calculus reveals that, for respective project, NPV > 0.

All this might just sound straightforward enough, but, at the end of the day, NPV´s *utility* can only be ascertained after sifting all of available knowledge concerning NPV index. For, in first place, even NPV´s formula – determined, in objective terms, by 'average' *dynamics* of an investment project – sound, if perfectible, is worth, in fact an inspection.

We observe, as for NPV – e.g., for *design* of NPV´s formula –, a couple of non-negligible methodological constraints an investment strategy must put up with, namely[4]:

(a) costs appear at the beginning *physical* process of investment starts to unfold, and respectively are recorded *until* the moment of *materialization* proper of investment project;
(b) benefits are recorded *from that very moment* of *materialization* proper of investment project, for a number of periods (e.g., years), until material object(s) which constituted the object of investment projects are spent.

2. Content

Economic principles used to construct NPV model – and index – can reliably be used for describing 'average', so to speak, dynamics of economic projects; it is reliable enough, at least, to make possible for us to observe – and underline – an undeniable fact, namely NPV design, respectively the concepts which brought forth this index present a number of weak points, that is, a simplified – in more than one point – model of reality, for whose correction, should be added, more complex economic and mathematic instruments, such and IRR, were developed.

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[1]Maddala, G.S., Miller, E. (1989), p. 565.
[2]For computation of NPV –as far as a *typical* firm´s investment projects are concerned.
[3]Cf. Maddala, G.S., Miller, E. (1989), p. 567.
[4] Ibid.

From this perspective, NPV is computed for quantification of investment performances of a firm *supposed* to function in an economic environment in which[5]:

1) uncertainty regarding existence and (dynamic) coherence of cash flows, in principle, negligible – and, in practice, non-existent;
2) the investor can make use *in perpetuum* of *borrowed* financing sources, e.g. must take into account it will support (negligible) costs – also in principle.

NPV concept starts from a premise – a rather important one – for actually estimating practical 'value' of this concept, namely that the value of NPV index is *positive* on behalf, not that much a *conscientiously* efficient use (made possible through the will of firm's management) of, but merely the 'simple' *existence* and dynamics of:

1. cash-flows (e.g., of costs and benefits) whose emergence – *as result* of investment project – and, respectively, levels is predicted;
2. ***opportunity cost of capital*** – type of cost whose dynamics determines actual value of NPV, entered into NPV formula as (average) interest rate (e.g., interest rate granted for bank deposits).

As for opportunity cost, it must be underlined its being *identical*, from an economic and financial perspective, to discount rate, given fact computation of (net) *present* value of an investment project implies identification of opportunity cost of capital with *unit of measure* of firm's efforts and results, namely:

(a) *unitary cost* – as for costs' perspective
(b) *unitary revenue*[6]– as for revenues´ perspective.

The effective and conscientious use of entities named above by firms is, in fact, taken for granted, as NPV theory *assumes* the fact efficiency of putting together investment project is *independent* of[7]:

a. intentions (from investment perspective)of firm's management;
b. procedures used by firm's management;
c. firm's own accounting methods and procedures;
d. overall *actual* profitability of firm – if it own subsidiaries, etc.
e. quality of *other* investment projects undertook by firm.

From the specific angle of this analysis, NPV index is fruitful, that is it is often effective, but by no means is it perfect; especially, dynamics of determining factors of financial structure, at macroeconomic level, is neither always *recorded* accurately, nor is it, in principle, absurd respective dynamics turns out to have been – in all its details – simply overlooked.

[5]Maddala, G.S., Miller, E. (1989), p. 569.
[6]This is the result of the fact underlying premise of determining (computing) *future* (net) value of firm's output is identical to fundamental premise (equation) of quantifying *present* value of firm, namely *Marginal revenue = Marginal cost*.
[7]Brealey, R.A., Myers, S.C., Allen, F. (2014), pp. 109-110.

Thus:

(I) on one hand, NPV index does *not* take into account any firm's vital need to (drastically) reduce its own expenses, inclusively investment related expenses;

(II) furthermore, what can be denoted as *NPV rule* – according to which *any* investment project can be financed (until its completion)as long as NPV > 0 is a condition true for that project –*does* not conceives *an* investment project as an entity which takes second place to the need to provide for firm's ***long-term*** financial needs, from which perspective firm's development *strategy* takes into account the multi-year planning of investment process.

This detail is important, firstly because from strategic orientation of investment planning firm's management derives another type of planning, namely employment of (investment) financing sources made up of *own* (financial) funds, respectively drawing/maintaining financial sources made up of *borrowed* funds sufficient for firm to attain its (main) goals (inclusive of investment goals).

(III) from the same perspective, firm's management will face, at least sometimes, difficulties, as regards enforcing corporate governance in firm and for its sake, if, in order to conscientiously choose what investment projects are eligible for financing and – ultimately – completion management will use nothing *else* – or more – than NPV; for, a basic principle of corporate governance is that, *to all intents and purposes*, the main goal of firm is **attaining its objectives, in long term**.

All in all, any firm's quandary concerning its investment policy/strategy is reduced to it not being able – at least, not always – to choose between bolstering and expanding its activities and influence on the market –which, as for the latter, requires *extensive* development, usually obtained through implementing ever-larger investment projects, or, at any rate, ever *more* investment projects – of any size. The *wishes* of any firm's owners, usually, focus on earning more, with or without *building* (e.g. firm's activities) more.

On the other hand, however, whilst investing more, or wishing it, does not always means *earning* more, earning *more* is simply impossible in absence of a development *of some kind* of firm, and the *concept* – at least – of corporate governance is that firm's management must manage firm's activities either taking into account owner's (***short-term***) agendas or *countering them*, if need be.

(IV) For large-sized firms, which tend to be, or want to consolidate in their market role of *oligopolies*, NPV cannot be used but as a first approximation – as to its use for quantifying *benefits* (whatever they might take the appearance of) investment projects can yield; especially, NPV is in a sticky spot once it is needed to make clear(er):

a. neither a – or *any* – rise in sales volume, brought forth by completion of investment project and
b. nor – apart from basic evaluation (of) – *global* rise of firm's profits – i.e., not only of any of its subsidiaries, branches, etc. whose task is, at some point, implementation of an investment project.

3. Conclusions

It is worth underscoring – and, at least on equal footing, *understanding* – NPV (both its concept and related index) is not complex (or 'subtle') *enough* so that to be able to precisely 'oversee' dynamics of financing a firm, at least not its *short-term* component.

This dynamics, often utterly important for firm's achievement of (or consolidation in) place of *dominant firm* on the market (achievement, as it is, *financed* – through use of financial structure for e.g. completion of investment project), as long as it is – or, it can be – used *intensively*, is outside NPV grasp, since NPV's methodology does not distinguishes between short-term and long-term financing (e.g., financial sources), not even been designed for this purpose.

Finally, a *positive* NPV is useful, but not sufficient for management's need of accurately pinpointing *quality* of an investment project; if and when value of NPV is on the rise, successive to an errant evolution of firm's *profitability* (i.e. a series of negative yields follows one of positive yields, or *vice versa*),a decision could be taken as to financing a certain investment project only if quantified value of project's IRR – one smaller than that of capital's opportunity cost – is also computed.

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5. Bibliography

1. Brealey, R.A., Myers, S.C., Allen, F., "Principles of Corporate Finance (11th Global Edition)", McGraw-Hill Education (UK), 2014
2. Maddala, G.S., Miller, E., "Microeconomics: Theory and Applications", The McGraw-Hill Companies, Inc., U.S.A., 1989

IS THE SIZE OF GOVERNMENT UNDERESTIMATED? ON THE TREATMENT OF MARKET IN MACROECONOMIC STATISTICS

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Abstract

Statistical measurement of government has become one of the main challenges for statisticians as the extent of government interventionism has been extending over last decades. Higgs has dealt with some aspects of how the size of government is commonly expressed (Higgs, 1991; Higgs, 2015). Aim of this paper is to add some relevant facts of the methodological nature leading to the underestimation of government in official statistics. We consider this issue essential even though rather ignored in the mainstream literature. As it is illustrated in the text, the size of government tends to be underestimated in the macroeconomic statistics due a number of issues - the immeasurability of several interventions, lacking information and the inappropriate treatment of market mechanism in the currently methodology.

Keywords: the size of government, national accounts, market mechanism

JEL Classification: E01, D40, H11

1. Introduction

Theoretical explanation of the dynamics of public sector is widely addressed mainly in the public choice and Austrian economic literature (i.e. Buchanan, Wagner, 2000; DiLorenzo, 2007; Sennholz, 1987). To analyse the public sector dynamics, it is equally important to have an appropriate method of the measurement of its size. Searching for the best statistical approach is an ongoing issue. Drawbacks in the method of the measurement currently applied have been discussed *inter alia* in Higgs (1991, 2015).

In the methodology (UN, 2009), "government" represents large part of the public sector, but not the public sector in its entirety. Public producers which are considered as units providing their product in similar way as market (private) producers can be treated as non-government units and thus they can stand outside of government sector. This is a matter of the line separating the market sphere of economy from economic activities carried out on the non-market principles, i.e. the sphere in which the financing of production goes primarily from other resources than from direct payments made by consumers. The relevant methodological treatment will be discussed below.

In the mainstream empirical literature, this question is rather ignored even though its importance for an empirical research is essential. If an inappropriate method is applied, the empirical findings on the relation between the size of government and growth or inflation might be downright misleading.This paper purports to discuss further key concepts applied in the methodology leading to an undervaluation of the actual size of government, primarily the treatment of market and market behaviour as it stands in relevant manuals.

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2. How to express the size of government

Generally, the size of government or any other economic agent is conceivable to be measured in three ways. First, it can be expressed solely in terms of flows meaning that the size of government reflects the scope of transactions carried out as a result of the government´s involvement in economic activities. Second, the size can be calculated on the basis of stocks of assets owned by an agent. In other words, the size of government reflects the amount of scarce resources directly owned by government. Or, third, the size of an agent can be expressed as a mixture of both flows and stocks.

Let´s begin with the first way of measuring, i.e. as aggregate of particular economic flows which is dominant approach nowadays. The actual size of government measured in terms of flows could be marked as “total costs of government operation” imposed on the society. Such a measure can capture economic transactions ranging from easily measurable flows as wages of government employees, purchases of inputs or investment expenditures, to hardly measurable or even unmeasurable costs of government operations as, among many others, transactions between two private units enforced by government regulation, higher prices paid by consumers as a consequence of import tariffs or costs of inflation.

When it comes to the second possibility, i.e. to express the size in terms of stocks of assets cby government or number of employees in the public sector, this seems inferior to the previous approach as interventions are not necessarily conditioned by the ownership of economic means which are subject of regulation. The room for maneuver for private owners can be restricted by legislation to such an extent, that the asset management is actually under control of government; the production control in war times can be put as an example. Thus, to calculate the share of public assets in total stock of assets might give an indication what the size of government is, but this will not reflect actual power of government over the society.

The second possibility seems to be in line with Hayek´s view on how the public sector should be defined, i.e. as scarce resources being under the control of government institutions (Hayek, 1982, chap. 14, p. 47).Due to possible restrictions on the use of private resources, this way of delimitation of the public sector should be further extended to both flows and stock, which represents the third way outlined at the beginning of this text. The reason is that government can affect the performance of economy by both the direct possession of economic means and by regulation or redirecting flows into certain productions according to governments´ preferences.

The current approach is dominated by the first method, i.e. it is very common to express the size of government as selected group of flows as government consumption expenditures or total government revenues or outlays. It implies that immeasurable effects of government are omitted as well as the extent of government ownership of scarce resources. It should be recalled at this stage, as Tullock clearly shows that not all costs of government intervention can be measured (Tullock, 1967). Misallocation of resources due to government regulation may lead to higher prices[1], loss in productivity as

[1] In this case, we would have to go to the level of individual transactions and to investigate which transaction price or what part of given price must have been paid by the will of government.

resources are redirected to less efficient productions, cost of inflation, ensuing frictional unemployment, whereas calculation of all these costs is practically impossible due to lack of relevant information. So the current methodology stands halfway through to capture the total costs of government operation.

3. The concept of market in the methodology

Nevertheless, even if we were in a position to quantify reliably all the effects of all the government interventions, the inappropriate treatment of market in the methodology would keep us far from capturing of government in its entirety. As Reich in his treatment on national accounts tartly notes, the statisticians ignore theory (Reich 2001, 104); then the results of their effort, i.e. macro aggregates, are divorced from reality to an unknown extent. This disregard of theories holds undoubtedly true when it comes to understanding and the delimitation of market (therefore of government too) in the methodology.

For the sake of statistical measurement, it is necessary to draw a line between the sphere dominated by the market mechanism and that under the control of government. As discussed below in greater detail, the static analysis of producer´s behaviour determines whether given producer is "below" or "under the line" defining the market sphere. It is worth mentioning that the value added of both spheres is measured in different ways so that there might be an impact on the business cycle measurement. But more importantly, there might be even a huge impact on relevant figures on the size of government as it makes possible for some public units to stand outside of the government sector. The development over last decades has revealed the difficulties in this approach.

Since the Great depression in the 1920´s, the economic power of government has been expanding beyond the scope of the state budget. This is not only the case of the mounting scope of government regulation giving rise to large compliance costs on the side of regulated units, but also establishing "off-budget" special purpose entities which operate as government agents, i.e. they act according to government instructions. These agents are entitled to raise their own revenues, take a loan or issue bonds, whereas these economic flows and stocks are not recognized in the state budget balance or in the state debt. This way of going beyond the budget has become very popular method how to extend the economic power of government (Sennholz, 1987; DiLorenzo, 2007). However, the current methodology does not keep up with this trend.

When assessing whether a public unit operates on the market or on the non-market basis, the current approach is working with the share of own revenues to costs of production (SNA 2009, p. 438). This could be reformulated so that "the higher prices set by producers, the more of market behaviour they show". At the same, this represents the main concept defining the line between both spheres of economy. This concept is highly misleading; the very opposite is true. On the real market, prices and profit margins show a tendency to decline as a consequence of the incentives of profit-seeking competitors. The market is a dynamic process in which currently prevailing market situation can be completely changed by newly incoming producers or by never-ending flow of innovations or technological changes. Thus, the crucial issue is the institutional environment in which the market operates whereas price or its relation to costs at given moment tells very little about the existence of true market.

Even if the methodology is very slowly going in the direction of an institutional analysis, the static approach comparing prices and costs still dominates. In other words, the methodology relies on the approach very similar to the neoclassical price theory; it does to consider the market as a dynamic wealth-creating process, so does the methodology. Market behaviour is thus assessed by analysing public institutions at a point in time rather than the dynamic (DiLorenzo, 2007). This approach leads to a paradoxical situation in which institutions operating under instructions of government whose liabilities are guaranteed by government and which actually face no competitive pressure or risk of bankruptcy are praised as "competitive" and as such they are included in the aggregates showing the size of government.

The reason for this exclusion has now become clear; instead of hardly measurable qualitative features of the market, the quantitative static analysis matters. At this stage, we thus come across the issue of measurability. According to Kirzner, market behaviour is featured by risk-taking, entrepreneurial alertness, competitive pressures (Kirzner, 1992) leading to innovations, economical progress, decrease in nominal or real prices of goods and services. But the authors of the methodology are dealing with the fact that these features of the market are hardly measurable. Thus to make the life of statisticians easier and the relevant rules more operational[2], it is assumed that the market behaviour is characterized by the type of ownership (public or private) and, more importantly, by the comparison of prices and costs as discussed above.

As a result of such an approach, there are number of public units implementing the government social and economic policy which can be considered as market producers even if not operating on the real market and they are, as such, excluded from figures in question. More precisely, the approach mentioned in the previous paragraphs allows to treat number of institutions providing especially semi-public goods as non-government corporate units[3]. It implies that only transactions of government with those institutions are counted in the size of government (Stiglitz, 1989). Other than that, the figures on government do not cover, by convention, the central bank either even though this institution undoubtedly conducts government policy in the field of monetary policy.

4. A choice of denominator

So far, we have discussed reasons why the size of government is underestimated in absolute terms. When measuring the size of government in relative term, an undervaluation is getting even larger as a chosen aggregate representing the size of government (mostly government consumption or total government expenditures) is expressed as a percentage of GDP. Over last decades, GDP has been deviating from its original purpose to measure the taxable capacity of economy for the needs of public finance managers especially in war times. The use of GDP for this purpose has thus become highly questionable. GDP has been getting more abstract concept containing wire range of imputed values as imputed rents, value added of research and development,

[2]As Lachmann notes, the need to make the statistical rules operational drives the methodology from both theory and reality (Lachmann 1973, p. 21)
[3]E.g. public financial institutions, public hospitals, public transport companies, public schools, etc.

consumption of fixed capital or the estimation of the size of shadow economy.GDP simply covers economic values which cannot be redistributed at all making the measuring the size of government imperfect[4].

In other words, GDP does not cover only the values which can be redistributed by government so the relative size of government is further underestimated when compared to GDP. It also implies that GDP has nothing to do with the ability of government to repay its debt, so even the comparison of debt to GDP has its large limitation. More likely than meaningful economic tool, GDP has become popular for political marketing aiming to show government as small as possible. It is also worth mentioning that the list of imperfections mentioned above on which the calculation of GDP stands is obviously not exhaustive[5].

To illustrate this point, we can offer different set of figures than officially presented. Using the most recent national account´s data for the Czech Republic, we come to the conclusion that the size of government is 20 % (final consumption expenditures/GDP) or 40 % (total revenues/GDP) or 42 % (total expenditures/GDP) of GDP. According to the stock figures, the public sector owns 52 % of non-financial assets and employs 21 % of workers. It has become apparent that the number of government employees itself does not adequately represent the size of government and its actual economic influence over flows and resources in society.

When recalculating the nominal GDP as covering a part of economy which is actually a subject to government regulations and redistribution mechanism, i.e. consumption of fixed assets, imputed rents and shadow economy, the share of government consumption in GDP rose to 23 %, the share of total revenues reached 62 % and the highest value was achieved in the case of total expenditures - more than 65 % of GDP. This can be interpreted so that almost two thirds of values generated in taxable part of economy are going through the public finance budget. This picture shows a much less pleasant but a more truthful reality.

5. Conclusion

It can be concluded that the current methodological approach in national accounts leads to an undervaluation of the size of government. The fundamental problem with the methodology is a lacking solid definition of market and the way of separating the market sphere of economy from the rest which is mostly controlled by government. This is done on the base of a static analysis relying on the neoclassical approach to the market behaviour analysis. It makes the statistical rules operational but it drives the methodology from both theory and reality.

Analysing the behaviour of producers by comparing revenues and expenditures at a certain point in time implies that number of units actually controlled by government can be treated as non-government units. As such, they are excluded from government sector and treated as a part of the sphere where the provision of goods and services is

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[4] Obviously, GDP capture also the government sector; in this respect, the comparison would only be meaningful if government were able to raise additional (!) funds by taxing itself.

[5] Among others we can further mention the method of calculation of government output (Holcombe, 2004) and its relation to measurement of economic growth (Rao, 1989).

orchestrated by market forces. From the perspective of market theories, this approach is highly questionable. The issues that statisticians will have to deal with are how to make institutional analysis operational or whether any public unit can be treated as true market producer at all.

Moreover, the size of government is further underestimated when expressed in relative terms as percentage of GDP. As mentioned above, the link between GDP and the public finance has been weakening throughout last decades by wide range of additional imputed values. Following this trend, the relation between GDP and tax base or government´s ability to service its debt has become weaker. And it is worth recalling that an undervalued size of government or of the public sector can also change empirical findings on the relation between the size of government, economic growth, inflation or unemployment.

References

1. Buchanan, James and Wagner, Richard. 2007. *Democracy in Deficit*. Liberty Fund.
2. DiLorenzo, Tom. 2007. *Can Government Function Like Markets? Austrian Insights into Public-Choice Theory.* Available on-line: https://mises.org/library/can-governments-function-markets-austrian-insights-public-choice-theory.
3. Hayek, Fridrich August. 1982. *Law, Legislation and Liberty.* Routledge & Kegan Paul Ltd.
4. Higgs, Robert. 1991. Eighteen Problematic Propositions in the Analysis of the Growth of Government. The Review of Austrian Economics, Vol.5, No. 1 (1991): 3-40.
5. Higgs, Robert. 2015. How Big is Government in the United States? *The Independent Review*, v. 20, n. 2 (Fall): 317-319.
6. Holcombe, Randall. 2004. National Income Accounting and Public Policy. The Review of Austrian Economics. Vol. 17, No. 4: 387-405.
7. Kirzner, Israel. 1992. *The Meaning of market process.* Routledge.
8. Lachmann, Ludwig. 1973. *Macro-Economic Thinking and the Market Economy.* The Institute of Economic Affairs.
9. Rao, Bhanoji. 1989. Government Size and Economic Growth: A New Framework and Some Evidence from Cross-Section and Time-Series Data: Comment. *The American Economic Review*, vol. 79, No. 1 (March): 272-280.
10. Reich, Utz-Peter. 2001. *National Accounts and Economic Value - A Study in Concepts.* Palgrave Macmillan UK.
11. Sennholz, Hans F. 1987. *Deficits and Debts*. Libertarian Press, Inc.
12. Stiglitz, Joseph. 1989. On the Economic Role of the State. In *The Economic Role of the State*. Arnold Heertje, ed. Exfort: Basil Blackwell. Pp. 9-85.
13. Tullock, Gordon. 1967. The Welfare Costs of Tariffs, Monopolies and Theft. Western Economic Journal, vol. 5, no. 3 (June): 224-232.
14. United Nations. 2009. *System of National Accounts 2008*. New York. http://unstats.un.org/ unsd/nationalaccount/docs/SNA2008.pdf

E.U. SUSTAINABLE DEVELOPMENT – FACTS AND TRENDS

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Abstract:

Today, the EU's struggling efforts to offer a coherent and unified response to the endless refugee and migration flows prove that, beside some vague diplomatic declarations, the real, painful lack of sustainable development imported from other parts of the world will certainly put under pressure the Europe equilibrium, being a direct challenge to the continent. Once upon a time the sustainable development was the EU's big idea for the future. Without having till now, a realistic vision in which areas Europe needs to be reformed, it is unlikely that the EU representatives will be able to engage in a meaningful negotiation with China, India or other Asian of African region or territory on topics like the 2030 Agenda or other sensitive ones.

Keywords: sustainable development, The Europe 2020 Strategy, The 2030 Agenda for Sustainable Development, EU outlooks

JEL Classification:O44, O52, P17

In 1987, the World Commission on Environment and Development (WCED) published a paper, which will prove to be an important milestone on the path of sustainable development. The report, named "Our common future"[1], will be known later as the "Brundtland report". Among many things, this document is important to us, because it contains maybe the most usually used explanation of ***sustainable development.*** According to its authors, the concept of sustainable development means that type of "development which meets the needs of the current generations without compromising the ability of future generations to meet their own needs"[2]. Since then, the environmental issues have been found constantly on the international agendas. Since that moment, all ecological, social and economic issues and topics were analyzed and negotiated as one single issue.[3]

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[1] www.un-documents.net/**our-common-future**.pdf

[2] Idem 3

[3] Sustainable development in the European Union page 24 http://ec.europa.**eu**/eurostat/documents/3217494/6975281/KS-GT-15-001-EN-N.pdf

In 1992 in Rio de Janeiro, Brazil, ***The United Nations Conference on Environment and Development***, can be considered as a new cornerstone of how we understand the sustainable development concept and how we translate this concept into different policies. At the end of the conference, ***The Rio Declaration on Environment and Development***, and ***Agenda 21*** were the considered as the most important international documents of the Rio conference.[4] But beyond documents and statements, the Rio Conference have stressed the need of developing a new set of indicators, capable of answering to the need to determine trends in all three components of sustainable development.

Putting this objective into practice proved to be very difficult and till now its implementation across world produced varied results at country level. We actually don't need for some new statistical indicators to see some disturbing facts: the constant growing trend of the world populations leads to a constant rise in consumption patterns and volume, which will affect now and in the future the environment, the world economy is still struggling with a major gap between the richest and the poorest countries despite all the efforts made by politicians and diplomats; the average income is different in almost every country, despite the impressive growth of world GDP in recent decades; the social component of the sustainable development is almost the biggest problem of the international forums. Today the less developed countries are not able to offer to their citizens a set of minimum realistic solutions to live in decent conditions, to have access to resources, to remove the risk of living in conditions of severe poverty and without some basic needs achieved, like safe drinking water, access to food supply, basic hygiene or access to electricity. And unfortunately, we can see today in some European countries, members of the EU (and I am talking about our country right now), that in some isolated small villages, the daily living conditions are not very different that the ones already mentioned above.

The development needs of the humblest world population has been again on top of the global political agenda through ***The Millennium Development Goals (MDGs),*** which were agreed in 2000, by UN. The initial target date forereaching MDGs objectives was set for 2015. We are now in 2017, and those objectives are still unreached.

Five years ago and twenty years after the first Rio conference, a new landmark was put on the sustainable development timeline. A new conference, ***the United Nations Conference on Sustainable Development (UNCSD)***was held in 2012, again in Rio de Janeiro. At the end of the Conference, also known as "Rio+20", all present leaders decided to launch a new procedure for defining of a new set of Sustainable Development Goals (SDGs), which obviously had to replace the previous MDGs after 2015 failure. After the Rio+20 Conference, the UN also launched, a new procedure, which has been concluded by designing and having some new objectives, known as ***the 2030 agenda for sustainable development***.

Realizing that, achieving the objectives assumed by the Rio+20 document critically depends on the governments capacity and will to mobilize every necessary financial or non-financial resources, each and every UN Member States agreed during Rio to launch a distinct intergovernmental procedure addressed to negotiate and to agree upon the available means and ways of financing the sustainable development process. In 2013, that unified will of the UN Member States produced a new Intergovernmental ***Committee of***

[4] Idem 5

Experts on Sustainable Development Financing (ICSDF), recognized by the UN General Assembly and meant to implement all the negotiated objectives.

Since that moment, the Committee repeatedly outlined the need for a functional financing strategy designed to support the world sustainable development. A new conference took place on 2015 in Ethiopia; the conference produced a new document which again outlined the need for realistic actions meant to mobilize the international financial support for the post-2015 development agenda.[5]

European Union could not create and was not a distinct opinion on the sustainable development evolution path. Former German Chancellor, Willy Brandt, declared that Europe will not develop as an island of wealth in a sea of poverty.[6] Being actually the world largest economic block in the present, the EU must prove a relevant impact and contribution on the sustainable development agenda. The EU has been an active actor in all past years, and agreed in 2015 upon a ***2030 Agenda for Sustainable Development.***

	Targets	Flagship initiatives
Smart Growth	— 3 % of GDP to be invested in the research and development (R&D) sector. — Reduce the rates of early school leaving to below 10 %, and at least 40 % of 30 to 34 year olds to have completed tertiary or equivalent education.	— Innovation Union — Youth on the move — A digital agenda for Europe
Sustainable Growth	— Reduce greenhouse gas emissions by 20 % compared to 1990 levels. — Increase the share of renewables in final energy consumption to 20 %. — 20 % increase in energy efficiency.	— Resource efficient Europe — An industrial policy for the globalisation era
Inclusive Growth	— 75 % of 20 to 64 year old men and women to be employed. — Reduce poverty by lifting at least 20 million people out of the risk of poverty and social exclusion.	— An agenda for new skills and jobs — European platform against poverty and social exclusion

Europe 2020 and the EU SDS as a complementary system

Figure 1 The Europe 2020 strategy's key priorities, headline targets and flagship initiatives[7]

The Europe 2020 Strategy, which came into life through the European Council in 2010, is right now the *EU most important strategy for sustainable growth*. It contains three main objectives to make from future Europe a smarter, more sustainable and more inclusive place:

- *It envisages the transition to smart growth through the development of an economy based on knowledge, research and innovation.*
- *The sustainable growth objective relates to the promotion of more resource efficient, greener and competitive markets.*

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[5] Idem 6, page 32

[6] https://ec.europa.eu/epsc/publications/strategic-notes/sustainability-now_en

[7] http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/targets/index_en.htm

- *The inclusive growth priority encompasses policies aimed at fostering job creation and poverty reduction.*[8]

Eurostat monitors the accomplishment percentages of these three objectives through a scoreboard of nine main indicators and another four additional indicators. The newest monitoring report ‘***Smarter, greener, more inclusive? Indicators to support the Europe 2020 strategy’*** was published in 2015.

Also in 2015, Commission President launched the so called European ***Year for Development***, saying that: “universality is fundamental: we should recognize that all countries have common challenges and opportunities for a shared future, and that we all need to make concrete commitments – both global and domestic – to make change happen.”[9]

However, in the past year, Europe did not look to be in her best profile, as one of the leading region when it comes to actually applying the assumed agenda and seems rather overwhelmed by its internal problems, unable to commit to the agenda it has so strongly advocated for.

Today, the EU’s struggling efforts to offer a coherent and unified response to the endless refugee and migration flows prove that, beside some vague diplomatic declarations, the real, painful lack of sustainable development from other parts of the world will put under pressure the Europe equilibrium, being a direct challenge to the continent.

On November 22, 2016 the European Commission issued three policy proposals, named “Communications”, outlining again how the EU plans to encourage sustainable development both in its domestic and external policies.[10] These documents actually recognize the fact that the 2030 Agenda for Sustainable Development must be a unique milestone for European future development.

According with the official statements, the EU's answer to the 2030 Agenda will be based on two directions: the first one, is the EU will to fully include the Sustainable Development Goals in the European policy framework, current and future Commission priorities; secondly is the EU desire to launch a reflection on Europe longer term vision.[11] In the same time, the officials acknowledged that the EU encountered some serious delays in the development and implementation of the agenda and agreed that EU policies will be in the next years the main vehicles in implementing the Agenda.

Yet, how the EU intends to respond to the present global challenges by reforming its own policies remains still unclear.

Without having till now, a realistic vision in which areas Europe needs reforms and must change quickly, it is unlikely that Europe will be able to engage in a meaningful negotiation with China, India or other Asian of African region or territory on topics like the 2030 Agenda or other sensitive ones.

[8]http://ec.europa.eu/eurostat/statistics-explained/index.php/Sustainable_development_-_broader_horizon
[9]http://europa.eu/rapid/press-release_SPEECH-15-3100_en.htm
[10]https://ec.europa.eu/europeaid/sites/devco/files/communication-next-steps-sustainable-europe-20161122_en.pdf.
[11]http://ec.europa.eu/environment/sustainable-development/SDGs/implementation/index_en.htm

"The EU proposals of 22 November shied away from experiments. It is now up to the other stakeholders to inject further creativity and ambition into the EU's contributions to global sustainable development, including for its own sake"[12] was one of the recent opinion stated by relevant European decision factors.

Unfortunately, we hardly are able to see that most invoked leadership in the recent EU behavior.

The recent Bratislava roadmap, suggested a possible future path for the EU, but the words said something different. The lack of leadership is unfortunately obvious for all of us. The expectations for the 2017 are almost absent, both national and supranational leaders are nowadays more focused on how to maintain the European project together and stopping the rot.

Jeroen Dijsselbloem, the Dutch finance minister, said during a press conference the painful truth. "We start projects but never really seem to finish them,"[13] he told to some European journalists last year. The migrant issues, the political escalation of the populism in many European State Members, the warning messages received from some member states, concluding with the rough response offered by the British people by voting BREXIT, is overwhelmingly right now a weak Europe.

Once upon a time the sustainable development was the EU's big idea for the future. Today Europe as a peace project is no longer a brand to sell to a younger generation which is more attracted to action, weapons, blood, wars, realistic shooters or inexistent heroes.

Ten years ago, David Milib and, a very influent British politician, said that the environment was the topic that could best keep connected all European leaders, and could regain the people lost trust in EU institutions. For sure, the EU was a champion in terms of preserving the environment and promoting the sustainable development. But the picture of the European Green Union was quickly destroyed by the endless last decade economic crisis. [14]

Europe is changing. To avoid taking in migrants from war zones, the EU preferred negotiate getting away of his main principles, once declaimed by Europe founders. Since the politicians seems less and less able to defend democracy and human rights inside Europe, what is the future prospect of once much desired sustainable development? An uncertain one, and that's for sure!

After all, dangers lurk upon EU not only from outside the Union, but mainly from inside, as Brexit and the rollback of freedom in Eastern Europe have recently demonstrated.

Bibliography

1. http://www.consilium.europa.eu/ro/press/press-releases/2016/12/09-jd-speech-europe-calling/
2. http://ec.europa.eu/environment/sustainable-development/SDGs/implementation/index_en.htm
3. http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/targets/index_en.htm

[12]http://www.euractiv.com/section/development-policy/opinion/agenda-for-sustainable-development-what-are-the-eus-ambitions/
[13]http://www.consilium.europa.eu/ro/press/press-releases/2016/12/09-jd-speech-europe-calling/
[14]https://www.theguardian.com/world/2017/jan/05/so-whats-the-big-idea-european-union

4. http://ec.europa.eu/eurostat/documents/3217494/6975281/KS-GT-15-001-EN-N.pdf
5. http://ec.europa.eu/eurostat/statistics-explained/index.php/Sustainable_development_-_broader_horizon
6. http://europa.eu/rapid/press-release_SPEECH-15-3100_en.htm
7. http://www.euractiv.com/section/development-policy/opinion/agenda-for-sustainable-development-what-are-the-eus-ambitions/
8. https://ec.europa.eu/epsc/publications/strategic-notes/sustainability-now_en
9. https://ec.europa.eu/europeaid/sites/devco/files/communication-next-steps-sustainable-europe-20161122_en.pdf.
10. https://www.theguardian.com/world/2017/jan/05/so-whats-the-big-idea-european-union
11. www.un-documents.net/our-common-future.pdf

EU COMPETITIVENESS- COMPARATIVE ANALYSES AND TRENDS

Iuliu Ivănescu*

Abstract

Competitiveness is, in essence, the ability to activates and efficiently use all the necessary productive resources in order to successfully offer products or services in a world economic environment. In essence to be competitive means to export more in value added terms than to import. Competitiveness is expecting to lead to a raise of all standards of living and a sustainable gross domestic product growth.

A true competitive economy is one with a real trade surplus, few non-tariff barriers to imports, and with no significant subsidies addressed to exporters. Like we already said, the real test for competitiveness is the perspectives in term of economic well-being achievements and long-term development.

The challenge for today Europe is to maintain the paths, to reinvent itself, to adapt to the new challenges, not only by keeping up with the global market new facts, but actually to rebuild Europe former strength and to relaunch the innovation.

Keywords: EU competitiveness, GCI, bringing back EU competitiveness

JEL Classification: F15, O10, O30

Today, we are discussing in classes, at conferences or workshops about competitiveness. This concept has become almost a daily presence in our current activity.

Some economists are using the concept of competitiveness as synonymous with productivity. Even the most famous Harvard professor, ***Michael Porter*** states, "The only meaningful concept of competitiveness at the national level is productivity."[1]In most of the cases national prosperity is created. So, according with Porter's opinion, we can't harvest competitiveness, it does not be identified as one of the available natural endowments. But, a nation's competitiveness hangs on the capacity of a people to innovate, to constantly reinvent itself. In the same time, companies will gain competitiveness mainly because of pressure and challenge from outside the organisation.

The ***World Economic Forum***, in the well-known ***Global Competitiveness Report*** explains competitiveness as "the set of institutions, policies, and factors that determine the

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[1]https://hbr.org/1990/03/the-competitive-advantage-of-nations

level of productivity of a country."[2] The IMD's World Competitiveness Yearbook defines competitiveness basically in the same way.

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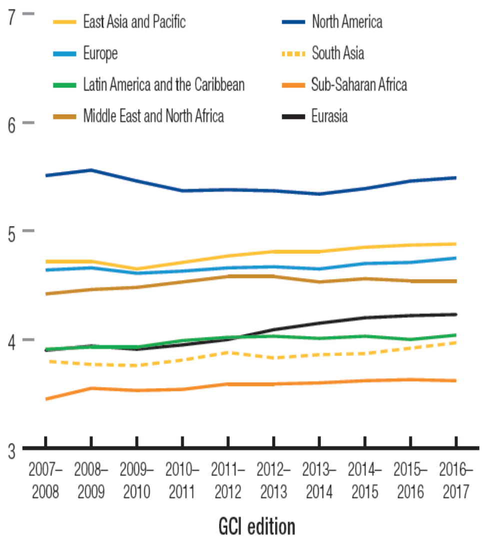


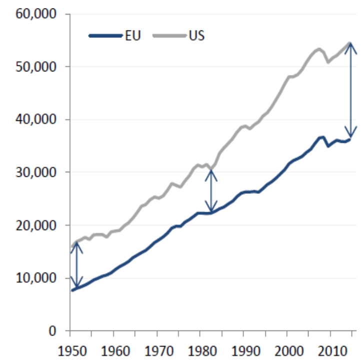
Figure 1. Regional competitiveness comparison 2007-2016

In this context, the EU's competitiveness will have to be defined in a specific context, because the EU is not about a single economy or a specific industry. The EU's competitiveness is built on the foundation of 28 national economies with many things in common but, in the same time, with so many differences. So, just to judge, for example, the trade volume of each EU member state in world exports or import volume can be misleading. Instead, when we have to evaluate the EU competitiveness, we have to take into consideration the need for a complex analysis which will rank each country contribution to some relevant indicators such: the enabling environment, the ability of companies to proactive adapt to change, and the productivity growth, GDP trends, research and economic welfare.

Unfortunately, Europe, till now, did not manage to efficiently use the available potential of improving the region competitiveness. Just comparing a single indicator, the GDP per capita, with that provided by the United States, we

[2]http://reports.weforum.org/global-competitiveness-report-2015-2016/methodology/

will immediately see the Europe's unachieved potential. After 1950, the Europe's GDP per capita has always been lower than that declared by US. And the gap was not shrinking in recent decades. The trend is just opposite, the gap between those two regions is widening.



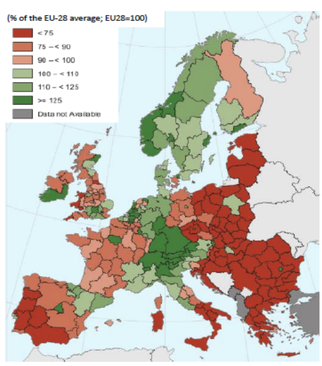
Source: The Conference Board Total Economy Database, May 2015

Figure 2. GDP per capitaEU28 against the US, PPP (constant 2014 USD)

In a recent report, entitled "***Restoring EU competitiveness - Is Europe achieving its potential?***" the income disparities between all 28 member states shows a much serious situation. The most competitive EU state members are situated in the N and NW-ern part of the continent. The less competitive states are situated in the E and SE-ern area of the EU. So Europe is facing right now not a single fracture in term of competitiveness but two main fissures, the "North-South" gap and the "North-East" gap.[3]

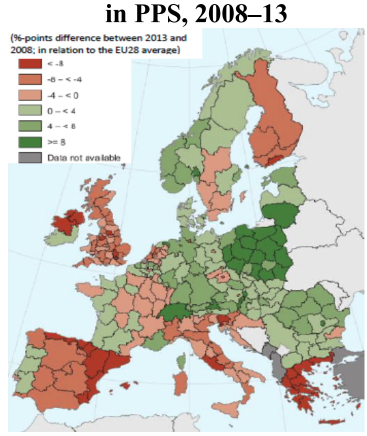
The EU race in terms of convergence between all member states lost the breath after the 2008 economic crisis. Till 2008 all regions with a lower GDPper capita reported an average growing rate better that the one declared by the developed countries. This was not the case after 2008, as the figure 3 and 4 are showing to us.

Figure 3. GDP per capita, in PPS, 2013



Source: Eurostat, Data at regional NUTS 2 level

Figure 4. Variation of GDP per capita, in PPS, 2008–13



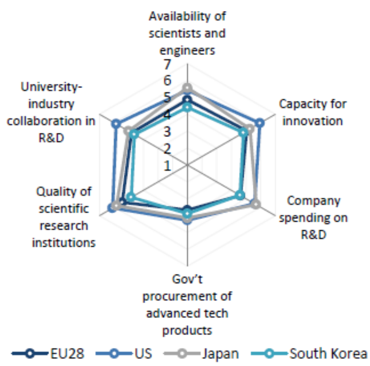
[3]http://www.eib.org/attachments/efs/restoring_eu_competitiveness_en.pdf.

In the same time the available statistical data are suggesting that the 2008 economic crisis has had a painful impact manufacturing industries than other productive. Poland was the only member state who avoided to face the classic recession negative effects, and that's because of her solid domestic demand. Germany and other relevant exporters were also, let's say in a decent situation at the end of the recession period, thanks to the extra-EU demand. The rest of the EU member states, which were not placed in those trade patterns, suffered serious negative effects caused by the financial and economic crisis

As Porter said, in terms of competitiveness, beside strategy and differentiation, we have to analyze the productivity and the capacity for change. Productivity is seen as production efficiency, a classical approach, but in the same time as innovation translated in terms of product sophistication. Unfortunately, we have to admit that Europe's R&D performances are far behind US, at international level, and the urgent need for innovation is a key challenge for today Europe.

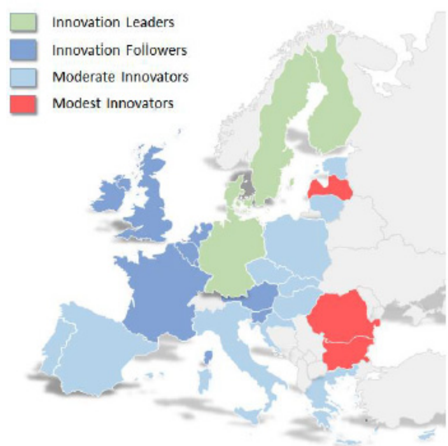
Indicators assessed by the World Economic Forum (WEF) in the last year report are showing us that the EU actually performs worse not only relating it to US, but also Japan and in some instances with South Korea, in terms of capacity for innovation, industry spending on R&D or government procurement of advanced tech products. The largest and painful gap only comparing the Europe and US ranks is in company spending on R&D and university-industry collaboration[4].

Figure 5. Competitiveness trough Innovation, EU against other economies- WEF GCR Report 2015-2016



Source: World Economic Forum, Global Competitiveness Report 2015-2016
Note: Innovation Pillar (12th Pillar). Scores from 1(worst) to 7(best).

Figure 6. EU Innovation Scoreboard 2015



Source: Innovation Union Scoreboard, 2015

An improvement of the EU rank in terms of capacity of innovation or R&D spending is unlikely to be seen in the next years, mainly because large disparities can be identified across the EU itself. While member states like Finland or Germany are

[4]http://reports.weforum.org/global-competitiveness-report-2015-2016/

comparable in terms of performances with the scores like that of the US, the innovation and the research in general is an absolutely catastrophic in some southern members and in almost all new member states. There are basically two reasons which are responsible for the present gap: Europe's high technology sectors are less significant compared with US; secondly, the R&D intensity in many sectors is minor.

This situation can be considered as one of the main factor which is influencing the EU competitiveness on long term. It is based on the Europe average lack of highly industry innovation capacity, poor marketability of research results or products and the lack of capability in improving and perfecting the elsewhere created knowledge.

The effective movement of people, goods, services and information was, still is and it will be a criterion for achieving and maintaining the desired competitiveness. If some recent trends persist, Europe's economy will face a significant shortage of highly skilled workers. According with the available data, the largest gaps between the supply and demand are specifically in the engineering, IT and healthcare sectors. Forced to adapt to a new situation, with an imminent Brexit and some numerous other crises situations emerging both from inside and outside of the region, Europe finds itself in a delicate situation.

The UK is still one of the most targeted European countries for top skilled persons, but the Brexit decision proved a significant impact of uncertainty over the future participation of the UK to the EU economy and competitiveness.

Another weighty gap with many consequences on the present and, especially, the future competitiveness of the EU is in the macroeconomic environment, clearly a consequence of the fact that the region has recovered from the global financial crisis with big differences between each member states.

One zone where the EU has shown a great opening and a prospect to further improve its competitiveness is through the EU Single Market. Thought it, all EU companies will benefit from the access to a large internal market like in the US case, and that situation can and must trigger an incentive for innovation.

The challenge for today Europe is to maintain the paths, to reinvent itself, to adapt to the new challenges, not only by keeping up with the global market new facts, but actually to rebuild Europe former strength and to relaunch the innovation. In this context, I think that a further evolution in the sense of integration of the EU Single Market will be crucial, despite recent UK actions.

Rebuilding the competitiveness means to boost the innovation performance and to guarantee a sufficient access to finance for the necessary investments.

Structural reforms, reducing bureaucracy, promoting only appropriate regulation, driving facts into a normal evolution spin in order to ensure competitive, flexible and efficient markets for goods and services, is another critical part of this approach.

The scale of the structural challenge that Europe faces should not be underestimated. Restoring EU competitiveness is perhaps, right now, one of the few available EU success story of cohesion and prosperity. For the good of Europe and the Union we'd better not waste this chance.

Bibliography

1. http://ec.europa.eu/eurostat/data/database
2. http://reports.weforum.org/global-competitiveness-report-2015-2016/
3. http://reports.weforum.org/global-competitiveness-report-2015-2016/methodology/
4. http://www.eib.org/attachments/efs/restoring_eu_competitiveness_en.pdf
5. https://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards_ro
6. https://hbr.org/1990/03/the-competitive-advantage-of-nations
7. https://www.conference-board.org/retrievefile.cfm?filename=The-Conference-Board-2015-Productivity-Brief-Summary-Tables-1999-2015.pdf&type=subsite