Carbon Market

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Abstract: *The corporate social responsibility is a process driven by globalization, deregulation and privatization. Proponents of corporate social responsibility are keen to demonstrate that the businesses have responsibilities beyond the production of goods, services and profit making, and that socially responsible businesses can help solve important social and environmental problems. Hence, businesses perform best when they play a strong role in the communities in which they operate. Awareness of financial implications by climate change is growing among participants in the financial sector, especially after the ratification of the Kyoto protocol. The majority of regulations constrain emissions of greenhouse gases (GHG), and on the other hand they enable a purchase of the so-called emission credits within and out of the regulated area. All this led to the growth of market called "carbon market", Carbon transactions are the contracts between two parties, where one party purchases a certain quantity og "emission" credits that it can further use as a buyer, from the other party. Emission credits are traded on the climate exchanges. Participants on the carbon market are various, such as corporations, individuals, and institutional investors. Carbon credits represent significant potential for investments, and investors can also diversify their portfolio with it, because this asset class shows low correlation with other asset classes. Potential benefits and risks associated with this asset class are yet to be researched.*

1. Introduction

The corporate social responsibility is a process driven by globalization, deregulation and privatization. The companies that act in a socially responsible manner define and conduct activities related to human resources management, activities related to an active participation in a broader social community, activities related to consumers management as well as activities related to environment protection. Ecology and environment protection are becoming increasingly important in companies' long-term investment decision making. On one hand, the emissions of certain gases are becoming a scarce resource, and therefore an attractive investment, whereas on the other hand, the investors now tend to prefer the companies that do business in an environmentally responsible manner and such companies become their choice when it comes to investing capital.

Different countries, companies and individuals started reducing the greenhouse gases emissions. This was the consequence of the signing of the Kyoto Protocole and introducing a number of regulations [5]. As the greengouse gases uniformly spread through the atmosphere, the reduction in their emissions is, from the environmental point of view, independent from political frontiers and can be performed anywhere in the world. In accordance with the regulations concerning such emissions, emission credits may be bought within and without the defined areas. All these led to the creation of the so-called "carbon" market [5].

The costs related to introducing the equipment for pollution reduction purposes are lower in the developing countries, therefore the carbon market contributes to the sustainable growth, attracting new public and private investments into "pure" technologies into transition countries, as well as into the developing countries [5].

2. The carbon market structure

We find it necessary to define the notion of carbon transactions in the first place. The carbon transactions are the contracts by which one party accepts the obligation to pay to the other party a certain amount of money in return for a stipulated amount of emission credits which the purchaser can use for his purposes [5]. Carbon transactions can be classed into two categories [5]:

- Emission permits, or credits, such as AAU[1] and EUA[2]. This type of emission transactions is created and assigned by regulatory bodies. One regime under which they are assigned and disposed of is the so-called cap-and-trade[3] regime.

[1] Assigned Amount Units (AAUs) – the assigned quantity is a total quantity of pollutant gases (GHG) which the Annex B countries (members of OECD, Central and Eastern Serbia and the Russian Federation) are permitted to emit in accordance to the Kyoto Protocole (AA), whereas the Assigned Quantity Unit is a unit to be used in trading, and equals the quantity of 1 ton of carbon-dioxide [13].

[2] European Union Allowances (EUA) – the quantity unit allowing the emission of 1 ton of carbon-dioxide. This credit, too, was approved of following the emission credit transaction scheme (EU ETS) [12].

[3] Cap-and-trade – the scheme by which a limit is set to the total amount of GHG emission, after which the companies are granted emission permits in the form of emission credits [9].

- Transactions based on projects are those by which the purchaser participates in finansing the project meant to reduse the emission of gases causing the greenhouse effect, i.e., gases responsible for global warming. According to the effects of the realization of the project, the purchaser is assigned a certain quantity of emission credits. There are two types of assets within this category, projects intended for complying with the Kyoto Protocole and those that do not belong to this group.

There is a number of emission credit transaction schemes at the moment, and they are binding for the companies from certain industry branches. Failing to comply with the quoted obligations incurs penalties the companies will have to pay. These are not the sole expenses incurred in relation to emission credits and emission of pollutant gases that cause global warming. If a company wishes to double the electricity production, it will have to either buy the additional emission credits to cover for the additional carbon-dioxide emission, or to invest a substantial amount of capital into a technology emitting a low level of carbon-dioxide and thus prevent excess emissions. To emit carbon-dioxide, a company has to invest substantial capital [8].

The carbon market can be divided into the primary and the seconrady markets. The primary carbon market is a market of forward contracts where there is no guarantee the emission credits will be assigned upon project realization. The secondary market is the so-called spot market, where the emission credits are approved. The risk of emission credits delivery is a risk of exploiting a beforehand defined quantity of emission credits. This risk is reflected in the difference in prices on the primary and the secondary markets. The primary market has recently witnessed the rise in prices due to an increased interest of investors, as well as of a limited offer of large projects [3].

3. Carbon market segments

The best known regulation related to the carbon market is surely the Kyoto Protocole, the document requesting industrialized countries and transitional economies (the Annex B countries) not to exceed the target level of GH gases emission in the 2008 – 2012 period.

The Annex B countries are allowed to purchase a certain amount of Assigned Amount Units and also implement the projects to reduce the pollutant gases emission, called the Joint Implementation projects [5].

The Joint Implementation projects are a mechanism defined by the Kyoto Protocole allowing the countries to which the GH gases emissions are limited, i.e., the Annex B countries, to earn the Emission Reduction Units (ERU). This they can do by the realization of a project by which the GH gases emission in another Annex B country is reduces or eliminated. Each ERU equals one ton of carbon-dioxide and is regarded as achieving the emission objectives defined in the Kyoto Protocole. Such a type of project is a flexible and cost effective solution in fulfilling the obligations related to the Kyoto Protocole. The party acting as host in the realisation of such projects benefits from foreign investments and technology transfer [14].

The countries that do not belong to Annex B may implement projects by the Clean Development Mechanism [5]. The Clean Development Mechanism is the one defined by the Kyoto Protocole and allowing the Annex B countries to implement a project in a developing country to reduce the global warming gases emission. Such projects may earn the country the sertified emision reduction credits (CER), each of which equals one ton of carbon-dioxide. The projects that can be implemented by this mechanism are, e.g., electrification of rural regions by using solar energy or installation of energy efficient boilers [15].

The European Emission Trading Scheme[4] includes large scale emitters from the European Union assigned a certain number of European emission credits by the government of the countries members of the European union, to trade throughout Europe. The relation between the European Emission Trading Scheme and the Kyoto Protocole (directive 7) is in that the entities under the European Emission Trading Scheme may, under certain conditions, use the emission reduction credits from either Joint Implementation Projects or Clean Development Mechanism projects [5].

Other Annex B countries, primarily Canada and Norway, created a cap-and-trade scheme as their strategy for achieving the Kyoto Protocole objectives. Under this scheme, the entities subject to the limitation of GH gases emission would be allowed to implement mechanisms based on projects to reduce or completely aleviate the amount of their obligations [5].

In addition to these international regulations guided by the Kyoto Protocole, there are other regulatieons,

[4] EU Emissions Trading Scheme – EU ETS

independent from the Protocole, such as regulations created in the U.S.A. and Australia. These regimes are different and less rigorous compared to those defined by the Kyoto protocole [5].

Some companies chose to join the carbon transaction market out of their own free will. One reason for this is the adoption of voluntary emission objectives, or there may be some strategic reasons. Their participation is mainly connected to transactions based on projects. The Chicago Climate Exchange (CCX) is a private and voluntarily created market for emission permits trading among a number of companies [5].

In addition to the abovementioned segments, the carbon market also has a so-called retail market. The players on this market are the companies and individuals without significant emission activities and are therefore excluded from regulation under a household regime. They join the carbon market to demonstrate their social responsibility or to promote a certain brand. The players on the retail market buy small quantities of emission credits [5]. In order that the volume and the importance of a growing carbon market be clearly understood, Table 1 presents the facts on the volume of emission trading, the number of projects for the project based transactions, as well as facts related to emission credit (amounts) transactions [5].

Table 1: *Volume of emission credit trading in the 1998 – 2004 period*

	Vignette volume by 2012		**Number of transactions**		**Average volume of transaction**
	1998-2004	**2004**	**1998-2004**	**2004**	**1998-2004**
Total amount of project based transactions:	293.611.881	64.870.588	360	44	848.589
1.Transactions under the Kyoto Protocole	151.890.882	61.394.093	126	67	1.234.885
2. Voluntary engagement	139.148.129	2.299.050	124	9	1.209.984
3. Retail market	1.493.870	98.445	108	6	14.093
Emission credit trading	7.218.183	2.088.408	765	97	9.436
Total value of carbon market transactions	300.830.064	66.958.996	1.125	141	267.405

4. THE CARBON MARKET PLAYERS

The Japanese private companies count as the largest buyers of emission credits on the carbon market. One reason is their sense of responsibility, but such a state also reflects their uncertainty as to the regulations that will be implemented in Japan and the way the process will be conducted [5]. The second biggest buyer in this market is the Dutch government, while the third is the Carbon Finance Business, trading through its funds. In the period from January 2003 till May 2004, these three groups were responsible for 88% of the total volume of trade [5].

The share of the US and Canadian buyers had a decreasing trend by 2004. The U.S.A. does not have federal regulations, although certain states are trying to limit greenhouse gases emissions, which results in their limited participation on the carbon market. Similarly, the Canadian trend decreased, but the decrease was mainly conditioned by the uncertainty as to the final form their national programme of emission credit trading will take [5].

In the early years, while the carbon market was still being created, the majority of project based transactions were conducted among industrialized countries. Since 2001, however, the situation has changed significantly and the share of the developing and transitional countries increased, from 38% in 2001 to 93% in 2004. The largest number of projects in the 2003 – 2004 period came from Asia, followed by Latin America, with the East European region occupying the third position. In this period Russia and Ukraine did not take part in the

project based transactions. The smallest transaction scope was reported in Africa [5].

The European buyers dominated the market of projects realised on the basis of the Clean Development Mechanism (86% of overall realised transactions) in 2006. This year also makes a turnpoint since in the previous year the Japanese and the European buyers had equal shares in this market. The Japanese buyers were sensitive to the change of project prices and more cautious in negotiations. The European buyers were willing to pay a higher price for a certain CDM mechanism project. In 2006, 90% of purchasing transactions were performed by the private sector participants from Europe. Contrary to the CDM implemented projects, the projects implemented following the Joint Implementation Mechanism were domonated by the public sector buyers from the Netherlands, Denmark and Austria. Their share in the overall scope of effected transactions amounted to 92% in 2006, whereas in 2004 and 2005 it was around 80%. If the project based transactions were observed cummulatively, the European countries' share on this market amounts to 70%, whereas the share of Japan is around 30% [1].

As far as the foreign offer in the carbon market transactions is concerned, the dominant role belongs to China. In 2006 China achieved 61% of the total of transactions, observed from the position of sellers on the carbon market. In 2005 its share amounted to 73%. The second top position of sellers is occupied by India, with a share of 12%, which represents a rise of 3% compared to 2005. The largest sellers on the carbon market are the Asian countries, followed by the Latin American countries, dominated by Brasil. The overall share of Latin America amounts to 10% from CDM based transactions. The share of the African continent is 3% [1].

4. The carbon market players

The majority of project based transactions are based on the commodity model. The commodity model means that the carbon buyer purchases emission credits generated by the project, and the transaction is carried out as any other transaction, of any good or services. Only a few transactions were conducted under an investment model, by which the buyer invests the shares or a debt into a certain project and gets emission credits as part of revenues realized on the basis of the investment [5].

The implementation of an appropriate model is important for the very financial structure of the project. If in a purchase a commodity model is used, the buyers pay for the carbon upon delivery and thus decrease the exposure to risks borne by the project itself. These project demand innitial financing. The sales of emission credits are effected in hard currency and their buyers' credit rating is always high which enhances the confidence of a financier and allows for the project capital to be increased through loans [5].

In the 1996 – 2001 period one fourth of contracts were made as purchasing options, which allowed for the purchase of emission credits in a certain future period at a previously stipulated price. Upon adoption of the Marakesh Accord, the purchase is effected in the form of forward contracts. On closing such contracts, the buyer gets a number of future vignettes expected to result from the project [5].

The actual form of a certain contract arrangement between the parties will depend on how different types of risk will be allocated between the seller and the buyer. The risks that may occur in such transactions are the risk implied by the project itself (that the project will not give expected results and will not achieve the expected reduction of emissions), the risk of the country, and the risk related to the Kyoto Protocole (that the project will not be registered under its conditions). The risks are allocated between the buyer and the seller using a variety of contractual features, such as monitoring plans, guarantees, penalties etc. [5].

5. Project based transactions structure

Price is only one of the features of the contracts to be closed, and, due to the lack of standardization in contract closing matters, an adequate comparison among prices of different transactions is not possible to perform. If the contract stipulates that a larger portion of contracted amount shiuld be paid in advance, then the nominal price of carbon-dioxide per ton will be lower. If the payment is effected immediately upon the delivery of emission credits, in determining the amount of payment the appropriate discount factor must be taken account of, and in such a case the buyer is more exposed to the risk borne by the project itself [5].

In a majority of cases the prices are not publicised, and the manner of reporting[5] among buyers is not uniform. A largest number of companies in the role of the buyer are obliged to report the contracted price, whereas the private individual buyers are not bound by the same obligation [5]. In some countries, e.g., the U.S.A. and Great Britain, there is an obligation for the companies to report on the expenses on environment protection, on obligations and on future risks.

Such a type of reporting aims to inform the investor on the nature and type of effort the company takes when making decisions on environmental care [4].

In transactions generating emission reductions and in accordance with the Kyoto Protocole, we make out two classes of transactions [5]:

Transactions by which the buyer takes on the risk of "registration", i.e., the buyer purchases the Verified Emission Reductions (VER[6]), and will continue to purchase them although the project is not registered according to CDM or JI;
Transactions by which the seller takes on the largest portion of "registration" risk, the buyer purchases CER or ERU and can waive the contract under certain conditions, is the project fails to register.

The transactions conducted within either category may differ greatly. Transactions may be structured in a way that payments will cease if the emission reductions fail to register as CER or ERU, while other transactions may provide that the seller be liable to ensure an adequate replacement of emission credits at a prevailing market price unless the project ensures the CER or ERU. The price of the transaction depends on the concrete goods traded, therefore the price for projects bearing emission credits that do not conform to the Kyoto Protocole may vary from $0.37 to $3.00 per ton of carbon-dioxide. In case of the transactions conforming to the Kyoto Protocole, if the buyer takes on the risk of "registration", the price of VER amounts to $3.00 to $4.25. in case the seller takes the "registration" risk, the price is slightly higher and ranges between $3.00 to $6.37 [5].

6.1. Price features

The better the guarantees the seller can grant in terms of obtaining emission credits, the higher the transaction price. Besides guarantees, there are other features determining the transaction price. Among the key determinants collected from the players on the carbon market Lecocq quotes the following [5]:

- The project sponsor's credit rating and experience, as well as the reliability of the project itself;
- The confidence in the quality of carbon resources management and consequently the delivery of emission credits during the life cycle of the project;
- The contract structure;
- The emission reduction vignettes (only a few are capable of meeting the demands of the protocole);
- The verification and the potential certification costs;
- The host country's support and willingness to cooperate;
- The additional ecologic and social benefits.

The majority of academic models that define the factors determining the carbon-dioxide price suggest that the price of energy and time factors do have an impact upon the forming of the emission credit prices. According to the research conducted by Mansanet-Bataller et al., the most important factors affecting the change in the prices of carbon-dioxide are the changes in the prices of natural gas and the Brent oil. It was also found that extremely hot or extremely cold weather in Germany influence the carbon-dioxide price in a positive way. The change in the price of the most intensive source of carbon-dioxide – coal – was found not to affect the change in the price of carbon-dioxide itself. The study findings confirmed the existence of a certain rationality of the carbon market, reflected in that the daily value of forward contracts mirrors the micro-level conditions [7].

7. Emission credit market

Emission permits can be traded on four markets. These are: the UK Trading Scheme, the EU Emissions Trading Scheme, the Chicago Climate Exchange, as well as the New South Wales GHG Reduction Scheme [5].

7.1. The UK Emissions Trading Scheme

Great Britain introduced the emissions trading scheme before the European Union. The scheme was launched in March 2002. Participation in this market was on voluntary basis [1]. The government negotiated with companies on the issue of the Agreements related to climate changes (CCA), and the companies agreed to set ener-

[5] About 85% of reporting on the corporate social responsibility is related to climatic changes. The majority of reports present information on the amount of GH gases emission resulting directly from the company's operations, while only a small number reports on indirect amount of GH gases emissions. The sources of indirect GHG emissions used in reporting are the amount of electricity purchase, transport or emission resulting from the use of products or services a company offers. Many companies report on the basis of a wide range of activities conducted for the purposes of reducing the emission of gases that cause global warming [2].

[6] Verified Emission Reductions (VER) – the unit or reduction of GHG emission verified by an independent auditor, but that has not passed the verification procedure to obtain CER or ERU according to the Kyoto Protocole. The buyers take on the risk and pay the discount price for VER. One VER equals the amount of one metric ton of carbon-dioxide equivalent.

gy related objectives in the form of absolute amounts or percentage limitations, either related to the GHG emission or to these companies' energy consumption, in exchange for 80% exemption from taxation related to industrial or commercial energy consumption[7]. The type of the limitations agreed upon defines the market rules the company will have to observe as well as the period in which the governmant will grant the company the emission credits to trade [5]. The companies with CCA objectives used the UK Emissions trading scheme to buy emission credits or to sell the amounts of emission credits that are in excess in the company. The penalties enforced for disregarding the agreement were the deprivation of tax exemptions as well as the allowed level of pollutant gases emissions. This market allowed only the transactions with the national credits [1]. In the years when the companies had to honour their obligations, a significantly larger volume of trading was observed. March 2007 was one of the deadlines the companies had to observe in relation with a defined level of GHG emissions. In the period preceeding this deadline, from December 2006 till february 2007, the majority of transactions were effected [1].

7.2. The European Union Emission Trading Scheme

The European Union Emissions Trading Scheme (EU ETS) commenced on 1st January, 2005 and is the framework of the European Union policy towards implementation and the Kyoto Protocole observing. In the first stage of its existence, from 1st January, 2005 until 31st December, 2007, the EU ETS regulated 40% of the total carbon-dioxide emissions in Europe, and the amount of emission was limited to 6,600MtCO_2 during the period. In terms of allocation of emission credits of the European Union (EUA) across the states-participants on this market, it is clear that within the first stage Germany obtained almost a quarter of the total number of credits for the first stage, while Great Britain, Italy and Poland each obtained approximately 10%. If the allocation of emission credits is observed across the industry branches, the energy sector obtained almost 55% of credits, the mining and metal industries obtained 12% each, while the petroleum and gas industry obtained around 10% each [1].

In April 2004, the European Parliament passed a directive relating the EU ETS with the Kyoto Protocole, in that the introduction of ERU and CER credits into the EU ETS market became possible under certain conditions [5].

In the second year of its presence on the European Emissions Trading Scheme the overall scope of credit trading reached 1.1 million of emission credits, or €18.7 billion which is three times as much compared to the first year in which the overall value of trading amounted to €6 billion. The increase was achieved in spite of the 10% fall in prices compared to the first year, i.e., from €19 to €17. Within the first stage of emission credit trading the number of conducted transactions increased on monthly basis. With the acceptance of new member-states into the European Union, the number and the type of players on this market also increased [1].

The operations on the EU ETS market in the first stage of trading helped draw significant conclusions that will contribute to the development of trading in the subsequent stage. One of the most significant contributions of this market is that the market players became aware of the limitations as regards carbon, contrary to the period prior to the formation of this market, when their emissions of carbon were unlimited. Various studies confirmed that these activities led to real reduction of carbon-dioxide emissions [1].

The impossibility of transferring the unexpired emission credits of the first stage into the second stage led to a collapse. For that reason, stage two allows for the unexpired emission credits transfer or "banking". As the limitations in the field of carbon-dioxide emission become ever stricter from stage to stage, the carbon emission reduction becomes a permanent part of the companies strategic management, playing an ever more important role in long-term investments decision-making [1].

7.3. The Chicago Climate Exchange (CCX)

The Chicago Climate Exchange (CCX) is a cap-and-trade system created as a group of North-American companies (13 in number) formed a voluntary organization to reduce the emissions of pollutant gases that cause global warming [5]. Among the founders of this exchange were the companies such as American Electric Power, DuPont, Motorola Inc., as well as the City of Chicago [10]. These companies can fulfill their obligation to reduce GHG emissions through internal reductions, through the purchase of emission credits from other companies that are also limited as regards the levels of pollutant gases emissions, or through the purchase of emission credits from projects that reduce the emission while meeting certain conditions [5]. The companies – founders of the Chicago Climate Exchange were the first in the world to accept a legal

[7] **Climate Change Levy**

obligation concerning all six pollutant gases causing global warming. This exchange is the only system of emission credit trading for all GHGs and also the only system of emission credit trading in North America. Today, the Chicago Climate Exchange has almost 300 members from all industry fields [10].

The transactions effected at the Chicago Climate Exchange in 2006 reached the scope of 10.3MtCO_2 which is seven times as much compared to 2005. The value of the transactions effected amounted to €30 million [1].

7.4. The New South Wales GHG Abatement Scheme

New South Wales, Australia, has a greenhouse gas abatement programme[8] the purpose of which is to regulate the energy sector and be operative until 2012. Both small and large New South Wales consumers of electricity are, as of 1st January, 2005, obliged to achieve the statutory defined target pollutant gas emissions causing global warming, the emissions incited by the production and consumption of elestrical energy. The energy sector companies that have the obligation to reduce emissions can achieve their objectives by purchasing a certificate generated through conducting activities such as a low level of emission during the electrical energy production process or the improved generator efficiency, activities resulting into the reduction of electrical energy consumption or implementation of sequestration. The programme allows for the existence of the Renewable Energy Certificate. No other forms of credits, such as credits generated through project based transactions are allowed on this market for the time being [1]. If a company exceeds the granted limit of pollutant gases emission, it is subject to penalties [5].

After the European Emission Trading Scheme, the New South Wales Scheme counts as the second largest market with the trading scope of around 20.2 million certificates during 2006, the total value of which amounted to €173 million. The size of the2006 market shows a rise compared to the size of 2005 market. The trading scope increased by 3.3 times compared to 2005, whereas the total value of the transactions effected increased by 3.8 times compared to the previous year. There is also an increased interest in the voluntary sertificate market of New South Wales [1].

8. Carbon market development

Carbon is something more than just a new type of goods to be traded in; it is becoming a specific class of assets [6]. Only a few participants in the period until 2006 sold their emission credits, which led to discrepancies between the offer and the demand and to the forming of higher prices, instead of the market players having adopted the sales strategy in terms of a more regular sales of credits. The results of the study published in the European Power News journal show that it is very likely that 63% of the emission credit reserve a certain company owns will be sold, while the additional 33% will probably be sold, whereas only 4% of emission credits will certainly be retained within in the company [11]. The UN forecasts that in 2012, 2.5 billion emission credits will be offered on the market. An investment race is predicted for the period to come, for the purpose of investing into projects in the early stage of execution, showing a strong likelihood of obtaining a formal approval from the United Nations Framework Convention on Climate Change (UNCCC). At the moment the approval process is very slow, due to the shortage of qualified evaluators. This is the cause of the current pressure upon the price [6].

There is a positive effect of the selection of credits created using CDM mechanisms by the perticipants voluntarily involved in the carbon market. The buyer who is under obligation to observe a defined target value of the pollutant gas emissions, finds CER to be just CER, no more. The participants who are voluntarily involved in the market have a different view of emission credits. The wind energy based project are in greatest demand, and also the absorption of metane in the Brasilian agricultural communities, by which electricity and heating are provided for distant communities. The social aspect of the project is a significant characteristic valued by the participants voluntarily involved in the market. Therefore the highest quality projects can be expected to bring in a substantial premium, while the credits earned by less desirable projects will be more difficult to sell [6].

There is an increasing interest in the carbon market shown by institutional investors, not only in terms of potential rise in the emission credit price, but also in terms of a diversification of their portfolios. The carbon market displays a low amount of correlation with other segments of financial market in the short-term and the long-term periods. A low level of correlation between carbon and corporative debtor securities, shares and goods is observed [5]. Institutional investors, especially pension funds, are in some countries obliged to report on the social responsibility and environment protection, and show how much they

[8] NSW Greenhouse Abatement Scheme (GGAS)

have taken these into consideration when investing their capital. The legal obligations of institutional investors in some countries force these investors to pay special attention to climate changes in their analyses as to which companies they will invest into [4].

In the early days the market makers regarded carbon as definite goods, however, as market develops, their attitudes change. Fundamentally, we can say there is no limited amount of carbon.the most important fact is that this market is established by the governments of various countries and it is not subject to classic laws of offer and demand in some goods. All this shows that carbon becomes a specific type of assets [6].

Due to the failure of credit market in the previous year, hedge funds invested substantial capital into emission credits. A significant increase in demand is expected, which led to the emergence of instruments to manage risk on the carbon market. One instrument is the structured product (CDO) which enables the investors to select a risk level they are willing to accept. Insurance companies, too, have begun to offer insurance policies in case the emission credit delivery fails to be effected [3].

9. Conclusion

Ecology in its broadest sense and climate changes in their narrower sense count among the areas of socially responsible companies' activities. Carbon market is a relatively new market, artificially created to help fighting climate changes. Companies can enter this market either of of their own will or in accordance with the regulations issued by the Kyoto Protocole or one of the trading schemes. Emission credits can be obtained either from the government of the country in which a company is located or through the project execution, or by purchasing them on the market. Due to the increasing growth of this market and its passage into the second stage in which certain target values of pollutant gases emission (EU ETS) must be observed, companies will be obliged to take into consideration the projects to be executed either through the Joint Implementation Mechanism or through the Clean Development Mechanism in their long-term investment decision making. In order that the projects and emission credits they realize earn a substantial premium, it is necessary that they have certain social implications, which are in accordance with the concept of socially responsible organization. In making decisions on investing into certain companies the institutional investors are obliged to report on how much they take into consideration these companies' care about environmental protection. Similarly, institutional investors become the players in this market for the purpose of diversification of their portfolios. Carbon market is developing daily. A further growth of the market is reflected in the introduction of various financial instruments to protect the carbon market players from risk.

Companies which have the obligation of limiting their carbon-dioxide emissions have to allocate substantial capital to honour that obligation. All these affects their investment decisions. Such companies are not only burdened by the expences related to regulating the pollutant gases emissions; their socially responsible conduct may attract investors, a new capital, and may result in a more favourable financing they achieve. Such conduct does impose an obligation, however, carbon market offers numerous opportunities for more favourable investments, earning substantial premiums in emission credit trading. Above all, the development of this market contributes to environmental protection and the companies that are involved in it announce their resolution to behave in a socially responsible manner.

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