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## RECONSTRUCTION IN EASTERN EUROPE

*The way to what is right is hard and it often passes through  
the territory of errors.*

D. Davies

**Abstract:** *This present paper analyzes the evolution of the USSR as well as that of Eastern and Central European countries, which were under Soviet influence, after the Yalta and Tehran agreements, between 1944 and 1960 (1962). What were the transformations that occurred in those states, why and how? What were the outcomes? What were the perspectives? These are essential questions which we intended to answer.*

**JEL classification:**

**Keywords:**

“Exhausted but triumphant, the Soviet Union was no doubt placed second among the world powers during “the evening of the war”. It was on the West and on the East that the collapse of Germany and Japan ensured their direct or indirect continental enlargement, a field of action that was much more unlimited as its political and ideological options so discussed as they had been in the capitalist countries, seemed to have been well justified with the victory of 1945.

As a matter of fact, such an enlargement, soon blacked at the level of the “Iron Curtain” by the American involvement will find its own limits in itself when it will bring a new rival for the Soviet Union: “Popular China”. The latter’s pretensions to represent the Marxist-Leninist orthodoxy will turn the monolithic communist world of that time a two headed image”...This is how Pierre Thibant begins in “Le temps de la contestation” the chapter about the communist world, better said a world that is mostly identified in the East and Central Europe.

From the perspective of the work requested and of other economic histories, including the volume of the undersigned “Economic history- the history of the national economy”, from the perspective of some substantial studies and articles presented mostly at International Congresses of Economic History in Milan (1994), Madrid (1998), Buenos Aires (2002), Helsinki (2006), here are some would be coordinates of this world.

Therefore during 1948-1953, marked by the “Cold War”, two fundamental objectives were ahead the Soviet Union. On one side, the rapid end of reconstruction in order to compete as soon as possible the USA both on an economic plan and in a military domain. And on the other hand, without tracing a frontier between these objectives, consolidating into ppherific states what we called “popular democracies”.

Those systems that made import communism fragile but whose anchorage in socialism “à la sovietique” represented a secure pledge for present time, and for future the promise that the world revolution always promised but never accomplished after 1917 was not a futile hope.

But what happened in the U.S.S.R.? The large extent, here, of both human and material losses between 1941-1945 points out the huge dimensions of the proposed objectives mentioned. Let us only note that more than 10% of the soviet population vanished during combat, and still others from various other reasons: hunger, starvation, cold, plagues, diseases etc. Let us also show that at least 50% of the real-estate patrimony, 70% of the industrial plants and 60 % of the transport outfits and vehicles have been destroyed. That, at the same time, the essential of the agriculture equipment was also ‘finished’, that two thirds of the arable soil was unusable, that the cattle, sheep, swine herds, lost between 30% - 70% of their numbers and even more . Fair enough, at a certain attenuation of the diminishing of the living standard which followed these destructions, contributed, in a smaller extent, the peasants in the regions not invaded by the German forces, as well as some dealers, which acted like interceders – not at all disinterested, of course – between the country side, the villages, at some extent productive, and the consumer cities, even though some of them with many down falling productions . Certainly, there were plenty other factors, many of them disputable ...

... Essentially destructive, the second world war had though, some immediate consequences in a positive way for the soviets, consequences which created favorable conditions for the reconstruction that followed. Namely, the creating, boosting of the new industrial regions situated in the Ural mountains or Asia, in territories that have not been invaded by

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enemy troops . Here the development coefficient has been among the highest. At the same time, in matter was, like Thibault wrote, the "appending to the USSR of more than 500 thousand square kilometers situated overwhelming in the west of it's European borders" . Even more, we can think - and take into consideration – the "significant contribution of the European countries where the Red Army stepped in and was present", "contribution" privileged by the occupied force and with the important terminals in the effort to redress the USSR . A contribution represented firstly by the considerable "drawings" to which Moscow proceeded on the territory of it's former opponents ( Romania, with a relatively special situation, Hungary, but especially Germany ), "drawings which represented some 85% of the national income of the first two states mentioned, between 1945-1948", and which "were reached and even exceeded in Germany, taking into account that according to the Potsdam Agreements, dated on the 2nd of august 1945, the USSR, here, had a right to the total drawings in it's occupation area and to 25% of the drawings in the area of the three allied".

But a kind of this contribution has been represented in the same measure, by the systematical exploitation of the rich from Oriental Europe, the exploitation which "has extended" even to the allied (Bulgarian, Czechoslovakia etc.) . The juridical staff mentioned in all the directions has been provided by the 25 societies of "composite economy". Hire, the Romanian, Hungarian, Bulgarian, German, and even Chinese interests (after 1950) has been "theoretical" associated with the Russian, Muscovites, Soviet companies, but in fact in a strict mode and imperative subordinate to the economy needs of the "big state"

State, that overwhelming has been controlling the manage of the remembered societies with the "channels and levers" encompassed by the soviet administrators and technicians from the discussed companies . We have in view the SOVROMs (Sovrompetrol, Sovrombancetc.) in Romania, Maszolajetc. in Hungarian, Maszodaletc. in Bulgaria, Wismuth AS etc., in Est. Germany ...

Proper to some opinions and statistics, benefiting by important affluences and compensatory resources to dispose by the prepared cadres in the pacification technology and who didn't wait the finish of the war "to put on in the value in the self's profit, of the freed territories by the germen occupation, URSS had needed four years (1945-1949) for a first abolishment of the brutes effects of the war and the final of this way, of a first important round, naturally of it self's reconstruction.

It was a positive aspect, because after the first world war, URSS needed for this kind of stage eight years (1918-1926) and even more.

The reconstructing economically cadre of URSS encompassed the fourth, fifth plan of this country (1946-1950). Started on 18 March 1946 the forecast plan, at first a refitted with a large insulation, produced new tools of desolated regions by the enemy, without the goods repatriated of transferred production, in the hostility time in Ural or in other parts of the Union. With very ambitious objectives, the remembered plan, through the others, it has been assigned to hard industrial and transportations a superior level of production with 48% in 1950 to the one reached in 1940, agriculture has been recording a growth of 27% unto the same year, a little bit recording consumer goods industry.

It was reflected on this way, the economic politic major options of URSS which gave net priority to report production with consum. In good measure, prognosis levels had been accomplished.

Unscripted in traditions and the logic of a legal system which always sacrificed the present in favor of the future operating this fourth program of development could have been compromised by an inflation which seemed to be damaging the Soviet economy ever since 1941.

This was ever since Moscow was constrained in order to finance the war effort, to increase the volume of the monetary circulation, already risen among others by numerous false banknotes issued by the occupying German authorities. However at the beginning of December 1947, such a “mortgage” was increased by carrying out a strict truly draconian monetary reform. Due to its selective character, the mentioned reform resulted in the reduction of the fiduciary circulation by 90% ( a new ruble was exchanged for 10 old rubles), but the penalty appended to the earnings and to the ones that took advantage of the war (farmers, merchants) who being afraid of severe penalties, did not dare to exchange the banknotes raised in an illegal manner. There were some others who were advantaged, especially the retail customers whose deposits were exchanged ruble for ruble, up to the level of 3 000 rubles and a new ruble for 2 old ones for the deposits between 3 000 and 10 000 rubles. Thus, regaining the control over monetary processes, dabbling on the double aspect of the fall of prices (in 4 steps between April 1948 and March 1951) and of increasing the salaries (by 40 % from April 1948), the Soviet Government could bring its planned devised reconstruction to an end. She was pushed by the launching of a new campaign of socialist competition which aimed among its essential tools at the “production meetings”. Here, the workers were

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invited to present their suggestions liable to boost productivity and of overcoming the established norms. There was at that time a constructive participative atmosphere with practical results which were not bad at all...

Beyond the limits of the system as such, especially visible a few decades later in the circumstances of other aspects of the economy, of a tight competition with the West it is nevertheless true, that the Soviet economy visibly “come out” transformed and “rejuvenated“ – the mining, power iron and steel field – from the time of analyzed reconstruction process. The rejuvenation was especially marked by methods of a quasi-general applicability – complex mechanization in the mines. The improved use of the factory equipment, the introduction of automatization in certain works. But also the building of a new industry with military purposes now called a top industry such as nuclear energetic and electronic which allowed the Soviet Union – of course the German specialists quartered here had a quite serious part – remove a part of the technological to draw back as compared to the U.S.A. The main element in this respect was represented by the breaking of the U.S.A.’s atomic monopoly through the announcement made by the Soviet Union in June 14, 1949 that is when “the first atomic bomb of Soviet production exploded”.

It is true that, mainly politic constrains, but also some constrains on psychological, economical, technical level, and the ones concerning the climate, will hinder the agriculture from seeing the same rapid growth pace like the industry. This is happening although the government has spent a lot of effort on reorganizing the rural structures, in order to “recover” the “collective” lands that had been misappropriated by the kolkhoz peasants for personal interests, and finally in order to improve the production terms by developing the rural electrification. Anyway, despite all the effort spent, the system itself and all its shortcomings have led to weak results in agriculture by the end of the IV-th five-year plan mentioned above, for example the growth level encountered in 1950 barley managed to rise above the level of the 1940’s...

... It was a pattern. A whole series of its features will be taken over later by the people’s democracy throughout their evolution, of course, some of this features were more emphasized than others, depending on one country’ or another’s stage of integration in the “socialist system <<à la soviétique>>”. But, what has happened back then?

... Firstly by using force and fraud they had in mind to strike out of the European Governments the last representatives of the old bourgeoisie and

parliamentary democracies. Being the only ones in power, after they have absorbed one part of the socialists and they have stricken out the last ruling monarchs (Simon II from Bulgaria, in September 1946 and Mihai I from Romania in 1947), the communist parties attacked the breeding ground of the opposition, some of these being still alive in these countries. Especially in administrations other people than communists have been excluded quickly. The next step meant that, after serious cleanouts in universities regarding different positions, the only ones entitled to occupy such positions were the disciples of Marx, Lenin and Stalin, although many of them have been considered as being primitive in their way of thinking. Finally, the church, especially the catholic one, and not only, whose ecclesiasts have been arrested, convicted and in any way hindered to practice their mission towards the church, even if the reasons invoked have been in most cases terrible. All this has happened under the close view of the West, which, because of some consented agreements and a developing balance of power, seemed to be pleased with propagandistic oppositions and advertisements, without too many or any connotations in those time's realities.

Living under the regime of the unique "National Meetings" (only Yugoslavia had two because of its federal structure), the 8 republics, the 8 people's democracies (Albany, Cehoslovak Republic, Poland, Hungary, Romania, East Germany, Yugoslavia, Bulgaria) were promoting rapidly the system of the unique party, of course, the Communist Party. The 8 countries went through a period of transition which limited the power of business-owners drastically, nationalizations have been made in almost every field of activity, except in agriculture where property and means of production have been "collectivized".

In this way, the way is drained for the transition (of what has been called "the socialist development"). Respectively, in a system totally different from the one before it, respecting other laws and settlements considerably different compared with the once before. It is not in vain that (not for nothing) in those years "if it rained at Moscow, the umbrellas would opened very fast at Prague, Berlin, Warsaw, Sophia, Budapest, Bucharestetc., even though here it was a very sunny day.

....Therefore, here is a striking analogy between the economy of the URSS and the economy of the states from East Europe, between those institutions, as well as from the entire political area, from the entire society. Some concrete details. An agrarian reform between 1944 – 1946 in all Oriental Europe's states seemed, even more, that it brought the end

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during 1919 – 1920 and not that it was effectively tracing the preparation of the “collectivity”. As a matter of fact, the disappearance of the last properties relatively large – which resist in the past in Poland and Hungaria or the once which had been in Romania after the law of conversion – disappearance through general redistribution of the exploited and the farms which exceeded 20-30 ha, in the benefit of the agrarian workers, has consistently contributed to the blasting of the middle landowners’ class, this pylon of the rural democracy during the two World Wars. In the same time, the communist’ activists, had ensured the sympathy of a certain part of the peasantry with less land and who received a few ha. The road towards “collectivity” was clear because in the most situations, in agriculture the biggest holdings resist and not the smallest once, a road with a more or less faster rhythm depending on the opposition scale of the agrarian, sometime enough rigorous, in order to save as much as possible from the small rural holding. However, in the East Europe, finally, the socialism of the land has succeeded to settle new agrarian structures with three essential pylons, like in URSS, and here we speak about the agrarian state households (the farms), the agrarian collective households, and the machines and tractors factory.

Noticing that in the East Europe agriculture, with a deep rooted spirit of the land ownership – spirit passed on from the ancestry and from father to son – didn’t work at all the “nationalization of the land” system, counting that the East and Central Europe realities, “the precautions above mentioned had visible seemed necessary and positive through the followed objective”. Or, in industry, in other sectors, these kinds of precautions hadn’t been conceivable.

The state, more and more communist and obedient to URSS, subdued in this way over a complex production machine. What facilitated it to achieve immediately an executive plan, on order, different only at first by the soviet one, as far as some instabilities wouldn’t allow some prevision series on long term ( 5-6 years), but only on short time(1-3 years). Agriculture and consumption goods at the same term, have become totally subordinate to the heavy industry and constructions. The Leninist model of industrialization, an effective privilege model, deliberately to produce the production goods, but also with a genuine omission for production of consumption goods, is already in the extensive way application stage. And how it comes to something relatively new, without a critique and opposite apparatus, and the poor peoples’ hopes were encouraged in a large way, “popular democracies”- most of them- had rediscovered in 1949, as Pierre

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Thibault said, for many consumptions levels, the 1938' ones. They were working practically, in a much and intensive way, an impose propaganda and well executed was actuating for not so less, the hope in a new world.

It's seems that there were like under curtain, hundred of thousands, millions of political prisoners, in general proceeded from the ex exploiting classes, from the old system high officials, but also from peasants that were not collectivized , intellectuals and workers who have seen their future in a different way. The isolation from the West world was as obvious as possible, most of time even aggressive. The West protests meaning the other system which had resource and support, proved to be, practically, inexistent and barren as efficiency.

Through decoupling by the "popular democracy" to its old political, economical, social, cultural institutions and coupling at the soviet model, through "possessed classes" extermination and through reducing all workers and entrepreneurs, merchants at the "employee status", URSS prepared a profound integration of the Central and South-Eastern Europe states in the middle of the communist unit. A "unit" to whom it had to assure and impose leadership and had to counterbalance the power of the capitalist states from the Occidental Europe regrouped tighter and more consistent round the United States of America.

Build and finalized in stages and mostly as an answer at Americans initiatives, the profound integration of the "popular democracy" in the communist unit identifies by signing a series of bilateral alliance (1943-1948) and assistance (1947-1948 etc.) treaties, associating the states by individual or separately with URSS. There was a projection in the political plan of the founding in 1949 of Kominform ( The Communist Informing Office), an institution which has resuscitated, as a matter of fact, the Komintern dissolved by I. V. Stalin in 1943, when the great soviet communist leader concluded alliances with the Anglo-Saxons...

For "sealing", economically speaking, the alliances with "the big red power", at the same time with the constitution and the development of the joint venture's activities – Hungarian, roman, Czecho-Slovak-Russian etc., and of which we mentioned – it was set, it was constituted in 25 January 1949, the CAER (The Mutual-Reciprocal Economic Assistance Council ), the "counterparty" to the Marshall plane moved off by the Americans. The CAER had the principal aim to coordinate the economic politics of the East and Central Europe, the development of these states followed to be insured under the soviet technicians as part of some planes on long term, generally after 1950 by 5 years and even 6 years in Poland.

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The coordinator soviet specialists, doubled by aboriginal technicians, had in view to harmonize the content of the development programs according to the principle of the “work social division”. There was followed and was obtained, certainly, a considerable growth of intra communist exchange, therefore as part of the socialist camp, but it was amplified also the dependence of each member states so much in front to their partners and also to the leader, in front of the Soviet Union, almost a hundred per cent of the respective state’s external exchange were concentrated, limited in this way.

...In case, only the URSS had a varied industrial panoply for insuring the economic independence, while the other states were followed only for some segments. For example, Poland was specialized in carboniferous extraction and siderurgic, Czechoslovak, in the production of hard cars, East Germany, in chemical products and precision metallurgy etc. Since then to Romania was reserved, in an industrial plane, a role of a secondary importance, especially in agriculture, a position that had a bad productivity, with numerous, primary products, a situation not really convenient and economically to the bad – “the prices scissors”. So much the more to the national communism perspective which, not after many years, will stat to raise its head in a stage of development also obedient in front of the communism theories, but opened to some economic efficient things, much better personalized, higher to structures and output, fewer material-politically, relatively more generous from the social point of view, with a higher cultural opening to the world ...

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## ACCOUNTING TREATMENT OF FOREIGN EXCHANGE HEDGES

***Abstract:** Risk management has been the subject of numerous theoretical and empirical researches. With the continuing integration of the world economy, multinational and trading firms are no longer alone in their exposure to changes in foreign exchange rates. Changes in foreign exchange rates can cause uncertainty regarding the expected earnings of the firms. All these factors have contributed to the increased importance of foreign exchange risk management. The major objective of risk management is to maximize the value of the firm. This value is at risk to the extent that it fluctuates in response to foreign exchange rate fluctuations. Previous researches in different literature showed that one of the most important aims of risk management is to provide smooth earnings. That means that managers would prefer to bring the current year's earnings in line with the previous earnings. One of the methods by which firms can achieve smooth earnings is hedging by using derivatives. Therefore, this paper is primarily focused on the use of the derivatives to minimize the impact of changes in foreign exchange rates on reported earnings. By using simulation, it explores how use of accounting choices can influence whether the use of foreign exchange derivatives will increase or decrease firm earnings volatility.*

**Key words:** risk management, foreign currency risk, hedge accounting, IAS 39

**JEL Classification:** M41

### 1. INTRODUCTION

While the risk management strategy of non-financial firms has been the subject of theoretical and empirical research (Modigliani and Miller, 1958; Allayannis and Weston, 1998; Miloš Sprčić, 2007; Brown, 2000; DeMarzo and Duffie, 1995), very little is known about the influence

of different hedging accounting treatments on firm earnings. According to the classic Modigliani and Miller theorem, risk management is irrelevant to the value of the firm. But lately, use of derivatives to hedge against different kinds of risks is growing. International Swap and Derivative Association (ISDA)<sup>1</sup> reported that, according to their survey, 92% of the world's 500 largest companies use derivatives to manage and hedge their risks more effectively. Of the companies using derivatives, 92% use them to help manage interest rate risk and 85% of the companies use derivatives to help manage foreign exchange risk. Accordingly, several recent theories (Smith and Stulz, 1985; Geczy, Minton and Schrand, 1997; Leland, 1998; Myers, Myers and Skinner, 2006; Clark and Judge, 2005;) suggest that hedging increases value of the firm. Those theories examined why large, multinational firms engage in hedging activities. Most of these theories introduced some frictions into the Modigliani and Miller model, such as agency costs, financial distress and taxes. Another theory (Brown, 2000) that focuses on foreign exchange risk management argues that traditional academic explanations why a firm would hedge foreign currency risk (such as minimizing taxes and avoiding financial distress) are not the primary motivations of the firms. Instead, firms are motivated to hedge by information asymmetries between investors and management, competitive strategies involving pricing decisions, and efficiency gains through improved internal decision making and evaluation.

All mentioned theories involve financial view of risk management. On the other hand accounting view is rarely represented in risk management literature. Therefore, this paper is primary focused on the use of the derivatives to minimize the impact of changes in foreign exchange rates on reported earnings. ***By using simulation, it explores how using accounting choices influence whether use of foreign currency derivatives will increase or decrease firm earnings volatility.*** According to International Accounting Standard 39 derivatives can be recognized in two different ways. Which way the company will choose to recognize derivatives depends on the intended use of the derivative. IAS 39 requires that a company recognize all derivatives as either assets or liabilities in the balance sheet and measure those instruments at fair value. If certain conditions are met, a derivative can be designated as a hedging instrument

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<sup>1</sup> <http://www.isda.org/statistics/surveynewsrelease030903v2.html>, visited 5<sup>th</sup> April 2008

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under the hedge accounting. Three types of hedge accounting are permitted:

- a) fair value hedge,
- b) cash flow hedge,
- c) hedge of net investment in a foreign operation.

Each type of the hedge accounting assumes different valuation method. The accounting choice between different valuation and measurement methods in general has been focus of several research studies. One of the reasons of using different valuations and measurements methods is income smoothing. The literature has documented a number of reasons companies may want to report smooth earnings. For example, analysts tend to avoid covering firms with volatile earnings, as it increases the likelihood of forecast errors. Similarly, Badrinath, Gay, and Kale (1989) find that institutional investors avoid companies that experience large variations in earnings, while high earnings volatility also increases the likelihood of negative earnings surprises. In response, managers tend to use earnings smoothing. Watts and Zimmerman (1978) argue that if actual earnings are lower or higher than expected, management would use different measurement methods to adjust earnings to expected level. Therefore, it could be argued that when companies make decision about the way how a derivative will be recognized, they actually decide about the valuation method. The choice of a valuation method should be made very carefully, while different valuation methods may be used either to increase or decrease reported earnings. The managers may use this choice to achieve different objectives, such as reduction of earnings volatility.

## **2. LITERATURE REVIEW**

Positive risk management theories answer the question why smooth cash flows are preferred over the volatile cash flows. One of the method by which firms can reduce the volatility of its cash flows and earnings is hedging. The first theory assumes that, by reducing the volatility of cash flows, firms can decrease financial distress. Smith and Stulz (1985) show that direct and indirect costs of financial distress lead to optimal hedging strategies. They show that a levered firm that hedges can lower expected bankruptcy costs and increase firm value.

The second risk management theory suggests that, by reducing the volatility of cash flows, firms can decrease agency costs. Brown (2000)

suggests that firms are motivated to hedge by information asymmetries between investors and management. The standard model of finance theory makes the assumption that investors and management all share same information. But in real world it is expected that management has more information regarding the financial risk than shareholders. In the situation when a firm shows volatile earnings then shareholders can not tell whether the fluctuations are due to financial risk that could be hedged or whether the variability is caused by management incompetence. Also, Marzo and Duffie's (1995) model suggest that equity holders of firms with greater informational asymmetry derive greater benefits if the firm hedges. This theory has been also proven by Leland (1998).

The third risk management theory supposes that, by reducing the volatility of cash flows, firms can decrease taxes. So long as the effective tax function is linear, the firm's expected tax liability is unaffected by the volatility of taxable income. For firms facing tax-function convexity, hedging lowers expected tax liabilities, thereby providing an incentive to hedge. Graham and Smith (1998) used simulation methods to investigate convexity induced by tax-code provisions. They indicate that among firms facing convex tax functions, average tax savings from a five percent reduction in the volatility of taxable income are about 5.4% of expected tax liabilities. In extreme cases, these savings exceed 40 percent. This theory has been explored also by Smith and Stulz (1985), Froot, Scharfstein and Stein (1993), Zimmerman (1983) and Nance, Smith and Smithson (1993),

All the mentioned risk management theories are focused on smooth cash flows of the firm rather than on smooth earnings. Further investigations showed that earnings volatility also plays a significant role in maximizing shareholder value. Allayannis and Weston (2003) argue that high earnings volatility also increases the likelihood of negative earnings surprises. Specifically, they found that a one standard deviation change in earnings volatility changes firm value by 20.8% and that one standard deviation increase in cash flow volatility is associated with 14.4% decrease in firm value. That is the reason why a mantra in numerous firms is "linear earnings growth". Brown (2000) suggests that in a perfect markets setting, reducing earnings volatility by hedging is not value-enhancing. Trueman and Titman (1988), among others, show that a value-maximizing manager may smooth a firm's income stream as the result of information asymmetries between management and investors. They also suggest that earnings smoothing reduces a firm's perceived

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probability of default and therefore a firm's borrowing costs. Smith and Stulz (1985) and DeMarzo and Duffie (1995) suggest similar possibilities as they relate to corporate hedging. Specifically, Brown (2000) considers that senior management's view is that the market reaction to lower-than-expected earnings is more negative than the positive reaction to higher-than-expected earnings. Consequently, lower volatility in earnings increases firms share price.

Accounting perspective of corporate hedging in EU countries is introduced by International Accounting Standards Board (IASB). IASB is independent accounting standard setter whose goal is to develop a single set of understandable and enforceable global accounting standards to ensure transparent and comparable financial statements. International accounting standard 39 (IAS 39) prescribes accounting treatment of derivative instruments and hedges. Beside accounting treatment, IAS 39 provide additional requirements about disclosing information regarding the objectives, risks, and in some cases the gains and losses, of derivative positions. In the United States, the Financial Accounting Standards Board (FASB) and other regulatory agencies set standards for the accounting of derivatives, such as futures, forwards, options and swaps, and hedge accounting. These standards are generally accepted accounting procedures (GAAP), and have a significant impact on the information about hedging positions that reach shareholders of publicly traded corporations. Security exchange commission requires the use of GAAP for registered public corporations.

### **3. FOREIGN EXCHANGE HEDGES**

Hedging plays a significant role in the financial policy of many firms and derivatives have become a key aspect of this policy. The purpose of hedging is to avoid negative impact that changes in exchange rates can have on firm earnings. Management makes plans based on expectations of what exchange rates will be. Actual result may vary from expectations, if there is difference between the expected and actual exchange rates. Teets and Uhl (1998) suggest that hedging activities allow management to protect against rates changes either locking in the current rate or locking in today the rate expected at some future date. In that case derivatives represent a useful tool for hedging activities against exchange rate risk. Also, stated goal of hedging program at numerous companies is to increase the certainty of operating margins. In practice, this means minimizing the impact of changes in foreign exchange rate on firm cash

flow and reported earnings. Accounting can help managers to achieve that goal.

International accounting standards 39 allows two different accounting treatments in recognizing the derivative. The first is when the derivative is not accounted for as a hedge. That means that firm can use derivative to hedge against foreign exchange risk, but from the accounting perspective derivative is not recognized under the hedge accounting rules. So, the second accounting treatment is when the derivative is designated as a hedging instrument under the hedge accounting. Accordingly, hedge accounting is optional. But, because different measurement methods apply in each situation, hedge accounting is a useful tool to mitigate potential volatility of reported earnings. IAS 39 requires that all derivatives should be held on the balance date at fair value. All the changes in the fair value are required to be recognized through the profit and loss account. When companies are using derivatives to hedge foreign exchange risk exposure, but do not choose to apply hedge accounting, they face the problem in situation where hedged item is not measured on the same base as derivative. For example, if hedged item is measured at amortized cost and associated derivative at fair value, reported earnings can be exposed to significant volatility. Consequently, the purpose of hedge accounting is to address anomalies in the income statement caused by recognizing linked items on different bases.

According to Teets and Uhl (1998) there are four general concepts that apply to accounting for any type of hedging activity. The first general concept is that, since firms use hedging activities to protect earnings from risk of exchange rate changes that would affect existing assets or liabilities or planned transactions, it is necessary to consider effects of rate changes on both the hedging instrument and the hedged item. Hedges are effective because a rate change affects the hedging instrument in the opposite manner from the way it affects the hedged item. Therefore, if exchange rate changes, firm needs either to recognize the effects of rate change or to defer recognition of rate change on both the hedging instrument and the hedged item. Recognizing the effects of rate change on only part of the whole position may lead to earnings volatility. The second general concept is that the better the hedging instrument is matched to the hedged item, the more effective it will be at achieving offsetting changes in fair values or cash flows when exchange rate changes occur. To the extent that the terms of the hedging instrument do not match the terms of the hedged transaction, there will be ineffectiveness of the hedge.

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Ineffectiveness should be reflected in the income statement. Third concept emphasize that both changes in rates and time passing affect the value of the hedged item and the hedging instrument. Firms are entering into hedges specifically to hedge changes in exchange rates. The problems occur when time passing may affect the hedging instrument value differently from the way it affects the value of the hedged item. In most cases firms have no problems with time passing, so that should not be taken into consideration. But, in the cases when there is a difference, firm must decide how to reflect this difference. Finally, there are relationships between expected future rates (forward rates) and current prices (spot rates). The most important one is that expected future rates and spot rates converge as a given future date is closer. This implies that a firm can use hedges based on future prices to hedge the effects of changes in spot prices.

There are several key steps the firm should follow to achieve hedge accounting:

- to identify the nature of the risk being hedged,
- to identify the hedged item,
- to identify the type of hedge – fair value, cash flow or net investment in foreign operation,
- to identify the hedging instrument,
- to document the hedging relationship, including the risk management objectives, strategy for undertaking the hedge and method to be used to test effectiveness,
- to demonstrate that the hedge has and will continue to be highly effective,
- to monitor the effectiveness throughout the life of the hedge.

A hedged item under hedge accounting may include a recognized asset or liability, an unrecognized firm commitment, an uncommitted but highly probable forecast transaction, or a net investment in a foreign operation. As a hedge instrument can be designated any derivative that involves an external party, except written options. A non-derivative financial assets or liability can only be designated as a hedge of foreign exchange risk.

There are three types of hedges under IAS 39:

- fair value hedges,
- cash flow hedges,
- hedges of net investment in a foreign operation.

Each type of hedge accounting requires different measurement methods for both hedging instrument and hedged item. *A fair value hedge*

is a hedge of the exposure to changes in the fair value of a recognized asset or liability that is attributable to a particular risk and could affect reported profit or loss. In a fair value hedge, the gain or loss from re-measuring the hedging instrument at fair value is recognized immediately in the profit and loss account. At the same time, the carrying amount of the hedged item is adjusted for the gain or loss attributable to the hedged risk and the change is also recognized immediately in the profit and loss account to offset the value change on the derivative. *A cash flow hedge* is a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction. The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognized directly in equity. The gain or loss deferred in equity is transferred to the profit and loss account when the hedged cash flow affects income, which is in the time of hedge accounting termination. *A hedge of a net investment in a foreign operation* is defined in IAS 21, which means that gains and losses on translation of foreign operations are recognized in equity. By applying hedge accounting, the gains and losses on the hedging item are still recognized in equity, but to the extent that the hedge is effective. This treatment is the same as that in cash flow hedge accounting.

IAS 39 requires key information about hedging relationship to be formally documented before hedge accounting is applied. Because hedge accounting is optional, firm cannot create this documentation retroactively. Also, if documentation is not established on time, hedge accounting treatment cannot be adopted. Standard does not prescribe exactly form of the documentation, but specify which information should be included. IAS 39 documentation requirements are following:

- risk management objective and strategy,
- identification of the hedging instrument,
- identification of the related hedged item,
- the nature of risk being hedged,
- how the firm will assess the hedging instrument's effectiveness.

The most important part of the documentation is hedge effectiveness testing. Accordingly, standard requires that the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk. A hedge is regarded as highly effective only if both of the following conditions are met:

- at the inception of the hedge and in subsequent periods, the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk during the period for which the hedge is designated,
- the actual results of the hedge are within a range of 80–125 per cent.

Standard does not specify which method for assessing hedge effectiveness a firm should use. The method an entity adopts for assessing hedge effectiveness depends on its risk management strategy. But, the Standard requires that the effectiveness is assessed, at a minimum, at the time a firm prepares its annual or interim financial statements. If a hedging relationship becomes ineffective hedge accounting must stop. Termination could also happen if the hedged item or hedging instrument does not exit any more or if a firm chooses not longer to apply hedge accounting to that hedging relationship.

#### 4. SIMULATION

##### **Simulation information**

The effects of choosing different measurement method for foreign exchange hedge on the earnings will be presented in the simulation. The simulation will be demonstrated on the following example.

EXAMPLE: On 1<sup>st</sup> January a firm whose functional currency is Croatian kuna, issues zero coupon debt instrument denominated in Euros with a national amount of 2,175,306 € for 1,350,694 €, that will mature on 31<sup>st</sup> December 2006. The interest rate implicit in the debt is 10%. On 1<sup>st</sup> January 1,350,694 € is equivalent to 10,000,000 kn based on the spot exchange rate of 7.4036 kn/€. On 1<sup>st</sup> January firm enters into a forward contract to buy 2,175,306 € in five years at the forward exchange rate of 7.4992 kn/€. That means that in five years the firm will receive 2,175,306 €, and has liability to pay 16,313,056 kn (2,175,306 € x 7.4992 kn/€). The initial spot/forward difference, or forward points, total 6,313,056 kn (2,175,306 € x 7.4992 kn/€ = 16,313,056 kn – 10,000,000 kn = 6,313,056 kn) over the five years and implies a kn interest rate of 10.2826175%<sup>1</sup> annually for the five year period.

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<sup>1</sup> The fifth root of  $16,313,056/10,000,000 = 1.102826175$ .

**Table 1: The market data about issued debt instrument and forward contract**

<i>DATE</i>	<i>SPOT RATE kn/€</i>	<i>FORWARD RATE kn/€</i>	<i>CHANGE IN FORWARD RATES</i>	<i>CARRYING AMOUNT OF DEBT IN €</i>	<i>AMOUNT OF DEBT RETRANSALATED AT SPOT RATE</i>	<i>DEBT AT IMPLICIT INTEREST RATE (kn)</i>	<i>FAIR VALUE OF FORWARD CONTRACT (kn)</i>
1st Jan 2002	7.4036	7.4992	-	1,350,694	10,000,000	10,000,000	-
31 <sup>st</sup> Dec 2002	7.5500	7.8200	0.3208	1,485,763	11,217,514	11,028,262 <sup>1</sup>	532,377 <sup>2</sup>
31 <sup>st</sup> Dec 2003	7.5500	7.7920	0.2928	1,634,340	12,339,265	12,162,256 <sup>3</sup>	519,924 <sup>4</sup>
31 <sup>st</sup> Dec 2004	7.5500	7.7420	0.2428	1,797,774	13,573,192	13,412,854	461,319
31 <sup>st</sup> Dec 2005	7.6010	7.7220	0.2228	1,977,551	15,031,366	14,792,046	452,952
31 <sup>st</sup> Dec 2006	7.6500	7.6500	0.1508	2,175,306	16,641,092	16,313,056	328,036

To show the influence of using different measurement methods on reported earnings, simulation has been performed in following three scenarios:

- when firm does not use derivative (forward contract) to hedge against foreign exchange risk,
- when derivative is used to hedge against foreign exchange risk, but is not designated as hedging instrument under hedge accounting rules,
- when derivative is designated as a hedge of the variability of the functional currency equivalent cash flows on the debt.

In third scenario the assumption is that a firm has been satisfy all necessary requirements to apply hedge accounting treatment. Hedge ineffectiveness is measured by use of the *hypothetical derivative method*. But actual derivative used in this example is the same as hypothetical forward with exactly matching terms that should be used. Accordingly, no ineffectiveness is anticipated.

<sup>1</sup>  $10,000,000 \text{ kn} \times 10.2826175\% = 1,028,262 \text{ kn} + 10,000,000 \text{ kn} = 11,028,262$

<sup>2</sup>  $(7.82 \text{ kn/€} - 7.4992 \text{ kn/€}) / (1.07 \times 1.07 \times 1.07 \times 1.07) \times 2,175,306 \text{ €} = 532,377 \text{ kn}$

<sup>3</sup>  $11,028,262 \text{ kn} \times 10.2826175\% = 1,133,994 \text{ kn} + 11,028,262 \text{ kn} = 12,162,255 \text{ kn}$

<sup>4</sup>  $(7.792 \text{ kn/€} - 7.4992 \text{ kn/€}) / (1.07 \times 1.07 \times 1.07) \times 2,175,306 \text{ €} = 519,924 \text{ kn}$

### Simulation results<sup>1</sup>

Simulation has been performed to see influence of changes in foreign exchange rates and derivative's fair value on earnings before tax in situation when a firm does not use the hedge to protect against FX rates changes (scenario 1), when a firm use economic hedge (scenario 2) and when a firm use hedge accounting (scenario 3). In order to do a comparison between all three scenarios, earnings before interest, changes in FX rates and tax have been predetermined in all five years. Influence of all other factors on earnings before tax has been isolated in the simulation. In tables 2, 3 and 4 has been presented influence of all the scenarios on earnings before tax, and the table 5 present comparisons between all three scenarios.

Table 2: Effects on earnings before tax in scenario 1

Description	2002	2003	2004	2005	2006	TOTAL
1. Earnings before interest, changes in FX rates and tax	10,000,000	10,300,000	9,800,000	11,000,000	11,200,000	52,300,000
2. Interest	(1,019,774)	(1,121,751)	(1,233,927)	(1,366,488)	(1,512,824)	(6,254,764)
3. Earnings before changes in FX rates and tax	8,980,226	9,178,249	8,566,073	9,633,512	9,687,176	46,045,236
4. Net changes in FX rates	(197,740)	-	-	(91,687)	(96,901)	(386,328)
<b>5. Earnings before tax</b>	<b>8,782,486</b>	<b>9,178,249</b>	<b>8,566.073</b>	<b>9,541,825</b>	<b>9,590,275</b>	<b>45,658,908</b>

Table 3: Effects on earnings before tax in scenario 2

Description	2002	2003	2004	2005	2006	TOTAL
1. Earnings before interest, economic hedge and tax	10,000,000	10,300,000	9,800,000	11,000,000	11,200,000	52,300,000
2. Interest	(1,019,774)	(1,121,751)	(1,233,927)	(1,366,488)	(1,512,824)	(6,254,764)
3. Earnings before	8,980,226	9,178,249	8,566,073	9,633,512	9,687,176	46,045,236

<sup>1</sup> Simulation is part of the author Master thesis "Influence of Foreign Exchange Hedge Accounting on Reported Earnings of the Banks".

economic hedge and tax						
4. Net changes in FX rates	(197,740)	-	-	(91,687)	(96,901)	(386,328)
5. Unrealized gains/losses	540,865	(210)	(41,934)	4,337	(116,730)	386,328
<b>6. Earnings before tax</b>	<b>9,314,863</b>	<b>9,165,796</b>	<b>8,507,468</b>	<b>9,533,458</b>	<b>9,465,359</b>	<b>45,986,944</b>

Table 4: Effects on earnings before tax in scenario 3

Description	2002	2003	2004	2005	2006	TOTAL
1. Earnings before interest, hedge accounting and tax	10,000,000	10,300,000	9,800,000	11,000,000	11,200,000	52,300,000
2. Interest	(1,019,774)	(1,121,751)	(1,233,927)	(1,366,488)	(1,512,824)	(6,254,764)
3. Earnings before hedge accounting and tax	8,980,226	9,178,249	8,566,073	9,633,512	9,687,176	46,045,236
4. Net changes in FX rates	-	-	-	-	-	-
5. Unrealized gains/losses	-	-	-	-	-	-
<b>6. Earnings before tax</b>	<b>8,980,226</b>	<b>9,178,249</b>	<b>8,566,073</b>	<b>9,633,512</b>	<b>9,687,176</b>	<b>46,045,236</b>

Table 5: Comparisons of effects on earnings before tax between three scenarios

DESCRIPTION	EARNINGS BEFORE TAX					
	2002	2003	2004	2005	2006	TOTAL
1. No hedge at all (scenario 1)	8.782.486	9.178.249	8.566.073	9.541.825	9.590.275	45.658.908
2. Hedge accounting (scenario 3)	8.971.738	9.166.006	8.549.402	9.620.808	9.678.990	45.986.944
<b>3. Difference between hedge accounting and no hedge at all (2-1)</b>	<b>189.252</b>	<b>(12.243)</b>	<b>(16.671)</b>	<b>78.983</b>	<b>88.715</b>	<b>328.036</b>
4. Economic hedge (scenario 2)	9.314.863	9.165.796	8.507.468	9.533.458	9.465.359	45.986.944
<b>5. Difference between hedge accounting and economic hedge</b>	<b>(343.125)</b>	<b>210</b>	<b>41.934</b>	<b>87.350</b>	<b>213.631</b>	<b>0</b>

(2-4)						
<b>6. Difference between no hedge and economic hedge (1-4)</b>	(532.377)	12.453	58.605	8.367	124.916	(328.036)

The simulation showed that using different measurement methods can result in different reported earnings. In the situation when a firm does not use derivatives to hedge foreign exchange exposure on issued debt instrument, earnings before tax depend on changes in foreign exchange rates. In scenario 1, depreciation of functional currency has negative influence, and appreciation has positive influence on reported earning.

To protect earnings against negative effects of foreign exchange risk, a firm enters into a forward contract. In scenario 2, a firm uses a forward contract to hedge against foreign exchange risk, but forward contract is not designated as hedging instrument under hedge accounting treatment. This type of hedge is also called economic hedge. Because hedge accounting imposes a lot of complicated requirements, in practice this scenario is common used. Using economic hedge a firm is completely protected against changes in foreign exchange rates. But negative side of using economic hedge is that at the end of each year reported earnings before tax are increasing and decreasing depending on fair value changes of a forward contract. This is due to the fact that under economic hedge, changes in fair value of a derivative instrument are recorded through the profit and loss account. Accordingly, additional earnings volatility is attained. In this situation hedge accounting is a useful tool to mitigate volatility of reported earnings.

Since in a cash flow hedges the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognized directly in equity, fair value changes of a forward contract have not influence on reported earnings during the years of hedge accounting application. Cumulative effect on earnings before tax is the same by using economic hedge and hedge accounting. But during the years of hedge usage, economic hedge impose additional earnings volatility. By using hedge accounting, earnings volatility is avoided.

## 5. CONCLUSION

This paper has evaluated possible effects of using different measurement methods for valuing foreign exchange hedges. International accounting standard 39 provides flexibility to management of a firm to

choose the way they want to treat foreign exchange hedge. If a derivative is not designated as a hedging instrument under the hedge accounting treatment, a firm should measure a derivative on the balance date at fair value. All the changes in the fair value are required to be recognized through the profit and loss account. Another option is to apply hedge accounting. In this situation a firm can choose between three types of hedge accounting: a fair value hedge, a cash flow hedge and a hedge of net investment in a foreign operation. Each type of hedge accounting imposes different measurement method. Regardless the measurement method, each type of hedge accounting enables to avoid anomalies in the income statement caused by recognizing hedging instrument and hedged item on different bases. That way potential earnings volatility is prevented. Since many researches showed that institutional investors avoid companies with large variations in earnings, management can use a hedge accounting as a useful tool to increase a firm value. To prove above mentioned, simulation with three scenarios has been performed. First scenario showed the negative influence of foreign exchange rates changes on a firm earnings. In second and third scenario a firm enters into a forward contract to protect earnings form the negative impact which could changes in foreign exchange rates have on firm earnings. Using either economic hedge or hedge accounting a firm is completely protected against changes in foreign exchange rates. But using economic hedge, earnings volatility arise during the years of using economic hedge. Since earnings volatility is negatively evaluated by the investors, management can use hedge accounting to prevent negative valuation of the firm. But management should be aware of the fact that if they want to apply hedge accounting and achieve smooth earnings, rigid hedge accounting rules should be fulfilled.

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## **MARKET REACTION AND PROPERTIES OF EQUITY ANALYSTS REPORTS**

***Abstract:** The paper collects and classifies the properties of more than 4600 analysts reports on Italian listed stocks in order to assess their impact on market reactions. The paper innovates the most common approach in the literature which resort mainly on information available on commercial database, such as the final recommendation and the earning forecasts. The findings show the market overlooks most of the properties it has been possible to collect and treat statistically. A part from that, the market looks at different reports properties depending on which are their final recommendation. When the reports make positive recommendation the market is not influenced at all by their content, while it is important their time issuing. The market reaction is stronger if the reports are issued when the frequency of the reports is lower. On the other hand, the reports with neutral and negative recommendations share the same features. The market reaction is stronger when the evaluation methods used to get the fair value estimation are elicited. This result indirectly confirms other previous studies. It could be explained through the disposition effect, that is the which tendency of investors to keep the stocks where they are suffering losses. The negative advice could reach investors both who are gaining and who are losing. While the former ones will be willing to sell, the latter ones, before selling the losing stocks, will require well documented reports with convincing arguments supporting the general advice.*

**Key words:** Security analysts; Reports properties; Stock evaluation; Market reaction.

**JEL Classification:** G14, G24

## 1. Introduction

The financial reports are researches regarding listed stocks issued by investment banks or brokerage houses for their private clients and then published in the capital markets. The financial analysts use an heterogeneous set of information concerning either the analyzed firm features and the economic system to get, by employing one or more evaluation models, the estimate of the firm value and an investment recommendation.

The financial services industry invests a large amount of money to analyze stocks since its analysis can be very useful for many investors who must take important decisions in a short time. Many studies have empirically analyzed the market reaction to financial reports. A common feature of the existing researches is that they are usually based on the final content of the reports (recommendations and target prices) or on the forecasts of different aggregations (for example, the earnings), usually taken out by commercial dataset (e.g. Womack [1996], Gleason and Lee [2000], Mikhail *et al.* [1997]) or even from the financial analysts' reports themselves (see Asquith *et al.* [2005], Belcredi *et al.* [2003] or Cervellati *et al.* [2006]). Our study radically innovates these approaches because it's based on a more in depth analysis of the reports' properties. The most innovative contribution of the study is to insert some new dimensions, besides the final recommendations, among the variables that can explain the market impact of the reports. This purpose has been pursued analyzing how a large number of reports (more than 4600) is made and which information and evaluation methods are used.

In order to analyze the market reaction to the content of the reports, we have performed an event study. This tool allowed us to study whether the abnormal return recorded in correspondence of the reports issuing was depending on the information content of the reports.

Our results show the market overlooks most of the properties we have been able to collect and treat statistically. For instance the kind of the evaluation methods used, which can be alternatively based on the fundamental analysis or on the market ratios, doesn't seem relevant for the market.

An interesting point is that the market looks at different report properties depending on which is its final recommendation. In case of reports with a positive recommendation the market is not influenced at all by the content of the report, while it is important its time issuing. On the other hand the reports with neutral and negative recommendations share

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the same features: this similarity is not surprising since usually the market assimilates the neutral reports to the negative ones, reacting negatively. In this case, similarly to other studies' results (Hirst *et al.* [1995] and Asquith *et al.* [2005]), the market reacts strongly when the evaluation methods used to get the fair value estimation are elicited. We argue this result through the disposition effect.

The paper is organized as follows. Section 2 discusses the main results obtained by the literature related to this research. Section 3 presents the theoretical framework of the work. Sections 4 and 5 present the dataset and the empirical framework used. Section 6 reports the results of the event study on the dissemination of research reports, with a particular focus on the content of the financial analysts' reports. Section 7 comments the results and concludes the paper.

## **2. Literature review**

This research is related to two main research fields well developed in the literature, the study of the properties of analysts' reports and of their information value for the market.

However, with respect to these research fields, the study aims to introduce some important innovations, starting from the approach here adopted to the study of financial analysts' issues. Unlike the most of the previous studies, it will carry out the research questions from an in depth reading and analysis of the reports' content, instead of using the few information contained in the traditional commercial dataset.

So far the study of the properties of the reports, which examines the relevant information for evaluation purpose and how such information are processed by the analysts, has been carried out resorting to two main methodologies: submitting questionnaires or making interviews and performing the content analysis, a methodology based on software programs allowing a quick, even if not flexible and superficial, filing of the reports' content. These researches have shown that analysts don't limit their studies to accounting information (the so called financial reports) but they look for and use many others than accounting information (Hill and Knowlton [1984], Previtz *et al.* [1994]). The research on how information are processed to get the final recommendation is focused mainly on which evaluation methods are used to calculate a company's fair value. Even if there is a well developed literature on the issue of the evaluation of a company's fair value, there are still few studies trying to understand what are the evaluation methods most used by analysts. The research by Ambrosetti Stern Stewart Italia [2002], through the questionnaire method,

has shown that Italian analysts prefer these methods: the discounted cash flow, the market ratios and the Economic Value Added (EVA<sup>TM</sup>). The importance of heuristic methods, such as the market ratios, is confirmed also by researches directly analyzing the reports' content and not restricting their scope to Italian analysis (Bradshaw [2002], Demirakos *et al.* [2004], Asquith *et al.* [2005], Bertinetti *et al.* [2006] and Cavezzali [2007]).

With regard to the literature studying the information value of reports, it has been well documented that the research reports are worth and can improve the market efficiency if they convey new information to the market, assuring a transparent and homogeneous price sensitive information disclosure. For instance, historically, Givoly and Lakonishok [1980] or Griffin [1976] have documented relevant market reactions (measured by the abnormal returns) at the same time as earning forecast revisions were released. More recent studies have mainly focused on the analysis of a possible link between the forecast revisions and the short term market reaction. Lys and Sohn [1990] have found that each analyst's forecasts is price informative, despite the fact they are preceded by other types of disclosures, including the forecast revisions of different analysts. Stickel [1992] highlights that analysts members of II-All American team issue more accurate forecasts having a more relevant impact on short term pricing. Gleason and Lee [2000] analyze not only the immediate impact of the forecast changes on prices, but extend the time horizon of their monitoring up to two years after the time of the revision and detect a persistent price drift in each of the two monitored years.

According to Francis and Soffer [1997], investors reactions to earnings forecast changes also depend on the recommendations released by the analysts on the stock. From a joint analysis of the earning forecast revision/recommendation changes and the market response, measured as a higher return between the previous and the following day of the release, the authors prove their hypothesis. Furthermore, the market responds more strongly to earnings forecast revisions accompanied by buy rather than hold or sell recommendations. This is consistent with the hypothesis that, because analysts bias recommendations upward, investors turn to earnings forecast revisions for more information when analysts issue buy or strong buy recommendations. Hirst *et al.* [1995] make the opposite argument. Through an experiment using students, they argue that only when recommendations are unfavourable or unexpectedly revised downward the investors will expend the effort to analyze any of the

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information in the report and impound that information in their decisions. Jurgens [2000] focuses his own analysis only on the value of the stock recommendations and finds they have some impact on the intra-day stock returns (within 15 minutes from the recommendations release) and the daily ones (3 days returns are calculated), taking into account the contemporary release of other public news, if any.

Frankel *et al.* [2002] argue that the information contents of the reports, increases with the increase in volatility volumes and returns. Reports seem more effective when bad news are coming rather than good news. The investors reaction seems to be neither in excess nor limited. The short term reaction, in fact, is subsequently not inverted.

Womack [1996] is particularly focused on the investment recommendations of the US market. Examining the time immediately before and after the recommendations changes, extra returns are registered after the recommendations. The stocks subject to recommendation changes record a mean abnormal return significantly different from zero and asymmetric according to upgrade (2.4%) or downgrade (-9.1%) recommendations. This asymmetric behaviour is consistent both with the high frequency of upgrades and with the issuing cost of negative report.

Barber *et al.* [2001] take a step forward and measure the returns arising from the strategies built on the basis of analysts' recommendations. Elgers *et al.* [2001] find a delayed prices reaction in the capital markets if the information disclosure is in the analysts' earnings forecasts or about the value. This delayed reaction is bigger if the analysts' coverage is low and in the subsequent quarter after the earnings announcement. More recently, Jegadeesh *et al.* [2004] study the recommendations (and their revision) value. They find that the consensus recommendations, if considered jointly to other public information, do not have more informative value for all the stocks.

Belcredi *et al.* [2003] focus instead on the Italian market and measure the short term impact on the market caused by changes of the analysts recommendations. Using a 3-day window, the authors find evidence for an anticipated market reaction, due either to the disclosure of price sensitive information or to a leakage of information in the days preceding the diffusion of the research. After the report public access date, they don't find any statistically significant abnormal returns or volumes in the market, documenting that the market reacts when new information is conveyed and not when formally the report becomes public.

Cervellati *et al.* [2006] analyze the Italian listed companies as well and consistently with Belcredi *et al.* [2003] results, the authors document abnormal return during the previous days before the report issue.

While the studies mentioned above evaluate the market reaction to analysts' recommendations and earnings forecasts, Brav and Lehavy [2003] observe the short term reaction and the long term trends of target prices and the related stock prices, jointly monitored. The authors observe that the target price information value is independent by the recommendations. In correspondence to unchanged recommendations, but significant target price changes, the market record significant abnormal return.

Our work is also related to recent researches demonstrating that the market reaction depend also on some features of the analysts or of their forecasts, such as: the expected accuracy and timeliness of forecasts, the analyst's proven experience, the broker size, the forecast frequency (see Stickel [1992], Abarbanell *et al.* [1995], Mikhail *et al.* [1997], Clement [1999], Jacob *et al.* [1999], Park and Stice [2000], Clement and Tse [2003]). It is interesting to underline also that the reputation of the analysts affects the speed of the reaction of prices to the new forecasts (Gleason and Lee [2003]). In the case of forecasts issued by famous analysts, such as the ones of the "*Institutional Investor All-Stars*" or of the "*Wall Street Journal Earnings Estimators*", the market reaction is immediate. Moreover, for companies covered by few analysts, the reaction is weak and less complete than the one which takes place when the companies are covered by a large number of analysts (Brennan *et al.* [1993], Elgers *et al.* [2001], Gleason and Lee [2003]).

Even though the literature reminded above has given important methodological foundations to develop this research, its results are not directly comparable to that ones expected in this study. As shown, the most part of the studies measure the value relevance just of some of the elements of the reports (recommendations, target prices and earnings forecasts), without considering the in depth analysis of their content and properties.

As far as we know, to this day, there are only two studies similar to our work, taking into consideration the content of the reports (Demirakos *et al.* [2004] and Asquith *et al.* [2005]). The former one is relevant for its approach, even though it's different by research issues. Basically it is a descriptive analysis of a very small sample of 104 reports

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about the use of the evaluation models that analysts use to convert the forecasts into estimates of firm value.

The latter one is on the contrary more related to our work because to analyze the market impact of the reports, it uses some other elements of a report, such as evaluation methods used and justifications given to recommendations, going beyond the usual information used by the previous studies. The main finding of this research is that both target prices and analyst justifications are important in explaining the market's reaction to analyst reports. The investors, in fact, pay more attention on the content and on the justifications underlying the analysts' recommendations in downgrade cases, while they look more at the target prices with reiterations and finally, for the upgrade, none of the elements are statistically important. With regard specifically to the evaluation methods, the authors fail to observe any systematic association between the valuation method used by the analyst and either the market's reaction or the probability of achieving a price target.

Anyway, even with regard to such studies, our work definitely takes a wider perspective both from an horizontal elaboration level and from a vertical one. With regard to the first level, for instance, our project will analyze a dataset composed by more reports than that ones (a few more than 1000) analyzed by Asquith *et al.* [2005]. With regard to the second level, on the contrary, we are providing a richer and multidimensional image of reports properties, not restricting our search to the evaluation methods used, but collecting and classifying other important information, such as: the information kind, the level of analysis elaboration, the hierarchy of the evaluation methods (whenever the analyst uses more than one technique), the estimation parameters and testing the information value of these elements for the capital market.

### **3. Theoretical framework**

Even though the literature about financial analysts have contributed to understand many important aspects about the financial analysts' output, many overlooked points still remain about both the evaluation process followed by the analysts and the effects produced on the market.

Reports are a very heterogeneous set both by content and structure, not only by forecasts and recommendations and they could be distinguished by different levels of elaboration. In all the reports, in fact, it's recognizable a "minimum content", represented by an investment recommendation, a target price and an earnings forecasts table. Usually,

this basic framework is then enlarged telling facts and events characterizing the evaluated company or the reference economic background. Unfortunately it is not always possible to understand how the analysts get the fair value estimation. In some reports, which are characterized by a maximum level of opaqueness, it's impossible to understand both the process and the relevant information used in the analysis.

Many studies have already tested empirically the market impact of the financial reports. For instance, Womack [1996], Brav and Lehavy [2002] and, for the Italian market, Cervellati *et al.* [2006] (see section 2 above). All these researches are based just on investment recommendations, without considering the motivations underling the recommendations and their role in the capital market.

The dataset we used (see section 4 below) on the contrary allows us to analyze more properties of the reports and to understand whether knowing the evaluation methods used by the analysts is relevant for the investors.

Similarly to Asquith *et al.* [2005], our main issue is to study if the market does care about the content of a report, how the analyst gets his recommendations.

The first and the second hypotheses we will test are:

*H1*: Does the content of reports matter for the investors?

*H2*: Does the market care about the evaluation methods used by the analysts? Do the different evaluation methods have different value for the investors?

If the methods are relevant, we expect to record different stock price reaction in correspondence to either different kind of reports (with/without an explicit method) and different evaluation methods.

We classify the evaluation methods in two main categories:

a) fundamental methods, such as net asset methods (algebraic sum of assets' and liabilities' market values), financial methods, earnings-based methods and composed methods;

b) market ratios methods, such as price earning, price to book value and their extensions.

More details on these methodologies can be found in Table 2. We resorted to this classification because the two groups are based on a different "working logic". Different from fundamental analysis, the market ratios methods require an active market making fair prices (market is always right).

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Another important point we will take in consideration is about the timing in the report issue. The reports are worth just if they have some original information, not yet public. The time factor is relevant: a report is considered as informative only if it's quick in signalling some important change in the company. Analyzing the temporal distribution of our dataset, we noticed that the brokers are more active in issuing reports during some months a year (March, May, July, September and November, see Table 1) in correspondence to some crucial company events, for instance, stockholders' meetings, decisions about earnings distribution, balance sheet ratification, publication of quarterly or half-yearly results and so on.

So, we defined as "hot" these five months, to underline the high brokers' productivity, while we classified as "cold" the remaining months of the year and we tested if the reports issued in the two different periods have different informative value. Therefore the third research hypothesis is:

*H3: Can the timing of the report issuing explain a different market impact?*

In the "hot" period there is plenty of information about companies which could weaken the information value of the reports. If this conjecture makes sense, the reports issued in cold months will cause a stronger market reaction.

#### **4. Dataset**

In this section there is an accurate description of how the dataset has been composed because this is one of the original features of this work compared to the most part of the previous analysis.

Unlike most of the works available in the literature, this research is based on some elements characterising the reports, taken directly from these documents, with a careful and in depth reading. This has required the collection of the reports issued by the analysts, because it is not enough to process data contained in commercial databases, collecting earnings forecasts and analysts recommendations (e.g., I/B/E/S, First Call), but not providing the additional information supporting the evaluation procedure (such as accounting forecasts, evaluation methods, qualitative analysis, actualization rates or market risk premium used, other justifications).

For our purpose we have taken advantage of the law prescription imposing to brokers to deposit at the Italian Stock Exchange the reports issued on Italian listed companies. In this way, the original reports are

available on the web ([www.borsaitalia.it](http://www.borsaitalia.it)) from where we have downloaded the files and coded by hand all the available information of each report.

Since a report is a complex document, analysis methods based on the content analysis would not be useful. These methods allow for a quick content classification by software applications on sale (with regard to content analysis applied to small samples of financial analysts, see Previts *et al.* [1994], Rogers *et al.* [1997], Breton and Taffler [2001]). Performing them we would have had a too strict and trivial codification criterion, essentially based on the words used in the document, but unable to capture the complex observations and valuation procedures that, with multiple declinations, form a report.

The complete dataset is composed by 4603 reports published in the Italian Stock Exchange website, issued in relation to 28 firms listed and included in the Italian *MIB30* index<sup>1</sup>, during a four-year period, from 2000 to 2003, by 50 different investment banks or brokerage houses and covering 4 industries (banking, utilities, insurance and manufacture)<sup>2</sup>.

We have classified many data such as: the report type (for instance, update vs new analysis) and size, the issuer's name, the investment recommendation, the target price, the risk premium, the actualization rates, the time horizon of the forecasts and the evaluation methods used. The variables singled out can be classified and summarised as in Table 2.

Some of the data were easy to find, while the identification and classification of others have been more difficult. This is particularly important when considering both the overall evaluation methods used in the reports and the identification of the main one. Sometimes analysts use at the same time two or more methods to evaluate a firm. Wherever possible, we tried to identify the main evaluation method, that is, the one which the final recommendation relies on more deeply. A striking result is that in about the 70% of the reports considered ( $n=3299$ ), it has not been possible to identify the evaluation method used by the analysts or to understand the main one. This means that in the most part of the cases the investors do not know either the main evaluation methods or the

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<sup>1</sup> *MIB30* was the index of the first 30 largest Italian caps.

<sup>2</sup> However, in order to perform the event study, the reports actually used have been reduced to 4573 because of the length of the estimation window used to assess the expected value of the returns (see section 5).

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parameters used by the analysts to make their investment recommendations.

Looking at the 1344 remaining, the evaluation methods have been based on fundamental analysis (56.47%) while the market ratios approach has been used as main evaluation method in more than 40% of the total reports.

With regard to the recommendations, since we refer to the original recommendations issued by the securities houses in their reports, a particular caution was required in the classification. Some analysts use a standard scale (i.e., “buy”, “hold” and “sell”), someone use a slightly different terminology (e.g., “neutral” or “market perform” instead of “hold”). Others use a larger scale from “strong buy” to sell, or even more complex scale with recommendations like “reduce” (between “hold” and “sell”) or “add” (between “hold” and “buy”). Not every firm explicitly declares the rating system it follows and the precise meaning of a recommendation.

In this study the investment recommendations have been classified in 4 categories: positive, negative, neutral and not classifiable. As shown in Table 3 and consistent with the previous literature about the analysts’ optimistic bias (see e.g. Dugar and Nathan [1995], Michaely and Womack [1999], Darrough and Russel [2002] or De Bondt and Thaler [1990]), the most part of the recommendations are positive (more than 50%), than neutral (34.62%). There are negative recommendations just in few cases (about 10% of the total).

Whenever possible, to classify the evaluation methods, we used a particular logic not to loose information through the classification. We started from the traditional and theoretical ranking proposed for the evaluation methods<sup>1</sup>, but we personalized it and catalogued also some additional specifications about each kind of method.

It must be underlined that in this way, we set up an original and unique analysts reports’ classification criterion based on a set of rules minimizing the subjectivness<sup>2</sup>.

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<sup>1</sup> The reference is about the traditional evaluation models classification: net asset methods, financial methods, market ratios methods and so on (see Damodaran [2001] or Copeland *et al.* [1996]).

<sup>2</sup> The classification criteria must be:

- a) simple: in other words, the cataloguing is carried out according to a clear and easy to share logic;
- b) demonstrable: i.e. the classification must be based on checkable data;

Table 4, in panels A-B-C-D, presents frequencies' summary of reporting for several of the data we collected from each report. The frequencies reported in panels A-B-C-D are organized by "who" issued the report, "when" it was issued, "what" firm was evaluated and "how" it has been evaluated on the whole. Panel E focuses on the frequencies of the reports with "main method".

The reports' dataset is quite heterogeneous since we collected all the available reports in the selected period, without any other particular inclusion criteria.

### 5. Empirical framework

In order to test the informative value of the reports and their content, we performed an event study. This methodology allows for verifying the market efficiency in incorporating new information, measuring the effects on the stock return of the event in correspondence to the event date, that is, the report issue date. In Italy, this corresponds, by definition, to the date the information is made available to brokerage firms' clients.

The market reaction to the report disclosure depends on whether the reports convey new information. If they convey new information and the market is efficient, there should be stock abnormal returns quickly disappearing after the event. Around each event, it is defined a 21 days window in which the stock abnormal returns are calculated. The abnormal returns for stock  $i$  at time  $t$  ( $AR_{it}$ ) are the difference between the actual returns and the normal returns, estimated by the market model:

$$R_{NORMit} = \alpha_i + \beta_i R_{mt} + \varepsilon_t$$

where ( $R_{NORMit}$ ) is the normal return for stock  $i$  at time  $t$ ,  $R_{mt}$  is the market return<sup>1</sup> and the parameters  $\alpha_i$  and  $\beta_i$  are estimated running a simple linear regression<sup>2</sup> between  $R_{it}$  and  $R_{mt}$  over the estimation window which extends 121 days preceding the event window (Campbell *et al.* [1997]).

c) neutral: i.e. the most impartial as possible;

d) constant: in other words, the adopted criteria are amended only if the hypotheses of reference vary objectively.

<sup>1</sup> In our case the represented by the blue chips index *MIB30*.

<sup>2</sup> We use the standard methodology (Brown and Warner [1980], [1985]).

To draw overall inferences for the event we are interested in, the abnormal return must be aggregated. The aggregation is along two different dimensions: the reports and the time. First of all we have calculated the Average Abnormal Returns for time  $t$  ( $\overline{AR}_t$ ), that is the mean  $AR_{i,t}$ , at each time  $t$  (where  $t$  is the day of interest in the event window) for all the reports in the dataset, in our case:

$$\overline{AR}_t = \frac{1}{N} \sum_{i=1}^N AR_{i,t}$$

This measure is the average impact on the market at the day  $t$ . In order to assess the persistence of the impact around the event date and the overall effect of the report issue, we aggregated the  $\overline{AR}_t$  over the time obtaining the Cumulative Abnormal Return, calculated as the sum of  $\overline{AR}_t$  over some windows of interest:

$$CAR_{(t_1;t_2)} = \frac{1}{N} \sum_{t=t_1}^{t_2} \overline{AR}_t$$

In particular, we calculated three different  $CARs$ , using three different windows: the pre-event window (-5;-2), the around-the-event window (-1; +1) and the post-event window (+2;+5). All the results have been tested performing some parametric tests (Brown and Warner [1980], [1985]).

If the report generate value, it's reasonable to think that the market reaction is correlated to the recommendation type: positive abnormal returns should correspond to positive recommendations, negative abnormal returns to negative recommendations and, finally, zero abnormal returns to neutral recommendations. For these reasons, first we classified the reports as positive, negative or neutral, removing from the dataset the reports without an explicit recommendation ( $n=105$ ). Then we analyzed from a descriptive point of view both the abnormal returns and the cumulative abnormal returns caused by the report issues.

Later, to test specifically our three main research hypotheses, assessing whether the content of the reports matters and the investors pay attention on how the analysts get their recommendations, we ran some linear regressions selecting as dependent variable the around-the-event window  $CAR$  as previously defined. The regressors have been selected from the following set of variables (see also Table 2):

1. the evaluation methodology applied (*EVMET*)<sup>1</sup>;
2. some inputs of the models, such as, the average risk premium, the average discounting rates<sup>2</sup> and the time horizon in the analytic forecasts (*INPUT*, it's a matrix of these 3 variables: *AVGRP*, *AVGDISR*, *TIMEHOR*<sup>3</sup>);
3. the timing of the report issue, that is the hot/cold period (*TIME*);
4. the activity of the broker over the years, measured by the ratio (*BROWEIGHT*):

$$\frac{\textit{reports issued by the broker}}{\textit{total reports analyzed}}$$

The initial expression we tested is the following one [1]:

$$CAR_{i,t}(-1;+1) = \alpha + \beta_1 EVMET_{i,t} + \beta_2 INPUT_{i,t} + \beta_3 TIME_{i,t} + \beta_4 BROWEIGHT_{i,t} + \varepsilon_{i,t}$$

Where  $i$  represent the firm evaluated and  $t$  the report issue date. The qualitative variables have been represented by dummy variables<sup>4</sup>.

Then, focusing our attention on the kind of evaluation methods used by the analysts (fundamental analysis or market ratios approach) we replaced the dummy identifying the reports with or without methods (*EVMET*) with another dummy taking into account if the analyst used a fundamental method or a market ratio approach (*FUNDMRKT*). With the replacement, the starting expression 1 becomes as follow [2]:

$$CAR_{i,t}(-1;+1) = \alpha + \beta_1 FUNDMRKT_{i,t} + \beta_2 INPUT_{i,t} + \beta_3 TIME_{i,t} + \beta_4 BROWEIGHT_{i,t} + \varepsilon_{i,t}$$

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<sup>1</sup> This qualitative variable distinguishes if the report has an explicit evaluation method used or not.

<sup>2</sup> In the most part of reports, the analysts use more than one measures for market risk premia and discounting rates (e.g. they often use different discounting rates for different business units or for different time horizons). We calculated the arithmetic mean of these values both of market risk premia and discounting rates used in the same report.

<sup>3</sup> The time horizon length has been calculated as a difference between the analytic forecasts date and the report date over 360 days.

<sup>4</sup> The more correct procedure should be to perform a panel data analysis instead of a simple linear regression. The panel data regression would allow to consider the identity and the not observable features of the analyst (or of the group of analysts) writing the report. In our case it's not straightforward to figure out the panel as we have an unbalanced panel data, due to the nature of our data, that are not regular over the time. The procedure of dummy variables (LSDV) is not practicable as well because we would have too many dummies.

## 6. Results

### 6.1. Market reaction to analysts' recommendations: a further investigation

We first analyzed the market reaction to the report issue looking at the daily  $AR$  trend over the event window (-10; +10), distinguishing between bad, neutral and positive recommendations. The sample size is 2415 for good recommendations, 441 for bad and 1564 for neutral ones. The average abnormal returns and the market reaction plot are reported in Table 5 and Figure 1.

The results are consistent with the previous literature, on the strength of that the recommendations have an informative content for the market. Our empirical evidence shows that both the sign and the intensity of the reaction are consistent with expectations and statistically significant around the event day ( $t=0$ ). So, it's documented that financial analysts' ability to pick up under-valuated stocks or, on the contrary, to drop down over-valuated stocks.

Furthermore, the negative recommendations have a bigger negative impact respect to other kinds of recommendation: the abnormal return are slightly positive at the beginning of the event window, but immediately before the event day and in the few days after, they drop down significantly<sup>1</sup>. This is not really surprising as the negative recommendations are less frequent than the other ones and so, it's likely the investors put more weight on this kind of recommendations rather in the others, so the former ones have more informative value.

The neutral recommendation effect can be assimilated to the negative recommendation one. This behaviour is consistent with the conflict of interest hypothesis (e.g. Michaely and Womack [1999], Lin e McNichols [1998] or Dugar e Nathan [1995]): the analysts, having to issue a negative recommendation, prefer to issue a neutral one without compromising their relationship with the company management. Another behavioural explanation is related to the optimistic bias: the analysts tend to have a too much optimistic view of the stocks they evaluate.

Focusing on the pre-event period, consistently with previous results (see Womack [1996] and Belcredi *et al.* [2003]), there is an anticipated effect on the market respect to the event date. The negative recommendations cause negative abnormal returns since  $t=-5$ , even

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<sup>1</sup> The *t-test* on the absolute value of the difference between the  $ARs$  is statistically significant at 1% level.

though they become statistically significant just in  $t=-1$ . For the positive and neutral recommendations the anticipated effect is more evident and significant starting from  $t=-1$ .

A possible explanation of this evidence (see also Belcredi *et al.* [2003], Michaely and Womack [1999] and Stickel [1995]) is that some private clients have been receiving some relevant news before the issue date printed on the report. This hypothesis, even though widely spread in US, would be violating the Italian regulation imposing the investment banks and brokerage houses to distribute their reports to all clients (at the date printed on the paper), avoiding to select some of them or to transmit the documents in a selective way.

Another possible hypothesis could be instead related to the fact that some relevant news could become public before the report date and so the market effect is caused by them, independently on the report dissemination.

Looking at the post-event period, the abnormal returns disappear quite quickly in correspondence to positive and neutral recommendations while the negative recommendation impact does not have a clear trend after the event date, even though the abnormal returns are statistical significant just until  $t=1$ . This subsequent irregular variation in the market prices could be either related to other news, independent on the report disclosure or simply be dependent on some noise in our sample. This analysis should need further investigation taking into account, for instance, the changes in the recommendations (upgrade vs downgrade).

The *CAR* analysis confirms the daily evidence shown above (see Table 6).

Considering the narrow pre-event window (-5; -2), the negative recommendations show a significant anticipated effect on the market, while we do not find any significant abnormal returns for the other kinds of recommendations. On the contrary, consistently with  $\overline{AR}$  daily data, we document a significant market price reaction over around-the-event window regardless of the nature of the recommendation. The stronger effect is still recorded for the negative advice.

This asymmetry in the market behaviour could be simply due to our recommendation classification. We classified the recommendations in the three categories, neglecting whether they were a simple reiteration or a change from a previous advice. It has been documented that there is a link between the size of the reaction and the type of recommendation. As pointed out by Belcredi *et al.* [2003], for stocks added to a buy (sell) list it

may be expected a stronger positive (negative) market impact than for stocks upgraded (downgraded) but still remaining in the same category. In further investigation we will control for this because if our results would hold, they'd confirm what already demonstrated by Womack [1996] and Stickel [1995] for the US market and by Belcredi *et al.* [2003] for the Italian one.

Finally, the post event analysis for the window (+2; +5) do not show evidence of any significant abnormal returns for none of our recommendation categories.

## **6.2. Market reaction and the properties of financial reports**

So far we have once more documented the informative value of analysts' report, but we have not yet analyzed if the content of the reports matters in the capital market, that is the main issue of our work. In this section we report the findings related to the research hypotheses presented in section 3:

*H1*: Does the content of reports matter for the investors?

*H2*: Does the market care about the evaluation methods used by the analysts? Do the different evaluation methods have different value for the investors?

*H3*: Can the timing of the report issuing explain a different market impact?

In order to test the hypotheses *H1* and *H3* we ran the regression 1 in Section 3 on three different sub-samples, each one corresponding to positive recommendations, negative and neutral ones. We used a stepwise procedure to select significant variables: the results are reported in Table 7, panel A-B-C.

Although we test many properties of the report content, we get just few significant variables. The most part of the estimated coefficients (4 out of 6) are never statistically significant, leading to confirm just partially *H1*. The insignificance of the estimated coefficients could be dependent on a simple structural effect deriving from the small size of our sub-samples. Because of many data missing in our original dataset<sup>1</sup>, in some cases we have few observations for our regressions. As our focus is on the whole content of the reports, we did not cancel out any variable, although causing a huge decrease in sub-sample size. In consequence of this, the

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<sup>1</sup> Many analysts do not explicit the parameters they use or, as already said, the evaluation methods applied.

less evident effects on the market reaction of some variables could be hidden just by this problem.

Another possible explanation could be related to some pitfalls in the specification of our variables. In regard to the average market risk premium and discounting rate, we have considered a simple arithmetic mean of different values used by the analyst in the report. For instance, an investor could do not make this calculation and pay more (less) attention just to the highest (lowest) rate used according to his view and his risk aversion. In regard to the time horizon, it's possible that to read the report the investor applies more qualitative time horizon definition that our quantitative framework can not capture. Regarding the brokers' activity, we used the variable *BROWEIGHT* as a reputation proxy: more active brokers should represent more trusted ones. We should try with other definitions, even though it's the difficulty to assess the reputation giving raise this issue. A further investigation will control for all these aspects.

The results are different across the sub-samples. The positive recommendations sub-sample doesn't confirm the hypothesis *H1* at all, as no variable representing the report properties is significant. On the other hand, this sub-sample confirms the hypothesis *H3*, as the dummy representing the timing of the issuing is significant. The negative sign of the variable coefficient demonstrates that the reports issued in the cold periods are more influential.

The sub-samples with negative or neutral recommendations share the same features, even if with a different intensity. The hypothesis *H1* finds a confirmation, even though in relation to just one property of the report, that is the elicitation of evaluation methods. In both cases, the market reaction is stronger when the evaluation methods are elicited. The dummy variable describing these property is highly significant and, especially in the sub-samples with negative recommendations, the power of the statistical model is quite interesting (the adjusted  $R^2$  is 0.339). It's worth marking that the constant term in these regressions is not significant at all (negative recommendations) or weakly significant. It means that these reports influence the market only (negative recommendations) or mainly (neutral recommendations) when the evaluation methods is elicited.

With regard to the hypothesis *H3*, contrary to the positive recommendations sub-sample, it is not confirmed, as the dummy representing the timing of the issuing is not significant.

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Finally, we ran the regression 2 to test the hypothesis *H2* about the importance of the kind of the evaluation methods used in the reports. In this case we did not find any significant result, therefore rejecting the assumption that using fundamental analysis or market ratios approach is relevant for the market reaction.

## 7. Discussion

Our results show the market looks at different report properties depending on which is its final recommendation. The reports with a positive recommendation are by far more numerous. We argue investors are used to get positive recommendations and they don't wonder how the analysts build the investment advice which are after all very common. Differently investors believe that there would be a stronger motivation beneath the reports issued when analysts' activity is less frequent. During hot periods, analysts are somehow obligated to issue reports and they could assume an herding behaviour to reduce the negative consequences of wrong forecasts. On the other hand, only the bolder analysts with strong beliefs issue reports in the cold periods. Beside this signalling explanation of the higher market impact of the reports issued in cold periods, we must remember the hot reports are issued in correspondence to time moments where the disclosure about the company goals and the most significant quantitative data has been already done by the companies. Therefore these reports have just a residual function of completing and spreading the disclosure of the most relevant news. On the contrary the cold reports would have a stronger informative value basically because they are based on not yet public information, and so, not discounted by the market. The analysts could have a preferential access to qualitative information, such as the management quality or its credibility and according to this hypothesis, the market would recognize the analysts' skill in collecting price sensitive information during periods of not intensive disclosure by the companies.

These remarks don't apply to negative or neutral reports<sup>1</sup> which are less numerous both due to the analyst' optimism and to the conflict of interests which induces analysts to avoid making public negative evaluations of companies. Therefore investors likely think when an analyst issues a negative advice he really believes in it and he is not simply following others' opinion. This explains why it isn't important

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<sup>1</sup> The common features of negative and neutral reports are not surprising as the investors often consider the neutral recommendations as negative ones.

when the report is issued but not why investors pay great attention on whether the evaluation methods are elicited or not. We think a convincing explanation could lie on the disposition effect, that is the tendency of investors to sell shares where they are gaining, while keeping the ones where they are suffering losses (Shefrin and Statman [1985]). The negative advice could reach investors both who are gaining and who are loosing. While the former ones will be willing to sell, the latter ones, before selling the losing stocks, will require well documented reports with convincing arguments supporting the general advice. Our results are also consistent with previous findings of the literature. Hirst et al. [1995] and Asquith et al. [2005] found that investors do not investigate beyond report type in the case of upgrades, but seem to read downgrade reports closely, using more information than in the case of upgrades to support the advice. They find that when a report is unfavorable, the strength of the arguments contained in an analyst's reports affects investors' judgments. The study confirms this evidence providing a further and more detailed investigation on the properties of the financial analysts' reports.

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## Tables and Figures

### Table 1. Report distribution over the months

Mese	Frequency	%	Cumulative %	Period
<b>November</b>	779	17.03	96.57	<b>Hot</b>
<b>September</b>	735	16.07	72.25	<b>Hot</b>
<b>May</b>	593	12.97	38.81	<b>Hot</b>
<b>March</b>	456	9.97	20.97	<b>Hot</b>
<b>July</b>	453	9.91	52.18	<b>Hot</b>
<b>October</b>	333	7.28	79.53	<b>Cold</b>
<b>February</b>	323	7.06	11.00	<b>Cold</b>
<b>April</b>	223	4.88	25.85	<b>Cold</b>
<b>August</b>	183	4.00	56.18	<b>Cold</b>
<b>January</b>	180	3.94	3.94	<b>Cold</b>
<b>June</b>	158	3.46	42.27	<b>Cold</b>
<b>December</b>	157	3.43	100.00	<b>Cold</b>
	4573	100.00		

### Table 2. Collected data classification

<b>General report features</b>	<ul style="list-style-type: none"> <li>• Report type</li> <li>• Report issuing date</li> <li>• Report size</li> <li>• Analysts' name</li> </ul>
<b>Evaluation Methods</b>	<ul style="list-style-type: none"> <li>• Net asset method</li> <li>• Financial method: discounted cash flow, dividend discounted model</li> <li>• Income method: discounted shareholder profit, warranty equity valuation, discounted earnings, ROE required</li> <li>• "Composed method": EVA, patrimonial-income method</li> <li>• market ratios: traditional (P/E, P/BV...), PEG, PBVG, EV, AV</li> </ul>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• market risk premium</li> <li>• actualization rates</li> <li>• time horizon of forecasts</li> </ul>
<b>Final output synthesis</b>	<ul style="list-style-type: none"> <li>• investment recommendations</li> <li>• target prices</li> </ul>

Notes: 1. Warranty equity evaluation method establishes that the value of equity (E) is given by this formula:  $E = (ROE - g) / (COE - g) \cdot P/BV$ , where ROE is return on equity, g is long term growth rate, COE is the cost of equity and P/BV is price to book value. ROE required is the same of WEV, but g is equal to zero. 2. P/E is price to earnings, P/BV is price to book value, PEG is price/earnings to growth, PBVG is price/book value to growth, EV is embedded value and AV is appraisal value.

**Table 3. Report frequency by recommendation**

Recommendation category	Frequency	%	Cumulative %
Bad	456	9.97	9.97
Good	2429	53.12	63.09
Neutral	1583	34.62	97.70
Not available	105	2.30	100.00
Total	4573	100.00	

**Table 4. Report frequency in general, among sectors and by year**

PANEL A		PANEL B				PANEL C				PANEL D							
	WHO	WHEN				WHAT				HOW							
	Broker	2000	2001	2002	2003	Insurance	Banking	Manufacture	Utilities	Net asset method	Earnings-based method	Financial method	Composed method	Market ratios "naive"	Market ratios "sophisticated"	Qualitative analysis	
1	ABN Amro	81	2	31	12	36	7	30	20	24	4	9	27	36	54	5	8
2	Actinvest Group	112	21	46	41	4	16	51	1	44	3	0	42	42	42	50	53
3	Albertini & C.	50	9	41	0	0	4	23	23	0	0	0	8	8	22	2	1
4	BNP Paribas	32	5	3	5	19	0	3	7	22	0	1	10	11	18	0	1
5	Banca Akros	117	1	23	19	74	8	27	38	44	10	9	26	35	56	0	2
6	Banca Aletti & C.	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
7	Banca Commerciale Italiana	12	5	7	0	0	3	2	7	0	0	0	0	0	0	0	0
8	Banca Finnat Euramerica	5	2	0	2	1	0	0	3	2	0	0	0	0	0	0	0
9	Banca Leonardo	54	19	15	20	0	1	28	13	12	5	7	10	17	23	0	1
10	Banca Popolare di Bari	7	0	0	3	4	0	3	3	1	0	0	7	7	0	0	0
11	Banca Sella	6	0	2	4	0	1	1	2	2	2	0	0	0	0	0	0

12	Banca d'Intermediazio ne Mobiliare - IMI	207	7	90	75	35	25	61	56	65	21	7	32	39	105	14	11
13	Bipielle Sim	3	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0
14	Borsaconsult Sim	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
15	Caboto Sim	210	52	47	27	84	33	52	47	78	28	7	70	77	92	6	3
16	Cazenove	10	0	0	0	10	0	1	0	9	0	0	0	0	7	0	0
17	Centrosim	141	4	0	54	83	8	43	34	56	1	2	14	16	28	1	0
18	Cheuvreux	125	24	28	38	35	23	35	36	31	31	7	42	49	113	25	57
19	Citigroup	24	0	0	0	24	0	4	11	9	0	0	9	9	22	1	1
20	Cofiri Sim	17	0	0	7	10	0	5	7	5	0	3	1	4	1	1	0
21	Consors	29	0	0	29	0	3	9	7	10	0	0	0	0	0	0	0
22	Credit Lyonnais	32	0	7	16	9	4	7	11	10	4	1	10	11	28	1	0
23	Credit Suisse	76	5	19	16	36	14	15	12	35	15	2	37	39	52	0	2
24	Deutsche Bank	471	99	117	100	155	20	147	125	179	32	1	51	52	134	1	0
25	Dresdner Kleinwort Benson	120	6	39	24	51	5	42	14	59	6	9	48	57	76	1	3
26	Eptasim	76	4	17	33	22	8	31	18	19	10	1	35	36	36	4	3
27	Euromobiliare	412	70	90	96	156	52	157	107	96	43	14	76	90	263	31	5
28	Fortis Bank	30	0	17	13	0	0	13	0	17	1	2	4	6	13	1	1
29	Gestnord	3	0	0	1	2	0	0	2	1	0	0	0	0	0	0	0
30	Goldman Sachs	87	2	0	28	57	14	22	14	37	0	2	9	11	40	16	1
31	Idea Global	10	3	7	0	0	0	3	7	0	0	0	0	0	0	0	0
32	Ing Barings	31	1	18	7	5	0	0	19	12	0	0	4	4	11	1	0
33	Intermonte Securities Sim	372	13 6	124	39	73	54	168	73	77	43	35	74	109	252	12	3
34	IntesaBCI	11	0	11	0	0	2	3	6	0	0	0	0	0	3	0	0
35	JP Morgan	8	0	0	0	8	0	1	1	6	0	1	0	1	0	0	0
36	Julius Baer	102	21	23	25	33	17	24	25	36	14	18	31	49	85	5	57
37	Lehman Brothers	97	0	0	25	72	5	19	29	44	7	6	61	67	73	7	0
38	Massimo Mortari	5	0	3	2	0	0	0	5	0	0	0	4	4	0	0	0
39	Mediobanca	173	1	0	55	117	16	46	43	68	30	4	37	41	70	8	3
40	Merrill Lynch	352	20	92	97	143	38	145	64	105	11	12	50	62	224	16	5
41	Metzler Italia	10	5	4	1	0	2	2	2	4	0	0	0	0	0	0	0
42	Rasbank	9	0	0	1	8	1	3	3	2	0	0	0	0	4	0	0
43	Rasfin	80	31	37	12	0	2	20	21	37	6	3	22	25	31	2	0
44	SG Securities Milano	24	4	20	0	0	6	9	9	0	2	3	1	4	10	0	0

45	Santander Central Hispano	68	0	0	41	27	16	18	11	23	3	2	14	16	42	0	1
46	Société Generale	86	0	51	35	0	8	25	23	30	8	6	7	13	31	3	1
47	UBS Warburg	229	19	79	40	91	22	65	63	79	17	0	81	81	207	4	2
48	Unicredit Banca Mobiliare	363	35	44	93	191	53	145	75	90	13	5	39	44	114	22	1
49	Uniprof sim	11	0	4	4	3	0	2	4	5	0	0	0	0	6	0	0
50	Websim	11	0	0	11	0	2	9	0	0	0	0	0	0	7	0	0
		4603	614	1157	1151	1681	493	1520	1102	1488	380	180	1015	1195	2448	240	234

PANEL E							
Companies	Sector	N total reports	N reports with a "prevalent" method	N reports with a "prevalent" method - year 2000	N reports with a "prevalent" method - year 2001	N reports with a "prevalent" method - year 2002	N reports with a "prevalent" method - year 2003
Alleanza Assicurazioni	Insurance	150	60	5	22	15	18
Assicurazioni Generali		183	56	9	10	22	15
Ras		160	46	4	11	16	15
<b>Total</b>		493	162	18	43	53	48
B Pop Verona e Novara	Banking	68	17	0	0	6	11
Banca Antonveneta		41	10	0	0	5	5
Banca Fideuram		122	41	7	14	9	11
Banca Intesa BCI		218	51	4	12	16	19
Bnl		157	31	5	8	8	10
Capitalia		119	29	4	13	5	7
Fineco		98	14	1	9	0	4
Mediolanum		167	61	8	25	14	14
Monte Pashi di Siena		126	28	5	8	9	6
San Paolo IMI		203	57	13	11	16	17
Unicredito		201	40	8	7	10	15

<b>Total</b>		1520	379	55	107	98	119
Eni	Manufacture	251	89	11	29	15	34
Fiat		209	78	8	18	24	28
Finmeccanica		119	59	11	16	12	20
Parmalat		145	54	7	12	18	17
Pirelli		141	46	9	19	10	8
Saipem		128	39	4	8	10	17
STMicroelectronics		109	54	4	13	14	23
<b>Total</b>		1102	419	54	115	103	147
Enel	Utilities	291	83	9	21	8	45
Mediaset		239	64	7	18	8	31
Olivetti		64	35	11	21	3	0
Seat P. G.		188	43	3	18	11	11
Snam Rete Gas		126	28	0	0	10	18
Telecom Italia		273	48	5	10	9	24
Tim		307	90	8	20	25	37
<b>Total</b>		1488	391	43	108	74	166
<b>TOTAL</b>		4603	1351	170	373	328	480

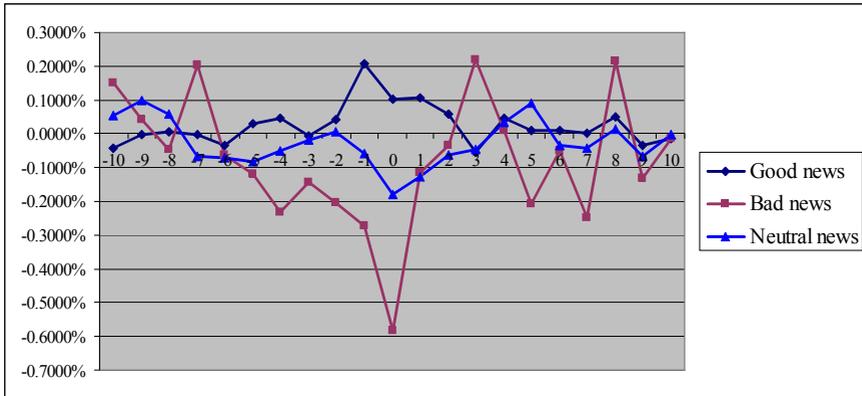
**Table 5. Average Abnormal Return in correspondence to the report date**

T	Good news			Bad news			Neutral news		
	AR	T test	Sign	AR	T test	Sign	AR	T test	Sign
-10	-0.0417%	-1.1765		0.1500%	1.5798		0.0560%	1.2321	
-9	-0.0030%	-0.0829		0.0407%	0.4241		0.0995%	2.0249	**
-8	0.0073%	0.1982		-0.0480%	-0.5226		0.0589%	1.2180	
-7	-0.0018%	-0.0446		0.2025%	1.9420	*	-0.0679%	-1.5555	
-6	-0.0366%	-0.9499		-0.0612%	-0.6439		-0.0698%	-1.4340	
-5	0.0316%	0.8128		-0.1178%	-1.2333		-0.0832%	-1.6992	*
-4	0.0458%	1.2197		-0.2312%	-2.0574	**	-0.0494%	-0.8461	
-3	-0.0062%	-0.1530		-0.1450%	-1.3415		-0.0187%	-0.3840	
-2	0.0401%	0.9952		-0.2041%	-1.7407	*	0.0070%	0.1263	
-1	0.2067%	4.7467	***	-0.2741%	-2.0288	**	-0.0591%	-0.8935	
0	0.1017%	2.2003	**	-0.5835%	-3.4680	***	-0.1798%	-2.8844	***
1	0.1067%	2.5650	***	-0.1149%	-1.0623		-0.1267%	-2.3733	**

2	0.0595%	1.5914		-0.0364%	-0.3124		-0.0638%	-1.0178	
3	-0.0538%	-1.2544		0.2205%	1.8142	*	-0.0462%	-0.7242	
4	0.0446%	1.1684		0.0085%	0.0782		0.0356%	0.7151	
5	0.0106%	0.2883		-0.2074%	-2.2500	**	0.0887%	1.7927	*
6	0.0105%	0.2672		-0.0528%	-0.2899		-0.0355%	-0.7317	
7	0.0002%	0.0047		-0.2467%	-1.4330		-0.0432%	-0.9224	
8	0.0519%	1.3824		0.2158%	2.2198	**	0.0141%	0.3038	
9	-0.0367%	-0.8081		-0.1323%	-1.4020		-0.0685%	-1.4610	
10	-0.0131%	-0.3047		-0.0149%	-0.1510		-0.0024%	-0.0544	

Statistical significance: \*\*\* = at 1%, \*\* = at 5%, \* = at 10%.

**Figure 1. Average Abnormal Return in correspondence to the report date**



**Table 6. Cumulative Abnormal Return in correspondence to the report date**

Recom N report	Good news			Bad news			Neutral news		
	CAR	T test	Sign	CAR	T test	Sign	CAR	T test	Sign
	N = 2415			N = 441			N = 1564		
(-5;-2)	0.1112%	1.3804		-0.6982%	-2.97673	***	-0.1442%	-1.3088	
(-1;+1)	0.4151%	5.7609	***	-0.9725%	-5.1923	***	-0.00365	-3.9530	***
(+2;+5)	0.0609%	0.8120		-0.0148%	-0.08025		0.0142%	0.1437	

Statistical significance: \*\*\* = at 1%, \*\* = at 5%, \* = at 10%.

**Table 7. The market reaction to report issue by recommendation: the effects of the report content (model 1)**

**Panel A: by good recommendations**

Included Variable	B	Std. Error	t	Sig.
<i>(Constant)</i>	7,435E-03	,004	1,674	,096
<i>TIME</i>	-1,347E-02**	,006	-2,289	,024

Excluded Variables	Beta In	t	Sig.
<i>BROWEIGHT</i>	-,058	-,706	,482
<i>TIMEHOR</i>	,023	,276	,783
<i>AVGDISR</i>	,033	,403	,688
<i>AVGRP</i>	-,007	-,089	,929
<i>EVMET</i>	-,002	-,028	,978

<b>N</b>	<b>F</b>	<b>Sig.</b>
144	5,238	,024
<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>
,189	,036	,029

**Panel B: by bad recommendations**

Included Variable	B	Std. Error	t	Sig.
<i>(Constant)</i>	-4,000E-04	,010	-,039	,969
<i>EVMET</i>	-5,285E-02***	,016	-3,280	,004

Excluded Variables	Beta In	t	Sig.
<i>BROWEIGHT</i>	-,184	-,979	,341
<i>TIMEHOR</i>	,008	,041	,968
<i>AVGDISR</i>	-,123	-,624	,541
<i>AVGRP</i>	-,150	-,791	,440
<i>TIME</i>	,182	,929	,366

<b>N</b>	<b>F</b>	<b>Sig.</b>
20	10,761	0,004
<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>
,612	,374	,339

**Panel C: by neutral recommendations**

<b>Included Variable</b>	<b>B</b>	<b>Std. Error</b>	<b>t</b>	<b>Sig.</b>
<i>(Constant)</i>	9,839E-03	,006	1,755	,084
<i>EVMET</i>	-1,973E-02**	,008	-2,450	,017

<b>Excluded Variables</b>	<b>Beta In</b>	<b>t</b>	<b>Sig.</b>
<i>BROWEIGHT</i>	,097	,796	,429
<i>TIMEHOR</i>	,056	,460	,647
<i>AVGDISR</i>	-,122	-1,006	,319
<i>AVGRP</i>	-,210	-1,760	,084
<i>TIME</i>	,048	,389	,698

<b>N</b>	<b>F</b>	<b>Sig.</b>
65	6,002	0,017
<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>
,297	,088	,074

*Notes:* This table (in panels A-B-C) presents the results of estimating the following regression using ordinary least squares:

$$CAR_{i,t}(-1;+1) = \alpha + \beta_1 EVMET_{i,t} + \beta_2 INPUT_{i,t} + \beta_3 TIME_{i,t} + \beta_4 BROWEIGHT_{i,t} + \varepsilon_{i,t}$$

where the variables are defined as follows:

$CAR_{i,t}(-1;+1)$ , 3-day Cumulative Abnormal Return centred on the event date for firm I;  $EVMET_{i,t}$  distinguishes if the report has an explicit

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evaluation method used or not, taking the value 1 if the report has an explicit main evaluation method, 0 otherwise;  $INPUT_{i,t}$ , a matrix of 3 variables:  $AVGRP_{i,t}$ ,  $AVGDISR_{i,t}$ ,  $TIMEHOR_{i,t}$ , measuring the average risk premium, the average discounting rate and the time horizon used by the analyst in the report;  $TIME_{i,t}$ , timing of the report issue, taking value 1 if the report has been issued in “hot” periods, 0 if in “cold” period;  $BROWEIGHT_{i,t}$ , taking into account the activity of the broker over the years and measured as (reports issued by broker I/total reports analyzed);  $\varepsilon_{i,t}$  assumed normally distributed error term with zero mean and constant variance.

t-statistics are to the right of the estimated coefficients. The adjusted  $R^2$  and associated  $F$ -statistic is for the entire regression.

*Beta In* is the beta weight that would result if the given variable were put back into the model for the listed step. Likewise, t and significance are the coefficients which would result from adding that variable back in.

Statistical significance: \*\*\* = at 1%, \*\* = at 5%, \* = at 10%.

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## MANIPULATION OF THE FINANCIAL STATEMENTS

**Abstract:** *An increase in concentration of quoted companies on a relatively small number of stock markets requires a better equalisation of financial reporting framework. Globalisation of financial markets requires harmonisation of financial standards. In 1998, an agreement between IOSCO (International Organisation of Securities Commission) and IASC (International Accounting Standards Committee) on application of International Accounting Standards on American stock exchanges was consequently reached. Since then, the concentration of quoted companies that use American standards (US GAAP) or International Accounting Standards (IAS) has increased. According to NYSE information, in 1999, approximately 10% of companies disclosed their financial statements in accordance with IAS.*

*The beginning of 21st Century recorded changes in the field of valuation. The traditional principle of valuation ♦ the cost principle, originating from the past centuries ♦ has, notwithstanding all reasonable resistance, been changed. Contemporary form of electronic trade requires provision of true and fair information on financial position and operation of companies in short intervals, for example, each day or every hour, etc. National and international committees (especially the American FASB or international IASC) prepared accounting standards in which they introduced the principle for evaluating assets and liabilities according to their fair value.*

*The application of this principle primarily relates to investments in securities and their disclosure in the balance sheet. This principle mostly ♦effects ♦ financial institutions such as banks and investment funds, the assets of which mostly comprise securities portfolios.*

**Key words:** *stok market, stock market manipulation, accounting, accounting manipulation, financial assets.*

Manipulations of prices of quoted securities provoke manipulations of and mis-valuation in balance sheets. The effect of stock market manipulations on mis-valuations in balance sheets became more visible by application of fair value principle. Possibilities to perform

accounting manipulations in order for certain interest parties (i.e. management or shareholders) to achieve the goals set are becoming real.

### **1. Stock market manipulation activities (rules)**

In order to understand manipulation instruments or activities aimed at increasing or decreasing share prices on stock markets, the main rules of stock market manipulations should be explained. Today, there are ten stock market rules:<sup>1</sup>

1. All sudden increases or decreases in share prices result from manipulations performed by an individual or a group (usually a group) of professional manipulators.

If a manipulator (controlling the greed and fear of investors) wants you as an investor to buy shares of a company, the prospect of that particular company would look like another Microsoft. However, if a manipulator wants you to leave the sinking boat (to sell shares of a company of their interest), they would start a campaign and emission of very bad information about the company with the shares of which they wish to manipulate.

2. If manipulators wish to sell previously acquired shares (dump of shares), they will initiate all possible commercial activities and emanate good news about companies the shares of which they wish to sell.

3. When a manipulator sells shares of a company, he then again starts to emanate bad information about companies the shares of which he wishes to acquire or tends to create an information vacuum about these companies, which allows him to acquire shares in a lower price.

4. The sale of a large number of shares at a high price indicates the process of selling off (trash) of shares performed by professional manipulators. Trading in smaller volumes at lower prices indicates the accumulation of shares by manipulators which they, later, wish to sell at a higher price.

5. Professional market manipulators will always tend to make you buy shares at a higher price, as well as make you sell shares at the lowest possible price.

6. When manipulations include real deal, you will probably be the last to know it and probably the last person to “come out” of shares of a company at a lower price.

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<sup>1</sup> [www.greatstockpicks.com](http://www.greatstockpicks.com)

7. You will probably be the last to know if a deal gives signs of unsuccess, and will still in fear be selling the shares at a lower rate.
8. Manipulators will force you to buy shares of a company by increasing their prices.
9. Manipulators are familiar with the rush you are dealing with, as well as the collapse, and will play your emotions as a piano player.
10. The financial market is cruel, unkind and dangerous playground, and a place where amateurs are brutally burned mainly by those who are familiar with already established rules.

### *Stock market methods of manipulations*

In financial theory and practice, there are more and more methods of professional manipulations among which the most prominent are: 1. *Pump & Dump*, 2. *Trash & cash* and 3. *Insider trading*.

**(a) Pump & dump** method is most known in circles of stock market manipulators, and aims at realising manipulators' financial gain. In this kind of manipulations, manipulators first acquire a larger number of shares in a shallow financial market, after which, they tend to pump up their prices by promotional campaigns, especially Internet. After pumping up the prices, manipulators sell or dump the shares at higher prices and realise extra-profit. Pump & dump method is realised through the following phases<sup>1</sup>:

1. Acquisition of shares ("loading"),
2. Promotional campaign or spreading of stories and rumours via campaigns aimed at increasing the share prices. The stories are spread in newspapers, promotional spots, and today, especially, via internet, and are followed by a *gold fever* type of rush for shares the price of which is pumping up and rapidly spreading via the financial world.
3. Selling off or "dumping" of shares represents another dishonourable and logic manipulation activity in which cheaply acquired shares will be sold at an artificially created higher price.
4. Stillness and information vacuum represent a phase following the dump of all shares, and indicates preparations for a new knock down of prices and takeover of packages of shares of certain companies. Stillness and inexistence of information about companies and their shares create shareholders' fear; shareholders then tend to dispose of such shares, fearing a greater fall in prices and larger losses. In this

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<sup>1</sup> [www.dimgroup.com](http://www.dimgroup.com) or [www.harvestroad.com.au](http://www.harvestroad.com.au)

way, manipulators *accumulate* new shares and prepare to repeat the pump & dump method.

**(b) Trash & cash** method consists of two phases:

1. Underestimation or trash of shares via negative stories or rumours spread in newspapers, advertisements or via internet, aiming at knocking down the prices of shares of companies in which market manipulators are interested.
2. After acquiring shares, negative rumours stop and positive information about acquired shares start to spread. Following this, manipulators sell off or “trash” the shares and cash the profit.

**(c) Insider trading** method is a method in which primarily officers of companies or insiders (management, directors, employees, their families, friends, and similar) participate. On the basis of verified information, insiders buy or sell shares at favourable prices. Moreover, insiders trade in reliable information accessible to them since they get financial gain or “tippees”. Insiders can also spread unrealistically positive or negative information if they wish to increase or knock down the share prices, and therefore act according to pump & dump or trash & cash methods. Using internet, stock market manipulators are more efficiently controlling insiders’ greed and fear and realise profit therefrom.

The number of on-line investors is growing as well as the number of consultants and financial advisors interested in stock market manipulations who sell their advice via internet<sup>1</sup>. Licensed advisors and brokers offer their services on-line making more and more Internet-base-services which are offered to investors<sup>2</sup>.

There is an increasing number of Web-KMes created 1. with the intention of spreading rumours (positive and negative) and 2. with the intention of spreading true (classified) and false information on financial KMMulation and the operation of companies.

Since the beginning of the 20<sup>th</sup> Century, insider trading has been classified and known as bad manipulation. In 1934 already, the USA passed an Act (Security Exchange Act)<sup>3</sup> which authorises American Security and Exchange Commission (SEC) to fight insiders and their

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<sup>1</sup> [www.harvestroad.com.au](http://www.harvestroad.com.au)

<sup>2</sup> IRC (Internet relay chat) allows real time discussions with everybody. Furthermore, there are E-mail and SPAM (information received from an unknown person offering information services and financial advice).

<sup>3</sup> [www.stocks.about.com](http://www.stocks.about.com) or [www.wsj.com](http://www.wsj.com)

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manipulations. According to this Act<sup>1</sup> (to which SEC today refers), everybody giving information about or disclosing insiders, are awarded. Even EU began fighting insider trading by passing amendments to already adopted EU Directives. More than a decade ago, The Insider Dealing Directive (89/592/EEC)<sup>2</sup> was adopted. However, new circumstances have aroused and, in 2001, a suggestion to develop a new insider dealing and market manipulation directive was presented to EU Commission. This initiative forms part of the Financial Services Action Plan focused on EU financial market integration.

## **2. Accounting manipulations and their effects on disclosure of financial statements**

### *2.1. The notion, aims and reasons of accounting manipulations*

According to accounting standards,<sup>3</sup> quoted companies having external audit are obliged to implement and disclose financial policies, i.e. principles, methods and procedures, used in preparation and disclosure of financial statements. Since companies organised as joint-stock companies represent coalition of interested parties<sup>4</sup> (shareholders, management and, as recently emphasized, employees) the choice of accounting policies may represent the means of attaining certain short-term goals. Different interest party goals may conflict (in the long run or the short run), and may represent additional impulses on the company's accounting policies as part of overall operational policy. Such accounting methods which, in the short run, overestimate or underestimate assets or liabilities may, in the short run, attain the goals of one of the conflicted parties. However, originated time differences may, from one period to another, favour the interests of individual parties.

In mid 20<sup>th</sup> Century, special interest in financial and accounting practice was given to conflicts of interest between management and

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<sup>1</sup> Article 10.b

<sup>2</sup> <http://europa.eu.int>

<sup>3</sup> According to IAS 1 Presentation of financial statements (point 20), the management should apply selected accounting policies in a manner that financial statements be in compliance with all requirements prescribed by IAS. Please refer to International Accounting Standards.

<sup>4</sup> Ross S.A., Westerfield R.W., Corporate Finance, Times Mirror, College Publishing, St. Louis, 1988 pg. 14 or Steeres B., Trends in management accounting, CMA Magazine 3/90, Hamilton Ontario, 1990 pg. 98.

shareholders<sup>1</sup>. Particularly distinguished were the models of firm governance theory (by *Baumol, Marris and Williams*)<sup>2</sup>. According to these models, the aimed top-management and shareholder functions were in conflict in a short-term. The conflict was manifested in the field of business results where shareholders tended to maximise dividends and top-management the retained earnings. Exactly in the field of conflict of interest did the effects of alternative accounting policies, by which short-term goals of particular parties were realised, start to get observed.

Preparation of financial statements and disclosure of accounting information represent regular management activities which, in scope of investor protection, are subject to external audit. There is a thin line between management manipulations through application of selected alternative accounting policies (legal accounting manipulations) and manipulations aimed at cheating investors (illegal accounting manipulations). Illegal accounting manipulations have, for a serious of years already, been the subject of eliminations. Notwithstanding all the efforts and the results achieved, illegal manipulations are not excluded.

Recently, there were certain efforts to systematise reasons of accounting manipulations. The reasons are numerous, among which the following:<sup>3</sup>

1. Decrease in fiscal and regulatory duties. Companies aim at decreasing their business results in order to pay fewer taxes and use those accounting policies with which they will in a short-term attain that goal.
2. Aspiration to increase capital in the cheapest possible manner. Companies tend to present the best possible financial situation in order to disclose the lowest possible indebtedness in scope of (a) getting bank loans with more favourable conditions (lower interest and longer

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<sup>1</sup> Back in 1959, Baumol W.J published *Business Behaviour, Value and Growth*, Macmillan, New York, or, eg, Koutsoyannis A., *Modern Microeconomics*, Macmillan, London 1972, or Brigham E.F., Pappas J.L., *Managerial Economics*, Holt Reinhart and Winston The Dryden Press, London, 1972, or Salvatore D., *Managerial Economics*, Mc Graw Hill Book Company, New York, 1989.

<sup>2</sup> Baumol W.J., *Business Behaviour*, or Marris R., *A Model of the Managerial Enterprise*, *Quarterly Journal of Economics*, 1963 or Williamson O.E., *Managerial Discretion and Business Behaviour*, *American Economic Review* 1963.

<sup>3</sup> Sutton T., *Corporate Financial Accounting and Reporting*, Prentice Hall, Edinburgh , 2000 pg.678.

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repayment term) and emission of bonds and (b) a successful emission of shares.

3. Avoidance to breach agreement with creditors. In order to protect their interests, creditors, such as banks, impose financial restrictions to debtors, such as the maximum value of indebtedness indicator, minimum value of interest coverage indicator, minimum value of rentability rates (ROA or ROE), and so on. If a debtor breaches the agreed limits, it may lead to re-negotiations of the loan terms, most probably at the expense of the debtor. This is why debtors are tempted to manipulate, for example, the balance sheet or other reports in order to retain the agreed limits.

4. Increase in management wealth. Salaries, commissions and discretionary investments of management (a possibility of bringing certain investment decisions without organising shareholders meeting) are directly related to current and retained earnings of the company. Especially if the management can participate in net profit, as determined by bonus plan, and if the stated net profit is above the determined minimum level. Moreover, the management can be stimulated to disclose, in one year (short-term), the lowest profit possible in order to realise without problems the minimum net profit next year, which, according to bonus plan, allows him to participate in profit. If a new management team is appointed, it is in management's interest to disclose the lowest profit possible in order to disclose better result in future and consequently confirm themselves and win high reputation.

### *2.2. Methods of accounting manipulation*

Methods of manipulating with accounting information applied by companies and their management primarily depend on goals that a company has (which, on the basis of previously mentioned reasons, are numerous) among which the most common are:<sup>1</sup> (1) short-term increase in profit, (2) decrease in fluctuation of profit and (3) "strengthening the balance".

A short-term increase in profit may be realised by different methods of advance recognition of profit or by deferring expenses, which can be attained manipulating (a) with accounting policies (e.g. recognising future income within current income, extending the useful life of long term tangible and intangible assets, and similar) and (b) with "real business decisions" (for example, accelerating the collection of debts from

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<sup>1</sup> Same, pg. 678-679.

customers or shortening the repayment terms, increasing final provisions, and similar).<sup>1</sup>

Decrease in profit fluctuation can be attained by manipulating accounting policies, primarily in the field of value adjustments and expenses provisions.

The balance can be strengthened by (a) accounting policies (overestimation of assets or underestimation of liabilities), which is attained by different methods of valuation of assets and liabilities, and (b) “real business decisions” (for example, using leasing as off-balance sheet means of financing, emission of preference shares and similar). Overestimation of assets is the most common method used to strengthen the balance, which aims at short-term increase in profit (since profit always results from increase in assets or decrease in liabilities). The same effect is realised by underestimation of liabilities or, if possible, by off-balance sheet financing (operational leasing).

The “strengthening” or “weakening” of balance (especially of financial institutions such as banks, investment funds and similar), has, recently, been affected by stock market manipulations. Stock market manipulations influence increase or decrease in prices of securities, which directly influences the subsequent valuation on the balance sheet date. Such valuation directly influences the financial result.

### *2.3. Ranking of balance sheet positions subject to manipulations*

A sample basis research performed in financial sector<sup>2</sup> and in certain production entities, show that potentially mostly manipulated balance sheet positions which can be ranked from most to least influenced, are the following:

1. FINANCIAL ASSETS (long term and short term):
  - Held-for-trade assets
  - Assets available-for-sale
  - Loans and liabilities originated by the subject, and
  - Investments held to maturity.
2. LONG-TERM TANGIBLE AND INTANGIBLE ASSETS
  - Patents, licences, development costs, franchises, concessions, goodwill,
  - Land, buildings, equipment, etc.

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<sup>1</sup> Same, pg. 679.

<sup>2</sup> Croatian banks with more than 50% of total banking assets and food production companies

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### 3. SHORT-TERM ASSETS

- Reserves
- Short-term receivables

Most liable to manipulations are financial assets, followed by long-term intangible and tangible assets, while the least prone to manipulations are short-term assets

#### *2.4. Ranking of accounting methods subject to stock market manipulations*

A sample based research indicated that manipulations are mostly transferred to financial statements through the following accounting methods:

- Fair value method for subsequent valuation of financial instruments
- Determination of amortised cost
- Portfolio deterioration
- Test on decreasing financial assets and determination of a recoverable amount
- Derivative instruments and hedging
- Business combinations and consolidation methods
- Methods of recognition and measurement of long-term intangible and tangible assets and liabilities
- Methods of recognition and measurement of provisions and receivables
- Impairment of assets (value adjustments of long-term and short-term tangible assets)
- Provisions for costs

#### *2.5. Protection from accounting manipulations*

Institutional factors and investors have permanent responsibility to prevent accounting manipulations. Through its institutions (committees, institutes), accountants participate in preparation of accounting principles and standards, while, through audit companies, they also participate in performance of external audit. It is evident that, neither with the existing institutional accounting factors and alertness of investors and their advisors can accounting manipulations be completely excluded.

Today, there are three types of hedging of accounting manipulations:<sup>1</sup>

1. Accounting principles and standards
2. External audit

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<sup>1</sup> Same, pg. 679-680.

### 3. Investor alertness

One of the most important duties of accountancy is the preparation of accounting principles and standards as a framework for financial reporting. Globalisation of financial markets requires high level of harmonisation of financial reporting frameworks. The outcome of harmonisation is equalisation of national accounting standards either with American US GAAP or International Accounting Standards (IAS). Amendments and revisions of the existing standards today, result from, primarily, the change and development of new financial instruments and accounting methods of their observation and reporting. Understatement, ambiguity, unclearness and inexperience in interpretation and application of accounting principles, methods and procedures produce conscious (purposeful) or unconscious (accidental) accounting manipulations.

External audit, with consistent accounting standards, can significantly withstand accounting manipulations. Misstatements in audit procedures and provision of unsubstantiated audit opinion raises question of reputation of an audit firm and of the importance of accountancy in general. Audit failures to trace illegal accounting manipulations become visible in cases of sudden financial difficulties followed by receivership and liquidation of companies. After any of such cases,<sup>1</sup> auditor independence is again questioned and analysed, and it is each time disclosed that the point of audit as an institutional factor is neuralgic.

The investor alertness means the possibility and ability of the investor to, applying particular techniques, supervise management and prevent their manipulations. In this respect, investors can use the assistance of financial analysts and advisors. Instruments used by analysts in providing assistance to investors are most commonly the following:<sup>2</sup> (a) tracking basic accounting information and indicators, (b) checking cash flow,

### **3. Conclusion**

Development of modern information technologies greatly accelerated the globalisation of financial and other commodity markets. Particular importance is given to Internet. The benefits of internet are great, since it accelerated the trading and drew information and financial markets closer to investors. However, Internet has nowadays become an instrument for performing market manipulations. The most important

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<sup>1</sup> The last in the series of such cases was ENRON (USA)

<sup>2</sup> Sutton T., same, pg. 680-681.

financial market manipulations are: Pump & Dump, Trash & Cash and Insider Trading. These manipulations appear in forms which are hardly traceable. Countries with developed financial markets have developed the measures of protection against market manipulations, which, however, are still inefficient.

Stock market manipulations and accounting manipulations are closely related. Moreover, stock market manipulations stimulate accounting manipulations. Behind stock market manipulations as well as accounting manipulations, there are always some short-term goals which interest parties tend to attain.

Valuation of balance sheet positions may, under the influence of manipulations, be twisted in terms of overestimation or underestimation of positions of assets and liabilities. Today, with the application of the fair value principle, purposeful twisting of balance sheet positions has direct influence on the level of attributable business result. Purposefully triggering an increase or decrease in prices of securities, manipulators influence the daily balance of investment funds, banks and other financial institutions, the assets of which mainly consist of securities portfolios. Stock market manipulations are, accordingly, confirmed as instrument for realisation of short-term goals of individual interest groups.

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## **PERIMETER OF CONSOLIDATION: CONVERGING REGULATIONS AND NATIONAL EFFECTS**

**Abstract:** *Various regulations governing group accounts are moving towards an entity view of the group structure. Two common paths have been identified: the widening of the concept of control (from de iure to de facto control) and the progressive inclusion of subsidiaries in the consolidated accounts. Latest modifications in the Seventh directive and IAS 27 take this direction. To some extent these can be seen as anti-avoidance interventions; furthermore some were needed in order to harmonise practices internationally. As a result the perimeter of consolidation, that is subsidiaries fully consolidated in group accounts, becomes greater. The paper tries to highlight analogies and differences in the process of changing regulation and to identify their national implications in the Italian context.*

**Keywords:**

**JEL Classification:**

### **1. Introduction**

Various regulations governing group accounts are moving towards an entity view of the group structure. Two common paths have been identified: the widening of the concept of control (from *de iure* to *de facto* control) and the progressive inclusion of subsidiaries in the consolidated accounts. Latest modifications in the Seventh directive and IAS 27 take this direction. To some extent these can be seen as anti-avoidance interventions; furthermore some were needed in order to harmonise practices internationally. As a result the perimeter of consolidation, that is subsidiaries fully consolidated in group accounts, becomes greater. The paper tries to highlight analogies and differences in the process of changing regulation and to identify their national

implications in the Italian context. Changes from directive 51/2003 have been partially implemented in Italy in 2007 while IAS/IFRS are to be compulsorily applied by listed groups. An empirical analysis based on 127 Italian listed groups accounts provides evidence of the degree of IAS/IFRS compliance as for consolidation area. Although groups comply with a convergent international accounting model previous national accounting behaviour still plays a role<sup>1</sup>.

## **2. Group accounts: changing regulation**

First attempts of European regulation concerning group accounts started at the end of the sixties when the Company Law Study Group had been asked by the European Commission to elaborate proposals for harmonising rules on consolidation. After two drafts produced at the beginning of the seventies, the European Commission launched its original proposal for a Seventh directive on 4 May 1976. The same year, in June, the issue of consolidated financial statements was first dealt with by the IASC that issued IAS 3.

Whereas the European proposal considered an economic approach in defining a group and subsequent regulation the International standard accepted a more legal one. The International standard had considerable influence in many parts of the world<sup>2</sup> and clearly influenced subsequent evolution of the Seventh directive. In the same way the Seventh directive served as a reference document for the redrafting of IAS 3<sup>3</sup>. Group accounts regulation could be named as recursive but in that process specific trends are going to be affirmed in both regulations as well as in their internal evolutionary paths. The definition of control within the group is more and more wider including formal and substantial relationships and exclusions of subsidiaries from consolidation is more and more reducing: completeness of consolidation perimeter and of group accounting representation is the goal to be achieved.

## **3. European regulation**

### Seventh directive original proposal (1976)

The first essential of a regulation which provides for consolidated group accounts is to define what is meant by “group” of undertakings and

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<sup>1</sup> Alexander D. et al., *International Financial Reporting and Analysis*, p. 41.

<sup>2</sup> Knorr L. & Ebbers G., *IASC. Group Accounts* p. 1565

<sup>3</sup> Van Hulle K. & Van Der Tas L.G., *European Union. Group Accounts*, p. 892.

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this definition directly determine the perimeter's dimension<sup>1</sup>. Under the original proposal of the Directive a group of undertakings would have existed only if the undertakings were "managed on a central and unified basis by the dominant undertaking" (article 3). The underlying "economic entity"<sup>2</sup> concept using unified management as the criterion for the existence of a group has as its objective a statement of the resources which are in fact managed in a common interest. Dominance and dependence are in the group definition: a dominant undertaking is stated to be any undertakings which exercised in practice its dominant influence to the effect that dependant undertakings were managed in a central and unified basis. Dominance and dependence are presumed to exist in particular situations: majority of the capital held, majority of the voting rights, appointment of more than half of the board members. These presumptions are not all-embracing and dominance could exist in other circumstances, the European legislator avoided to prescribe a precise taxonomy of relationships or means that could give rise to a dominant influence as he believed in the contextual existence of legal and de facto elements in a dominant influence. The wide and flexible group definition attempts to come to grips with the economic realities of the situation<sup>3</sup>. Coherently with the economic approach and the group definition the proposal considers exclusion of a subsidiary from consolidation only when it is not relevant for the true and fair view representation of the group.

Soon the proposed definition of group in 1976 was considered inappropriate as it would depend on potentially difficult questions of fact, would often be a matter of subjective judgement, and would give rise to

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<sup>1</sup> It is relevant to note that the first draft used the term "group" whereas that word disappeared in the subsequent draft and in the final version of the Seventh directive and the expression "the undertakings to be consolidated taken as a whole" was used. Reason for that are the avoidance of a term that would create a precedent (Niessen H., *The Seventh Directive on consolidated accounts and company law harmonization in the European Community*, p. 7., p. 7) or the absence of an organic European regulation on groups (Rordorf R., *Il gruppo di imprese*, p. 19).

<sup>2</sup> Petite M., *The condition for consolidation under the Seventh Company Law Directive*, p. 85.

<sup>3</sup> Commission of the European Communities, *Explanatory Memorandum to the 1976 Proposal for a Seventh directive concerning groups accounts*, p. 2.

much uncertainty<sup>1</sup>. There was a change in attitude and in those cases where a legal power of control over a subsidiary was shown to exist, European Commission was convinced, consolidation should be the rule.

Final version of the Seventh directive (1983)

After a crucial debate and a long period of negotiation in 1983 the Seventh directive in its final version has been emanated. At the end the European legislator renounced to define the group: the term “group” is not even used in the Directive in order to avoid that it could be constructed as a precedent for the European harmonisation of substantive group law<sup>2</sup>. The legal approach, opposed to the economic one, permeates the Directive. Consolidation is mandatory in all cases where a parent company has the legal power of control over a subsidiary, by having either a majority of voting rights, or the rights to appoint the majority of board members, or a contract giving control. Subsidiaries are defined largely in terms of *de iure* rather than *de facto* criteria. Although the provision for which consolidation may also be required in the case of a minority shareholding coupled with effective control, most authors<sup>3</sup> have concluded that the legalistic orientation in the Seventh Directive prevailed.

The final Directive considers several compulsory and optional exclusions of subsidiary from the consolidated accounts. Where the activities of one or more subsidiaries are so different that their inclusion in the consolidated accounts would be incompatible with the true and fair view requirement, such undertakings must be excluded from the consolidated accounts. This case of exclusion was originally not included in the Directive. Optional exclusion of subsidiaries from consolidation are considered in case they are not material, they cannot be controlled by the parent because of severe long-term restrictions, their inclusion requires disproportionate expense or undue delay or they are temporarily held with a view to the subsequent resold. Compared to the first draft, the final Seventh Directive takes into accounts various and numerous cases of

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<sup>1</sup> Select Committee on the European Communities, *Group Accounts*, p. 2

<sup>2</sup> Niessen H., *The Seventh Directive on consolidated accounts and company law harmonization in the European Community*, p. 7.

<sup>3</sup> Nobes C.W., p. 34; Niessen H., *The Seventh Directive on consolidated accounts and company law harmonization in the European Community*, p. 7; Pierce A. & Brennan N., *Principles and Practice of Group Accounts. A European Perspective*, p. 11.

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undertakings exclusions although exclusions represent a delicate matter which may give rise to abuse<sup>1</sup>.

#### **4. Italian versus European regulation**

The Seventh Directive introduced in Italy for the first time the generalized obligation for any group of companies to prepare consolidated accounts, starting with the 1994 financial year. Prior to the Directive's implementation, group accounts were legally required only for certain categories of firms (newspaper publishers, State-owned groups and so on). Further, the Stock Exchange regulatory body (CONSOB) could command consolidated reporting for listed companies whenever it was deemed necessary. CONSOB has been using this power since 1983, but in absolute terms only a few Italian groups could possibly be required to file consolidated statements because of the small proportion of the Italian industrial system represented by listed companies. Conversely, some large groups present consolidated accounts on a voluntary basis especially for supporting bank leading decisions. The introduction of such an accounting technique in an environment which largely lacks experience led to some practical difficulties. The delay in applying the requirement to small group (not until 1999) made things easier.

Italian regulation on consolidation, implementing the Seventh Directive, strictly takes the legal approach. The inclusion of subsidiaries within the group accounts is determined by the parent's capability to control or exert a dominant influence over the subsidiary, through either voting rights or agreement with other shareholders. The decree does not take up the option to extend consolidation to companies where the parent exercises a *de facto* dominant influence thanks only to particular contractual arrangements (e.g. control through market domination). Subsidiaries have to be excluded from consolidated accounts if they run activities which are so divergent that their inclusion would compromise the "true and correct representation". Subsidiaries may also be omitted if they are immaterial, if the parent's actual control is restricted, if they are only temporarily under the control of the parent, or if there is difficulty in obtaining the necessary accounting information.

#### **5. International regulation**

IAS 3 was the first international accounting principle dedicated to consolidated financial statements. It was issued in 1976 before many countries required the presentation of consolidated financial statements.

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<sup>1</sup> Van Hulle K & Van der Tas L.G., *European Union Group Accounts*, p. 913.

IAS 3 was used in the development of the Seventh Directive and by many European states member when implementing the Directive<sup>1</sup>. When the proposed Seventh Directive was discussed in the Council Working Party, reference was often made to International Accounting Standard (IAS) 3, Consolidated Financial Statements and the EU's Economic and Social Committee, in its opinion of 24 February 1977 on the proposed directive, explicitly referred to IAS 3 and called upon the European Commission to 'keep a watching brief on this work and endeavour to ensure maximum conformity between international and European standards'<sup>2</sup>.

IAS 3 was replaced in 1990 by IAS 27 after the Seventh Directive and the European regulation influenced improvements of the international standard. In particular the notion of control.

IAS 3's control concept was based on the *de iure* approach: only the majority of the voting power was supposed to generate control. Only with the new standard, IAS 27, the notion of control widened towards an economic and substantial concept of control.

In the actual International regulation control is the power to govern the financial and operating policies of an entity as to obtain benefits from its activities. Control is presumed to exist when the parent owns, directly or indirectly through subsidiaries, more than one half of the voting power of an entity unless, in exceptional circumstances, it can be clearly demonstrated that such ownership does not constitute control. Control also exists when the parent owns half or less of the voting power of an entity and other circumstances which result in control are present. Although control relations in IAS 27 seemed to be inspired to those included in the Seventh Directive, a major difference exists within these regulations. The European Directive asks for the presence of a participation interest, that is the parent has to be a shareholder of the subsidiary, whereas the International standard does not. IAS 27 recognises control when there is less than half of the voting rights and also when there are any but control is due to other particular substantial links: "control may exist even in cases where an entity owns little or none of the SPE's equity"<sup>3</sup>. The application of the control concept requires, in each case, judgement in the context of all relevant factors.

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<sup>1</sup> Cairns D., *Applying International Accounting Standards*, p. 252.

<sup>2</sup> Van Hulle K & Van der Tas L.G., *European Union Group Accounts*, p. 892.

<sup>3</sup> Standing Interpretation Commission-SIC 12.

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As for exclusion of subsidiaries from consolidation, IAS 3 prescribes that an enterprise should be excluded if it runs activities which are dissimilar from those of other enterprises in the group but, in contrast with the directive, the new IAS 27 removed the exclusion due to dissimilar activity. Other exclusions were included in IAS 3 and then reconfirmed by IAS 27 as the case of a subsidiary where the parent exercises a temporary control and the case of the presence of severe long-term restrictions impairing ability to transfer funds to the parent. In subsequent revisions of IAS 27 both these exclusions were removed increasing the area of difference with the Seventh Directive.

### **6. Latest change in regulation**

The application of IAS/IFRS in Europe required a modernization of accounting Directive. The Directive 51/2003 that modernizes the accounting Directives is aimed to eliminate conflicts between International standards and European directives in order to guarantee equal conditions to European companies as for the production of financial information.

In particular the modifications to the Seventh Directive concerning the perimeter of consolidation have been oriented to its widening, or better to its completeness, both in terms of increasing of subsidiaries to be consolidated and of reduction of excluded undertakings.

A first modification concerns control concept: its existence is assumed independently from the equity holding. This is a clear move towards *de facto* control in line with IAS 27 but it could also seen as a return to the first version of the Seventh Directive. The European legislator intention is to make more difficult for a company to dissimulate financial statements assets through the creation of artificial units that are controlled by the company but as for share capital they have no formal relation with it.

A second important modification consists in the elimination of the exclusion, due to the dissimilarity in subsidiaries activities, solving in this way an evident conflict with IAS 27.

The Directive n. 51/2003 brought relevant changes in the Seventh Directive definition of the consolidation perimeter but they are not yet completely implemented in the Italian company law as Italian legislator in 2007 made a partial adoption of it and did not change the concept of control.

In 2004 the IASB published the revised IAS 27, *Consolidated and Separate Financial Statements*, eliminating all cases of exclusions.

Because the application of the IAS 27 concept of control generated diverse accounting behaviours in Europe a new draft to cope with control interpretation problems is expected for 2008. *De facto* control represents still a controversial matter although IASB gave official communication on it<sup>1</sup>.

### **7. Empirical research<sup>2</sup>**

The empirical research is aimed to ascertain the effects of first transition to IAS/IFRS by Italian listed groups in delimiting the perimeter of consolidation. The analysed sample consists of 127 consolidated accounts of industrial, commercial and services companies chosen considering the parameter market capitalization. Because of their accounting specificities financial and insurance companies consolidated accounts were not taken into account. The analysis monitored accounting behaviour in 2005 group accounts in order to measure the incidence of IAS/IFRS first transition highlighting different companies choices in terms of control relationships, exclusions of subsidiaries, related disclosure as well as previous legislation influence. A second year empirical evidence, related to 2006 consolidated accounts, intended to examine the evolution of accounting behaviour in an operational phase so to give evidence of major improved and conservative aspects.

#### Disclosure

The delimitation of consolidation perimeter is of fundamental importance for making relevant group accounting information. This importance asks for a precise care in the perimeter disclosure. Due to the fact that the consolidation area defines the representable group and its measurement, it is important to clearly understand choices that groups have made, in the context of the regulation limits, as for relevance and substance of consolidated undertakings. Thus disclosure on consolidation perimeter represents a key element in order to confer full intelligibility and significance to the consolidated accounts. The results from 2005 and 2006 empirical analysis show a clear lack of disclosure: the area's articulation is not of immediate understanding. It is often a disclosure to

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<sup>1</sup> IASBUpdate, October 2005, p. 2.

<sup>2</sup> This paragraph is based on the initial results of a survey of major national interest entitled "*Bilanci consolidati: prima applicazione degli IAS/IFRS e best practices*". To this research participate the Universities of Genoa, Varese, Brescia, Napoli, Parma, Pavia, Venezia and Verona.

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be rebuilt looking through different parts of the consolidated account. Only in a percentage of 44% group accounts (47% in 2005) a specific paragraph is dedicated to the consolidation area. In this case an easy fruition of related information is possible. In other cases this information has to be obtained partially from the management account, partially from the notes and partially from the group organization chart. In addition information contained in different document do not often coincide and the complexity of the group structure and the wide numbers of subsidiaries ask to the readers a great ability in connecting. As international standards require that notes giving information about the basis of preparation of the financial statements shall be presented in a systematic manner (IAS 1, par. 103-104), a non-systematic presentation of information about perimeter leads to believe that disclosure is intentionally neither sufficient nor transparent.

TAB. 1 – *Disclosure about consolidation area*

<i>Variables</i>	<i>2005 Results</i>	<i>2006 Results</i>
In a specific paragraph	47%	44%
Not in a specific paragraph	53%	56%
Total	100%	100%

### Concept of control

The definition of control is a crucial element in the delimitation of the consolidation area and therefore of the representable group. The Italian legislation, derived from the European one, determines the perimeter through objective lines defined by formal control relations which represent legal obligations clearly identifiable rather than substantial relations. The normative control concept is inspired to the institutional principle defined by the power of control with prevalence of the participation interest and it does not consider a functional principle based on the dominant influence effectively exercised. Conversely the control concept in the international accounting standards appears wider and over substance rather than form oriented so as to include subsidiaries in absence of participation relationships or renouncing to consolidate subsidiaries legally controlled when control over them is not exercised.

In most of the consolidated financial statements examined in 2006

the description of the control concept considers the international standards words (79%), an increased result if compared with the 2005 one's. Wide explanations of the control concept in the consolidated notes alternate with more prevalent synthetic definitions of it. As required by IAS 27, par. 40, groups provide information on exceptional cases in which the majority of voting power does not constitute control and give explanation for that. The incidence of such cases is very low and represents a percentage of 2% of the sample.

Control existing when the parent owns half or less of the voting power of an entity is described in the 20% of the group accounts. Complying with the IAS 27 requirement (par. 40, c.) in some consolidated accounts the nature of such a relationship of *de facto* control, between the parent and the subsidiaries, is disclosed but in other it is not. A controversial interpretation of the concept of *de facto* control is made when it is restrictively intended in order to exclude part of the group from the consolidated results. It is a surprising behaviour considering that also the previous civil legislation took into account this control relationship. As for national legislation on consolidated account it is bizarre the reference to its use described in the notes of 4% of annual accounts after two year of a compulsory application of International standards for listed group.

TAB 2 – *Control concept*

<i>Variables</i>	<i>2005 Results</i>	<i>2006 Results</i>
IAS 27 oriented	78%	79%
Dlgs.vo 127/91 oriented	6%	4%
Not specified	16%	7%
Total	100%	100%

#### Exclusion of subsidiaries

Composition and dimension of the consolidation perimeter, beside control relationships, is influenced by the withdrawal of subsidiaries which data are not comprised in the consolidated accounts.

Exclusions of undertakings were normally applied in Italian

consolidated accounts as in the national legislation they were prescribed and allowed. The strict view of IAS 27 oriented to the complete inclusion of subsidiaries in the group accounts, generated a positive effect in increasingly reducing the cases of excluded subsidiaries. The intense recurrence to subsidiaries exclusion prior to the application of IAS/IFRS significantly influenced accounting behaviour in the first transition, that orientation has been in fact maintained (43% of group accounts mentioned exclusions). Even though one year later the number of excluded undertakings was reduced. In fact the percentage of accounts describing exclusions in 2006 is 33% but, despite the decreasing trend, the propensity to exclude remains still rather high.

Lack of disclosure related to excluded subsidiaries is revealed. In some consolidated accounts notes inform about exclusions in a general manner without giving subsidiaries denominations and number. Sometimes neither information about their presence is given.

Major reasons justifying exclusions are the not materiality of the entity and its situation of liquidation.

IAS 27 does not explicitly refers to cases of exclusions because of undertakings' not materiality. However this exclusion could be allowed as descendent from the characteristic of materiality required for financial information by the Framework and IAS 1<sup>1</sup>.

Subsidiaries in liquidation too are not mentioned in IAS 27 as a situation requiring exclusion but when this condition determines a loss of control the status of controlled entity fails and the request for consolidation too. Usually groups in order to confirm the exclusion of a subsidiary in liquidation declare its contextual not materiality.

TAB. 3 – *Consolidated accounts mentioning subsidiaries exclusions*

<i>Variables</i>	<i>2005 Results</i>	<i>2006 Results</i>
<i>Consolidated accounts with subsidiaries exclusions</i>	43%	33%
<i>Consolidated accounts without subsidiaries exclusions</i>	57%	67%
<b>Total</b>	<b>100%</b>	<b>100%</b>

<sup>1</sup> Cairns D., *Applying International Accounting Standards*, p. 260.

TAB. 4 – *Reasons for exclusion*

<i>Variables</i>	<i>2005 Results</i>	<i>2006 Results</i>
Not materiality	59%	50%
Not operative	6%	9%
Liquidation	19%	18%
Not specified	16%	23%
Total	100%	100%

### Research findings

Results emerged by the empirical research based on 2005 consolidated accounts show a widening of the consolidation area in many Italian listed groups. The 2006 empirical evidence confirms that improvement process and highlights determinants for a more extension of the perimeter. These determinants are attributable on one hand to the consideration of substantial control and to the recognition of the *de facto* control. On the other hand they are ascribable to the inclusion of controlled entities previously excluded and, in particular, to the orientation towards a reduction of exclusion cases.

Notwithstanding disclosure on consolidation perimeter is not still satisfactory, elements for an aware application of IAS/IFRS seem to be recognizable. They are aimed to extend the consolidation area so to include all entities and make coincident the perimeter with the group itself.

Past experiences, both national and international, demonstrated that discretionary spaces in the consolidation area definition could bring to accounting representation not giving a reliable estimation of the groups value. Accounting behaviour induced by International standards thus improve the consolidated accounts because they pursue financial statements completeness and limit that liberty inherent to the process of companies selection. IAS 27 prevents behaviour aimed to partially consider control relationships and to deliberately avoid inclusion of “inconvenient” entities. Past consolidated accounts, often intentionally and fraudulently partial, are gradually destined to be substituted by more complete and reliable groups financial information.

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## 8 Conclusions

The paper examines the evolution of the International and European accounting regulations governing consolidated accounts particularly focused on the scope of consolidation. Specific topics addressed by the regulatory disciplines include definition of group undertaking, concept of control, exclusion of subsidiaries from consolidation, and other related arguments concerning parent and subsidiary relationships. The paper tries to highlight analogies and differences in the process of changing regulation and to identify their practical implications. Particular attention has been paid to the two identified common paths: the widening of the concept of control, and consequently the definition of a group, and the progressive inclusion of subsidiaries in the consolidated accounts.

To some extent these can be seen as interventions aimed to avoid fraudulent behaviour<sup>1</sup>; furthermore some were needed in order to harmonise practices within other EC countries<sup>2</sup>.

On the basis of an empirical analysis of 127 Italian listed groups consolidated accounts the paper examines consequences from IAS/IFRS in 2005 and 2006 adoption. Italian groups experienced a new approach in determining the perimeter of the group but empirical observation enhances doubts on the related improvement of their consolidated accounts.

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<sup>1</sup> Dodge R., *Group Financial Statements* p. 278.

<sup>2</sup> Van Hulle K & Van der Tas L.G., *European Union Group Accounts*, p. 914

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## **PRICE DETERMINATION IN CROATIAN PUBLIC SECTOR – CASE OF CROATIAN FACULTIES**

***Abstract:** Success of many public sector reforms depends on successful public management. Key components of public management are introduction of accrual basis accounting and management on the basis of results which is possible to achieve with improvements of accounting systems, mainly cost accounting and financial reporting in public sector.*

*Results are long term and broad, ensuring development based on knowledge and responsibility.*

*Costs are important element in a decision making process by determination or calculation prices and remunerations for provided services or purchased goods from budgetary users. Information about costs are relevant even then when the price of provided services or purchased goods is lower then with them related occurred costs, or when it is purely political-social question, or when the price of provided services or purchased goods is determined with certain criteria and market fluctuations. It is important for faculties to use costs when they are determining prices for their services. It is necessary because costs of provided services are partially charged to students. Determination of cost for provided services is also necessary for intern settlement of costs and intern reporting, that is useful primary to intern users or faculty management in decision making process for financial and non financial decisions. In Republic Croatia practice for price determinations of provided services is usually political and social question rather then economical one.*

***Key words:** public sector, cost accounting, price determination, Croatian Faculties.*

***JEL Classification:** M41*

**1. Introduction.** Efficient managing with governmental units demands from public management appliance of wide range on cost and

managerial accounting techniques and methods and its usage in wider aspect of informational technology and financial managing. Often reasons for insufficient usage of cost and managerial accounting are some facts as follows:

- some services provided from state are for free, some are partially charged and some completely;
- cost incurred in the process of providing services couldn't be reliably computed because inputs in those processes aren't completely paid e.g. the usage of natural resources or all costs aren't tracked e.g. depreciation;
- criteria for evaluation or assessment of some activities and projects, even with tracked costs, aren't familiar;
- programmes, services, projects and activities are often issue of political and social decisions and because of that goals of such decisions are usually more important than tracking of incurred costs;
- state budget is institutionalized and defined in accordance with cash accounting basis, so control of budgetary sources and public money are usually primarily or the only interest of the legislator.

Regardless, more and more restrictions for available resources and increasing debts from one side, bigger public needs and public criticism from the other side, are forcing public management on decreasing costs and increasing quality of provided services. It isn't possible to satisfy those demands without appliance of proper cost and managerial accounting. Methods, techniques, instruments, cost concepts and performance processes of cost accounting that are scientifically and practically developed and deeply rooted in managing process in profit sector, could be applied also in managing processes in public sector. Present experiences in Republic of Croatia but also in most other countries are showing that the range of appliance cost and managerial accounting in public sector is very small. Research field for this paper are Faculties and their implementation of cost and managerial accounting into the accounting system. Since, the price determination of studies and financing high education in generally is a very significant and "hot topic" in Croatia these days, it is very important to show with this paper that Faculties don't have relevant information's about occurred costs and internal settlement on which basis they could determined scholarships. With that on mind, the leading hypothesis was set up, **that transparent price determination of provided services at Faculties doesn't depend**

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**on different methods of cost allocation.** For quality decisions making about prices at Faculties it is necessary to have relevant information's about costs. Using different modern methods for managing costs, information about costs are significantly different. Based on that, the process of decision making in public sector and decision made on costs could vary. So, it is very important to implement the right cost allocation method. But it is also important to combine market and cost approach in determining prices of provided services at Faculties regardless on time period of provided services.

More and more expressed demands for efficient public government and public management transparent work impose the need for new forms of reporting to which is impossible to satisfy without the usage of the set of instruments of cost and managerial accounting. Those set of instruments are unavoidable in a management process in public sector, such as: budgeting, cost control and cost decreasing, determination of prices and remunerations, measurement of performance, program assessment, different choices for economic decisions and taking actions to increase effectiveness and to raise quality of services by decreasing costs.

Today is specially emphasized the demand that the privatization of some traditionally public actions. Financial possibilities of those public actions developed a specific model of public-private partnership which will be transparent for determining prices of served goods and services.

**2. Empirical researagh.** Higher education system in a view of usage modern and traditional methods for governing costs includes their tracking and allocation. One can say that education process is in fact production process of studies but also students. Different trends, terms and assumptions which are appearing in Republic of Croatia are presumption for the usage and appliance of different tools which will enable competitiveness of public Faculties with private business schools. As competitive subjects they should provide the high quality of studies and highly educated students. The increase of students' number and the increase of studying quality mean more financial resources. To the public faculties in EU are available financial resources from all kind of sources, like from donations, state budget but also from scholarships. In Croatia, main source for financing high education is state budget which only partially provides sources for wages, material costs and some level of scientific work. In accordance to that it is necessary to determine on national level criteria for dividing financial resources and to develop a model of state financing with the satisfying dividing formula. Regarding

restrictions and low budgetary possibilities in Croatia, also to use some market elements in high education area, it is imperative to assure financial resources from different sources and to enter scholarships for all students (now it is only for some). Hence, very high percentages of Faculties are financed out of state budgets in almost from 70% to 100%, so the governments (Ministry of education) of those Faculties are using Target Costing method. Regarding appropriate cost allocation method they could base Target Costing Method on true data given by the cost allocation method. With those methods they could charge prices of provided services based on occurred costs. Implementing the accrual principle and cost control into the all governmental units, the performance measurements and program efficiency evaluation will be made on actual relevant data and in accordance to that, the decision making process will be based on relevant data. In the last century a new financial surrounding is defined, mainly because of decreasing resources from state budget and that fact is encouraging commercial activities like researches financed out of some other source like private business subjects, foundations, international organizations and similar. Higher education costs are increasing with higher rate then the state can support and assure financial resources from budget and because of that Faculties should assure for themselves more different sources of financing. Faculties should be competent in governing strategically with their asset and finances, but also human resources especially because teachers are the key to maintain studies and programs of Faculties in future. All those information would gather easily and decision making process would be easier on a level of Faculty management but also University if there would be developed usage of cost allocation. Cost classifications directly enable cost allocation. For the cost allocation purpose, costs are needed to be classified according to the following criteria:<sup>1</sup>

1. time period
2. management function
3. accounting treatment
4. traceability to studies
5. cost behaviour
6. decision significance
7. managerial control.

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<sup>1</sup> Cherington J. O., Hubard E. D., Luthy D. H. „Cost and Managerial Accounting“, WCB Publishers, Dubuque, Iowa, 1985.

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It is important to emphasize that the same cost can be included in several or in all cost classifications. But, all cost classifications mentioned above don't have the same significance for particular accounting purposes. For the purpose of cost allocation, the relevant cost classifications are:

- traceability to studies
- management function
- accounting treatment.

These cost classifications are needed to be provided by the accounting system of a Faculty in order to enable cost allocation process. The most important cost classification for cost allocation process and evaluation is classification related to accounting treatment. In order to provide the cost allocation process, all costs of a particular accounting period<sup>1</sup> are **cost of studies**.

Generally, studies costs are all costs regarding the providing function of a Faculty. These are providing costs which are directly or indirectly involved in studies. Costs of providing studies at Faculty direct labour costs and indirect costs. Direct costs are costs that can be identified with particular cost objects- studies. Indirect costs, or overheads, are those costs which can not be traced to the particular studies. Because overheads cannot be identified to the particular study, these costs need to be allocated to the studies using appropriate accounting methods.

Occurred costs are related to the studies and in that way affect future economic value. Occurred costs become expenses in the same period in which they are incurred and are matched to revenues of the particular accounting period. That way, costs have immediate impact on financial result in the period of their appearance. Those costs include all administrative costs.

The questionnaire was send to 64 Croatian Institutions of higher education, to the management (Pro-deans for finance) and to the Head of accounting sector.

The purpose of that two – way research was to show management need for accounting information's and the accounting sector possibility in providing those information. To the questionnaire 26, 56% Pro-deans for finance and 39% Head of accounting sector responded. Dependency, between percentages in which are questioned subjects financed out of state or local budgets and determination of prices and remunerations, through

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<sup>1</sup> R. S. Kaplan, A. A. Atkinson: *Advanced Management Accounting*, Prentice Hall International, Englewood Cliffs, New Jersey, 1989., p. 9

these research was confirmed. Bigger, exclusive Faculties or Faculties with strong projects have larger freedom in creating and determining prices of there services because they are in smaller amount financed out of state budget. Smaller Faculties which are depended in higher percentage on state budget don't have such a freedom in determination of prices and remunerations. In determination of prices and remunerations it is important to determine in which percentage are questioned subject financed out of state or local budgets.

**Figure 1. Percentage of financing out of state budget**

Percentage	Frequency	Relative frequencies
< 30%	1	4,00
30% - 50%	6	24,00
50% - 70%	11	44,00
< 100%	7	28,00
<b>Total</b>	<b>25</b>	<b>100,00</b>

*Source: empirical research*

Considering shown structure above, it is obvious that Faculties don't have too much freedom in price determination or stated interest for precise determination of prices, especially for graduate studies. Percentage of financing out of state budget could be considered as significant limitation for price determination of graduate studies at Faculties. In accordance with that one hypothesis was set up:

- H0: The prices of graduate studies are determined externally because of financing from state budget where the proportion is lower or even to 0,60 (60%), or  $H_0: p \leq 0,60$ ;
- H1: The prices of graduate studies are determined externally because of financing from state budget where the proportion is bigger then 0,60 (60%), or  $H_1: p > 0,60$ .

Testing was conducted at significancy level of 5%, so the conclusion is that the null hypothesis  $H_0$  is not acceptable.<sup>1</sup> With that we

<sup>1</sup> Primary set is 25. The significance level is at 5%, allowable mistake at 0,1 and the population proportion is 0,64 and the estimated proportion is 0,60. Standardized z number is 2.0412433 while theoretical z number is 1.645. Sense the standardized z number is bigger than theoretical number we can accept H1.

can confirm that Faculties with higher percentage of financing out of state budget don't determine service prices and that they are created externally. Since Faculties are non profit Institutions, they aren't obligated that determined prices of services cover occurred costs of provided services. Research about usage of cost information for price determination was conducted differentiated by the type of services and they were classified like: undergraduate study, graduate study, postgraduate study, research, professional and administrative services. Twenty one of accountants confirmed that the price of professional services cover occurred costs in providing those professional services. Fifteen of them confirmed that for research projects, fourteen of them for undergraduate and postgraduate study and even ten confirmed that for graduate study and administrative services. Fourth of them consider that determined prices for graduate and undergraduate study doesn't cover occurred costs and two of them think that for postgraduate study and research projects. Pro-deans answers could be directly related to the way of price determination. Their opinion is that if the prices of services aren't determined independently or at least combined then they don't cover occurred costs.

**Table 1. Does the determined price cover occurred costs? – accountants answers**

Services Response	Graduate study	Post-graduate study	Under-graduate study	Research	Professional services	Administrative services
1. Yes	10	14	14	15	21	10
2. No	4	2	4	2	0	0
3. Partially	9	2	1	3	1	7
4. No response	2	7	6	5	3	8

*Source: empirical research*

In a process of price determination 68% of questioned accountants are using some costs calculations and world known cost allocation methods for setting the prices and remunerations. Only 20% of them isn't using any methods and they are using some recommendations about prices from Ministry of education or the price is set at the Faculty Council, while 12% of them didn't answer this question at all what could

mean that they aren't familiar with the information or that they aren't using any methods.

**Table 2. Does the determined price cover occurred costs? – pro-deans answers**

Services Response	Graduate study	Post-graduate study	Under-graduate study	Research	Professional services	Administrative services
1. Yes	3	10	8	7	12	10
2. No	6	2	2	2	1	1
3. Partially	6	1	3	5	1	3
4. No response	2	4	4	3	3	3

*Source: empirical research*

**Figure 2. Cost calculations for determination of service prices**

Method	Frequency	Relative frequency
Cost coverage	13	52,00
Cost coverage with some profit	9	36,00
Not familiar	1	4,00
No response	2	8,00
<b>Total</b>	<b>25</b>	<b>100,00</b>

*Source: empirical research*

Part of survey included the questions about adequacy of financial reports used in present budgetary accounting especially in part for appliance of cost accounting. Observing the results it can be concluded that accountants feel that present budgetary accounting system doesn't satisfy appliance of cost accounting. Cost allocation and cost settlements methods should be necessary in price determination process of studies. It should be important because of internal reporting and because of decision making process at Faculties.

**Table 3. Accountant's answers<sup>1</sup>**

<i>Dependent variables</i>	<i>Independent variables</i>	$\alpha = 0,10$ <i>p- value</i>
Service price determination	Planning, settlements and cost control	0,177
Way of price determination (independently, externally I or combined)	Cost allocation methods (direct, indirect or some other method)	Graduate study – 0,330 Postgraduate study – 0,430 Undergraduate study – 0,269 Research – 0,411 Professional services – 0,613

*Source: empirical research*

Testing was conducted at significance level of 10% and the assumption that price determination depends on cost settlements and cost control can't be accepted. So, cost settlements and cost control doesn't have any statistically significant influence on price determination process.

**Table 4. Pro – deans answers**

<i>Dependent variables</i>	<i>Independent variables</i>	$\alpha = 0,10$ <i>p- value</i>
Service price determination	Planning, settlements and cost control	0,568
Coverage of occurred cost at provided services?	Usage of information's about prices of provided services	
Graduate study	Graduate study	0,052
Postgraduate study	Postgraduate study	0,149
Undergraduate study	Undergraduate study	0,028
Research	Research	0,209
Professional services	Professional services	0,230
Administrative services	Administrative services	0,332

*Source: empirical research*

<sup>1</sup> For testing were used nominal and ordinal logistic regressions.

Usage of information's about prices of provided services doesn't have any statistically significant influence on coverage of occurred cost at provided services.

Next question was asked accountants and pro-deans. They were asked which elements are considered in a process of price determination.<sup>1</sup>

**Table 5. Elements ranking which are considered in price determination process**

QUESTION	Pro-deans			Accountants		
	$H_0... \eta \leq$	$H_a... \eta >$	$\alpha = 0,0$ p- value s	$H_0... \eta \leq$	$H_a... \eta >$	$\alpha = 0,0$ p- value s
<b>1.social element</b>	$\eta \leq 3$	$\eta > 3$	0,50	$\eta \leq 3$	$\eta > 3$	0,308
<b>2.political element</b>	$\eta \leq 2$	$\eta > 2$	0,505	$\eta \leq 2$	$\eta > 2$	0,845
<b>3.element of Faculty„exclusivity“</b>	$\eta \leq 3$	$\eta > 3$	0,110	$\eta \leq 3$	$\eta > 3$	0,197
<b>4.student interest</b>	$\eta \leq 4$	$\eta > 4$	0,155	$\eta \leq 4$	$\eta > 4$	0,155
<b>5.management interest</b>	$\eta \leq 3$	$\eta > 3$	0,894	$\eta \leq 4$	$\eta > 4$	0,477

*Source: empirical research*

Pro-deans and accountants feel that social criteria are highly important in prices forming process. They equally believe that political element is non important in that process, but they both feel that the strongest influence on price determination have element of student interest. The difference in answers could be only seen in element of management interest because accountants think that this element has bigger role in price determination then pro-deans.

<sup>1</sup> They had to grade from 1 to 5. Grade 1 means it is used the least and grade 5 means it is used the most. The test that was used is Wilcoxon Signed Rank Test .

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### 3. Conclusions

**Transparent price determination of provided services at Faculties doesn't depend on different methods of cost allocation**, is the main hypothesis and it was confirmed with different statistic tests and regressions. Price determination at Faculties mostly depends on some external elements like social criteria and students interest. Different trends, terms and assumptions which are appearing in Republic of Croatia are presumption for the usage and appliance of different tools which will enable competitiveness of public Faculties with private business schools. As competitive subjects they should provide the high quality of studies and highly educated students. In Croatia, main source for financing high education is state budget which only partially provides sources for wages, material costs and some level of scientific work. Hence, very high percentages of Faculties are financed out of state budgets in almost from 70% to 100%, the cost allocation method could be very useful. With those methods they could charge prices of provided services based on occurred costs. Implementing the accrual principle and cost control into the all governmental units, the performance measurements and program efficiency evaluation will be made on actual relevant data and in accordance to that, the decision making process will be based on relevant data. In the last century a new financial surrounding is defined, mainly because of decreasing resources from state budget and that fact is encouraging commercial activities like researches financed out of some other source like private business subjects, foundations, international organizations and similar. Higher education costs are increasing with higher rate then the state can support and assure financial resources from budget and because of that Faculties should assure for themselves more different sources of financing. Faculties should be competent in governing strategically with their asset and finances, but also human resources especially because teachers are the key to maintain studies and programs of Faculties in future. All those information would gather easily and decision making process would be easier on a level of Faculty management but also University if there would be developed usage of cost allocation.

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## **THE INSTITUTIONS OF THE EUROPEAN UNION – AN ANALYTICAL APPROACH OF PUBLIC CHOICE THEORY AND INSTITUTIONAL ECONOMICS**

*Abstract: The paper is developing an analysis of the delegation of decision-making competencies towards different political levels of the multi-level-governance in the European Union. The theory of public choice is used to explain decisions taken by the citizens of the union and the political actors having the decision-making competence on the national or on the supranational level. Starting from the concept of the homo economicus the theory of transaction costs, externalities and public goods is used to give an overview about the efficiency of internal and external institutions. This helps to analyse the question how an adequate delegation of decision-making towards the multi-level-governance should look like and what consequences could be drawn towards the calculation of costs and benefits for the European society.*

*Key Words: European Union, Economic Integration, Welfare Systems, Institutional Economics, Public Choice Theory*

*JEL classification: E01, E24, E31, E66, F43, J21, J24, J31, J81, O11, O15*

### ***Economic Theory of Human Behaviour***

The analysis of political measures influencing all areas of competence for political actors is structured and eased by a theoretical conception of individual human behaviour. As a result of the approach of the *methodological individualism* the conception of individual behaviour is getting even more important because of the assumption that a state, a company or an organisation can not be understood as an independent actor on the political and economic level. The behaviour of these social units has to be understood as the sum of decisions taken by the individuals understanding themselves as being part of these collectives. Following this approach all activities on the macro-level is determined by actions

happening on the micro-level and so the macro-level can only be understood with a proper analysis of the micro-level. Starting with the concept of the *homo economicus* we do assume that all individuals try to maximise their benefit following an individual cost-benefit-analysis. This maximum benefit does not have to go together with the maximum benefit of the collective the individual is part of because first of all individuals do focus on their egoistic needs and will only be part of a collective if they see a possibility to maximise their individual benefit with playing a role in a collective. The *homo economicus-concept* assumes that all constant individual preferences are maximised regarding the additional condition of complete rational decision-making and given restrictions. Restrictions for example could exist in restrictions of budget coming from a limited earned income or income as a result of individuals owned capital. Further on restrictions do appear as a result of existing social conventions, customs, positive law or laws of nature like those of time and space.<sup>1</sup>

The *homo economicus* will use the tool of complete rationalism to accrete his individual benefit while – following theory – he has all necessary information to make adequate decisions like a perfect knowledge about the actual and future behaviour of all other actors being in interaction with him. He is anticipating all events without having to face any time delays or costs and is in the possession of a perfect analysis of all options of acting for all other actors influencing his existence. Even if the *homo economicus-model* does not have any pretensions to explain the behaviour of individuals existing in real life in total, it is of course a very important tool to facilitate the complexity of the human behaviour analysis being the most important basis for economic theory in general.

*„Economic theory does not come up the complexity of its object of investigation. But – on one hand – nobody affirms that it does. And on the other hand, there is no other theory in the scientific world that does come up with the complexity (...) of any object..“<sup>2</sup>*

If it comes to critical approaches towards the *homo economicus-model* the assumption of complete rationalism is challenged as not realistic and displaced by a modified model of *constrictive rationalism*. This analytical approach starts from the assumption that unforeseeable events stay

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<sup>1</sup> See Voigt (2002), p. 27

<sup>2</sup> Kirsch (2004), p. 2. Translation by the author.

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unforeseeable even for individuals with a complete rationalism. We do observe categories like coincidence or destiny and these categories lead to an indefinite level of uncertainty which action alternative in a certain situation is adequate to maximises individual benefits. At this, human beings are able to reduce the risk of a wrong suboptimal decision via experience or a mathematical calculation of probability. Despite of all efforts to minimise risk it is in general not possible to reduce that risk down to zero which explains why individuals permanently cast doubts on each decision they take about their future actions.<sup>1</sup> This uncertainty and the generated costs because of that condition of risk can be minimised – but not eliminated - through norms and conventions being a result of society's experiences over the long-run.

### ***Transaction Costs***

Institutions created by human beings do in fact help to reduce the complexity of the world the individuals are acting in. They could help to minimize the probability of wrong decisions and reduce the costs of decision finding arising from the inevitable fact of partial ignorance of all actors.<sup>2</sup> These costs, the so-called transaction costs, consist out of costs for search and information, bargaining or policing and enforcement and do occur with every action done on the market of each actor.<sup>3</sup> Transaction cost do accrue first of all for the individual if it finds itself in the situation to choose between two different alternatives of action. The individual has to inform itself about the nature of the different alternatives to choose from. The individual has to calculate which alternative might be the adequate one to maximise its benefits. Internal institutions like conventions, experiences, habits or customs might augment the transaction costs if the adequate alternative runs into a conflict with them. These transaction costs will manifest themselves in the form of self-doubt or a guilty conscience. On the other hand, transaction costs will be reduced by the fact that an adequate alternative is conform to the internal institutions. Through interaction on the market, additional transaction

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<sup>1</sup> See Knight (1922)

<sup>2</sup> The term of (new) complexity (*neue Unübersichtlichkeit*) is affected by Habermas as a description of a growing intricacy and uncontrollable nature of the system of public action. His description could be easily adopted to the sphere of individual acting. See Habermas (1985), p. 141ff

<sup>3</sup> See Dahlmann (1979), p. 141ff

costs might occur because of the costs of market-use.<sup>1</sup> If markets would work perfectly, all transactions on markets would be efficient and free of costs. If this would be the case, there would hardly be an explanation for the existence of organisations to ease transactions on the market (for example companies). On a perfect market each individual would be able to realise its optimal transaction plan permanently without having to face any costs. The existence of companies but as well the existence of laws regulating markets and the state being the institution to enforce that laws are accepted and implemented leads us to the fact that transaction costs do exist. And if this is the case, external and internal institutions and all forms of organisations could be understood as units to minimize transaction costs for individuals. The aim of external institutions for example is to increase transaction costs for a behaviour being not conform to the general rules to an amount high enough to minimize an actors appeal to realise it.<sup>2</sup> Transaction costs will increase on one hand with the number of individuals acting on the market and on the other hand with the number of transactions being realised on the market.<sup>3</sup> An increasing number of collective's individuals will implement an increasing number of internal and external institutions while the demand for public goods rises to reduce the increasing transaction costs for the actors of the collective.<sup>4</sup>

## **Public Goods**

One condition for the possibility of the implementation of markets is the development of property rights traded on markets to allow an efficient allocation of resources.<sup>5</sup> Within large collectives besides a market for goods the members of the group do create a political market to produce

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<sup>1</sup> See Coase (1937), p. 386ff

<sup>2</sup> For a detailed description of internal and external institutions see Voigt (2002), p. 32ff

<sup>3</sup> Following an estimation of Wallis and North the ratio of the transaction cost sector as part of the American GDP for 1970 was 54.7%, while it was only 26% in 1870. See North/Wallis (1986), p. 95ff

<sup>4</sup> An evident example for the transformation of a collective situation without any institutions and high transaction costs into a society with efficient institutions is given in the description of the state of nature realising a war all against all and its change-over to a society with a social contract by Thomas Hobbes. See Hobbes (1986)

<sup>5</sup> See Klump (1989), p. 123ff

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decisions about the creation of public goods.<sup>1</sup> These public goods have to correspond in their consistence with the demand existing in the collective. The bigger a collective becomes, the more difficult it will get to produce a proper decision about which alternative might be the best one for the collective because preferences will be more and more diversified. Especially public goods consisting only out of internal institutions will hardly be implemented in big collectives. In small collectives one could argue that internal Institutions are produced through negotiations between the members of the group while facing low transaction costs. As long as all members of the group agree to these institutions the collective only has to face the costs for the control of adherence by the members of the group.<sup>2</sup> With growing collectives the social ties being responsible for the fact that all members of the collective have an interest in respecting the common institutions are getting loose and will disappear at a certain point. With these disappearing social ties the effect of social control and the adherence of the internal institutions will disappear as well. To face this problem, big collectives tend to produce external institutions like positive laws to reduce transaction costs and organisations to make sure that these institutions are respected by all members of the group. Compared to a situation of a big collective without any external institutions the implementation of for example a police or a court is able to reduce on one-hand transaction costs of the citizens and might reduce as well the strategic incertitude of the citizens. On the other hand a system of external institutions is able to produce solutions for problems of allocation and distribution that might appear.<sup>3</sup> As a result out of the historical development of different collectives, all of them have to face a certain path dependence of all different institutions and organisations developed by the collective. They have to reflect on one side the actual needs of society, on the other hand each collective is transporting through time historically grown individuality. The transformation of political markets through the last thousand years show that there are diversified forms of regulation existing parallel and staying in a competition which each other as a necessity. The democratic forms of regulation this article refers to

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<sup>1</sup> The terms of public good and collective good will be used in a similar meaning in this article. They need to have the attribute of a non-rival consumption and non-excludable consumers.

<sup>2</sup> See Kirsch (2004), p. 88

<sup>3</sup> See Voigt (2002), p. 38f

have developed as well different forms through time and for example show different reactions to the adoption of equal instruments of economical politics. That is the reason why one collective could not easily copy the experiences made with an instrument by an other collective.

*„An economy is the result of development processes that could not be easily reversed. This development not only determines if citizens are satisfied but as well the reasons for their satisfaction.(...) These developments always exhibit a momentum and a country gets on a certain path. That does mean as well that all countries could only become happy by following their individual path. Their economic past is necessarily part of their economic future. “<sup>1</sup>*

Even if these democratic collectives are very different from each other, the development of a certain mode of decision-making is common to mostly all of these collectives. This mode of decision-making consists out of the political actor and the voters coming together in a barter deal. As part of this analysis, the political actor is seen as an individual that tries to maximize its needs in form of power being transferred to him by his voters.<sup>2</sup> To ensure or even increase his power the politician has to adopt a political program corresponding to the demand of a maximum number of voters. This is reachable in a two party system by orienting the political program towards the needs of the individual being the median in the spectrum of voters.<sup>3</sup> In exchange to votes the political actor is promising that he will (at least partly) implement the program he offered during his election campaign to maximize the benefits of the collectives majority. The transaction costs resulting out of the barter deal are high because is very difficult for voters to get certain information and to control if the promised program really is implemented in detail.<sup>4</sup> Transaction costs will be minimized through recurring elections. Now it is in the interest of the

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<sup>1</sup> Heuser (2008), p. 100f. Translation by the author.

<sup>2</sup> The Schumpeterian models of the democratic mode or the competitive democracy have to be understood as basic models for the economic analysis of all democratic systems. See Schumpeter (1993), p. 427ff

<sup>3</sup> This is only the case for a two-party-model. If it comes to a multiple-party – model of if preferences of voters are multi-dimensional the whole system is reaching easily an exorbitant complexity with political actors having problems to identify their optimal platform for their political offer.

<sup>4</sup> See North (1990) und North (1993)

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political actor to implement at least important parts of his election program to avoid a reduction in the number of votes and in individual power as a result of the coming elections.<sup>1</sup> He has an interest in producing collective goods that do correspond with the needs of the collective as long as he is interested to stay into power and as long as he understands the maximisation of his benefit as the maximisation of his power. If the produced collective goods do not harmonize with the needs of the collective the political actor has to face the problem that opportunity costs for the voters towards the acceptance of the present government decline and a growing percentage of members prefer to react with *voice-* or *exit-actions*.<sup>2</sup> It is assumed in the model that political actors neither do not have any interest in a high percentage of population campaigning actively against the government nor do have an interest in a growing number of citizens leaving the country.

### ***External Effects***

Models of collective decision-making do fulfil the task of a minimization of transaction costs and the strategic uncertainty for all members of a collective. In addition they have the function to avoid or to internalize externalities that occur out of the process of allocation.<sup>3</sup> The appearance of external effects can necessarily not be avoided in complex social interactions. But external effects could lead to suboptimal decisions regarding the allocation of resources and might have undesirable effects towards the distribution of resources. As in general external effects are not integrated in the cost-benefit-calculus of an individual, its decisions might lead for example to a suboptimal production plan and to a waste of short resources. As an individual is not fully responsible for all effects resulting out of its actions but only responsible for the outcome of its own activities, costs and benefits of the individual could be externalised. As an effect of this externalization, an innocent bystander might have to face these costs or benefits and might have to realize constrictions in his or her personal welfare. These constrictions might stay in contrast to the

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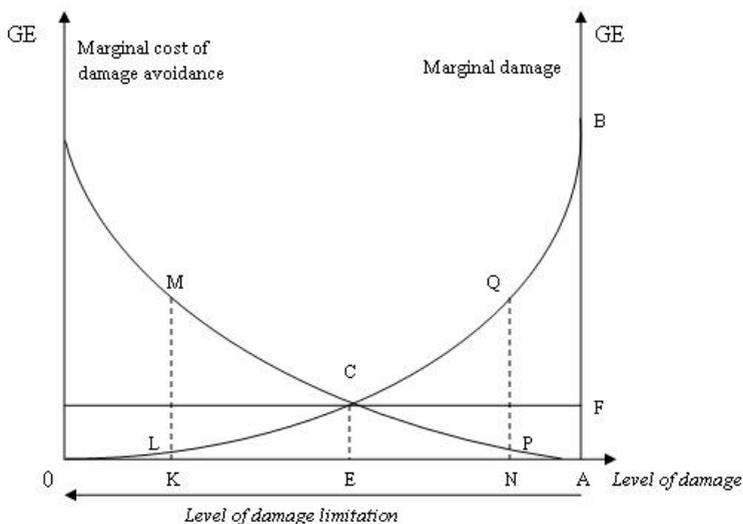
<sup>1</sup> See Kirsch (2004), p. 256ff

<sup>2</sup> See Hirschman (1988)

<sup>3</sup> The terms externality and external effect are used here in a similar way and identify „(...) *Consequences of decisions that have to be faced in a positive or negative way by somebody who did not take the decision or was not related to the process of decision-making.*“ Kirsch (2004), p. 29

normative distributive order of costs and benefits regarding the collective's accord, a situation that is more likely to result out of external costs than out of external benefits.<sup>1</sup> As a solution for conflicts that might appear out of the existence of externalities, Arthur Cecil Pigou suggested to implement a compensation between the producer and the person concerned of externalities, the so-called *Pigou tax*.<sup>2</sup> A task for the political actor would be to identify the amount of compensation that has to be paid to avoid misallocations and to assure an adequate charge and distribution of the compensations. But even with having developed such a compensation society will realise a deadweight loss because a compensation could only be implemented with an investment in high costs for information and enforcement.

**Figure 1: Compensational equilibrium following the *Coase theorem*<sup>3</sup>**



According to the assumption of a not-existence of transaction costs or very low transaction costs and the implementation of tradeable property rights, the *Coase theorem* is providing a different approach towards a solution for that problem. Following this solution an efficient allocation of

<sup>1</sup> See Kirsch (2004), p. 30

<sup>2</sup> See Pigou (1920)

<sup>3</sup> See Fritsch/Wein/Ewers (1996), p. 135

goods could be realized even without an intervening and compensating state. This will be reachable if there is a possibility to find a solution to the distributive problems through negotiations between the producers of externalities and the concerned individuals.<sup>1</sup> The producer of externalities could compensate the concerned individuals for the damage as long as the marginal costs of damage for the concerned individuals is identical to the marginal costs of damage avoidance for the producer. Following the assumption of marginal costs of damage limitation a realised equilibrium situation is shown in *Figure 1*.

In a starting position in advance to all negotiations, the production of an external effect has an amount of damage correlating to  $A0$  as the result for the concerned person. If both parties would agree through negotiations to reduce the amount of externalities by  $AN$ , the benefit out of the damage limitation ( $ABQN$ ) would outbalance the costs for this limitation of damage ( $ANP$ ). Assuming that it will be as well part of the negotiated agreement that the concerned person is paying a compensation of the amount of  $ANP$  to the producer of externalities, both parties would optimize their *pareto-position* in relation to the starting situation. The limitation of damage would be broadened until the marginal costs of damage limitation are equal to the marginal benefit of the limitation of damage. This situation is realized in point  $C$ . If both parties would agree that the concerned individual is paying a compensation of the amount of  $CE$  for each not produced unit of externality to the producer of externalities, both parties would realize a *pareto-optimal* situation in point  $C$ . Related to the starting situation the producer of externalities would be able to increase its benefit by  $ACF$ , while the concerned individual would be able to increase its individual benefit related to the starting position by  $BCF$ .

This process according to the *Coase theorem* might lead to a *pareto-optimal* distribution of costs and benefits between two partners of negotiation as long as transaction costs are absent. Its implementation in reality however is strongly related to the existence of transaction costs and the amount of transaction costs that might appear. Already in a situation with two negotiating partners both will have to face high costs for information and enforcement. These costs will be increased intentionally by the opponents to improve their individual position of bargaining. If

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<sup>1</sup> See Coase (1960)

agreements have to be produced in collectives with a high amount of diversified members, these transaction costs will easily reach prohibitive dimensions. As a result of a competitive democracy collectives could reduce transaction costs by producing public goods. These institutions could assure the implementation of a balance between costs and benefits of externalities according to the normative preferences of the collectives' majority. Further on the *Coase theorem* could be transferred from the level of solution producing between individual actors to the level of solution producing between collective actors.<sup>1</sup> If individuals with equal or similar preferences ally in lobbies the whole collective could realise a sharp reduction of occurring transaction costs and come to similar solutions of negotiations as shown in the example above. In a first step the collective actors preferences are identified by a survey of individual preferences united in the collective actor, a certain lobby. The decision about the collective actor's preferences will be drawn in general by a majority vote. But as well the minority in the group has a very strong position because the majority has to avoid that the minority is using its *exit-* or *voice-options*. The majority has a high interest in keeping the minority inside the collective actor because it is comprehensible that the more individuals supporting a collective actor the more promising its strategic position will be in negotiations. In a second step, the collective actors are coming together in negotiations to find solutions of problems corresponding to the two parties' negotiations of the *Coase theorem*. Here the collective actors might have to face the danger that the negotiators do produce solutions which do not reflect the preference of those individuals not being organized as collective actors. So negotiations might have an outcome that external benefits are internalized and the external costs of externalities are externalized as far as opportunity costs for the individual actors to organize themselves in collective actors are still too high. If it comes to a realization of solutions produced through negotiations of collective actors not being efficient any more a need for the production of public goods will rise. This public good will be a system of a principle of order realised by laws and enforced under constraint by the state. The principle of order that will finally be realized is the one that gets the highest number of votes in elections if the political process is following the model of the competitive democracy. A *Coase solution* might not be realistic if transaction costs are avoiding the production of solutions out of

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<sup>1</sup> See Kirsch (2004), p. 72ff

negotiations. Public goods are needed as well if negotiating parties do not come to an agreement about the distribution of costs and benefits supported by all parties negotiating. Finally the *Coase solution* will not work if an important group of members of the collective is excluded from the negotiations.<sup>1</sup>

### ***A Public Choice Analysis of the European Unions Institutions***

Coases way of producing solutions through a process of negotiations is easily transferable to the international level if it comes to conflicts between the preferences of different countries. In the construction of the European Union several elements could be understood as outcomes of the Coase theorem and as answers to the limitation of that concept. The distribution of costs and benefits of externalities appearing through the interaction of states can be regulated by contracts between the concerned states. Political institutions on governmental level are created if political actors calculate that a likely positive cost-benefit-relation as an outcome of the institution can be realized.<sup>2</sup> Political institutions on an international level are established following exactly the same calculation. Supranational institutions for example might be able to provide an architectural frame for bilateral or multilateral agreements to avoid or regulate the cross bordering of externalities.<sup>3</sup> On the intranational level, there might be an additional motivation for political actors to minimize transaction costs related to actions on several political areas. Here the aim of creating new intranational institutions will have to respect the existence of certain path dependencies influencing the implementation. These path dependencies are derived by experiences a countries made by acting on the level of international cooperation in the past. And of course transaction costs will be calculated by the governments related to these experiences. If two partner states are able to look back to an old and positive cooperation with a trustful partnership they will easily tend to intensify their cooperation further on as long as both sides have a benefit out of the cooperation. Those countries not having made good experiences with an intranational cooperation in the past will need higher incentives to do a step towards a closer cooperation in the future. For these countries the occurring costs for

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<sup>1</sup> See Buchanan (1986)

<sup>2</sup> See Demsetz (1967)

<sup>3</sup> Examples for this kind of supranational organisations might be seen in the United Nations (UN) or the World Trade Organization (WTO).

information, enforcement and negotiations will be a lot higher than the costs for those countries having a strong tradition of cooperating. Those countries having a tradition in cooperation might for example use an already existing infrastructure of cooperation in the form of intranational institutions. Transaction costs could be minimized if those already existing institutions are to be integrated into new fields of policy. Existing structures of information searching or decision-making could be adapted to new areas of acting without the implementation of new institutions. For collectives of a higher number of states the implementation of a supranational institution might be effective to carry over political tasks from the national level in an effective way. The European Union is one example for such a supranational institution. It is a result of the fact that the member states preferred decline the negotiating model of the *Coase theorem* because of its high transaction costs in favour of an supranational institution being accessible for each member state every time. Besides all other good (and bad) arguments being in favour of a stronger cooperation of the European states, one big incentive to create the European Union was that a deeper integration is leading to efficiency gains and a minimization of transaction costs for all member states being an active part of the integration. But it has to be pointed out that the governmental aim to tend to a minimization of costs for administration, information searching and coordination does not have to leave necessarily to a general centralisation of all fields of policies. According to the neoclassical theory of fiscal federalism a complete harmonization and integration of the European community is not desirable at all.<sup>1</sup> The theory of fiscal federalism analyses the costs and benefits of the delegation of public duties and responsibilities on different levels of a multi-level governance system regarding the principles of welfare maximization.<sup>2</sup> The delegation of public duties and responsibilities to different political levels do feature different costs and benefits because of different designs of the levels. A delegation of a public responsibility to a centralized institution might have the result of very high costs for motivation and control that decisions are made properly and adequate. These costs could reach a level that optimal decisions are blocked. Further on, the bigger an area influenced by decisions is, the higher the costs are because of regional inhomogeneity in

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<sup>1</sup> See Oates (1999), p. 1120ff

<sup>2</sup> For an illustration of the interactive political levels of the European Union see Scharpf (2002), p. 65ff

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preferences of individuals as long as we assume that there is a correlation between the size of a collective and the divergence between the preferential orders of individuals being part of the collective. As decisions taken by the central institutions, have to correspond with the prohibition of discrimination and the principle of equal opportunity, harmonized decisions by a central institution will get in conflict with heterogeneous preferences of the individuals and produce inefficiencies.<sup>1</sup> This could only be avoided if the principle of unanimity is implemented in all areas of decision making by the central institution. The disadvantage of this implementation would be that such a construction would have to face very high costs for decision-making. It also leads to the danger that a *status quo* that is criticised as inefficient by a majority is preserved because a minority of members deserve it.<sup>2</sup> The appearance of externalities and market failure shows that as well the alternative at the other extreme, a complete decentralization of decision-making, is leading to suboptimal decisions. As a result of all that if it comes to the analysis of the European Union and its responsibilities it seems to be the central question of the adequate political level decision-making of different areas should be settled down. An answer to that question could only be differentiated and always depends on the area of political acting the decision is referring to. This aim of differentiation is reflected in the principle of subsidiarity being implemented by the European Union through the agreement about the European Community, Article 5:

**„Article 5**

*The Community shall act within the limits of the powers conferred upon it by this Treaty and of the objectives assigned to it therein.*

*In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community.*

Any action by the Community shall not go beyond what is necessary to achieve the objectives of this Treaty.”<sup>3</sup>

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<sup>1</sup> See Wagener/Eger/Fritz (2006), p. 147f

<sup>2</sup> See Baldwin/Wyplosz (2006), p. 85ff

<sup>3</sup> European Community (2002)

Following the treaty public goods should be produced on a political level that is influencing the area being concerned by the political aims. Secondly the level of decision-making should be able to internalize all costs and benefits resulting out of the production of these public goods. If a cross border of effects could be observed, decisions should be settled on a higher level coming next to the actual level.<sup>1</sup> Public goods that could be effectively produced by the central level are characterized through economies of scale in production and consumption, taxes affecting the distribution of the allocation of resources in the whole political area and services to the public with spill over effects.<sup>2</sup> Further on, of course defence is one of the classical fields that should be decided on the central level as an elemental duty. One explanation why the countries of the European Union did not decide until today to centralize their units for defence might come out of the fact that this would generate high costs for enforcement and validation of decisions. A second important explanation is to be found for sure in the fact that the level of trust between the members and towards the institutions of the European Union is not elevated enough to go that far. But besides aspects of political economy the fact that the integration of defence in the European Union only exists in a military cooperation between France, Great Britain, Spain, the Netherlands and Germany, could be explained through normative decisions of the member states. The delegation of defence from the member states towards a central supranational institution would be understood as a turning away from a confederation of states as the European Union is characterized today by many analysts towards a federal state.<sup>3</sup>

One useful dimension to decide about proper delegation of decision-making correlation with the maximization of welfare is given by models of competitive order and the preservation of competition. If actors, the voter and the politician, producing decisions influencing areas of politics are not in the possession of complete information, mistakes in decision-

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<sup>1</sup> See Wagener/Eger/Fritz (2006), p. 149

<sup>2</sup> See Inman/Rubinfeld (1998), p. 547

<sup>3</sup> That an army matters could be shown by German history. The foundation of the second German Reich 1871 by Bismarck out of a confederation of German states correlated to the foundation of a unified German army that consisted out of the former armies of the states of the German confederation.

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making will occur. The best way to avoid these mistakes or to learn out of the mistakes made is a very intensive political competition between the low levels of policy-making. In this case competition does function as a process of exploration.<sup>1</sup> In this process, equilibrium situations could always be replaced by other equilibrium situations that seem to be more efficient and more stable.<sup>2</sup> But this *competition of exploratory processes* could only be implemented in a useful way if member states have the possibility to find individual solutions for their individual problems in their individual situation. Each member state needs to have the possibility to use experimental ways to find solutions, to choose in an eclectic way out of the solutions other member states are offering and to adapt *best-practice-solutions* that seem to work. This does reflect as well that political approaches being successful in one member state do not have to be necessarily successful in the other member states. Each member has to respect its individual path dependence and the preferences of its citizens. A competition as described above could of course only be possible in a political area with decentralized structures. Decentralization is as well a crucial point if it comes to the influence of lobbies in the political system. Lobbies want to influence the process of decision making of political actors by appealing to the individual benefits of the politician, not by appealing to the maximization of welfare for the whole citizenship. Lobbies try to maximize their rent<sup>3</sup> by through political decisions without any regard towards the question if these decisions are compatible to the societies aim to maximize welfare.<sup>4</sup> The more differentiated competences in decision-making are the more expensive it is for lobbies to influence the whole political system in their intended way because here for they need to influence a high number of actors. In addition to that, the competition of exploratory processes leads to the implementation of a controlling structure of *checks and balances* that has to be taken into account by the politician. As a result of what was said, the decision about the delegation of decision-making towards a certain political level of the European Union, may it be the municipal level, the provincial level, the

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<sup>1</sup> See Hayek (1969)

<sup>2</sup> The analysis of political action does follow the scientific model of falsification introduced by Popper, See Popper (2002)

<sup>3</sup> An introduction to different ways and strategies of *rent-seeking* is given by Grüner (2008), p. 97ff

<sup>4</sup> See Buchanan/Tollison/Tullock (1980)

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national level or the supranational level should always be a result of a calculus of costs and benefits. Delegations of responsibilities towards the central level are only efficient if preferences of the European citizens are not too heterogeneous regarding the related field of politics. Further on only those decision-making elements should be transferred to the central level that really affects the whole area of the European Union. This is the case if a decentralization of decision-making competencies is related to high costs. As a third point the delegation of decision-making competencies towards the central level makes sense if it comes to decisions about the production of public goods related with economies of scale in consumption and production. As a last point decision-making competencies should only be transferred to the European Unions level if the central level is in the possession of the necessary information to draw an adequate decision and has, connected to that, the political incentive to draw a decision according to the preferences of the majority of the European citizens. This could be assured through an intensified democratic control of the actors on the European level. A job, which might be done by the European Parliament being legitimated through democratic elections and provided with the necessary instruments to fulfil this role as the democratic regulative.<sup>1</sup> A part of this might be as well that the Commission, persons and political contents, should be depending to the majority voting in parliament and not to the preferences of the member states governments using the Commission often for its own national interests. The role of the European parliament seems to be the crucial point in the future debate because it is this lack of democracy of the European Union that brings the citizens of the union in opposition to supranational institutions through not being observed as being very transparent. To improve democratic structures might increase as well the incentives to trust these institutions and to delegate useful areas of political decision-making to the European level while taking the profit out of this minimization of transaction costs.

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## EUROPEAN INTEGRATION AND BALKAN COUNTRIES

***Abstract:** Integration of the European economies has affected and will continue to affect almost every aspect of both domestic and international affairs of Balkan countries. Growth of intra-European trade, massive international financial flows, and the activities of multinational corporations are tying national economies more tightly to one another, thus making integration an important feature of the EU. Almost all economists and other proponents of free markets believe that the EU promises a world of increasing prosperity and international cooperation for its members. Economists argue that no obstacles should be allowed to prevent the free flow of goods, services, and capital. Critics of integration on the other hand, foresee a very different future; they fear that increased trade, foreign investment, and financial flows are producing powerful negative consequences for their countries. Some people from the Western Europe believe that further integration lowers wages, causes unemployment, and has other serious harmful effects. Some of them are even more skeptical about economic integration.*

Both critics and proponents of the EU argue that the increasing integration toward East will lead to a decrease in the economic, political, and cultural autonomy of nation-states, or the end of their national sovereignty. Integration entails the end of economic independence, erosion of national integration political power, and a debilitating process of cultural homogenization. Economic integration of national economies means that domestic groups, and even whole countries, are losing control over their own destinies to powerful outside economic and technological forces. While some regret such a situation, others believe that the end of the national states is an entirely good thing that will ensure a more prosperous and peaceful Europe.

The European market has become much more important than states and national societies in the determination of economic affairs and even of national political affairs. National sovereignty has previously meant unlimited control by governments over their economies. Now, economic affairs are determined by transnational market forces and multinational corporations. The increasing economic integration of national economies

allegedly undermines national economic independence and reduces national economic policy autonomy. Intensification of trade competition and the need to reduce costs shift power from the state to the firm, because if its own government does not or can not take actions that reduce the costs of doing business, firms will simply shift activities to countries with lower costs. The policy options of candidate countries are limited by their desire to attract foreign capital and their fear of capital flight, and integration of national markets will undermine the effectiveness of macroeconomic policy (fiscal and monetary) in management of the economy.

On the other side, the debate over the costs and benefits of economic globalization became highly acrimonious. Meanwhile, the increased openness of national economies, the enlarged number of exporters of manufactured goods, the more rapid increase in trade than in the growth of the global economic products, and the internationalization of services have greatly intensified international economic competition. Growth of the proportion of world output traded on international markets has been accompanied by a significant change in the pattern of world trade. Many less developed countries (LDCs) have shifted from exporting food and commodities to exporting manufactured goods and even services. Despite the limited nature of corporate globalization, multinational corporations (MNCs) and FDI are very important features of the global economy. The increasing importance of MNCs has profoundly altered the structure and functioning of the global economy. Economic globalization has been driven by political, economic, and technological developments. The compression of time and space by advance in communications and transportation has greatly reduced the costs of international commerce while, largely under the American leadership, both the industrialized and industrializing economies have taken a number of initiatives to lower trade and investment barriers.

Economic expansion is limited by the “natural rate” of unemployment. The principal constrain on economic growth is the threat of inflation, which is determined by monetary policy and ultimately by supply and demand factors. While integration or openness to the outside world can obviously affect supply and demand, as it can in the European Union, the principal determinants of supply and demand remain primarily domestic. The intensified international competition, demands of economic efficiency, and the struggle for greater corporate profitability lead to the convergence of national values, institutions, and economic policies.

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Economic and technological forces cause east European nations to leave outmoded economic systems and converge toward the common mold of the European economic model based on free markets and openness to the global economy.

All European nations converge toward a new order based on liberal values (free markets, individualism, freedom), spread global prosperity, and world peace. Integration is leading to convergence and homogenization of national economies. Integration is forcing the convergence of national economic institutions and private economic practices. Intensification of economic competition, expansion of trade, and foreign direct investment, along with interpenetration of national societies, require that societies adopt similar domestic institutions and economic practices. The purpose of the Treaty on the European Union, or Maastricht Treaty (1991), was to create a politically and economically unified European Union that would be competitive to Japan and the United States. The United States, Mexico, and Canada ratified NAFTA to create a strong North American integrated economy and perhaps eventually an entire Western Hemisphere one. In Pacific Asia, Japan has also attempted to strengthen its global position by creating a regional economy. These three movements toward regional integration and the relationships among the movements will have a profound impact on the nature and structure of the global economy.

Although Balkan countries have certainly adopted many common institutions, national differences continue to be fundamental and of determining importance in the functioning of capitalist or market economies. Market economies come in vastly different shapes and forms and are not converged to a single, uniform type. In fact, even within individual national economies, convergence is limited. In promoting market reforms, advocates of these policies often describe free market policies as liberalism – of the financial system, of labour markets and of trade. Transitional reforms suggest incremental changes but they are fundamental, both to social and political relationships. The three global reforms that make up the architecture of globalization and integration are:

- the removal of regulations and controls over capital, both national and international;
- the downsizing of government or the state;
- attempts by the G8 (through the WTO and other institutions) to create a single global market in goods and services.

The first reform is most important because it led to the second and third – marginalizing the state; removing policy autonomy from elected governments; and facilitating the creation of a single global market.

The removal of controls and regulation from capital is the most revolutionary of the economic doctrines promoted by neoliberal economists. The reason is straightforward: Removing controls over capital freed up the owners of money to move their funds to any part of the European market. Naturally, they moved it to where profits and capital gains were the highest. This can be a chance for new members of the EU. As these reforms have taken root, so the finance sector has come to dominate the European economy as a whole.

In 1970, 90 percent of international transaction was accounted for by trade and only 10 percent by capital flows. Today, despite a vast increase in global trade, that ratio has been reversed, with 90 percent of transactions accounted for by financial flows not directly related to trade in goods and services.

The impact of the European economy on Balkan economics and politics has drawn the attention that changes in international position can decrease (increase) the power and autonomy of particular states. The European economy can reshape domestic politics and economic affairs through its impact on domestic interests. Through these channels, this economy can change the behavior and institutions of national societies, but it is not clear whether, or to what extent, external developments associated with integration are in fact transforming national economies and leading to greater convergence. The increasing integration of the European economies and intensified international competition have certainly encouraged these countries to adopt particular institutions and practices that have proved to be especially successful elsewhere.

On the other hand, very little convergence has taken place at the level of national institutions. National institutions tend to be sticky or inelastic. Societal and economic changes are often very costly, strongly resisted, and exceedingly slow. Convergence of national economic institutions has been a subject of negotiations with the EU. It can seldom be identified as an automatic consequence of integration. The European affairs can certainly have a profound impact on Balkan countries and can even force important changes in some aspects of national policies and institutions. At the beginning of the 21<sup>st</sup> century, Western Balkan is being forced to change and to move toward the European market economy. It is certainly true that these countries in recent years have experienced a number of

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noteworthy economic and institutional changes. This region has been strained by economic crisis and has been undergoing a number of modifications, reforms and deregulation that have changed a number of economic sectors and activities. Radical convergence has to be done. The EU in important ways is actually more integrated than it was earlier. Recent integration of all aspects of the European economy has been highly predictable and global, but limited considering labour force. The European integration means that goods, services and capital can flow without restriction across national boundaries. But there is no campaign for free migration of people. The same logic of global gains from trade that is used to justify free movement of goods, services, and capital applies with equal force to free migration by the EU. Why should people not enjoy the same rights and privileges that are extended to goods, services, and capital? If the European commission wants foreign capital to be able to go anywhere in the European countries and to have the same rights as domestic capital, why don't people have the right to find job anywhere in the EU? Why don't they have the same rights as the indigenous people? Free migration means deregulated, uncontrolled, unlimited flows as in free trade or free capital mobility. Radical structural reforms in Balkan countries, along with elimination of surplus capacity in economic sectors have been made necessary by integration. Adjustment will be painful and will result in large numbers of laid-off workers, especially low-or semi-skilled workers, who may find it difficult to find equally well paid jobs.

**Conclusion:** There is no country that could possibly survive without strong and wise leadership. Balkan leaders must promote the European cooperation to establish and enforce rules regulating trade, foreign investment and monetary affairs. Since the 2000s, Bulgaria, Romania, Macedonia and other Balkan countries have initiated important reforms to reduce their trade, financial, and other economic barriers. More countries have pursued global economic strategies to take advantage of these developments. The concentrated effort to join together by peaceful means so many sovereign states into the EU, is a unified economic and political experiment. There are no historical precedents to provide insights into the process of peaceful economic and political integration on such a scale. As many economists have observed, since the collapse of communism, there has been universal agreement that no serious alternative to European

economic integration exists as the way to organize international economic affairs for Balkan countries.

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## THE CAUSES OF MARKETS' FAILURE FROM RONALD COASE'S POINT OF VIEW

***Abstract:** The speciality economic literature appoints through the syntagm „ markets' failure ” all the aspects of ineffectiveness and fairness that appear in the markets' working mechanism. When the economic reality straiies from the theoretic model of the markets with perfect competition, the resurses allocation through the market does not coresponde to the paretian concept of efficiency ( the italien econimist Vilfredo Pareto was the first to assert that the resorses are efficiently allot if there is not possible for some good to be produced more than another one, or, if any of their allocation makes a person richer followed by the impoverishment of another person). Such situations, corroborated with the coercive action of the governments, are delimited in speciality literature through the syntagm of markets' failure<sup>1</sup>.*

In order to present the concept of markets' failure, the emitter that was laureate of the Nobel prize in economy, professor Paul Samuelson, proposes to use the example of the headlight<sup>2</sup>. For navigators, says the reminded ecomist, headlights have a great importance as they save lives and goods, but, beside all these, the ones that administrate their activity can not control the fee from the beneficiary ships. In conclusion, because the divergences between private benefit and private cost on one hand, and social benefit and social cost on the other hand, Samuelson considers that in this case we have to deal with o situation of markets' failure in which government's intervention is recommended. The market, he says, is not able to achieve efficient allocations and that is why in this situations the public power must substitute it.

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<sup>1</sup> Dobrotă N., *Economie Politică*, Economic Editure, Bucureşti, 1997, pag. 215 and the following

<sup>2</sup> Samuelson P. A., *Economics: An Introductory Analysis*, 6th ed., McGraw- Hill, New York, 1964, pag. 45

Even if your name is Paul Samuelson, theories can be contestable. And this thing happened, the contestor is no one else but Ronald Coase, another famous laureate of the Nobel prize in economy. The method that Coase uses to demonstrate the example used by Samuelson in order to develop the concept of markets' failure, it was as simple as possible. He tried to find a similar empiric situation to the one presented by Paul Samuelson in which the market had a contrary demeanour to the one expected. He found it precisely in the England of the XVII's century. In this period, the headlights were built by private persons in order to obtain private earnings. The private enterprise received the Crown's permission to build a headlight and to collect taxes from the presented petitions coming from the ships' owners and navigators, regarding the necessity of the headlight's existence. This is not a government intervention determined by the fact that the market does not work, but it stimulates the market to run<sup>1</sup>.

Ronald Coase had an extraordinary intuition when he emphasized that the classic political economy presents situations where the market does not ensure efficient allocations starting from the premise according to which the costs of transaction that are involved are zero (the transaction costs include the value of resources that are needed to transfer, establish and to maintain the ownership). Such situations do not appear in the real world, where the transaction costs are always higher than zero. In conclusion, some contemporary authors consider, as a consequence of the presented reasoning, that the world where the transaction costs are zero is the one for which the concept of the markets's failure was created, although such a world does not exist<sup>2</sup>.

In order for us to enlighten with the notion of markets' failure we will present in the following pages, the main reference points of the Ronald Coase's theory. We start our presentation with the famous example of cows' breeding and the farmer (cultivator), which is the development foundation of Coase's theory.

This means that a cows' breeder and a farmer unfold their activity on grounds that are neighbored and unenclosed. As the cows' breeder unholds his activity by multiplying the number of cows that he owns, the

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<sup>1</sup> Coase R. H., *The Lighthouse in Economics*, Journal of Law and Economics, no. 17, 1974

<sup>2</sup> Zerbe R. O., McCurdy H., *A product of „blackboard economics” encounters the real world. The end of market failure*, Regulation, volume 23, no. 2, 2000

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farmer loses more and more because his fields are not enclosed, and the number of cows passing his grounds becomes bigger and bigger. We deal with a classic situation of markets' failure where the benefits of the activity development come to the cows' breeder while a part of the extension costs are supported by the farmer. If we are to apply the Pigouvian<sup>1</sup> theory in this case, we will come to the conclusion that the government should interfere by ensuring an efficient resource allocation either by practicing fines or by introducing taxes and dues, or by using other methods that include the social costs induced by the cows' breeder activity in his private costs, because when the volume of the first economic agent's activity increases it produces damages to the second agent.

Coase asserts that most of the times, when the activity of the economic agent A produces bad turns to the unheld activity of the economic agent B, the way the problem is approached is mistaken because it consists in trying to give an answer to the question: how can we restrict agent's A activity? The relation between A and B is biunivocal. Restricting A's activity would determine him bad turns while encouraging B's activity. The real question that should be asked is, by Coase, : who should have the permission to produce damages so that the global consumption of resources be as lower as possible?...Inevitably, in these situations, it is about choices. In the given example the increase of the cows' meat offer can take place only by reducing the farmers' harvests, the mutuality being valid as well. The answer to the question is not clear till to the moment when we do not establish which is the value of the goods that are about to be produced extra, more precisely the value of the goods that are about to be sacrificed. In order to present the way this problem should be solved, Ronald Coase appeals to a numerical example: the annual cost of enclosing the farmers property is 9 dollars, the price of one ton of extra crop obtain by the farmer is 1 dollar, and the relation between the number of cows in the herd and the quantitative loss of the harvest is presented in what follows<sup>2</sup>:

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<sup>1</sup> Vezi Artur Cecil Pigou, *The economics of welfare*,  
[www.econlib.org/LIBRARY/NPDBooks/Pigou/pgEW.html](http://www.econlib.org/LIBRARY/NPDBooks/Pigou/pgEW.html)

<sup>2</sup> Coase R. H., *The problem of social cost*, The journal of law and economics, volume III, october, 1960

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The number of cows loss on additional in the herd:	The anual crops' loss in tones (t):	The additional cpros' herd unit:
1	1	1
2	3	2
3	6	3
4	10	4

If there exists settlements that foresee that the cows' breeder is responsible for the damages produced to the others, assuming that the number of cows in the herd increases from two to three times, the cost supported by him would include also 3 dollars afferent to the additional crop loss. In consequence, the cows' breeder would not decide to increase the number of his herds until the additional income obtained would be higher than the involved cost, including the additional harvest loss. Of course, if the value of the additional harvest looses could be reduced, these would be adopted as their cost is lower than the value of the avoided losses. If the number of cows in the herd is 4 or more, it becomes to great advantage for the breeder to build the fence for the farmer because it's value is 9 dollars, and the total value of the damaged harvests (that the breeder has to support ) is 10 dollars or even more.

Let's see what will happen on a market where there are settlements that establish that the cows breeder is not guilty for damages produced by his cows...In this case the farmer will be interested to establish a concord with the one that produces the damages, Coase says. Taking into consideration the numeric example given, in the situation when the cows' breeder has a herd of three animals, the farmer would pay him a sum of money, not more than 3 dollars (the value of the lost harvest caused by the third animal) in the case he renounces to that animal. In the situations when the breeder has two animals and decides to enlarge the herd up to three animals, he will include the involved cost of this decision and the sum of no more than 3 dollars that he will no longer receive from the farmer (this represents a suitability cost).

So, according to Ronald Coase's theory, if the ownerships are rigorously defined on a competitive market, the market's actors will come to concords that will lead to intern external effects caused by the unheld activity, with the condition that no transaction costs exist, and the number of agents involved is small.

It must be mentioned here that by ownership we understand, in the context of Coase's theory, not only the right to own a property but also the

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responsibilities regarding the control of the ways it is used (see the right to drive the car you that have bought, or the right to collect taxes as a consequence of owning a headlight, etc.)

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