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Ethical Finances?

**A Special View of Ethical Banking, Socially
Responsible Investments**

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Ethical Finances?
A Special View of Ethical Banking, Socially
Responsible Investments, and Just and Fair Taxes
Ph. D. Dissertation

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FOREWORD

The catastrophic events of the last few years, starting in 2008 with the collapse of international financial markets (underlined by the default of Lehman Brothers, one of the oldest, largest and most symbolically significant financial institutions of the world), have sparked much heated public debate. The discussion includes rational and less rational, even demagogic, arguments about the rights and wrongs of the financial industry. In a sense, is the time is now ripe for bringing up the question of ethics, as probably never before have moral issues (maybe with the exception of questions concerning warfare and human rights) become a central point of global discussion.

However, what is completely missing from the discussion is a definition of what essentially is meant by the term 'ethics'. What is ethics? What is right and wrong? From an ethical viewpoint, why have such professions as bankers and traders developed, and why at present are these professions still flourishing despite all their recent difficulties? Based on the information available, are we in the position to judge the actions of the banking system and its beneficiaries – all of us, having any banking relations – as morally right or wrong? If possible, can we set up a metrics of moral behavior to measure the ethical results of actions, and can the result thus derived be used to determine any consequences? Furthermore, who is entitled to create and apply such metrics, and to judge actions of others? And finally, what ethics, what ethical behavior is it possible to discuss in the case of financial institutions and their related parties?

We are almost as much part of the global financial system as we are part of our society. Money and Banking were created out of fundamental human needs. Measurement, storage, and transfer of value is essential for any organized human interactions and no less so the appropriate institutional system which manages it.

Recently, finance and especially banking have become the scapegoat for the present financial crisis. The greed of bankers, the ruthlessness and underhandedness of speculators and investors have all been discussed and harshly

condemned. However, in the confusion ensuing from the basic human need to discuss fundamental questions, the whole debate has lost its scope. The desire to want more and better is the driving force of all of us, and it has created the distribution system known as capitalism, which still provides the best allocation of resources for the broadest number of people. Capitalism, it must be emphasized, is not an ideal, nor even a just and fair system, yet it is still more efficient than any kind of “planned economy”, which is neither just nor fair to those subjected to it. If we have any relations to any bank, either as a depositor, or as someone who just simply makes a money transfer or receives loans, we are all the beneficiaries of a relatively liberal economy and financial system. Without financial institutions, banks, bankers, and financial trading activity, we would live at a pre-historical level. (Ferguson, 2008)

In addition, despite all the flaws, smaller deficiencies and systematic problems, banking is still one of the most monitored and regulated activities and industries, regulated in each detail, monitored by state watchdog agencies, by depositors, by media and most importantly by the industry itself. Competitors keep very close watch on each other, following every step and action of their fellow banks. In addition, the institutions themselves have developed strict internal control procedures and methods in order to prevent large-scale frauds, mismanagement or simple negligence. Furthermore, given that risk is inherent in any branch of business but is even more magnified, more rapid in its consequences and more quantifiably measurable in the financial industry, and that the drive to increase expected yield also inherently increases the degree of exposure, the financial industry’s internal risk control techniques have reached an extremely sophisticated and sometimes overly complex level. Nevertheless, every system is as only as good as the people running it, and even the most efficient procedures and monitoring is not able to supervise and prevent all misdeeds.

There are also several conflicts of interests embedded in the financial system.

- The relationship and opposing interests of depositors and shareholders;
- The asymmetric information between shareholders and management;
- The complexity of operations;

- Measuring risk in different time horizons with incomplete information sets available internally;
- Measuring results;
- Performance attribution and motivation schemes;
- The global or regional scale and sheer size of balance sheets;
- Operations on a multicultural level;
- The rapid growth of banks from local operations into multinational organizations;
- Management of the Banking and Trading Book.

These are all well-known and intensively researched topics, yet they are usually not considered in their full complexity in relation to moral issues.

Finding comprehensive works on the topic of finance and ethics was much harder than originally assumed. Though works have been published that deal with the relationship of finance and ethics, these publications tend to be only partial analyses that focus only on particular segments of the issue. In addition, they deal mainly with the question of the financial industry but the definition and especially the explanation of ethics seems to be lacking. In this context, the use of available literature and sources was limited.

In this paper, I will first try to create a definition of ethics that can serve as an intellectual instrument for our purpose. At the beginning of the work, we will try to draw up a possible definition of Ethics, in order to determine the framework of our analysis. In the second chapter, the phenomenon of “ethical banking” – and, as a specific alternative, Islamic banking - is described, as it is one of the “hottest topics” in the financial sector now with many arguments both for and against. In the following chapter, we will introduce and discuss in detail the concept known as “socially responsible investments”(SRI), with a special focus on the Asset Management area; specific attention to this point is the outcome of its much more intensive documentation in comparison to other types of investment areas. In both chapters, we assume that SRI and Ethical Banking are essentially similar, but form two sides of the same coin. In addition, some of the major controversies are going to be discussed in details. In the fourth chapter, will attempt to quantify and

measure the concept of ethics in finance. The focus of this chapter is to determine if ethics can be measured and, if so, what the consequences are. How much are ethics worth? How much are investors willing to sacrifice for their ethical beliefs if they come with a price tag? Nevertheless, we might find that it is impossible to measure or quantify ethics. The fifth chapter will discuss specific issues of "Just and Fair" taxation through several case studies of particular taxes.

At the end of the introduction, a personal note is required: I have worked for most of my professional career in one of the largest retail banks in Europe. At present, I work at one of the largest regional banking groups as head of the treasury. Without providing any specific details and examples, I will necessarily incorporate my own experiences and thoughts derived from everyday multinational banking management.

Apart from the public and populist debate, the choice of topic was, in addition, influenced by some of the most influential present economists. Many of them were previously part of mainstream economic thought, though lately (not only due to the present financial crises, but increasingly from the second half of the 1990s) their opinion has changed concerning the role and relationship of ethics and economics. Probably the most prominent and most outspoken among them is J. E. Stiglitz, who became the best-known and often the harshest critic of recent mainstream economics, the institutional system in particular. In his works, he continuously questions the practices of the actual political and economic establishment (especially of the U.S.A., but also the so-called developed western world in general) and sets forth his proposals for change. In his work regarding questions of ethics, market and government failure, and globalization, he directly addresses the relationship between finance and ethics, stating explicitly, with an appeal to one of the basic terms of moral philosophy, that globalization is not simply an economic matter but also has to include social justice based on solidarity. He has also elaborated the ethical aspects of conflict of interest, fiduciary duties, or information asymmetry among related parties within banking, and did so several years before the present crises. Indeed, the most specific ethical issue that he has treated is the provision during the East-Asian Financial Crises in

1997 by the IMF of USD 22 billion to rescue subsidiaries of western banks, at the same time as requiring substantial cuts in the living standards of the locals already in substantial need. (Stiglitz, Ethics, Market and Government Failure, and Globalization, 2003)

Another extremely influential American economist, Milton Friedman, stated that companies are responsible only for the increase of profit, a contention originally stated in reaction to the first attempts of corporate social responsibility acts in 1970. (Friedman, 1970) His arguments can be interpreted as terming anything different from the loyalty owed to the owners of the company to be irresponsible, even in relation to the most vexing and morally justified issues, like environmental protection or support of disabled members of society, if doing so would lead to an insufficient use of the capital provided by the owners. Friedman questions the existence of corporate social responsibility, as only people (the management) can be liable, yet they owe their responsibility exclusively toward the owners of the given company. He not only refuses any responsibility beyond profit maximization, but also considers that this logic can lead to imposition of limitations on the free market, as the companies will thus be intended to assume the functions of political institutions and the state. The year 1970, when Friedman made the above statement, was specific as a turning point concerning environmental politics. Due to the strong demand both from economic institutions and society at large, Richard Nixon, as the incumbent US president (not well-known from his support for issues like environmental protection), approved the creation of the Environmental Protection Agency. In addition, the first laws on air and water quality were approved and, through the initiative of American university students, the environmental movement began, symbolized by the first Earth Day. By the end of the decade, the growth of the Corporate Social Responsibility movement among multinational corporations also grew stronger. In order to manage long-term profitability, Corporate Social Responsibility is unavoidable: accidents caused by environmentally dangerous industries, scandals, consumer boycotts brought the performance of many companies into grave danger. Apart from the obligatory use of Corporate Social Responsibility, many companies see it as a great opportunity to acquire new market and consumers or to retain old ones. (Szlávik & Füle, 2010)

However, the obligatory use of Corporate Social Responsibility to manage business is more closely related to Friedman's idea about the superiority of profit and it has nothing to do with moral questions.

As in the case of most ethical issues the debate outlined above seems to be impossible to decide. However, these questions should be left for the individuals (owners and consumers) to be decided and not to be necessarily delegated to the management of the particular company.

One other prominent economist, Jeffrey Sachs, also emphasized his moral doubts in relation to the International Monetary Fund. According to him, a small and non-transparent institution has dictated economic conditions to 350million people in South-East Asia and risked more than USD 100billion of taxpayers' money in their loans. These operations helped international banks to escape losses by forcing Asian governments to cover the losses on private transactions that went bad (an interpretation very closely resembling Krugman's). "Yet the IMF decisions have been taken without any public debate, comment, or scrutiny." (Sachs, 1997). Sachs generally does not believe that increased aid is the solution, but instead the establishment of credit and microloan programs, which are often lacking in impoverished areas. Sachs's ideas are very much compelling to most observers, yet there is a strong paradox in his works that he does not see aid as a solution but rather microfinance, since both concepts are substitutable.

Another prominent and also somewhat controversial economist who became a harsh critic of the mainstream economic practices, is Paul Krugman. According to him, "the institutions that were rescued in 2008-9 were not old-fashioned banks; they were complex financial empires, many of whose activities were effectively unregulated — and these unregulated activities brought the U.S. economy to its knees." (Krugman, 2011) A common if relatively naive standpoint tends to interchange the concept of ethics with the idea of regulation. Yet what is the answer in this particular case, when specific regulations (there were nonetheless general regulations in place, either in the related chapters of the US Civil Code or financial laws and regulations) were either lagging far behind financial innovation or were non-existent? The answers are very much dependent on the person asked,

and in fact the statement of the issue by Krugman is an oversimplification. Nevertheless, the debate is definitely fundamental in a moral context.

Independently of where they stand on the palette of economics, all the above economists are faced with similar moral problems. They also sense that ethical questions have gained center stage, and that the general public are interested in such questions in relation to the overall economy, and more specifically and materially to their own finances, at levels which were not present before. Stiglitz and Krugman also might be regarded as converts who left their original mainstream economics values and now fiercely defend the new morally based economics.

Apart from the well-known mainstream American figures, there are also Hungarian economists who deal with the questions of the institutional system, including the relationship of market and ethics. Herewith, only two of them will be mentioned, though both have influenced the way we understand moral questions in economics. László Zsolnai is a long-time proponent of business ethics. In one of his latest works, he quotes the famous sentence of Adam Smith that we can expect our bread not from the benevolence of the baker but from his self-love. In response, however, Zsolnai argues that only in the short term does the expected profit determine the willingness of the baker to bake bread.; However, this motivation would not lead to a "truly healthy and attractive bread, as in this case internal motives are more relevant than the monetary reward." (Zsolnai, 2012) The big question is the relationship between ethics and profit: if profit really includes all components of success, and if, in order to be profitable, corporations need to deal with ethical questions apart from their normal activity. As we saw before, according to Milton Friedman, companies are obliged to deal only with their normal course of business and their profits to avoid ethical inconsistency, as they ought to hold exclusive loyalty to their owners. However, it might be possible that profit is not defined clearly, for example if it is supposed to be sustained over a longer time period and not just to concentrate on immediate results.

For the purpose of this paper, it should nonetheless be assumed as the most important contention that "a good functioning market requires cooperation and

mutual trust". The market fails to be an efficient distributor of factors of production, since values are the aggregate of subjective preferences determined by the individual actor on the market. The previous character of markets, with their aggregation of opportunistic behaviors, creates a lack of moral cohesion. From the above factors, the recent growth of popularity for self-regulation and socially acceptable operations are all determining factors in a well functioning market. (Zsolnai, 2012)

As one of the most respected professors in his field of Environmental Economics, Sándor Kerekes articulates the importance of the proper relationship in between nature and human society. As of the time of writing, one of the most relevant ideas was formulated in his paper "Sustainability and Social Responsibility - The Unsolved Problems of a Globalizing World" (Kerekes, Fenntarthatóság és társadalmi felelősség - A globalizálódó világ megoldatlan problémái, 2011)

According to his experiences, students of business schools are quite skeptical about the role of environmental preferences, particularly in the case of company managers. Furthermore, they have difficulties in defining the difference between legitimate and ethical behavior, even while taking courses dealing exclusively with corporate social responsibility. (Kerekes, Fenntarthatóság és társadalmi felelősség - A globalizálódó világ megoldatlan problémái, 2011)

In the same paper (an absolutely essential source in such a work as this on ethics in finance), he was also doubtful if the magnitude of the recent financial crisis will leave sufficient time and will for the bankers to recognize and deal with the substantially bigger issue of climate change and/or biodiversity. (Kerekes, Fenntarthatóság és társadalmi felelősség - A globalizálódó világ megoldatlan problémái, 2011)

To finish the Foreword, finally yet importantly, with a special emphasis need to emphasize the methodological contribution of Ferenci Tamás. Based on my compilation of database, he had helped me to complete the required calculations to assess the validity of hypotheses.

I. DEFINING MORAL

One of philosophy's most resistant and stubborn issues, and a longstanding struggle for philosophers themselves, is the task of creating a lasting and globally accepted definition of what we, the human species, consider moral. Probably the possibility to think ethically is one aspect, which makes us different from the rest of the known living world. To be an individual, to think into the future, to forecast the consequences of actions and events, and simultaneously to measure ourselves against the rest of humanity is probably unique on the Earth. Due to the previous delimitation, morality will be defined only in relation to humans, and we will not consider any wider universal definitions of ethics as it would lead too far out of our current discussion. What we will try to create in this chapter- after a short introduction of the most relevant concepts and schools of thoughts in the area of moral philosophy – is a definition of ethics, which can be instrumental for the interpretation of the subsequent analysis about the “measurement and performance” of “ethics”.

The following two definitions of ethics are from the most widely used dictionaries of the western world. These extracts are discussing the general meaning of the word ‘moral’.

Definition of Ethics in Merriam-Webster:

1 *plural but sing or plural in constr:* the discipline dealing with what is good and bad and with moral duty and obligation

2 *a:* a set of moral principles : a theory or system of moral values <the present-day materialistic *ethic*> <an old-fashioned work *ethic*> —often used in plural but singular or plural in construction <an elaborate *ethics*> <Christian *ethics*> *bplural but sing or plural in constr:* the principles of conduct governing an individual or a group <professional *ethics*> *c:* a guiding philosophy *d:* a consciousness of moral importance <forge a conservation *ethic*>

3 *plural*: a set of moral issues or aspects (as rightness) (Merriam-Webster, Incorporated, 2011)

At the same time, the *Oxford Dictionary* defines 'moral' as:

Noun:

(in singular)

a set of moral principles, especially ones relating to or affirming a specified group, field, or form of conduct: the puritan ethic was being replaced by the hedonist ethic.

Adjective:

rare

relating to moral principles or the branch of knowledge dealing with these: the ethic question is of wider import.

Ethics:

1 *(usually treated as plural)* moral principles that governs a person's behavior or the conducting of an activity.

2 *(usually treated as singular)* the branch of knowledge that deals with moral principles. (Oxford English Dictionary, 2011)

However, apart from the above two definitions, myriads of different interpretations of ethics could be listed: some are essentially the same, and a smaller number are probably substantially or completely different – however, merely listing them would not lead us closer to our ultimate goal of creating an operational understanding of the concept for the purpose of the present dissertation.

The definition of ethics is ever-changing across time: according to geographical location and local peculiarities; communities; beliefs; and personal experiences. It has different meaning, if we regard it as a desired goal or an action itself. It is one term that we would like to consider as absolute, and by the very nature of the human species, it is eternally relative. It is easy to cite the actions of people

considered either good or wrong dependent on the location, time or circumstances. Due to the above, to define a concept of ethics operational for our purpose is probably the greatest challenge of this work.

In the present paper, in order to reach a possible definition, we will briefly discuss the most relevant and possibly most important schools of thought within the realm of moral philosophy. Such a process will help us to reach a common understanding in the definition of the "metrics" of ethics. The introduction to ethical thought will not be chronologically linear, nor will the order of listing determine the relative ranking of the ideas.

Another purpose is to try to discuss in brief all of the major concepts of the operational definition of ethics.

1.1. Philosophical Approaches to Ethics:

1.1.1. Immanuel Kant: a universal moral law

To start with the non-linearity of our introduction, chronologically even a controversial assertion, we will discuss the works of probably one of the greatest philosophers ever, in their relation to moral questions. We can claim without doubt that this philosopher is the single most important thinker among those who have operated within the framework of the deontological approach.

Deontological can be defined thus: pure moral motives determine the morality of an action; actions are inherently right or wrong:

- a. the emphasis--determining one's moral duty in relation to the moral law
- b. the test--*universalization* of choices;
- c. duty requires emphasis on *rational autonomy*

The major concept in this school of moral philosophy is to define that all of our actions have a moral value independent of their outcomes. Regardless of the good that might come from a bad intention, the action itself will never be right.

Definitely, the most representative deontological thinker is Immanuel Kant (1724-1804). In his philosophy, he created a fundamental moral law that would determine the ethical character of an action without regard to its consequences. This general moral law was labeled as the *categorical imperative* – in other words, a command completely independent of the prevailing circumstances. In addition, the categorical imperative also assumed that the validity of this principle is a outcome of pure reason itself and has inherent value within humanity, as we are free and rational moral agents. The rational behavior of people is the main reason for the moral character of our actions. (Störig, 1997, pp. 328-329)

According to Kant, the foundation of moral obligation must be sought not in the nature of man, nor in the circumstances in which he is placed, but instead *a priori* and solely in the concepts of pure reason. (Kant, 1996, pp. 31-33)

Any action not taken with the motive of duty is without moral value. Every action should be based on pure reason or otherwise it is worthless. From an ethical standpoint, the result is not an important aspect of any action, but rather the original pure reason, or in common language, the intention behind the action. For an action to be morally sound or good, it must not simply conform to a moral law, but it must be done for the sake of this moral law. The only thing that is inherently good is good will, in other words, actions that follow reason's guidance and take place from a sense of duty. Acting with good will is simply and purely the right thing to do, and its goodness is absolutely independent of the positive consequences. Moreover, reason dictates that the principle of one's action, as Kant terms an action's "maxim," should be able to be a universal law. As Kant expresses in his formulation of the categorical imperative: "*Act only according to that maxim by which you can at the same time will that it should become a universal law of nature.*" "*Always act according to that maxim whose universality as a law you can at the same time will*" (Kant, 1996, p. 47)

The above formulation of the moral imperative requires that the maxims be chosen as though they should hold as universal laws of nature, which is the only condition under which a human will can never come into conflict with itself. All maxims that stem from autonomous legislation ought to harmonize with a possible realm of ends as with a realm of nature. In principle, people ought to act as we are members in the universal realm of ends, legislating universal laws through our maxims as a code of conduct, in a possible realm of ends. None may elevate themselves above the universal law; therefore it is one's duty to follow the maxim(s). (Kant, 1996, pp. 42-43)

The categorical imperative states that since ethics is essentially a rational enterprise, ethical principles should have the same character as logic and mathematics: i.e., they should be internally consistent and universally valid. (Kant, 1996, pp. 62-73)

An application for using the first formulation in a practical, everyday sense is the "universalizability test". One interpretation of this maxim is that it constitutes what the agent believes is his reason to act.

- Define the maxim: a potential action with its motivation. For example, I will cheat in order to pass an exam with a good grade. Cheating is the action and the motivation is to successfully fulfill a requirement of a scholarship.
- As a second step, define a scenario in which all people in a similar position to us pursue exactly the same principle. All students would cheat in order to maximize their possibilities to receive a scholarship.
- Finally, determine if the assumed world is irrational due to the maxim. If it is defined to be irrational, then acting on the given maxim is not permitted in the real world. If no contradiction is found, then acting on that maxim is allowed and might be even required. In our case, the universality of exaggerated systematic cheating would cause strong counter-selection to occur, and the result is much slower or no development of the human kind. (Kant, 1996, p. 118)

Later on, Kant redefined the categorical imperative in terms of human dignity and freedom. As Kant wrote: "Act in such a way that you treat humanity, whether in your own person or in the person of any other, always at the same time as an end and never simply as a means." and that "the rational being, as by its nature an end and thus as an end in itself, must serve in every maxim as the condition restricting all merely relative and arbitrary ends". Treating people as "ends" requires seeing them as autonomous beings. Actions that are consistent with the dignity and autonomy of moral agents are good. Treating people simply as a "means," however, is using them for our own purposes without their full and free consent. (Kant, 1996, pp. 49-60, 117)

According to the deontological approach, the ultimate ethical standard is whether an action is consistent with its being done by a human agent who is *rational and free*. Kant himself greatly appreciates and thoroughly describes his understanding of the term 'respect' or 'respecting' another person. (Kant, 1996, pp. 99-119) Such an attitude is the basic premise of human rights. We all possess fundamental moral rights which are simply recognized, and not granted by any external entity. A deontological approach to ethics, then, sees rights to fairness, equality, justice, honesty, and respect of our dignity as embedded in our fundamental characteristics. (Kant, 1996, pp. 125-137)

In our case, to provide an operational definition, the most substantial difficulty with the Kantian approach is its inflexibility. If lying is intrinsically wrong, then there is no possibility to justify it, even when it produces more good than harm. If our actions fall within the 'inherently wrong' category yet are performed in order to help someone, the deontological approach still condemns it. The total lack of compromise makes a deontological standard difficult to follow or in our case, to operationalize. In addition, the universalizability test might become an impossible hurdle if we use it according to Kant's original intentions. Moreover, it might eventually lead to simple tautology, as causality will be an automatic driver. As Schiller, one of the main and influential critics of Kant, once stated, the categorical imperatives does not allow anything emotional, which makes us humans. (Heller,

1976) However, Kant probably did not intended to create an emotionless world and his work did not leave the legacy of an inhuman universe.

Kant's moral philosophy is simply unavoidable if we discuss moral or ethics. It is probably the only and purely logically built model of morality, and it is internally consistent. It might not be flawless and by far not perfect, but it is a model in which one of the most relative concepts was generalized and globally explained. Despite how much the structure might seem overly complex, and the time and effort required to embrace it, it is probably the simplest model that could be used to describe the morality of human actions (as will be proved later, when we discuss other schools of ethics and their seemingly easily appealing and practical guidelines). Kant also tried to prove that ethics is an everyday and pragmatic concept, with its origins lying in pure reason. Finally - and this is vital for contemporary economic concepts - Kant explicitly claimed that we can label actions ethical only if the agents are rational and free.

I.1.2. Utilitarianism

Teleological Utilitarianism is best encapsulated as the maximization of desires (or the greatest amount of happiness for the greatest number of people). The greatest representatives of Utilitarianism are Jeremy Bentham and John Stuart Mill.

- a. Emphasis--pragmatically choosing the best alternative; appeal to public rationality
- b. There are no moral absolutes

A teleological approach to ethics argues that actions themselves have no intrinsic ethical character but acquire their moral status from the consequences arising from them.

Jeremy Bentham (15 February 1748 – 6 June 1832) was one of the main proponents of the teleological concept. His ethical philosophy - **Utility** - is best illustrated by his own words in his major work *Introduction to the Principles of Morals and Legislation*: "under the governance of two sovereign masters, pain, and

pleasure. It is for them alone to point out what we ought to do, as well as to determine what we shall do. On the one hand the standard of right and wrong, on the other the chain of causes and effects, are fastened to their throne." (Bentham, 1977, p. 680)

Utilitarianism defines the moral good as the extent to which it produces a greater balance of pleasure over pain for the largest number of people involved, or, as it is popularly phrased, "the greatest good of the greatest number." (Störig, 1997, p. 383)

For the purpose of the present dissertation, the work of Jeremy Bentham involves its own "great contribution". To make his ethics practical, Bentham created a so-called Hedonistic Calculus to measure all pleasure and pain that an action can produce. This model recognizes and includes seven dimensions of an action's consequence in order to compare the different results:

- Intensity - the intrinsic strength of the pleasurable or painful feelings produced;
- Duration - how long the consequence lasts;
- Certainty - how likely is it that these sensations will be produced by a given action;
- Remoteness - how soon are they going to be felt;
- Expectations - whether these feelings will lead to future pleasures or pain;
- Extent - the number of people affected.

The great contribution of the hedonistic calculus is that it provides a model for a public debate about ethics, which is open, public, objective, and fair. Here, the benefits and harms produced by actions can be identified and measured. Even further, utilitarianism can be labeled as a democratic moral view, since everyone's happiness counts and no one's happiness counts for more than others. Also appealing is its appearance of simplicity, as the only requirement to determine whether an action is ethically defensible is a careful and fair examination of whom the action helps or hurts, and how it does so. (Bentham, 1977, pp. 708-711)

However, the above-cited utilitarian philosophy has serious problems. Apart from the seemingly obvious advantage of simplicity of the model, even if it is, in reality, impossible to use the hedonistic calculus or any other model based on Bentham's utilitarian ethics, there is a much more severe issue at stake. If we regard only the consequences and not the action itself or the motives behind an action, then any action any intention can be labeled as 'good' regardless of the original motives. Put somewhat differently, we can therefore always find an explanation, which justifies our action.

One of the major critics of Bentham's ideas was himself a very prominent utilitarian philosopher: John Stuart Mill (1806-1873). Mill's version of utilitarianism refuses the equality of pleasures, which was the major source of confusion in Bentham's work. (Stuart, 1980, pp. 242-243)

Mill contends in his essay 'Utilitarianism' that:

"It is quite compatible with the principle of utility to recognize the fact that some kinds of pleasure are more desirable and more valuable than others. It would be absurd that, while, in estimating all other things, quality is considered as well as quantity, the estimation of pleasures should be supposed to depend on quantity alone. (Stuart, 1980, p. 243)

Mill has made a distinction between two classes of pleasure and pain – high and low quality. High-quality pleasures are associated with intelligence, education, sensitivity to others, a sense of morality and physical health, while low-quality or inferior pleasures include indolence, selfishness, stupidity, and ignorance. A small amount of high-quality pleasure could outweigh a larger amount of low quality pleasure. Of course, the main debate again is: who labels the qualities. According to Mill, the qualities can be identified and valued by persons with experience. (Stuart, 1980)

Mill also paid careful attention to the micro- and macro- level consequences of actions. Concerned that utilitarianism might seem to defend lying, Mill argues that

the wide-ranging, social harm that it does far outweighs the good experienced by its beneficiaries. At this point, we might discover a common set of values with Kant's moral philosophy, as according to him lying can be labeled as inherently bad and not able to withstand the test of universalisation. (Stuart, 1980, p. 380) Mill's wider view of consequences would clarify and correct the false consequences of Bentham's view.

Despite all the positive corrections to the previous utilitarian moral philosophies, Mill's ideas are not without their own difficulties. First of all, as was mentioned earlier, distinguishing among pleasures might be problematic. Who makes the decision? What do we mean with the word 'experience'? What if we all have the same or similar experience? How can experience be collected and sorted? Determining the complex results of any action might require an unprecedented degree of objectivity and unrealistic length of analysis. Despite all the above-cited concerns, by far the most substantial issue of Mill's utilitarian approach to ethics is that as long as an action produces enough high-quality pleasure, any action is theoretically defensible, independently of the pain caused to a certain number of people. (Stuart, 1980, p. 329)

In addition, in regards to the recent work, utilitarian moral philosophy shows the inherent problems of ethics – it is relative.

Despite the enumerated problematic issues and bearing in mind its relativity, utilitarian philosophy has its virtues. It clearly shows the different perceptions and problems related to any ethical evaluation. As economists, we simply cannot avoid any talk about goals and targets, or even budgets, which must be reached. We will see in the later chapters, where the results of a particular subsegment of the financial sector – asset management – are analyzed and interpreted, how difficult is to evaluate the results due to this very reason. Utilitarian moral philosophy can help us to be prepared for such difficulties. Finally, this stance attempts to incorporate objectivity and impartiality into ethical analysis, which is essential if we would like to include rational agents as fundamental part of our definition.

I.1.3. Human Excellence by the Golden Mean - Aristotle

The life philosophy of Aristotle (384-322 BCE) was essentially hedonistic, as he believed that the major asset of humans is happiness. Happiness is derived from perfection, in which perfection is not a state but rather a process or flow in which every human being is working to converge his or her own talent to the ultimate end.

Aristotle's moral philosophy is a tolerant and holistic approach as expressed in his book, *Nicomachean Ethics*. His moral philosophy is centered on the assumptions – the virtues and vices – through which individual responsibility is incorporated into the evaluation of one's action and is related to the different possibilities of achieving happiness during one's life. As the final goal of his philosophy, Aristotle wanted to measure or conclude the conditions of determining a virtuous person. (Störig, 1997, p. 143)

Each human action has a final reason, *the ultimate good*, and according to Aristotle there must be a highest good, towards which all of our activity ultimately aims. This ultimate goal of human life is labeled as happiness. (Arisztotelész, 1987, pp. 28-29) However, neither tangible forms of pleasure, wealth, and respect nor the philosophical theory of forms give us an appropriate measure of this utmost goal, since individuals with the greatest material wealth or enormous intellectual power may not be happy.

According to Aristotle, all material or conceptual entities have a distinct function that they are properly fulfill. To be a virtuous human being, the proper function of human life must be defined and pursued. Thus, human beings should try to live their life in complete accord with their *rational* character. To accomplish it, the satisfaction of desires and possession of material goods are *less* substantial than virtue. A happy human being will have a personality well moderated between reasons and desires. In his ethics, the "virtue is its own reward. (Arisztotelész, 1987, pp. 36-53)

Moral questions are not simply a matter of theoretical study for *Aristotle*. Virtues of character are likely to behave in certain ways in similar situations. As such, good conduct arises from *repeated behavior and corrections* of the given action, making ethics into an intensely practical study. Philosophy is essentially practical, with guidelines and rules of thumbs determined to allow for ease in following seemingly impractical ethical guidelines. These rules are called virtues: virtue fulfills human nature; virtue is a characteristic way of being and acting which best represents one's function and purpose; it is the Golden Means between the extreme behavior of excessive and deficient behavior; one learns the Means through the example of virtuous people

All virtues are a level of existence that determinately converge toward its essential mean, expressed relative to human needs. Virtuous action is exclusively an intermediate position between excess and deficiency. Both too much and too little are wrong and the right kind of action always lies in the mean. (Arisztotelész, 1987, pp. 41-45)

Thus, for example: to act in a situation of danger, courage is the mean state in between reckless and cowardice; to enjoy pleasure, moderation is the mean state in between exorbitance and extreme temperance; to be self-confident, self-assurance is the mean state in between vanity and defeatism.

However, creating an interpretation of Aristotle's virtues for real life requires a substantial flexibility. Virtues are, in most cases, closer to one extreme than to the other, as the ones we appreciate more tend to be closer to involvement than to denial. For example, showing hospitality is closer to intrusion than to complete withdrawal. Furthermore, joy or enjoyment usually tends to be overvalued by people. In the above case, one of the extreme values is usually ignored so there is no opposing vice to average a golden mean. The message of his discipline is clear – *humans should avoid extremes and find moderation in their action.*

Ethical measurement of any action assumes that the person committing it bears responsibility. However, any morally acceptable action must be taken *voluntarily*, and according to Aristotle actions are involuntary in the following two cases:

- *Any action conducted under external force or threat is involuntarily, and as such, the person is not at all responsible.*
- *Any action done by the person due to lack of awareness of the circumstances is also involuntarily.* (Arisztotelész, 1987, pp. 55-59)

Ethically responsible actions are our individual decisions, and thus we are responsible for both the actions and the consequences. Individual character is not an argument for disregarding *generally accepted proper behavior*. *Knowledge and aesthetics are not relevant* in ethical decisions. According to Aristotle, understanding can only enlighten the nature of things but wisdom can discover the connections among them.

To bring his ethics closer to everyday life, Aristotle also considered human relationships and especially friendship as a fundamental constituent of a satisfactory life. Aristotle distinguished three different kinds of friendships that humans form.

- A friendship for *pleasure* exists when two parties have a common interest which they can pursue together. Their participation in the given activity results in greater pleasure for both than either could achieve by acting alone. Such a relationship lasts only as long as the pleasure continues.
- A friendship based on *utility* exists when two people can benefit in some way by engaging in a common activity. In this case, the focus is on what use the two can expect from each other, rather than on any enjoyment that they might have. A relationship of this sort lasts only as long as utility might be derived from it.
- A friendship for the *good*, however, exists when two people engage in common activities solely for the sake of developing the overall goodness

of the other. Here, neither pleasure nor utility are relevant, but the good is. Since the good is never wholly realized, a friendship of this sort should, in principle, last forever. (Arisztotelész, 1987, pp. 218-223)

This general discussion of friendship has a great value even in our present case, especially in its focus on reciprocity and derived solidarity. In addition, there is much in common here with the categorical imperative of Kant, where he states that compliance with the imperative is independent of the outcome one might gain with it; it simply is imperative, as it is an obligation.

Aristotle concluded his discussion of ethical life with the reaching of happiness. Pleasure is not a good in itself, as by its nature it is incomplete. However, ethically appropriate activities usually provide their own pleasures. Therefore, our natural tendencies to choose pleasurable activities over inconvenient or painful ones prudently guide us. Real happiness is to be found in action that leads to virtue, as only it gives true value and not only entertainment. Thus, contemplation is the clearest form of ethically appropriate activity because it is continuous, pleasant, self-sufficient, and complete. (Arisztotelész, 1987, pp. 295-299)

Despite the seemingly relative ease in making ethically correct decisions, the exercise of this dictum is usually everything but simple. Aristotle strongly rejected the philosophy of Socrates in which to know what is right always results in our doing it. The worst enemy of ethically proper behavior is, precisely, the failure to engage in the appropriate action even though one possesses full knowledge of what the right action is. These people suffer from weakness of the will, as they fail to execute actions in accordance with their own reasoning. However, as a more liberal approach, the mistake might be a simple failure of practical intelligence as the acting person is wrongly applying the general moral rule to the particular case. The potential of a great pleasure might overshadow the perception of moral right. Such cases do not necessarily mean a complete failure to acquire virtue, if the principle of virtue is still respected. Furthermore, the seemingly easy translation of Aristotelian philosophy is also its greatest problem, as humans are not averages, and we usually do not tend to behave rationally.

The main importance of Aristotle's moral philosophy is his belief that acting ethically must be voluntary and we must be in the position to be aware and appropriately evaluate the situation. Both concepts are of utmost importance for our definition of ethics: to be free to choose and to be rational. Aristotle's moral standing also links deontological and teleological philosophies, as he claims that we are free and yet obliged to choose both the action and the desired result.

I.1.4. Religious aspects

Ethical views related to religions, churches and movements are out of the scope of the present work, as they essentially originate from a belief in absolutes. Strictly, regarding religious ethical thoughts, they are not based on moral philosophy but on their relationship to an absolute power. According to the mainstream views of economics, economic agents are free and rational and thus they are responsible for their own actions. At the beginning of the dissertation, it was stated that ethics would be regarded only from a human viewpoint¹, as they define a non-human centered ethical thinking. Even though, in the present paper, some concepts (e.g.: Islamic banking) with a religious background will be discussed, their evaluation will be solely performed within the framework of standard economics.

Without intending any discrimination against other religious moral philosophies, the only one to be mentioned within the framework of the current paper is the Protestant (or more specifically Calvinist) work ethic. The reason for inclusion of the Protestant work ethic is the major shift that it caused in western civilization through the rejection of the Roman Catholic Church as the absolute religious authority and the recognition that each individual is the holder of matters regarding faith and morals. In addition, as a consequence of these ideas, individual

¹Some other issues in the theological ethics: the concept and importance of revelation; the importance of the Bible in Christian life such as biblical tradition; the Canon- the whole Bible must be used; the convergence of the divine with the human.

decision-making and the subsequent responsibility is not just an issue related to faith but also included in each and every aspect and segment of human life. Protestant philosophy is heavily reliant on the Aristotelian philosophy that a moral life is reached by virtues, by the golden mean. Originally, the Protestant work ethic was a sociological concept introduced by Max Weber (1864-1920) and strictly viewed it is not even a religious ethic. According to Weber, the Protestant stance holds salvation not to be the main reason of worldly wealth and success, but instead the result of hard labor. Consequently, our worldly life is important and we are obliged to work in order to reach success, instead of simply toiling for the promise of "heavenly life".

Furthermore, Weber conceptually derives the result that although in the reformist Christian movements (mainly in Calvinism) the view of life as work and order has no connection to any after-life but only the divine selection of the absolute power to be predestinated or foreordained, what we understand in terms of Protestant ethics has not much in common with this vision. What was probably a much more important effect of Calvinism is the dissolution from magic. In this "disenchantment of the world", in many senses an extremely cruel concept, there is no one to provide salvation for the individual, no extra sacrifice can exempt anybody from any deed that was less gracious or sinful, one strictly had to live a systematically orderly and Puritanical life. Further on, the idea of "Beruf" or "profession" in English became the center thought of many of the later economically successful reformist movements. As Weber illustrated, a puritan shoemaker who wished to praise God had to make as good shoes as possible. Such a strongly world-oriented concept, fundamentally essential for the capitalist system we know today, may have been a product of the original Calvinist ideas but they are far from identical with the original religious ideologies. (Weber, 1982) It is important to note the correlation between the concept of "Beruf" in Weber's work with the Kantian concept of "duty". Kant himself lost his generally cold scientific approach when he praised the importance of duty. (Kant, 1996, p. 116)

By means of these ideas, even though they are still far from the present era's secular concepts, western civilization established the fundamentals for contemporary philosophy (including ethics) and science.

I.1.5. An “outstanding” example of solidarity- Utopia

In his first use of this term in 1516, Thomas More (1478-1535) created an utopian world depicting a just and fair society based on solidarity. There are many subsequent later works on ideal worlds a.k.a. utopias, with more resemblance to our contemporary situation, the work of More is considered the most significant as the first and probably the most influential critique of an existing society and simultaneously a proposal to create a better world.

Many of the later critics have emphasized the view that More's Utopia is not an original work but instead a re-composition of old ideas, since the social institutions described can be found in the works of Plato. However, the reasons and original ideas are substantially different from Plato's thought. For Plato, everything is subordinated to the unity of the State, there is no place for individual freedom, emotions, and this institution is absolutely without any compassion for the poor or the less fortunate members of the society.

In contrast, More work is built on *compassion* or - in modern terminology - on solidarity. He considers the human aspect substantial and at the same time offers solutions to be implemented by his current society. One of the great examples of his compassion is the description of war and how the citizens (or in this case soldiers) of “Nowhere Island” are letting the defeated army to escape and they do not take revenge, an explanation based on the idea of mutual reciprocity. I, Considering that the conquered were usually slaughtered in the purportedly civilized realms of Europe, it is an especially outstanding and graceful idea for his age. (Morus, 1989, p. 119)

One of the principal ideas of the book is the establishment of a society based on collective ownership rights. This ownership principle underlies the fundamental critiques of existing societies based on unlimited private ownership. In Utopia

there are 54 cities and these cities are the owners of their own land. All the work is done together, and in the farms and villages there is always fresh labor arriving each year from the cities. (More described a system that we might call today 'job rotation'.) Any excess harvest, which is planned carefully and purposefully in each city for the next two consecutive years, is given to their neighbors in case of need. (Morus, 1989, pp. 58-59)

The book is divided into two separate sections, in which the first puts forward criticisms of the existing social problems of that time in England, while the second part defines those assumptions that are supposed to create a better society.

According to More, inequality is caused by private ownership and only collective ownership can solve the problem. In addition, it is also stated that all individual freedom of ownership has to be abolished by the State to reach the ideal society. The power of public servants, the desires of the common people could be and should be limited by the maximum size of land and private wealth allowed to be owned by them. More also firmly believes that collective ownership would solve the problem of corruption and abuse of public office. (Morus, 1989, pp. 51-52)

As mentioned earlier, the original idea in his work, as opposed to Plato, is that of compassion to those in need and the suggested relevant solutions. For instance, from all the collective goods produced, at the very first the requirements of the sick members of the society must be satisfied. Obviously, More's philosophy was strongly influenced by Christianity.

The morality of Utopia is based on happiness: not on any pleasure but on honest and valuable happiness. In this respect, More's ethics is close to the utilitarian view. All members of the society have to work: no one is excepted from labor. Even the scientists and leaders of the society have to take part in everyday physical work as an example to the others. (Morus, 1989, pp. 86-97)

Money is completely abolished in the ideal society. According to More, in the absence of monetary exchange, evil is circumvented, as no one wants to take advantage of others. Money is the underlying of vanity and exploitation and no

genuine human need require the use of it. In addition, he also argues that gold and silver, or any precious metal, has no inherent value. (Morus, 1989, pp. 78-81)

Another new concept of work is that everybody is a member of a big caring family each of us is working for the sake of the others and as such. More created the idea of brotherhood, that underlay the future reform movements. As a side note, it should be admitted that More not only accepts slavery but also considers it essential for an ideal state. (Medveczky, 1887, pp. 113-157)

It is not within the scope of the dissertation to discuss the issues arising from the debate of private versus collective ownership rights (is it communistic or not; is capitalism good? etc). However, one important point has to be made, which was also pointed out by More himself. If everybody receives their portion from the common goods, based on the work of others and not on their own merit or contribution, it might cause the complete loss of motivation to work. (Morus, 1989, p. 52)

Despite all the weakness of More's Utopia in the eyes of a contemporary reader and its internal inconsistencies, the work nevertheless holds a position for its introduction of great new concepts. For us, the single most important one is solidarity. No society can survive without solidarity and no ethics can be defined without solidarity.

Solidarity as one of the major element of ethics can be seen in the works of all of the schools of thought under discussion. Without solidarity, the word morality has no meaning, beyond its possible interpretation as the Kantian idea of the inherently good. Solidarity might be the concept, which binds together words like free and rational with scarcity.

I.1.6. Defining Ethics

The deontological approach has much to recommend it. Analyzing an ethical dilemma takes on a much narrower focus than when, for example, it is approached teleologically, and as such (despite the appealing nature of the hedonistic calculus)

it is probably more applicable for our purpose. The “only” real question arising is: Which actions are inherently good? Instead of engaging in complex projections of the primary and secondary consequences of some act, we focus simply on the deed itself. Does it respect the basic human rights of everyone involved? Does it avoid deception, coercion, and manipulation? Does it treat people equally and fairly?

Herewith below, an operative definition of ethics, or less ambitiously a guideline for the purpose of our analysis, will be developed.

As the earlier discussion of the most relevant moral philosophical concepts has shown, no single definition exists to cover all aspects of life uniformly. As such, it can be also singled out in economics or more specifically in the narrower field of finance that our definition will satisfy all the requirements of each case and each observer. However, the definition to be presented below is not merely a good starting point to begin to think about ethics, but also a code of conduct for economists on how to behave, or even more importantly how to target or shape their thinking and their economic models.

Definition of Ethics for Economics: The actions of rational and free human actors in relation to other people, as a function of solidarity and scarcity of goods and time.

Rational: No moral philosophical concept can be applied to individuals or any actors who are not rational and not able to comprehend *a priori* the assumptions, the conditions, the environment, or interactions under which the action takes place and the possible consequences of the actions. The concept – *a priori* - is essential, as life is dynamic, we humans are unable to foresee the future, and to know with certainty the actual consequences of any action is not only no condition for rationality but is simply impossible.

Despite all the doubts directed towards human rationality, it is not an overly extreme assumption to assume that humans, who would like to be labeled as ethical agents, need to be rational. Even more, our concept of economics requires us to assume the existence of rational actors, otherwise the present definition could not be applied for the purpose of understanding and describing ethical

concepts in economics and finance. In addition, no consequences of actions can be assigned to irrational agents or agents, which act without appropriate evaluation of the given action. The irrationality does not exempt anybody from the consequences of their action, but it makes it impossible to define them as those acting with a moral duty.

Free: To be rational is not a sufficient condition to be able to act according to categorical imperatives. In order to act genuinely from a moral obligation, the actor must be able to make a decision individually and completely absent from any force or coercion. Rationality is a prerequisite in not being coerced by our own internal concepts and misperceptions in the process. In the event of obeying any external force, the concept of ethics simply loses its relevance, as rationality is not a valid condition anymore – we do what we are told – and the consequences of the actions are not a function of solidarity and scarcity. Nevertheless, any interpretation of individual freedom has to recognize that it is a moral duty by itself.

Solidarity: Cooperation, compassion with others, and responsibilities for the sake of the group form the most important factors which make a community and society. Without solidarity, simply no meaning to talk about ethics and as such this concept might be labeled as the most important factor when we defining moral philosophy. Being free and rational might lead to a desired result, yet it is solidarity that makes a group of people a community independently of culture and time. In addition, this is the factor that fully integrates the much-neglected or mistreated human factor of the emotions into science. No matter how much social sciences may strive to exclude emotions from their models and instruments, emotions continue to exist, as we are humans. Without personal responsibility, compassion is an empty word and cooperation cannot exist. Responsibility for our work, position, or office, regardless of whether it is public or private, is essentially provision of the assurance that we individuals are part of a larger group, society and human kind and exercising solidarity.

Given that the above Definition of Ethics was primarily made for the interpretation of relevant actions within Economics, it is instrumental to define, what we understand under the term minimal solidarity. Despite different ideologies, schools of thoughts, movements, even liberal economics could agree that the minimal solidarity is to provide for each and every human being the most basic shelter, the minimally required clean water, basic nutrition, and basic personal hygiene. The level of minimal solidarity means only the very basic human requirements to be satisfied in order to claim that humanity as a general concept exists. It does not mean that communities should not provide more for their members or individually, the minimally provided services would lead to a happy and satisfied life. Furthermore, the concept of minimal solidarity probably would pass a cost-benefit analysis and result in a higher satisfaction of the society regarding the actual level of resources.

Scarcity of goods and time: No economic model or concept related to the economic sciences can neglect the fact that essentially economic sciences are the study of distribution of scarce goods. Even the most abundant, reproducing economic factors are scarce if we include time in our equation. If we want an operative definition of ethics for economics and finance, we have to include the quantitative and time factor represented by the scarcity of goods. Without scarce goods, there no reason to talk about ethics as no one can have an excess or deprivation of certain goods. For humans, time is not without limit, neither for the individual nor for the human species generally. Especially, it is not limitless, in the case of certain decisions that must be made with urgency but with long-lasting effects, where most likely substantial moral implications can be found.

1.2. Hypotheses

In order to determine the framework and limit the scope of an otherwise broad topic, it is instrumental to formulate the most important hypotheses to be discussed within the present work.

- *In comparison to other industries, due to its relatively transparent and specifically regulated operations, financial industry generally can be regarded as morally sound according the common interpretation of Ethics.*
- *People have to sacrifice their ethical beliefs if they want to invest successfully, or the return on investment will inevitably be lower than traditional investment due to ethical restrictions in the selection process, as suggested by mainstream economic and investment literature.*
- *Financial institutions generally satisfy the operative definition of ethics defined and elaborated within the framework of the present dissertation.*

The hypotheses listed here form a summary the most important concepts to be discussed in the current dissertation.

The following chapters will briefly introduce the successive concepts: Ethical Banking, Socially Responsible Investment, Islamic Finances, a statistical analysis of returns of different type of Asset Managers and the concluding chapter where, the above hypotheses going to be revisited.

At the very end, we will return to the discussion of the above-formulated fundamental questions and the arguments in relation to the definition of ethics, whether to reject or accept them.

II. MORAL INDUCED BANKING

What is ethics in finance? Do ethics really exist in finance? Are there socially responsible investments? Given the philosophical, social and moral context, the individual differences of how morality is defined – the general complexity of the question – the length of a dissertation chapter is not sufficient to discuss all the relevant aspects. Nevertheless, this section should try to introduce in brief the

concept of ethical banking and to show the major pros and cons. There are two questions, which should be answered if we discuss the issue within the economic context:

- Why are banks, and of course their depositors and shareholders, willing to sacrifice their profit for the “greater” good of the society?

- How much profit are they willing to sacrifice?

These two questions are essentially the same for all ethical finances, including but not exclusive only in case of Ethical Banking, Socially Responsible Investment, or Fair and Just Taxation. Following the discussion of the concept of ethical banking, the section will introduce three financial institutions that have been established and operate solely on their predetermined ethical standards. Within the same context, the next chapter will discuss socially responsible investments and – as this sector is the most transparent and developed niche of the field of ethical finances – several research and their conclusions will be examined. At the same time, the above-mentioned “sacrificed” profit and risks involved are going to be presented in the section.

II.1. Ethical banks - a new beginning or just a marketing tool?

The cooperative movement, which started at the beginning of the 1900s, is an example of how essential needs can be fulfilled through forms of collaboration and mutuality in membership organizations. According to the proponents of contemporary forms of cooperation, beyond focusing on simple membership needs such as the fair trade and microfinance movements, the idea of combining economic and social value forms a major step forward in the understanding and practice of fraternity and solidarity in a global economical context. Both the cooperative movement and the social movements from the 1960s developed a practice of ethical banking. At present, the earlier cooperative banks and the new

social banks co-exist, while most of the mainstream banks are realizing the business opportunities in this sector. Microfinance institutions focus their efforts in parts of the world where large institutions have neither the intention nor the capacity to provide services but where there is a high need for poverty alleviation (Clerck, 2009). Furthermore, the recent economic and financial turmoil, the withdrawal of large financial institutions from several banking services, and shifting public sentiment provides new opportunities for ethically driven financial institutions.

An ethical bank is a financial institution concerned with the social and environmental impacts of its activities, both on the operational level and, even more importantly, in its banking activity such as lending. Such specialized institutions provide direct finance through lending and risk capital to fulfill the financial needs of selected entrepreneurs, organizations, and businesses. This situation represents a major change in requirements for the banks, as even now banks that operate on the classical paradigm are extensively restricted by institution or industry specific ethical codes. For example, most of the western banks are not only exclude crime-related businesses like drug or trafficking, but explicitly stating that they operate under non-armament policies, or they do not finance clients that intentionally damage nature. The appearance and development of ethical banks require even more from the complete financial sector than the recent self-imposed restrictions. Banks, according the new ethical movement, are required by their owners and depositors to undertake *active* management of assets, selection of borrowers and determination of investments. In this sense, financial institutions are part of a social change or even part of a paradigm shift toward a more socially and environmentally responsible and activist society. In addition, recently there has been a general distrust towards the banking industry, which also provides opportunity for institutions with an ethical image. These financial intermediaries are willing to accept a lower income or margin during the pursuance of their goals to a more ethical world.

One of the major arguments against ethical banking and against the set of ethical principles is that by imposing such values on their customers, the institutions

would interfere in the business activity of borrowers (Jeucken M. H., 2002). In extreme cases, this interference can lead to a serious deterioration of business opportunities and a substantial decrease of income of the given borrower, which would make them ineligible for any funding from a bank. Apart from the bottom line of profit, this aspect is probably the most important issue within the segment and it can represent a catch-22.

Despite the weight of traditional economic thinking, which places profit at the center of every economic entity, there is an ever-growing demand for these specialized economic entities. Either they represent a genuine shift of paradigm, or they merely indicate that not everything could be expressed by numbers (not even by profit number) as to why the phenomenon exists and growing. It will be shown later that even the recent economic crisis, although it has slowed their growth, did not manage to obliterate them.

The supporters of ethical banking strongly claim that given the intermediary role of the banking system for the transferring of savings into loans and thus investments, it is essential that financial institutions follow the guidelines set for an increase in social good and sustainability by decreasing information asymmetry (Jeucken M. H., 2002). Banks have developed state-of-the-art credit approval systems, which provide a vast array of information - including client- or industry-specific knowledge, expectations et cetera (Jeucken, Bouma, & Jaap, 1999). Banks employ well-educated staff to assess and measure risk, and the latest IT systems to incorporate data. The question arising here is the same again as earlier: despite all of their investments into IT, educated employees and well-designed process, banks are very much cost-conscious and profit-oriented organizations, and the incorporation of a new set of investment selection criteria will just increase their cost and decrease their profit. In addition, it may be true that the earlier mentioned information asymmetry might decrease, but we must still assume that the customers/investors know best regarding their own business and economic environment. To increase the unit of information for each individual client will disproportionately increase the marginal cost of information: though essentially

outside the topic of the chapter, there is a sense in which the whole idea puts into question the concept of division of labor.

There are plenty of possible solutions of how banks should influence their environment through their activity, for example:

- by raising interest rates or applying tariffs on loans given to clients with high environmental risks (Jeucken, Bouma, & Jaap, 1999);
- by creating different screens to promote socially/environmentally responsible companies and to penalize non-conforming ones;
- governmental regulation should enforce that banks follow socially accepted morals and ethics; or off-set programs (which in any event tend to appear as marketing or PR campaigns);
- promotion of environmental friendliness (though some claims it to be 'greenwashing'); or triple bottom line analysis²

Nevertheless, all of these partial elements are merely the components of a larger equation, and requiring banks to apply and rely on an ad-hoc solution might cause more problems and damages than good. (Jeucken M. H., 2002)

Without any doubt, there are certain areas within the financial companies where complying with the new social ethical requirements can be achieved without much problem. Procedures of fair employment, designing environmentally friendly internal processes, decreasing air miles by the use of modern technology, decreasing use of paper can be all done with relatively small investment. However, these issues are the same for all businesses in each industry, independent of the given area of productions. Financial institutions, it must be said, do not represent a different group of organizations.

²Single bottom line analysis considers only financial performance, while triple bottom line analysis is an analysis that considers environmental, social, and financial performance.

II.2. Typology of Ethical Banks

This section introduces and briefly discusses the most important types of the ethical financial institutions: cooperative banks or credit unions, social and development banks, microfinance institutions.

Cooperative banks and credit unions hold a clear advantage in local community involvement, as do other financial institutions such as classical financial intermediaries. However, community involvement is not the exclusive right of ethical banks alone, as conventional banks are also involved in such activities. At the beginning of the movement, cooperative banks and credit unions substantially contributed to the financing of their members as their main purpose.

When commercial banks started to offer banking services on a broader scale, many cooperative banks as well expanded their services and as a result reduced or lost their original special mission. As a reaction to the recent wave of ethical finance, many of these institutions have recently rediscovered their heritage and are trying to return to their original activities. There is also an effort to rebuild a specific brand identity or even a niche in a financial world where there is relatively little differentiation. In many cases, these financial institutions manage to succeed in combining traditional banking activity with special attention to predetermined areas such as community development, the non-profit sector and/or environmental issues.^{3, 4}

Credit unions are a special type of financial institutions, which offer many of the same services as banks (e.g. investment opportunities, commercial and business loans, checking & savings accounts, etc.), but as a major difference they are

³Examples of such banks include Rabobank in The Netherlands (having a major green fund), Vancity in Canada (giving low-income and marginalized members access to necessary financial services), Cooperative Bank in the United Kingdom (taking a stand against the finance of armaments), and Crédit Coopératif in France (developing solidarity products).

⁴The following are a few examples of community involvement performed by ethical banks, credit unions, and also by conventional banks: Many banks/credit unions try to increase financial literacy in the community; give local scholarships & sponsorships; or financially support the community.

member-owned rather than shareholder-owned. Members usually have equal votes, which gives each member, independently of its proportion of investment, more influence in the decision-making process. When a credit union has a surplus, the profits made will either be invested locally into the community or will be returned to the members. Usually, credit unions pay more attention to their local community than classical financial intermediaries do. For example, many credit unions restrict their lending activity to people and businesses within the community where the union is located, implying that credit unions to affect communities much more than large, region or nationwide banks do.

Social or development banking has been formed since the end of the Second World War, and even recently many new banks are still being established. The main motive behind their development is arising from the recognition of social and human developmental needs, especially at present from worries about the deterioration of the global environment. Their mission is not a mutual aid process simply among members but an interest towards the needs of other human beings in their local or in a global context. Growth “only by numbers” is not an exclusive target and the goal of financial profitability is simply a condition for further progress. In many instances, these financial institutions are connected to non-governmental organizations such as Amnesty International or Greenpeace, just to name the most well-known ones. (Clerck, 2009)

Despite their differences and their variety in size, main purpose (social, environmental), products-instruments, and stage of development, all of these institutions have ethical development elements at their mission and practices. They offer specially designed products and services to their respective target markets. While a few have failed, the majority of them have found their way of survival, although probably all have different models of operating, and at the same time being fully compliant with the general banking regulations⁵. Furthermore,

⁵A short list of successful ethically driven institutions that have a banking statute are:

- Shore Bank, (1973), USA
- GLS Bank, (1974), Germany
- Triodos Bank, (1980), The Netherlands with branches in Belgium, United Kingdom, Spain and Germany
- Freie Gemeinschaftsbank in der Schweiz, (1984), Switzerland
- Merkur Bank, (1985), Denmark

most of them not only survived the recent financial crisis, which wiped out much larger classical banks, but even were able to provide an alternative market niche to deposit or invest money. On the other side, they have proved their effectiveness in supporting business in their business target groups during financial hardship and thus not only contributed to the recovery of the economy but also proved the importance of cooperation.

These banks are quite different as to the volume of their operations – balance sheet totals vary from EUR 30 million to several billions, and their financing capacity from EUR 50,000 to EUR 25 million per project. (Clerck, 2009) In aggregate, they are currently funding tens of thousands of projects with special social purpose. Being still relatively small, these financial institutions have the potential to reach substantial growth rates. Due to their staff-friendly employment policies and efficient internal procedures, they offer more and more competition for traditional banks on the labor market. In addition, given their comparative advantage of identifying and managing ethical borrowers and investors, they might be able to create their own specific niche where other types of financial institution will not be able to enter. They definitely have the potential for further development and for a patient and socially responsible investor they provide a good investment value. (Clerck, 2009)

Microfinance banking is a methodology of banking for people who otherwise would never qualify to receive credit or who are without any access to finance. This methodology is designed to help to fight systematic poverty in a country or region

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- Wainwright Bank and Trust Co, (1987), USA
 - Alternative Bank Schweiz, (1990), Switzerland
 - Cultura Sparebank, (1997), Norway
 - Ekobanken, (1998), Sweden
 - Banca Popolare Etica, (1998), Italy
 - Charity Bank, (2002), United Kingdom.
 - ASN Bank (1960), The Netherlands
 - Caisse d'Économie solidaire Desjardins (1971), Canada
 - Unity Trust Bank (1984), United Kingdom.
 - Health and social economy – Bank für Sozialwirtschaft, created in 1923 on behalf of the UN High Commissioner for Refugees and originally serving as the central administration for UN funding in Germany
 - Environment – Umweltbank (1995) in Germany, and the New Resource Bank (2006) in the USA (Clerck, 2009)

through micro crediting, through which income generating activities can be initiated and managed by the poor people themselves.⁶

In 2007, there were approximately 10,000 microfinance institutions worldwide. (Clerck, 2009) Apart from their contribution to the economic development of millions of poor entrepreneurs, their families, and their communities, they often provide basic education and methods of community building. Some of these institutions have the potential to develop into full-scale social banks.⁷

Financing poor people's entrepreneurship requires different methods (selection, credit decision, monitoring) compared to traditional banking as a result of the different social structures. As long as microfinance institutions are able to integrate basic ethical values, going beyond the mission of fighting poverty and are able to connect local savings to local borrowing and continue to get the support from development money, they have the potential for high-quality development. (Clerck, 2009)

One characteristic feature of such microcredit institutions is that a group-based credit and risk management process is applied, which uses the internal and inherent relationship within the local community to follow the borrowers and to pressure them to be disciplined in order to repay the loans. This approach also allows clients otherwise not eligible for credit to build a good credit history. In case of Grameen Bank, one of the particular aspects of the credit program is that almost 100 percent of its borrowers are women. (Grameen Bank, 2012)

Islamic banking is considered to be financial activity consistent with the regulation and essence of Islamic law a.k.a. *Sharia*. In addition, it is obliged through its practice and process to contribute to the development of Islamic economics. *Sharia*

⁶Although this methodology is not new, nor is it comparable to the movement that was launched in Germany by Friedrich Wilhelm Raiffeisen at the end of the 19th Century (and later developed by credit unions), microfinance in its present form received a tremendous boost from the Grameen approach in Bangladesh, designed by the 2006 Nobel Prize winner Professor Muhammad Yunus (de Clerck, 2009).

⁷The most successful examples of microfinance: Oikocredit, launched in 1975 by the World Council of Churches, the Triodos Microfinance Funds (1994 and 2002), Shore Bank and Shorecap International (1988 and 2003), Grameen Bank, Brac Bank (Bangladesh and Afghanistan), Basix (India), Acleda Bank (Cambodia), Mibanco (Peru), Findesa (Nicaragua), Compartamos (Mexico), Equity Bank and K-Rep Bank (Kenya) and Centenary Bank (Uganda). (Clerck, 2009)

strictly forbids the use of certain interest, specifically *riba*, to be charged on credit given for the use of money. To provide loans or invest into any economic activity, which are not fully in line with Islamic values and/or unlawful is forbidden too and it is called the *Haraam*. (Ligeti, 2007)

The strictness of using the Islamic regulation and the ways of interpreting these principles, vary greatly across time and according to each society. In this section, shortly a relatively new phenomenon⁸, the so-called Islamic Banking will be discussed briefly, concentrating mainly on the most important assumptions and solutions. The term Islamic Banking covers not only classical banking activity conducted according to Sharia but also specific investment and leasing activity. Additionally, the example of Islamic banking supports our earlier argument that ethical banking and socially responsible investment are essentially the same. The main reason why Islamic banking is included in this section is not just because of the popular label for the activity but also because it is a very strong ethical movement clearly trying to set up a banking and investment practice based on strict guidelines and influencing the society and their future. The Islamic banking movement is also interesting from another aspect: it clearly incorporates certain principles which are gaining popularity in the wake of the recent crisis and the sentiment against financial institutions in the western world, despite the notion that these concepts are considered anti-modern. For mainstream economic literature, the products and procedures of Islamic finances appear counter-intuitive and clearly struggle to demonstrate a proper and Sharia compliant processes, which are not just ad-hoc circumventions of the regulations. Therefore, Islamic financial development can provide examples of innovative solutions for other conventional institutions and societies with different principles and ethical requirements. It can be also regarded as a laboratory, though we also have to keep in mind that it represents an attempt to solve the question of an ethical system

⁸ Only at the end of the 20th century did specific Islamic financial Institutions appear in the banking world, 25 years ago they were basically unknown. At present they are operating in 68 different countries, in certain Muslim countries exclusively, while they can be found even in countries like USA, Canada or Great Britain etc. (Ligeti, 2007)

followed by a large and ever-growing portion of the world population⁹, and it exist for the same reason as its western counterpart: to make money for its depositors and investors.

One of the major implications of Islamic principles in Sharia and in Islamic banking is that to receive excess compensation or value without service or goods provided is forbidden, a violation known as Riba. (Ligeti, 2007) It also includes one of the most important concepts of contemporary western banking – time value of money – as it does not consider it a valid argument to charge interest. In some contexts, Riba can be translated as usury, though however according modern Islamic interpretation it is allowed in certain cases¹⁰.

Due to the rules of Riba, Islamic banking had to work out several solutions in order to manage the deposits and capital of interested parties. These techniques are called *Fiqh al-Muamalat* and a few of the selected transactions are the following:

- Profit sharing or *Mudharab* is a partnership in between at least two parties. One of the parties finances while the other one is managing the enterprise. In this form, the financing party has no right to interfere in the activity of the enterprise. The profit- and loss-sharing model is predetermined and independent from the portion of the financial asset provided.
- Joint venture or *Musharaka*, is the other type of partnership in which all contractual parties are involved in the management of the enterprise and the entrepreneur forms part of the financing model and invests his own money. This is a typical solution for corporate financing, working capital, or direct investment.

⁹ The world's Muslim population is expected to increase by about 35% in the next 20 years, rising from 1.6 billion in 2010 to 2.2 billion by 2030, according to new population projections by the Pew Research Center's Forum on Religion & Public Life. (Pew Reserch Center, 27 January 2011)

¹⁰ The interpretation of usury is not universally the same in the Islamic world. There are arguments for an interpretative differentiation between usury, or consumption lending, and interest, or financing commercial activity. In addition, according to certain .Muslim jurists, compensation for inflation is not forbidden. (Ligeti, 2007)

- Cost plus mark-up or *Murabahah*, in which the bank purchases the given good or asset for the customer and a margin is calculated over the costs – the mark-up. The difference in between the mark-up and the interest is that the mark-up is independent from the maturity of the transaction, and is determined by the type of transaction. This method is mainly used in export-import transactions and working capital financing.
- Leasing or *Ijar*, which is basically equal with the classical meaning of leasing; interestingly, in financial leasing Islamic law allows interest as the basic of transaction, as is not lending money but providing an instrument. (Ligeti, 2007)

As another major difference compared to traditional banking in Islamic finances, based on the explicit ban by the Quran, no derivative contracts are allowed, due to the regulation that neither contracts that include an uncertain pre-agreed future event (*Maysir*) nor speculative contracts (*Gharar*) are allowed. According to Shariah, both concepts are simply increasing risk by encouraging improper behavior. Interestingly, it can be noted that, in complete opposition to the above-mentioned ban, in 2010 the Bahrain-based International Islamic Financial Market and International Swaps and Derivatives Association, set the international legal standards for Islamic derivative contracts in a so-called “Hedging Master Agreement” to trade instruments like profit-rate and currency swaps. (ISDA, March 1st 2010) In 27th of March ISDA and IIFM launched the Profit Rate Swap Product Standard. (ISDA, March 27. 2012) The solution for the above-mentioned inconsistency might lie in the different interpretation of the Quran and Sharia. According to some interpretations, a few types of minor risk are permissible or Halal, while non-minor risks are forbidden or Haram. What constitutes a negligible risk and what cannot be considered as an acceptable risk is, evidently, a question still unsolved. However, this interpretation problem shows probably the greatest difficulty in Islamic banking, as operations allowing economies of scale are not possible under such circumstances and they do not promote a stable economic and more importantly legal environment essential for business.

Any Islamic financial institution that would like to use the label and provide banking services in this segment must create a so-called Shariah Supervisory Board (SSB). It is the role of the SSB to counsel the bank and to safeguard the management of the institution so that it complies with the regulations of Shariah. Here, it is necessary to mention that, due to the different interpretation of Sharia and Islamic principles in general, many Islamic authorities believe that no solution of banking and investment whatsoever can comply with Sharia as it will always involve some form of interest. (Ligeti, 2007)

In total, Islamic finance assets are approximately USD 1 Trillion globally, which is still an insignificant sum in relation to traditional finance with its tens of trillions of dollars. The Islamic bonds market is estimated around USD 50 Billion, which is 1 percent of global bond issuance. However, Islamic finance has significant growth potential, as it is expanding at a compound annual growth rate of 20 percent in the past three years, while conventional finance has grown by only 9 percent. Deutsche Bank, a representative of traditional banking, estimated that Islamic finance would almost double to \$1.8 trillion in assets by 2016. (Pasha, 2011)

Islamic values-based asset management is a very rapidly growing field, not just within the Islamic financial system but also among the global financial systems. There are around 100 Islamic equity funds worldwide. The total assets managed in the Islamic funds are in excess of USD 58 Billion and although it is still negligible by relative value compared to other traditional funds, it translates to a growth of 10–15 percent per annum. As interest into these funds does not show the signs of slowing down, further growth is expected. The growing importance of the segment is proven by that fact that conventional bank and investment houses are also considering entry, or have already entered into the market. (Gulf Daily News, 2012) Islamic asset management companies have to fulfill also strict requirements in their investment selection process and have to keep a Sharia Board.¹¹ In 1999,

¹¹ Islamic Funds are not allowed to invest into any product or company producing products that are against Muslim values (E.g.: pork processing companies, pornography, gambling, etc.) and also a filtering criteria is used for companies which are charging interest or they have excessively high rate of debt. (Ligeti, 2007)

Dow Jones also created its equity benchmark Islamic Market Index and FTSE has started its Global Islamic Index Series. (Ligeti, 2007)

However, there is one rather substantial difficulty with further growth, which might be even an inevitable outcome of the extensive utilization of these innovations of Islamic banking and investment fund industry. Due to the compliance with the underlying principles, the services mainly focus on the products itself and not on the needs of the customers. As an additional problem, arising from the sociological structure of Muslim countries, within the 1.3 billion Muslim communities, the target audience for Asset Management products is less than 5 percent or 6.5 million people globally. “Mass affluent” clients are individuals with an available of USD 50,000 to USD 500,000 to invest, while “high net worth individuals” are those having USD 1 million or more to invest. Given the above conditions, many of the financial institutions target affluent or wealthy clients in the range of USD 50 thousand to USD 1 million. As a result, they are not able and they do not want to serve a large portion of the Muslim community, which has drawn skepticism about their role in the Islamic communities. For the further development and spread of Islamic Financial institutions, the industry has to address the above-mentioned problems. (Ahmad, January 2010)

In line with current global development of microfinance, Islamic financial institutions are able to find their interest and that of their customers, and at the same time create new hybrid products to avoid the use of interest and thus to comply with Sharia regulation. In addition, microfinance is absolutely in line with the relevant principles of Islamic Banking, according to which any financial activity has to support the development of the overall economy. In addition, microfinance can generally improve the life of the lower social classes and provide opportunities to create work opportunities and to decrease social tensions and enhance security. It is also an instrument to address the image problem mentioned earlier in the section in relation to targeting mainly individuals of high net worth. Already, several microfinance institutions (MFIs) such as FINCA Afghanistan has introduced Islamic-compliant financial instruments that accommodate Sharia criteria. (Finca, October 4th 2012)

II.3. Specific examples of ethical banking institutions

GLS Bank in Germany, constituted in 1974, were the first to concentrate on the qualities of loaned money to stimulate human interest in the most productive seed capital. As the first social and ecological bank in Germany, the *GLS Bank* also focused on the capacity to buildup the force of bringing savers and borrowers, consumers, and entrepreneurs together for investment, for example in organic agriculture, school education and care for handicapped people. *GLS* sees banking as a continuous and conscious process of directing the money flow to where it is needed in the perspective of societal and human development. Individual responsibility and care for other human beings are seen as core drivers of these processes. Community building through participation in these processes is stimulated through the creation of borrowing and guarantor communities, dedicated savings instruments, and a choice for clients of the bank to determine the extent of interest rates on their deposits for themselves. This ethical approach to banking has been an inspiration for many of the European social banks, which have gradually developed over the last few decades.

As of 31 December 2011 the total balance sheet of *GLS Bank* was 2,262 million EUR, which is an increase of 22,5 percent compared to 2010. The bank currently finances around 17,480 projects and the bank has more than 24.593 (as of May 14th2012) cooperative members.

The *GLS Bank* offers its savers the usual range of financial products:

- Current Accounts
- *GLS* Savings Accounts
- *GLS* Savings Certificates
- Investment funds
- Bank Membership

However, the major difference of GLS Bank from traditional banks and other similar ethically oriented institutions, is not just that the GLS manages their savers' money responsibly, but also that depositors of GLS have the possibility of choosing the area where they would like their to be invested. (GLS Bank, 2012)

Banca Popolare Etica a modern and hybrid version of credit unions and ethical financial institutions, built on the best Italian tradition of local community banking (popolare). *Banca Etica* has the legal form of a popular banking institute which, according to Italian law, allows it to operate on a national level, in full respect of its co-operative and solidarity intents. This legal frame guarantees a high level of participation in the bank's share capital, which means a high number of shareholders composing the share capital, and as the shareholders reside all over the country there emerges an important network of contacts across the entire territory. In addition, this structure provides the base for a democratic decision-making process. Banks with this legal frame are characterized by the principle of what is known as "shareholder supremacy": when voting, all shareholders have the same power, regardless of the number of shares owned, according to the principle 'one subject, one vote'.

The Banca Etica has 60 local groups, which aim to achieve the following main targets:

- to promote public awareness of ethical management of savings;
- to create a stronger bond between individual members and the bank, thus promoting the idea that human relationships are one of the most important values;
- to facilitate the active participation of shareholders in the decision-making process by stimulating the circulation of ideas, proposals, debates and dialogue;
- to create a network through which the bank acquires important real links across the entire territory;
- to guarantee the promotion of *Banca Etica* at local and personal levels;
- to regularly verify whether *Banca Etica's* activities meet the public consent;

- above and beyond the traditional economic evaluation procedures, the projects to be financed undergo an evaluation aimed at analyzing the consequences of the projects on the common welfare and the natural environment. In this respect, *Banca Etica* carries out a thorough analysis of social and environmental responsibility;
- to grant financing, *Banca Etica* gives primary importance to the following aspects: (i) the reliability of the project, which undergoes a thorough economic and practical feasibility analysis, and (ii) the relation of personal trust between the Bank's personnel and those who represent the organization requesting the financing.¹² (Banca Etica, 2011)

The Grameen Bank is one of the first modern microfinance organizations and a community development bank that originated in 1983 in Bangladesh. Grameen Bank was founded by Professor Muhammad Yunus, University of Chittagong. He believed that traditional charity is not an answer to poverty as it does not encourage initiatives and does not promote independence but increases dependence. His original idea was developed in 1974 during a famine, to provide a very small amount of loans (USD 27.00) to a limited number of rural families, in order to give them the possibility to manufacture items for sale.

At present, Grameen Bank has more than 2400 branches, with 94 percent of the total equity owned by the borrowers, while the rest is owned by the Government of Bangladesh.

In addition to their local presence, microfinance organizations with a similar concept, varying according to the local requirements, have been set up in other impoverished regions of the world.

The Grameen business model includes such solutions as the group-lending system, interest rates on loans that are higher than its traditional competitors (app. 20%), weekly-installment payment of relatively long-term loans with a target group of

¹²According to the website of the Bank, its share capital (31/08/2010) was 29,842,000 euro. It had 34,295 members, 29,178 individuals and 5,117 organizations. The amount of deposits were EUR 644,824,000, while loans were at the level of 600,448,000 euro.

women as borrowers. Women are targeted since they are, despite their even lesser income and access to regular credit than their male counterparts, generally the decision-makers in their families and local communities. No written contracts are used, which is probably also due to the high illiteracy among the borrowers. Another technique applied is solidarity lending, since although all borrower must belong to a five-member group, no mutual guarantee or joint liability is required by its members. Each member has an individual repayment responsibility, with the bank, and other group members merely supervising to avoid irresponsible acts.

Solidarity lending is one of the most ambivalent features of the microcredit institutions as in practice the group members have to substitute the defaulted amount with the hope of collecting it later from the particular member. The bank does not extend any further credit to a group with a member in default.

Since its inception, the bank has distributed app. USD 11.35 Billion in loans and USD 10.11 Billion has been repaid. (Grameen Bank, 2012)

III. SOCIALLY RESPONSIBLE INVESTMENTS

In investment analysis, several approaches are used for evaluating business potential; therefore providing a general definition of socially responsible investments is difficult but unavoidable. While to certain investors this type of investment means not investing into companies that manufacture certain products (for example cigarettes or alcohol), for other investors who also view themselves as socially responsible the same company may be acceptable.

One of the first fund management companies that created funds based on socially responsible aspects was the Pioneer Fund in 1928, which was followed by several similar funds in the next few years. These funds, which worked on an ethical basis of one of the – usually Catholic – religions, did not trade with stocks of such companies that manufactured tobacco or alcohol, though it is not necessary for

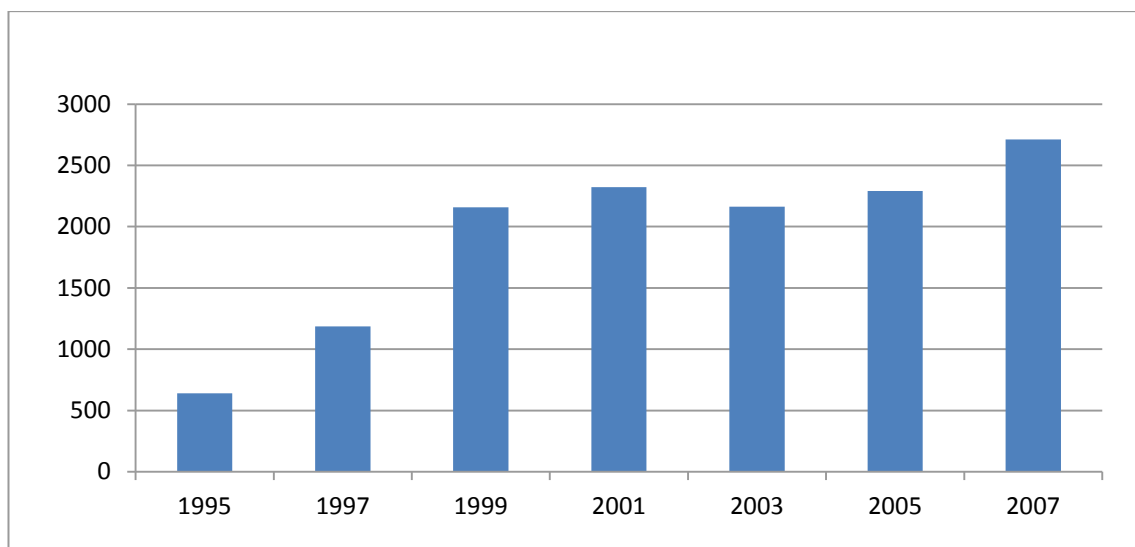
portfolio management companies investing on a religious basis to belong to a church or a religion. It must be said that the Pioneer funds were not too successful among investors. (Renneboog, Ter Horst, & Zhang, *Socially Responsible Investments: Institutional Aspects, Performance, and Investor Behavior*, 2008), and including aspects other than the religious ones contributed to the success of funds managed on an ethical basis. Since then, this market increased significantly, with at least two hundred fund management companies and six funds listed only in the US exist that make investment decisions based on, for example, environmental preservation or other socially useful criteria in every important fund management segment (money market, bond, equity, mixed, risk capital fund, etc.). In addition, a further research has concluded that CSR activity did not result, neither in positive nor negative, significant impact on market or shareholder value in the short run. However, the complexity of CSR activities has grown substantially and caused difficulties to measure its relative impact. (Karlsson & Chakarova, 2008)

The popularity of the socially responsible investments comes from the concept that most of the enterprises do not accept social responsibility, and therefore this investment analysis model is not only a new opportunity to make profit but also supports a new socially beneficial business model. (Schepers & Sethi, *Do Socially Responsible Funds Actually Deliver What They Promise?*, 2033)

III.1. The definition of socially responsible investments

Some data should be provided for illustration of the importance of the topic: the value of ethical retail – and more importantly institutional – portfolios managed by professional fund managers reached the amount of 2.7 trillion dollars in the United States in 2007, which is approximately 11 percent of the market. The same data in Europe was EUR 2.7 trillion, which is approximately 17 percent of the market. The whole asset management market converged to USD 25 trillion. (Zhang, 2009) (Moore, 2008)

The diagram clearly shows that the size of funds being invested on an ethical basis increased by 324 percent between 1995 and 2007, and so its dynamics exceeded the growth rate of the portfolios managed by conventional investment funds (260 percent). (Report on Socially Responsible Investing Trends in the United States, 2007) The significant difference for the ethical funds requires special attention even if we know that the assets under management have decreased since the global economic crisis in 2008, partly because of the effective money outflow, and partly because of the accounting methods (mark-to-market), but as of the time of writing, we do not have comprehensive data on the changes of two segments.



Source: Social Investment Forum Foundation

1. Figure Change of asset under management by socially responsible investment funds, 1995-2007

Socially responsible investments do not have a standardized and universally accepted definition. The lack of definition does not only make communication more difficult but it also makes possible participants in the economy consider their investments based only on their interests. Ethical and non-ethical activities could become separable in the portfolios of the companies and the investors only with the help of a precise definition that is accepted by the market participants. Today, it would be a reasonable expectation to be able to define the portfolio of an investment fund based on whether it is using socially responsible investment criteria or not (Lundberg, Novak, & Vikman, 2009). It is also necessary for strictly financial and investment criteria to have an accepted definition, in order to be able

to define the connection between risk and yield more accurately on a system level; if it is possible at all to measure yield (usefulness) at social level.

It is an important question to consider what is constituted as responsible behavior at a given age and in a given society; therefore the definition should avoid value-based approaches. In extreme cases, we might say that all criteria other than efficiency or financial analysis framework belong to the “socially responsible” category. This interpretation is too wide for achieving general acceptance, and therefore it has to contain criteria other than the non-financial analysis framework.

One of the widely accepted definitions for the activities of fund managements is the following:

- a fund management company/fund has to have a clearly stated socially responsible business policy, and a defined investment policy within this policy;
- the fund management company has to inform the market about the socially responsible business policy and this has to appear in writing;
- the fund has to use a so-called cut-off limit that maximizes the ratio of the doubtful investments to ten percent;
- the fund management company needs to have the appropriate systems (legal, technical, human resources) in order to be able to monitor their investments from a social/ethical point of view (Lundberg, Novak, & Vikman, 2009)

This definition gives the *minimum criteria of the ethical investments for institutional investors.*

At this point, we also have to discuss a relatively new concept, which appeared in parallel with Socially Responsible Investment. With the growth of the SRI segment, a counter-movement has developed as well. Such a reaction is a normal phenomenon when a relatively new concept becomes quickly a major factor within any spheres of life. The criticism expressed in the new anti-SRI movement might be

partially attributed to the fast progress of the SRI segment, but some critical issues are of real concern, as is discussed throughout the text.

Apart from the theoretical criticism, a materially appealing marketing idea appeared in the form of the so-called sin or vice investments, which is riding the wave of anti-SRI sentiment. In its own way, the concept also possesses a certain economic value, as many of the so-called anti-cyclical investment opportunities or instruments are among those that classified by SRI as "evil" products (e.g.: alcohol, tobacco, environmentally destructive companies etc.). Not only do individual investment opportunities exist in this vice investment sector, but already funds and indexes (VICEX) have been set up. (Earhart, 2006)

Only time will decide if these specific investment vehicles will stand the test of the market. These indexes usually concentrate on a short time period for quick gains. Definitely, an appropriate valuation of those legal, environmental, social risks of the given companies must be included. Later, in the 4thchapter, we will see when comparing the filtering components of SRI funds that proactive and restrictive approach are essentially the same. In addition, in the case of vice investments and funds, we see the same process in action, just based on opposing values. However, even this counter-reaction in the end proves the viability of both the SRI and the SRI business model. Any restriction in the available investment universe is essentially taking the role of the portfolio manager.

III.2. Selection process in practice

The above-mentioned investment funds make their investment decisions with the help of traditional economic criteria, usually in combination with the criteria described below. (O'Rourke, 2003). It must be emphasized that the process of investment analysis is equal to the traditional methodology that considers economic criteria.

- *Selection*

This is the screening phase where those investments and securities are selected based on some general criteria that comply with the socially responsible and/or environmental criteria advertised in the brochure of the fund.

- *Negative selection*

This is the oldest screening strategy. If negative selection is used, then the socially dangerous or polluting options are excluded from the available investment universe. During daily activities, it is done with the help of a list containing negative criteria (for example alcohol, tobacco, arms, pornography, nuclear weapons, legal gambling, child labor, exploitation and discrimination of employees, testing on animals, pharmaceuticals, meat processing industry, polluting industries and those who are financing them, etc.).

Certain fund management companies have to keep away from all those companies that are interested in any of the activities on the negative criteria list, while others use the above-mentioned 10 percent cut-off limit. However, fund management companies normally do not publish their exact screening criteria (Schepers, 2003). As the extent of the cut-off limit defines the range of investment possibilities, therefore decisions are made based on not only ethical but also financial criteria.

The *great advantage* of negative selection is its relative simplicity and cheapness. Both features (but especially the latter) are fundamental for the participants of investment funds as their profit depends on the costs of the fund.

The disadvantage of negative selections appears in case of outsourcing or large international companies, as it is almost impossible to keep track of the subcontractors and national companies – and especially their ethical norms and activities – in this global economic system. *An additional disadvantage* is that while tobacco companies are excluded, the companies in connection with them, the ones that are helping them to

access the market (logistics, retailers, marketing) are not excluded. (Renneboog, Ter Horst, & Zhang, Socially Responsible investments: Institutional Aspects, Performance, and Investor Behavior, 2008)

An even more significant problem may be that certain companies perform well according to the ethical criteria, but they fail at other criteria. In this case, a significant part of the funds apply the cut-off limit to the revenue of the companies, which in this case is also ten percent as a rule of thumb i.e. up to ten percent of the value of the fund can be invested into the given company. In the case of these criteria being used, the larger companies have more room for maneuvering, and therefore they become overrepresented compared to smaller companies. (Schepers, A Criticque of Social Investing's Diversity Measures, 2003)

- *Positive selection*

This approach originally was developed as the reverse of negative selection, as the investors started to concentrate on acceptance instead of exclusion. In this case, the *criteria* are defined but unlike negative selection, they usually contain *non-unique reasons for the cut-off*. For example: the activity of the given company does not violate the law; its activity is not polluting or if it does then it keeps emission at an internationally accepted level; it has signed the UN Global Conduct; or it manufactures and distributes technologies related to environmental protection only. (Schepers, A Criticque of Social Investing's Diversity Measures, 2003)

The important aspect in considering this approach is that investors should select those investments that are reliable, maintain activities that are appropriate for the aims of the fund, and they can prove and document it (their track record is adequate). Fund managers try to examine the selected companies fully, as the negative publicity of a possible bad selection may result in a worse rating.

The disadvantage of positive selection is that it considers relatively few criteria and these are known by most of the companies, which therefore could try to manipulate the visible features of their activities. This danger can be a reason for the investment funds to use the positive approaches together with other methods.

Governmental organizations often use positive selection because in this way, it is easier for them to find underfinanced subjects in such areas as mortgage lending or financing small businesses, areas that are not attractive enough for the traditional investors.

- *Best in class*

In this case, the best performers of a given industry are to be identified based on accepted criteria and compared to the other companies in the industry. The criteria might be diverse, for example: high production efficiency; environment-consciousness; social responsibility; research and development; the ratio of female managers compared to male managers; product security; protection of minorities. (O'Rourke, 2003)

This strategy seems to be an improved version of positive selection and its aim is to stimulate the companies to take social responsibility.

One of the biggest problems with this strategy is that the criteria are often hard to conceive, contain a significant level of subjectivity, require considerable quantities of information and – similarly to positive selection – give preference to larger companies as they comply better with the selection criteria: for example it is more likely to find employees of minorities in their middle or high management than in smaller companies. (Schepers & Sethi, Do Socially Responsible Funds Actually Deliver What They Promise?, 2033)

According to the opponents of the method, this criterion is nothing more than whitewash, used when investors want to justify an investment that does not comply with the criteria *accepted as ethical investment in the industry*. (Mackenzie, 2002)

- *Exiting*

In case of exiting the fund, manager want to sell certain elements of the portfolio that was compiled on ethical criteria, that is to say, it tries to liquidate its position in the company in which it invested but later found out that it does not comply with one of the screening criteria. One of the theorems of investment analysis is that it cannot be a problem to sell an investment because of the huge amount of opportunities. In reality, the investment universe is significantly smaller because of the strict screening criteria; it increases transaction costs and it also makes re-weighting of the fund harder. Because of the size of the funds, transaction costs emerge exponentially. The further cost increasing and the uncertainty factor make it hard to define the date of exiting in advance.

- *Active shareholder involvement*

Usually, an active shareholder does not participate solely as a financial investor in the direction of the company owned (even partly) by him. When examining ethical investments, the initial consideration is that the aim of active shareholder participation should be for the investment to be economically effective and create further social value as well. For creating value, the investors usually invest into companies that do not comply with the socially responsible criteria, and the investment funds as owners try to influence the management of the company, in the belief that the cooperation of the socially responsible, environment-conscious shareholders and the management will place the company on a socially more useful level. This cooperation can vary from common forums through voting at general meetings to the membership at the board of directors; through investing in third countries, matters of discrimination, marketing activity, to the allowance of the general manager, and matters of environmental protection. The aim of this process is not only to make the company economically profitable but also socially responsible at the same time. Approximately 30 percent of socially responsible investment funds in America operate with active owner participation. (Sandberg, 2008)

It is a fact, however, that the real ownership aspect appears relatively rarely (let us think about the information asymmetry between owners and management); therefore especially in the case of larger companies there is no shareholder control in actuality.

The total lack of investment screenings in funds that define themselves as active owners is a bigger problem, and this may seem a sort of an excuse for not fulfilling socially responsible criteria. Several research projects have been conducted on this field and evidence could be found that the active owner participation would change the behavior of the management. Schepers (2003) also thinks that active owner participation is an excuse, because usually the so-called ethical funds invest on the same conditions as the funds investing based on non-ethical criteria.

III.3. Performance of morally responsible investment funds

According to the supporters of socially responsible, environmentally conscious investments, the analyzing criteria presented previously throw light on such reasons for the economic performance of companies that are not necessarily conspicuous but influence them over the long term. Critics say, however, that every approach that limits the available investment universe will decrease yield or increase risk.

The Independent published the report of the British IMA (Investment Management Association), according to which the value of investment funds operating on an ethical basis and the value of traditional funds decreased by 16.7% and 12.3% respectively between July 1, 2008 and July 1, 2009. Out of the sixty socially responsible funds, the value of only three increased. (Griffin, 2009) These data fulfill both the risk-return expectation of economic textbooks (smaller investment universe, higher risk), and the logic that most of the companies that are anti-cyclical do not comply with the socially responsible investment criteria. Additionally, relating to the above explanation, the short-term yield is very likely

revalued when compared to social responsibility, and it can contribute to the relative higher loss of the ethically based investment funds. The anti-cyclicality of the socially responsible investment may come from the higher investment (for example establishing infrastructure) or operation costs, whereas at times of crisis maintaining basic needs and cheaper consumer goods come into focus. More details will be presented below in the works of a variety of researchers.

Most of the research has tried to measure and explain the results with the help of the investment funds and a selected market index or an artificially constructed benchmark (general market) portfolio. Most of the research concentrated on the markets of the United States of America, the United Kingdom, and Australia. One of the reasons behind this choice is that the market of the socially responsible investment fund management companies is most popular in these countries, and in general these countries have the most developed and most transparent financial markets. The methodologies used in most of the research differ significantly – which may also contribute to the different results. Some of the research projects, however, found statistically significant differences between the activities of the traditional and the socially responsible funds. (Benson, Brailsford, & Humphrey, 2006)

The main statements of the research can be summarized as follows:

- One of the *earliest research projects in England* (Luther & Matatko, 1994) examined 15 socially responsible funds selected on the basis of the definition of the Ethical Investment Research Service (including everything that was not using only financial analysis criteria) between 1984 and 1990. They did not examine the performance of traditional funds, and they only measured the performance of the funds compared to a so-called world index. Based on the monthly Sharpe ratio and Jensen's alpha, the result exceeded the benchmark index, but this difference was not significant. According to the opinion of the critics, the so-called small caps were overrepresented in the selected funds, nor did the selected period represent the market cycles appropriately. Additionally, the definition caused further problems, as religious funds could be placed into the group of the examined

funds that did not define themselves as socially responsible, and this exclusion could distort the results. (Schepers & Sethi, Do Socially Responsible Funds Actually Deliver What They Promise?, 2033)

- Another research project (Mallin, Saadouni, & Briston, 1995) that compared the performance of *English traditional and socially responsible funds* considered the funds that were using either the positive or the negative portfolio selection method to be socially responsible. According to the results of the research, both the traditional and the socially responsible funds performed worse than the market in all ratios (Treynor ratio, Jensen's alpha and Sharpe ratio)¹³, but the responsible funds performed better than the traditional ones. Mainly, criticisms focused on the process of selection, as the researchers did not publish at all what methodology was used by each fund.
- At an even earlier date, the author (Statman, 2000) of an article published in *The Financial Analyst Journal* in May-June 2000 experienced in the case of *31 funds* selected based on *socially responsible* criteria that their yield exceeded the yield of the funds selected based on traditional investment analysis. It is, however, true that the difference in performance was statistically negligible. It can be stated, based on the analysis, that the performance of the socially responsible, environmental-conscious funds does not differ from the other traditional funds, and therefore investing in them does not necessarily mean a lower yield.
- The research based on the *Fama-French-Carhart benchmark model* (Renneboog, Ter Horst, & Zhang, *The Price of Ethics and Stakeholder Governance: The Performance of Socially Responsible Mutual Funds*, 2008) came to the conclusion that the ethical funds underperformed in all indexes,

¹³The *Sharpe ratio* is a measure of the excess return (or Risk Premium) per unit of risk in an investment asset or a trading strategy.

The *Jensen's alpha* is used to determine the abnormal return of a security or portfolio of securities over the theoretical expected return

The *Treynor ratio* is a measurement of the returns earned in excess of that which could have been earned on an investment that has no diversifiable risk (e.g., Treasury Bills or a completely diversified portfolio), per each unit of market risk assumed. (Bodie, Kane, & Marcus, 2005)

but the difference was significant only on the Japanese, Swedish and French markets. In the other markets (including the markets of the United States and the United Kingdom), this was not the case. According to the authors, the investors have to pay an extra charge if they want to invest their money in ethical funds.

- The performance of the *Domini 400 Social Index* may explain why the investors do not necessarily need to sacrifice profit if they want to act in a socially responsible way. DSI was created in 1990, and was the first so-called benchmark stock portfolio that fulfilled the needs of a socially responsible system containing more criteria. DSI is a market capitalization weighted index that was modeled based on S&P, and since its foundation, its performance has exceeded that of the normal index. Of course, comparing a given index to a benchmark is quite an arbitrary solution, and for the accurate evaluation of the results, one has to know the changes of both the index and the portfolio. (Statman, 2000)
- One research project concerning the *Australian* market (Jones, S., van der Lann., Frost, G. and Loftus, J., 2008) that examined *89 ethical funds* between 1986 and 2005 found that the ethical funds performed significantly less well, at 3-5 percent under the market benchmark regarding the whole period. Annually, the underperformance was 0.88% and 1.52% in the last five years of the period.
- According to research done in 2000 by interviewing 1146 *individuals* (and not funds) who defined themselves investors with *ethical principles* (Lewis & Mackenzie, 2000), these individuals have mixed stocks of socially responsible and traditional companies. Investors like to invest on an ethical basis, but the risk-yield connection is equally important for them.
- According to the participants of research done by the *Swedish Environmental Protection Agency* between 1999 and 2001, the most important criterion for success was not the definition of the investment fund but the *competence* and *experience of the portfolio manager*.

Further research, also conducted in *Sweden* and based on the *performance of 175 funds* between 2000 and 2007, concluded that the performance of the

ethical funds was below the normal ones every year except 2004 and 2006. In 2004 and 2006, the performance of the ethical investments exceeded that of the traditional funds, though not significantly. It is an interesting finding, which coincides with the theory (the correlation of risk-yield and the diversification options) that in those years when the performance of the economy decreased, then the performance of the ethical funds was significantly behind both the benchmark and the traditional funds. This research also found that both the traditional and the socially responsible funds invested into such companies whose activities, distribution network and operation was not ethical in all aspects.

During the analysis, it became clear in the examination of the portfolio that the traditional Swedish funds in the sample invested mostly in the market of the United States, while the ethical funds invested in the Swedish market until 2003, after which almost all of these ethical funds regrouped their investments into the USA. The reason behind this can be the more stable, more transparent and bigger American market.

This research indicated also that while one portfolio manager manages more funds in case of traditional funds, in case of ethical funds the one fund – one manager approach is typical (Lundberg, Novak, & Vikman, 2009).

The main purpose of the present chapter has been to outline the main factors of the phenomenon called Socially Responsible Investment. Just as in any other case, when individual subjective judgment is involved, there exists most probably a broad range of many different answers. From a clearly financial point, the socially responsible investments do not create any extra value, as they do not add much to the short-term bottom line - profit. However, we should not forget – and the recent crisis has also encouraged the debate on this question – that there are many factors which cannot be incorporated into one number either on the micro (such as the profit numbers) or on the macro level (e.g.: GDP growth). Based on the above circumstances, it is hard to answer the original question, if the alternative methods of finance based on ethical aspects require a large amount of sacrifice from the ethically driven investors, and if so, how much. Given the relatively short history of

the ethical finance movement, it requires more research, a longer time-frame, and more innovation to be analyzed by the researchers. Nevertheless, the final test of viability lies in the very own clients of the ethical banking institutions. At present, there is no doubt that there is a demand for the services of value-driven banks and investment funds, yet only time will decide if this segment of financial enterprises will create enough profit for its investors to keep them alive and prosperous. In addition, only time will prove if they really provide a sufficient long-term utility for the whole society to classify them as ethical financial institutions.

IV. ANALYSIS OF INVESTMENT RESTRICTIONS AND PERFORMANCE OF ETHICS

In the following analysis, we will examine the result of discretionary investment policy, restrictions or proactive elements above clearly financial considerations, as used in the investment analysis of Socially Responsible Investment Funds (SRI, Socially Responsible Investment). In other words, we are interested in and will try to measure if ethical behavior-induced filters create significant financial results, and if so, then which factors influence them the most substantially. In addition, based on the actual investment policies of SRI asset managers, we will try to pinpoint which are the relevant filters for maximizing both profit and moral considerations, and which ones are redundant or not maximizing ethical "returns".

As we have seen in the previous chapter, there is a precise definition of SRI funds, which is widely accepted within the industry. However, for our current analyses, we will assume that any fund can be considered as a SRI fund if its investment policy is not determined solely by traditional investment models but also by other consideration (or filters), which restrict investments in some areas while motivating them in others. We will also see subsequently that restriction and proactive investment management can be regarded as equivalents in our case. According to the views of mainstream economics and finance, any restriction or deviation from the full investment universe is an irrational behavior. However, as

the previous chapters discussed there might be rationality in such an investment policy even if it lies outside of the traditional investment models.

Based on the previous discussion, the main question about any investment is if the performance of the SRI funds is substantially different from the traditional funds and if there is a discretionary price that investors are willing to pay to invest into seemingly ethical assets. In line with mainstream economic thought, without such investment filters funds can optimize or diversify their portfolio on a larger investment universe and as such they can reach a greater return at the same risk level, or the same return with lower risk. However, as was also shown in the previous chapters, not all research supports the view that ethically driven investment policy necessarily means lower return, and there are rational explanations why yield might be enhanced.

Below, we will examine the question on a micro level, as we will not compare the performance of the SRI funds to traditional benchmark funds, but will analyze the filters themselves to discover their relations. Their very existence and restrictive character will be linked to the result of the funds.

IV.1. Analysis of investment policy determinants

In the following analysis, we will examine the result of discretionary investment policy restrictions (or proactive elements) placed ahead of clearly financial considerations, as is used in investment analysis of Socially Responsible Investment Funds (SRI, Socially Responsible Investment). In other words, we are interested in, and will try to measure, whether ethical behavior-induced filters create a significant financial result and if so, than which factors influence them the most substantially. In addition, based on the investment policies of SRI asset managers, we will try to pinpoint, which are the relevant filters for maximizing profit and moral standards, and which restrictions are redundant and/or not capable of maximizing ethical “return”.

IV.1.1. Methodology, data and analysis

We will examine the question empirically: by the use of selected statistical methodology applied to a database of SRI funds, the relevance of the influencing factors of a funds' performance are going to be analyzed, especially in case of the determinants of the investment policy.

Due to the 'correlation does not imply causation' principle, we have to emphasize that we are only analyzing statistical connections, and cannot claim any causality between the implied factors and the performance of the fund.

The source of the database used is from the homepage of US SIF (Social Investment Forum), which is the largest organization of its kind in the United States. (US SIF About Us, 2012).

The US SIF is the main professional association of SRI fund managers, experts, companies, institutions, and organizations and its main goal is the promotion of such investments and investment philosophy. (US SIF About Us, 2012)

The US SIF maintains its own database (MFPC, Mutual Funds Performance Charts) (US SIF: Mutual Funds Performance Charts, 2012), in which financial information provided by Bloomberg is aggregated with several indicators of SRI.

In the following section, the available and relevant data, and their preparation for the purpose of our analysis will be shown.

The available data, as taken from the MFPC-database, includes two different set of data relevant for our analysis. One set is related to the financial performance of SRI funds and includes the following:

- Year-to-Date [%]
- 1, 3, 5, 10 annual average yield [%]
- Yield of previous year [%]

The financial characteristics of the funds are described by the following variables:

- Asset value [M USD]
- Management fee [%]
- Expense ratio [%]
- Standard deviation

Apart from the traditional financial data – and this dimension makes this database especially relevant in our case – MFPC has highly detailed information about the SRI investment policies. Specifically, the investment policies of the funds are provided according to 14 major investment factors. A four-grade scale in the case of the previously mentioned 14 filtering factors measures the investment policy of the fund:

- NS: no selection or filter
- P: proactive investment
- R: restricted investment
- X: forbidden investment

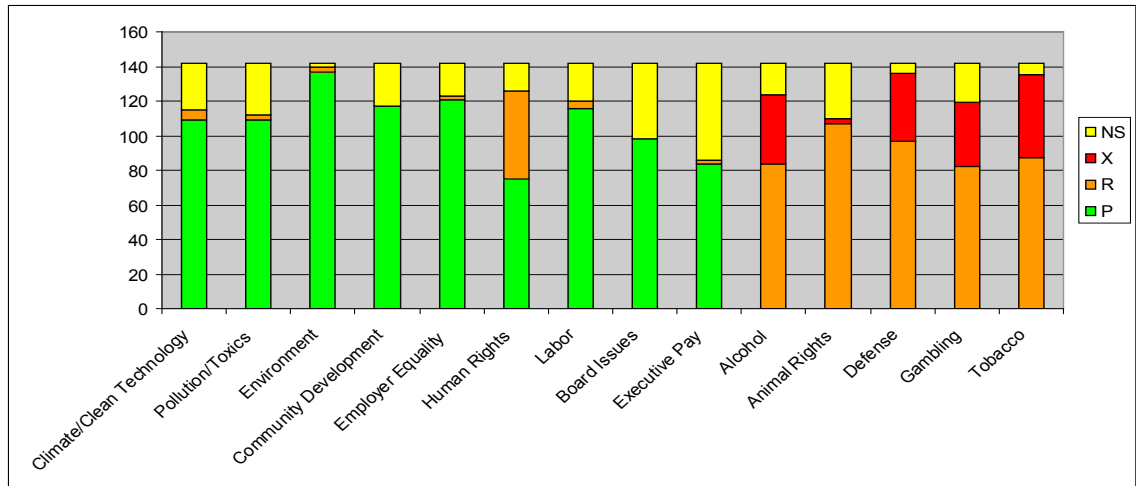
The fourteen investment factors:

- Environment
 - Climate, clean technology
 - Pollution, toxic materials
 - Other environmental areas
- Society
 - Community development
 - Diversity and discrimination free employment
 - Human rights
 - Labor

- Corporate governance
 - Board Issues
 - Executive Pay
- Industry or product categories
 - Alcohol
 - Animal testing
 - Defense sector
 - Gambling
 - Tobacco

By using this data, we will proceed by to complete the micro-level examination of SRI funds.

The database includes 143 companies. Due to a lack of sufficient data, four companies have been removed, and our final dataset is $n=139$. The data set had to be clean and prepared for analytical purposes. Figure 2 shows the distribution of the 14 investment policies according to the four-grade investment policy given by the MFPC database.



2. Figure Distribution of the MFPC database of investment funds (n=139) by policies according to the 4-scale model

Several patterns are visible in this figure. One of them is that within the area of Environment, there is virtually no deviation: almost everybody follows a proactive policy, and as such, this variable can be omitted from further analysis.

Another comment is that in the Human Rights area, a seemingly counterintuitive contradiction is visible: part of the funds restricts its investment, while some other funds encourage proactive investment according to this aspect. Explanation of the contradiction is provided by the detailed description of individual funds: some funds define this category as investment in the case that human rights are respected, while others restrict investment if this factor is not respected enough. Obviously, the two methods lead to the same outcome, and as such, the investment policies of the funds are essentially identical and this variable can likewise be omitted from our analysis.

Due to the size of the database and to the presence in most of the areas of a dominant investment policy, the comprehensive treatment (i.e. including all four policies) was not feasible. In addition, we had to code the available data set in some uniform way. The solution was to merge categories. Due to the size of the database, it was performed to the largest extent, that is: at the end, only two categories will remain in each area. These will be immediately usable as dummy variables if we code them with 0 or 1. The next issue is what categories should be merged in a way as to make sense from the viewpoint of our research. Due to our focus of investigating investment policies, our categories will be twofold: more restrictive

and less restrictive. Apart from the industrial areas, the category of NS implies the less restrictive policy and everything else – including P and R – the more restrictive ones. It might be counterintuitive to sort opposing categories into the same set, but if we think further, it is the logical solution as both motivation in a certain category and restriction of it are both restrictions on the available investment universe, and these funds have greater constraints than those, which do not use any of these filters. In the industrial areas (apart from “Animal Testing”), the NS and the R are the less restrictive categories and X is more restrictive. In the case of “Animal Testing”, NS is less restrictive, while R and X are more restrictive.

After coding and preparing the data, the database was analyzed by regression analysis to create a quantitative relationship between performance and investment policy. The independent variables were easy to choose: we will use the four financial characteristics of the funds and the twelve investment policy determinants. The dependent variable is not so easy to determine. Which performance indicator is to be used is dependent on the goal of the analyses, as there is no obviously better or worse among them. Somewhat arbitrarily, we have chosen the one-year annual average yield. It is of course important to avoid using the other possible dependent variables as independent ones. The analysis is done by standard econometric methods (Maddala, 2004) (Ramanathan, 2003) To solve the problem, mainly the GRET (GNU Regression, Econometrics and Time Series Library) (Cottrell & Luchietti, 2012) <http://ricardo.ecn.wfu.edu/pub//gretl/manual/en/gretl-guide.pdf> July 2, 2012.) econometric program was used (version 1.9.9). For a few calculations, the R statistical environment was also employed (version 2.14.1). (R Core Team, 2012)

IV.1.2. Results and Discussion

First, we estimated a traditional linear regression model, in which the dependent variable was the 1-year annual average yield; independent variables were the four financial data and the 12-investment policies. The model was estimated with OLS; the standard errors were corrected by the HC1 method. The main results of the analyses are shown in the first model:

Model 1: OLS, using observations 1-139

Dependent variable: A1_yr_Annual_Av

Heteroskedasticity-robust standard errors, variant HC1

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
Const	6,81445	3,26134	2,0895	0,03874	**
ASSETS_million	0,000349192	0,000423721	0,8241	0,41149	
Management_Fee	-1,89603	3,5746	-0,5304	0,59679	
Expense_Ratio__	-1,54749	1,02337	-1,5121	0,13308	
Standard_Deviat	-0,680324	0,111118	-6,1225	<0,00001	***
ClimateCleanTec	-15,6685	1,67008	-9,3818	<0,00001	***
PollutionToxics	13,0059	0,782261	16,6261	<0,00001	***
CommunityDevelo	3,1882	1,36097	2,3426	0,02077	**
EmployerEqualit	2,51041	3,29327	0,7623	0,44736	
Labor	5,97594	2,31334	2,5832	0,01097	**
BoardIssues	0,306337	2,16616	0,1414	0,88777	
ExecutivePay	-4,00575	2,05466	-1,9496	0,05352	*
Alcohol	1,35255	1,8791	0,7198	0,47303	
AnimalRights	1,28319	1,26667	1,0130	0,31304	
Defence	-3,82164	3,23934	-1,1798	0,24039	
Gambling	-5,34831	2,23328	-2,3948	0,01815	**
Tobacco	3,95869	1,63936	2,4148	0,01723	**
Mean dependent var.	-2,289281	S.D. dependent var.	8,782347		

Sum squared resid.	3470,348	S.E. of regression	5,333430
R-squared	0,673959	Adjusted R-squared	0,631199
F(16, 122)	206,3474	P-value(F)	3,49e-80
Log-likelihood	-420,8512	Akaike criterion	875,7025
Schwarz criterion	925,5885	Hannan-Quinn	895,9748

It is visible that out of four financial characteristics, only the standard deviation is relevant at 5 percent, while in case of the investment policy six out of the 12 were significant. The model is relevant on all customary significance levels. The coefficient of determination is 67,4 percent (adjusted R^2 is 0,631), which is a promising beginning.

To go further, a regression model diagnostic must be done in order to find an optimal model in advance of interpretation.

The p -value of the Ramsey-RESET test (using squares and cubes) is $3,2 \cdot 10^{-10}$, which indicates an incorrectly specified model. To control the most important non-linearities, we routinely checked the appropriate logarithms and squares, and we have found that the square of the management fee and standard deviation, plus the logarithm of the standard deviation may be the most relevant ones. By involving these calculated variables in the model, the Ramsey-RESET test's p -value (again using squares and cubes) becomes 0,0142, which is already much more acceptable (at 1 percent level it is not even significant), and in addition, in the new model the inclusion of the logarithmic function was not found to be necessary. (The use of squares is advised, however it cannot be accepted due to interpretation problems.) The F -test¹⁴ to compare the two models is significant at all regular significance levels, and all three information criteria improve through the introduction of these calculated variables.

¹⁴ These are nested models, and as such, the regular model selection F -test can be applied to examine the differences between the two.

To summarize, we should change to a new model including nonlinear factors too, as shown in the second model:

Model 2: OLS, using observations 1-139

Dependent variable: A1_yr_Annual_Av

Heteroskedasticity-robust standard errors, variant HC1

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
Const	3,31031	2,81727	1,1750	0,24234	
ASSETS_million	-0,000368454	0,000365554	-1,0079	0,31553	
Management_Fee	9,14674	5,2226	1,7514	0,08246	*
Expense_Ratio__	-0,813802	0,863204	-0,9428	0,34771	
Standard_Deviat	1,97124	0,780155	2,5267	0,01283	**
ClimateCleanTec	-15,0811	1,40287	-10,7502	<0,00001	***
PollutionToxics	14,1716	0,837378	16,9237	<0,00001	***
CommunityDevelo	3,09005	1,29554	2,3851	0,01865	**
EmployerEqualit	0,696345	2,87073	0,2426	0,80876	
Labor	2,73091	2,08109	1,3123	0,19196	
BoardIssues	-0,509551	1,77129	-0,2877	0,77410	
ExecutivePay	-1,8878	1,91005	-0,9884	0,32498	
Alcohol	0,288784	1,73318	0,1666	0,86795	
AnimalRights	0,925134	1,03435	0,8944	0,37291	
Defence	0,988201	3,15129	0,3136	0,75438	

Gambling	-5,54875	2,13633	-2,5973	0,01058	**
Tobacco	2,04557	1,3746	1,4881	0,13937	
l_Standard_Devi	-6,86044	3,22933	-2,1244	0,03570	**
sq_Standard_Dev	-0,069757	0,0190971	-3,6528	0,00039	***
sq_Management_F	-10,2739	4,92207	-2,0873	0,03899	**

Mean dependent var.	-2,289281	S.D. dependent var.	8,782347
Sum squared resid.	2549,616	S.E. of regression	4,628752
R-squared	0,760462	Adjusted R-squared	0,722216
F(19, 119)	381,7351	P-value(F)	4,00e-97
Log-likelihood	-399,4235	Akaike criterion	838,8471
Schwarz criterion	897,5365	Hannan-Quinn	862,6969

All three new variables are significant at 5 percent, while the management fee is also significant at 10 percent. The number of significant investment policies has decreased to four, but all of them are significant at 5 percent.

The R^2 of the model has grown to 76 percent, which is again very much promising.

Next, we have to examine the multicollinearity in our model. The attributes of the $X^T X$ matrix from this aspect are extremely disadvantageous (the reciprocal condition number is $2,66 \cdot 10^{-9}$), which shows a dangerous multicollinearity (especially for us, as we would like to use the model primarily for interpretation, analysis). To find the reasons, we should calculate the variance inflating the factors of the variables (VIF):

ASSETS_million 1,315

Management_Fee 14,893

Expense_Ratio__ 1,649
Standard_Deviat 315,530
ClimateCleanTec 11,032
PollutionToxics 8,051
CommunityDevelo 3,081
EmployerEqualit 5,593
Labor 4,936
BoardIssues 7,793
ExecutivePay 6,491
Alcohol 12,933
AnimalRights 2,529
Defence 23,343
Gambling 16,420
Tobacco 7,993
l_Standard_Devi 77,619
sq_Standard_Dev 104,845
sq_Management_F 16,198

It can be immediately seen that the most problematic variable is the standard deviation. It seems logical to omit either the square or the logarithm of standard deviation even if it decreases the quality of the model specification. Out of the two possibilities, we have chosen to omit the logarithm of the standard deviation, as by omitting the square, the F-test has shown a significant deterioration at every significance level and all three information criteria also decreased; while by

omitting the logarithm, the F -test's p -value become 0,0357 and 2 information criteria were even improved. These outcomes are logical, if we recognize that the square was more significant in the model. Due to the fact that when omitting the square, even the Ramsey-RESET test will be more significant, the decision is to omit the logarithm of the standard deviation.

In the new model, the overall conditioning will not be substantially better, but the VIFs for each variable improve dramatically: we will only have one value over 20 (that is also only 22). Hence, we will use the new model in the following¹⁵ (Due to its size, the new model is not presented in details.)

The normality of the residuals is also satisfactory and at an acceptable level according to our model.

Due to the presence of several insignificant variables, we have to reduce our model. This reduction is performed automatically: starting from the largest p -value, we omit the maximal p -value variable until there are variables that are not significant even at the 10-percent level. Based on this procedure, we arrive at the third model. This model is not significantly different from the original model (p -value of the F -test is 0,447), and improves all three information criteria.

¹⁵It is logical to perform the above investigation after the downsizing of the model (as well), however, in this case the result would show uniformly (for example by comparing the two model based on the three information criteria) that omitting the logarithm is the appropriate decision.

Model 3: OLS, using observations 1-139

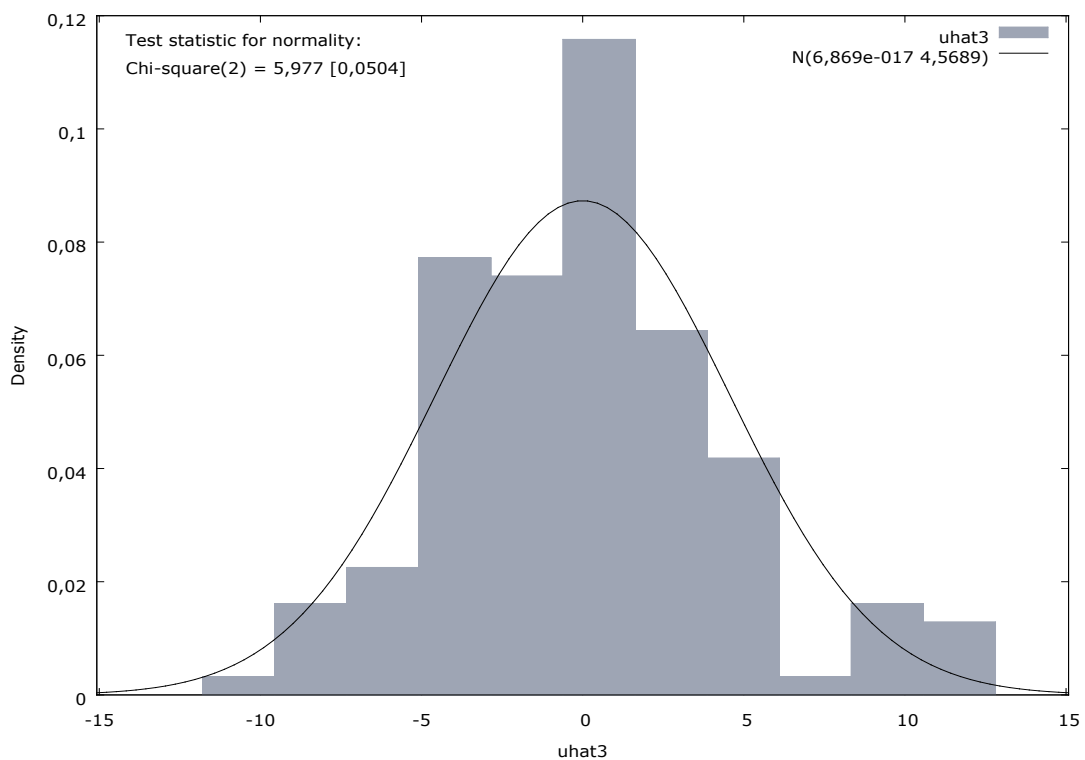
Dependent variable: A1_yr_Annual_Av

Heteroskedasticity-robust standard errors, variant HC1

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
Const	-0,8948	2,58496	-0,3462	0,72980	
Management_Fee	10,934	4,51914	2,4195	0,01696	**
Standard_Deviat	0,582026	0,273082	2,1313	0,03499	**
ClimateCleanTec	-15,0524	1,45325	-10,3578	<0,00001	***
PollutionToxics	13,4784	0,710501	18,9703	<0,00001	***
CommunityDevelo	4,10172	1,36122	3,0133	0,00312	***
Labor	2,95898	1,66881	1,7731	0,07861	*
ExecutivePay	-2,33181	1,34253	-1,7369	0,08483	*
Gambling	-4,08165	1,45306	-2,8090	0,00576	***
Tobacco	2,16258	1,01568	2,1292	0,03517	**
sq_Management_F	-11,6962	4,24984	-2,7521	0,00679	***
sq_Standard_Dev	-0,0445171	0,0116108	-3,8341	0,00020	***
Mean dependent var	-2,289281	S.D. dependent var		8,782347	
Sum squared resid	2651,060	S.E. of regression		4,568861	
R-squared	0,750931	Adjusted R-squared		0,729358	
F(11, 127)	440,9336	P-value(F)		1,82e-95	
Log-likelihood	-402,1352	Akaike criterion		828,2704	
Schwarz criterion	863,4841	Hannan-Quinn		842,5803	

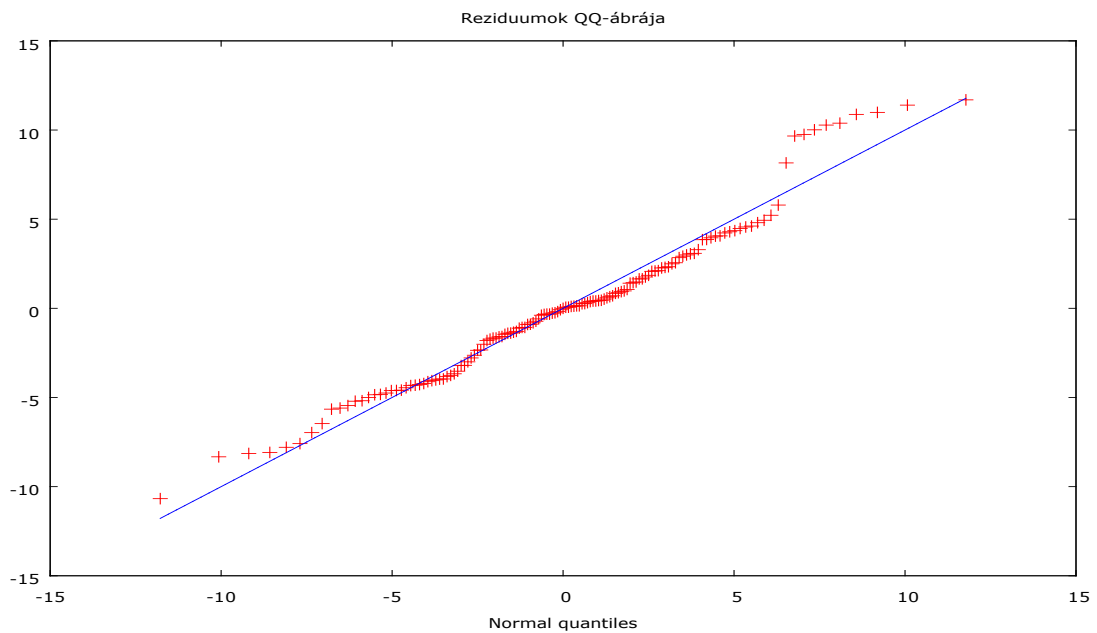
For the new model:

- Each variable is significant at least at 10 percent, and the model itself is significant (at all regular significance levels).
- The p -value of the Ramsey-RESET test is 0,00645 (although significant, it can be attributed to the known and accepted specification error).
- No inclusion of new variables (neither the square or logarithm) seems necessary (apart from those that are not acceptable for interpretation reasons)
- A histogram of the residuals:



3. Figure Histogram of the residuals

The p -value of the χ^2 -test (according to the above categorization) is 0,0504, so normality can be accepted. This is also confirmed by the QQ-plot of the residuals:



4. Figure QQ plot of the residuals

- Multicollinearity is not substantial; the VIFs of the variables are:

Management_Fee 12,450

Standard_Deviat 16,912

ClimateCleanTec 9,289

PollutionToxics 7,872

CommunityDevelo 1,829

Labor 2,827

ExecutivePay 3,912

Gambling 4,759

Tobacco 3,811

sq_Standard_Dev 17,082

sq_Management_F 13,476

The above results prove that the model is correctly specified, fulfills the diagnostic tests, and it can be used for forecasting and analysis. The 75,1 percent value of R^2 is also satisfactory.

Our focus is on the interpretation of the model, as the regression coefficients of the individual variables are answering our question of what factors determine the yield (as the proxy of the performance of the fund) and how do they determine it.

At first, let us look at the four financial characteristics. Two of them, the size of asset value and the expense ratio, do not have a significant influence on performance in our model. Surprisingly, the management fee and – less surprisingly – the standard deviation do have significant influence. (The reason of the significance of the management fee may be that it also indicates, as a proxy, the management of the fund in general.)

It is also interesting that, in case of both variables, the quadratic effect emerged as the best specification. According to this finding, the effect of these factors has extreme values, more specifically maximum values (as the main coefficient is negative). To be precise, for the management fee¹⁶ *ceteris paribus* is 0.467 percent, for the standard deviation 6.54 percent is the „optimum” (as *ceteris paribus*, the efficiency is highest at this level).

In case of the investment policies, the following claim can be put forward: Out of the 12 areas, seven areas have a significant effect on the performance of the fund at a 10 percent significance level. According to our model: the Labor, Animal Testing, Board Issues, Alcohol and Defense Industry-related investment models have no influence on performance.

However, among those that have significance, the Clean Climate/Clean Technologies, Executive Pay and Gambling variables have a negative estimated regression coefficient – hence, in these areas the restrictive investment policy

¹⁶ We have calculated this number by dividing the reciprocal of the coefficient of the linear variable by twice the main coefficient – as can be seen from simple calculus.

diminishes the performance. Here, it might be better for the fund not to set up restrictive and seemingly socially responsible principles. In contrast, in the case of Pollution, Community Development, and Employment Equality, as well as in Tobacco, the restrictive ethically driven investment policy increases – *ceteris paribus* – the expected performance.

As here we have dummy variables, we do not have to standardize the coefficients in order to compare the "effect size" of the factors. In this sense, it is immediately visible that the Environment and Pollution factors have a substantial effect (in absolute value 14-15 percentage points) while the others are at only 2-4 percentage points.

Based on the above findings (as we would strongly suspect intuitively), we can agree that the investment policy of a fund has a significant influence on its performance. The relative strictness in certain areas or, conversely, the relative laxness of its policy can substantially influence the performance of any fund.

However, it is more interesting that the direction is not necessarily uniform: *in certain areas, the restriction increases the expected performance, while in other cases, the lack or neglect of existing filters increases it.* The main reason behind the positive result in cases of restrictive policy is most probably *the sample period:* how these industries or companies performed in this one year. In case of absent or overlooked filters, *the investment universe becomes simply larger.*

To summarize our microanalyses: ethical behavior by SRI funds has no universal result, in some cases, it can be positive, in some others negative. However, what is important is that if a fund decides to invest based on ethical principles, a good definition of moral values and their translation to the operational level of its investment policy must be appropriately enacted in order to measure its result as well. Even more importantly, what is obvious from the model using the 1-year annual return as its dependent variable is that, independent of the chosen investment policy, *the main determinant is the market or more globally the economic environment.* In this case, the investment policy is nothing else than the fund manager itself as it is picking its bets.

IV.2. Comparative performance analysis

In the second part of statistical analyses, the performance of socially responsible investment funds (SRI) and Islamic funds, a.k.a Shariah-compliant funds, is compared to each other, and to an industry-wide used benchmark (in our case, even more importantly to a traditional non-restrictive fund), i.e. the MSCI World index.

The logic of comparison of SRI and Sharia-compliant funds is that both use certain restrictions (or filters) to limit their investment universe (see the parts of the present dissertation discussing SRI and Islamic finances) and therefore optimize their investments based on non-standard investment analysis criteria. According to the mainstream financial literature, it means that in the long term, the performance of both sub-segments of the asset management industry is expected to have returns that are either lower at the same risk level or the same higher risk level.

A relatively large database of SRI and Islamic funds results will be compared empirically with the help of statistical methods to each other and to a market benchmark index (MSCI World Index).

IV.2.1. Methodology, Database and Analysis

As we have discussed earlier, we will work on the basis of empirical data with the help of statistical methods to see if the yield (as the main indicator of the success of a given fund's investment policy) shows any significant difference between various investment sub-segments and a traditional market benchmark. (MSCI Indices, 2012)

It is important to mention that the analysis cannot claim the presence of causality among the relevant factors even in the case of significant differences (due to the

'correlation does not imply causality' principle). That is, we cannot claim that the difference in performance was caused by the filtering factors.

The data used in this analysis is acquired from the Bloomberg database and it includes the most important attributes of all the relevant funds, namely:

- Inception Date
- Assets
- Year-to-Date performance
- Management fee
- Sharpe-ratio: 1, 3 and 5 years (used to measure return in relation to risk, so in the case of the same risk level, a higher return shows a better result and vice versa)
- Annual yield: 1, 3, 5 and 10 years

For our purpose, we regarded the annual yields as the most representative indicator –thus in the following section, yields are examined in order to identify the differences.

Our database has $n=1024$ of SRI, and $n=555$ of Islamic Funds. However, not all funds included all of the relevant information. For example, yields for a given interval were only available for those funds that existed for the full time period in question.

The above databases were analyzed by statistical methods. The fundamental descriptive data (for all relevant time periods) of the SRI and Islamic funds are provided, and then, the distribution of yields among funds are reconstructed and visualized. It is important to notice that the individual yields of the constituents of the MSCI World Index are not known for this analysis and, as such, we will regard it as a constant number. Finally, the significance of the deviation is examined by statistical methods.

During our analysis R Statistical Environment (R Core Team, 2012) (version 2.14.1) was used to perform the calculations.

IV.2.2. Results and Discussion

First, the most important descriptive indicators of the yield's distributions are calculated, in order to provide the analytical information. Tables 1 and 2 show the respective results of SRI and Islamic funds. Table 3 represents the data of the MSCI World index.

1. Table. Descriptive indicators of the yields of SRI funds

	1 year	3 years	5 years	10 years
<i>N</i>	927	784	603	265
Minimum	-34.57	-12.54	-65.89	-3.91
Maximum	75.76	20.95	8.67	20.48
Mean	-1.77	.58	-2.44	3.23
Median	-0.21	5.47	-2	3.58
Std. deviation	9.34	5.22	5.7	2.96
IQR	11.45	7.11	6.88	4.05

2. Table. Descriptive indicators of the yields of Islamic funds

	1 year	3 years	5 years	10 years
<i>n</i>	489	412	282	76
Minimum	-93.69	-58.46	-36.57	-35.33
Maximum	48.15	47.57	13.26	28.81
Mean	0.23	7.04	1.27	5.86
Median	1.59	6.99	1.9	5,54
Std. deviation	11.21	7.45	5.81	6.55
IQR	9.55	8.37	5.11	4.97

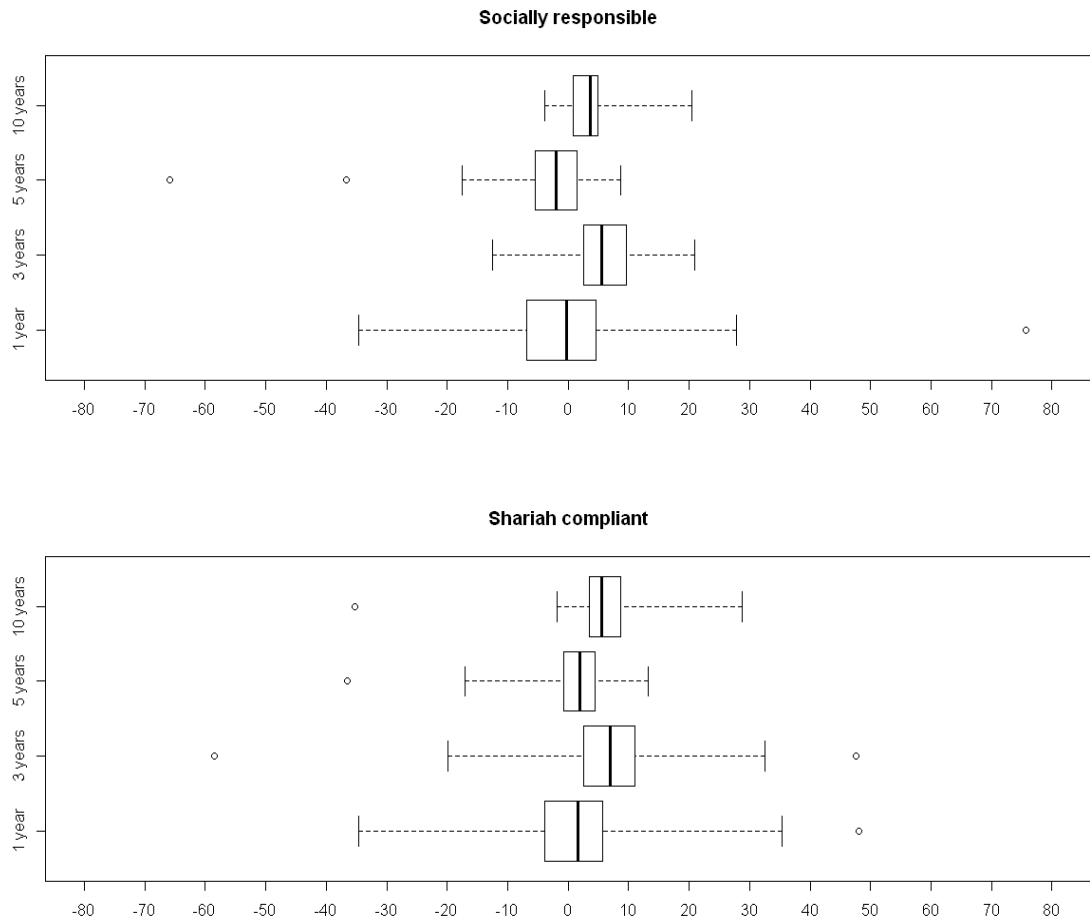
3. Table. Data of the MSCI World index

	1 year	3 years	5 years	10 years
Fact	-1.40	9.54	-1.53	5.79

It is clearly visible from the above tables that although the tendencies are similar, the Islamic funds performed better across all time intervals compared to SRI funds and in several cases, even the reference index was outperformed by the Islamic Funds. Both the average and median yield of Sharia-compliant funds here outperformed the SRI funds. However, it is important to note that in many cases the volatility of Islamic funds is also higher. It is also visible by the comparison of the robust and non-robust indicators that the distribution of the yield of different fund types will differ notably. It is important to emphasize that these findings are only descriptive information, and as such, their significance cannot be determined as of present.

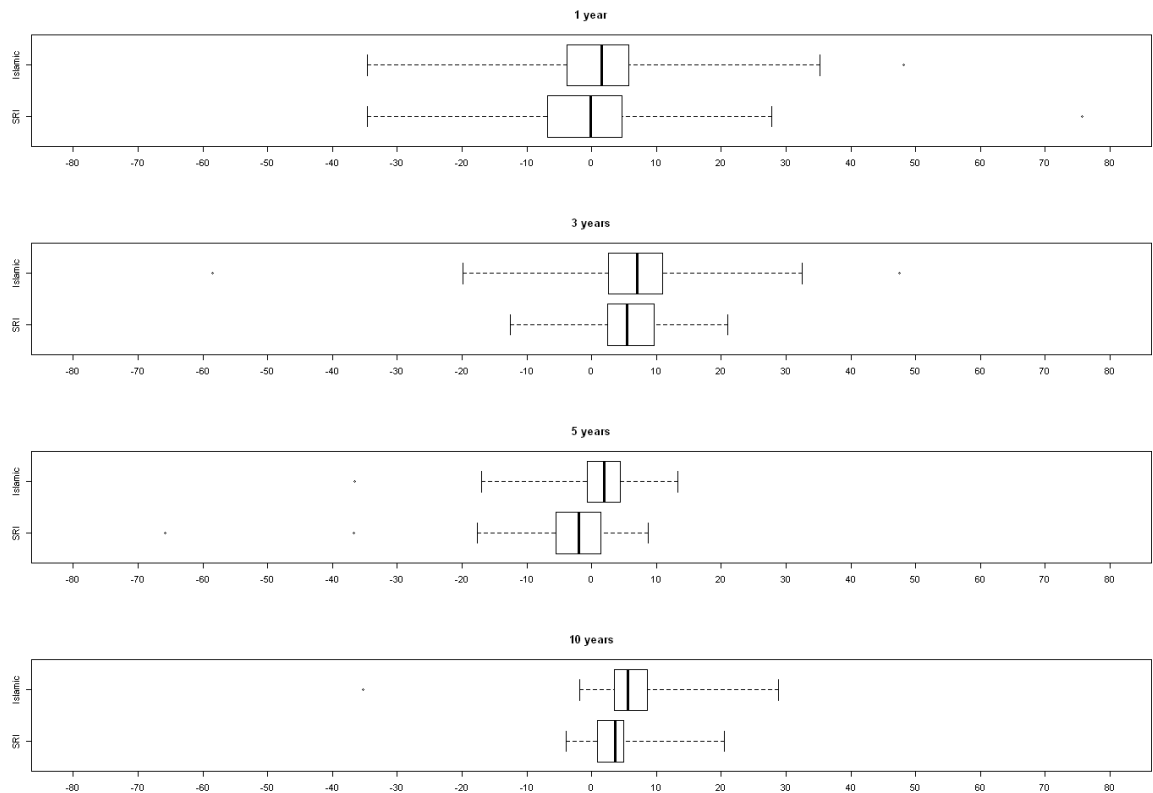
Secondly, the shape of the distribution needed to be examined. Due to the size of the sample, it is appropriate to use a graphic tool.

Figure 3. shows the “big picture”: distribution of yields in case of both type of funds visualized with Tukey-boxplots (Chambers, Cleveland, Kleiner, & Tukey, 1983). (The thick line shows the median, the two sides of the box are the upper and lower quartiles, the whiskers extend to the minimum and maximum values, excluding outliers, which themselves are shown as circles). Due to the large number of extreme numbers, not the figure of 1.5 times of IQR (as it is customary) but that of 4 times of IQR (from the median) was considered the limit for outliers.



5. Figure The distribution of the yields of SRI and Islamic funds for different time intervals, visualized with boxplots (the whiskers to the furthest values, which are no further from the median than 4 times the IQR)

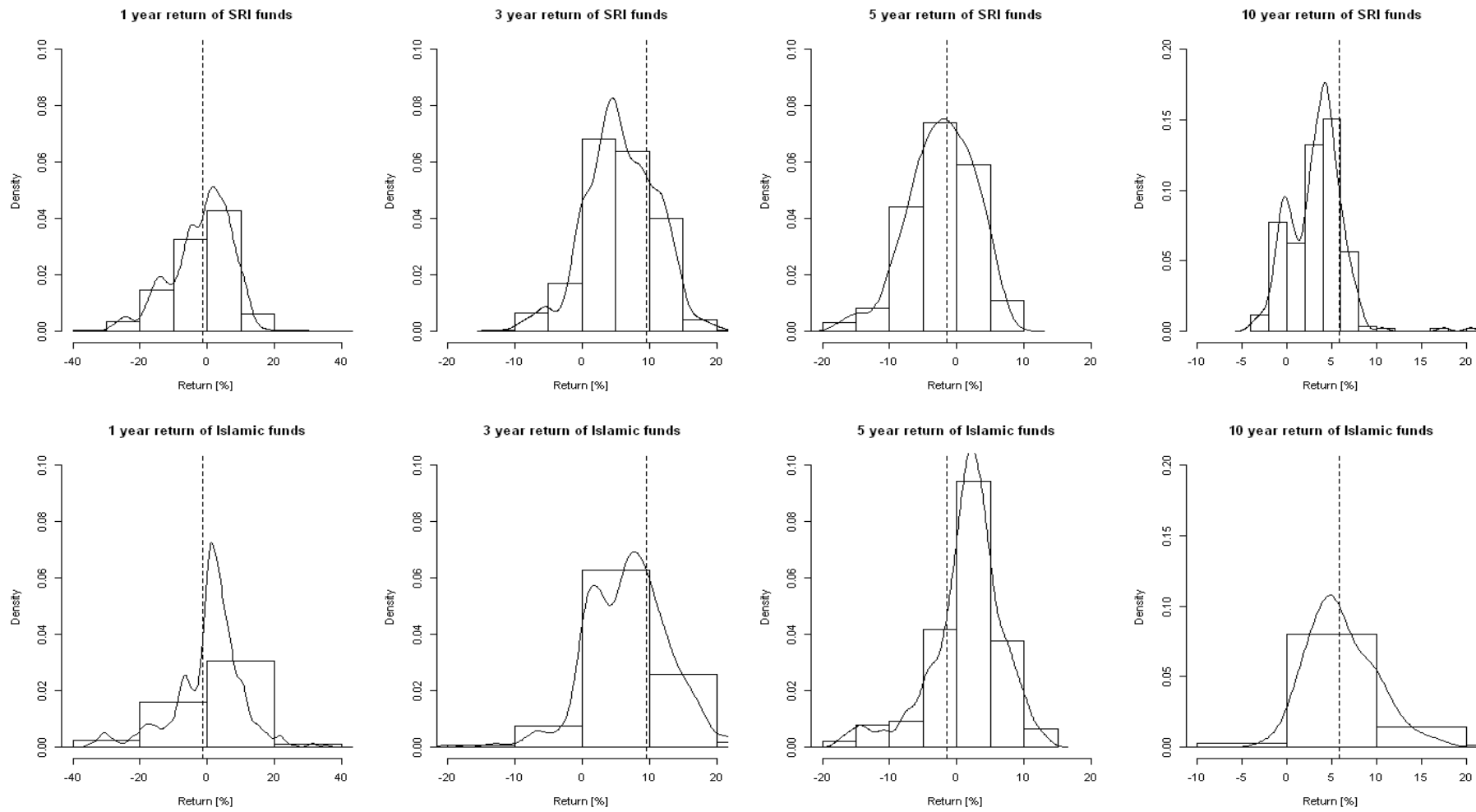
The above figure clearly shows the aggregate picture for separate fund management sub-segments. However, in order to increase the comparability, we should place identical time periods next to each other, as is shown in Figure 4.



6. Figure The comparison of the yields of SRI and Islamic funds according to time periods, visualized with boxplots

The great advantage of the above boxplot illustrations is their compactness. In turn, the disadvantage is the loss of information and – given the large range in the present analysis – their comparison is problematic.

Due to the size of the sample, we have the opportunity to estimate the density function of the distributions more directly. The two methods to be used are the traditional histogram (3) and the kernel density estimation (Wand & Jones, 1995) (with bandwidth estimation according to the Sheather-Jones method (Sheather & Jones, 2000)). Figure 4. shows the results, grouped to aid the comparison between the two sub-segments for a given time interval. The dotted lines represent the reference yield.



7. Figure Annual yield distribution (estimated density function) for SRI- and Islamic funds, for all the relevant time periods

The above figures give us the possibility to make a direct comparison of the yields of the two types of funds with respect to their distribution.

We still have to examine the statistical significance of these differences, in order to check if their magnitude is larger than what could be expected from sampling fluctuation, and assumed to be caused by real (population) difference. As the sample sizes are very large, one- and two-sample (Student's) *t*-test could be used. (In the case of large samples, we can disregard the normality assumption.) Precisely, for the two-sample test, we are using the Welch correction (Welch, 1947), as we have no a priori or any other information about the variance homogeneity assumption. In this case, the power of the test is slightly lower, but with such large samples, it is not a substantial problem.

The one-sample test is required to compare the results to the reference value, while the two-sample test is needed to compare the funds to each other. The results (in the form of *p*-values) can be found in Table 4.

4. Table. The significance of the difference of yields (as *p*-value) for different time periods

	SRI vs. Reference	Islamic vs. Reference	SRI vs. Islamic
1 year	0.2231	0.001410	0.0007617
3 years	$2.8173 \cdot 10^{-72}$	$3.8123 \cdot 10^{-11}$	0.002686
5 years	0.0001094	$1.8356 \cdot 10^{-14}$	$9.4371 \cdot 10^{-18}$
10 years	$9.045 \cdot 10^{-34}$	0.9273	0.001070

The table clearly shows that apart from the SRI vs. Reference (in the 1-year time period) and Islamic vs. Reference (the 10-year time period), all differences are significant. (The results of the above table are obviously not independent from each other, but it is also not possible to combine them mechanically.)

It is possible to draw the conclusion that the SRI Funds performed worse in each time period than the market benchmark, and – apart from the 1-year time period – these differences were also significant (at the customary 5% significance level).

In contrast, the Islamic Funds performed significantly better at the 1- and 5-year time periods (also at the 5% significance level), while in the 3 year period, they performed significantly worse than the market benchmark. At 10 years, there was no significant difference.

Therefore, it is no surprise that the difference between the SRI Funds and Islamic Funds was significant for all time intervals and that the Islamic Funds outperformed the SRI funds in every case.

To reach a conclusion about the previous statistical results, it is obvious that no general statement can be made about investment policies, and specifically about filters. Even though both the SRI Funds and the Islamic funds use filters, their results were significantly different in all relevant time intervals and even more importantly, the difference was not always in the same direction. In addition, and probably more interestingly, SRI funds performance always lag behind the traditional funds, while the Islamic funds have always over-performed the market benchmark. Hence, there is no universal claim that can reasonably be made about restrictions or filters with respect to the traditional liberal investment universe, as with certain filters, the funds might over-perform in the market, while with others, they underperform compared to the reference results. The main result of the use of filters is their role in acting as an investment manager. In addition, the examined time periods are also arbitrarily chosen and relatively short, and as such, the results might not be the same for longer time series.

One of the explanations of the above findings is that different industries have different performances (especially during relatively large volatility periods), and – intuitively – the restrictions are not just ethical choices, but also decisions about the investment instruments and as such, they are not neutral in their effect upon the expected result. If a decision/filter made on a purely ethical base happens to prefer industries with good performance (or vice-versa, dislikes poorly performing

ones), then the result will be – even by pure chance (i.e. a decision made not according financial factors) – positive.

One interpretation of the statistical analyses of asset managers is theoretical, as filters are nothing else than the fund managers themselves and they are the persons in charge of select the investment tools. However, there is one very serious consequence, independent of how much we choose our investment goals and instruments based on any ethical beliefs: at the end they are investment processes. To form the statement differently and even more counter intuitively, it is completely indifferent how we choose our investments if the selection is based on purely financial reasons or purely on ethical concerns. Furthermore, independent of the selection process, the consequences are the same - either money made or money lost.

V. CONCLUSIONS - REVISITING HYPOTHESES

The idea of the dissertation topic emerged from the recognition that morally appropriate business conduct is not a vague idea existing only in the dreams of some rather extreme minds but a rather practical, everyday concern. Furthermore, with the right application in the long term and given the right circumstances, it is a form of conduct that will be profitable. However, there is no reason to be completely naïve: long-term is not a business concept in the fight for everyday survival and the right circumstances are a quite obscure concept. Nevertheless, the right circumstances can be created and it is an obligation of the political system and of us as the voters. We are all part of the economic system, we are all users of the banks and the banking system, and as such, it is our obligation not to fall for populism or for the promise of free lunch (e.g.: excessive interest paid to us on our deposits).

At the beginning of the paper, a few questions were formulated and a definition of ethics has been created. The definition was as follow: " Definition of Ethics for Economics: The actions of *rational* and *free human* actors in relation to other people, as a function of *solidarity* and *scarcity* of goods and time." Until this point, we have analyzed the questions and issues within their conceptual framework and no definition of ethics was invoked. The final chapter is not only a brief summary of the ideas previously discussed but also an evaluation of the main concepts based on the definition of ethics and according to the original hypotheses.

In comparison to other industries, due to its relatively transparent and specifically regulated operations, financial industry can be generally regarded as morally sound according the common interpretation of Ethics

This statement is probably the most easily misinterpreted and the one most widely rejected on populist arguments. However, given the sensitiveness of the financial sector in relation to society and the operations of the economy, and due to the trust required for any banking or investment activity, it can be argued and accepted that in this sense financial institutions are ethical. Furthermore, if ethical behavior is measured only by compliance to the existing and acting regulations, as opposed to the detailed, vast and consistently changing and developing (hence reflecting changes in the societal sentiment) regulatory requirements, the actions of financial intermediaries are regarded as morally sound. It is also an answer to the doubts of Krugman, concerning his criticism of derivative instruments and their effect, based on the lack of proper regulations

The hypothesis also stands the test of our definition, if we accept that the fundamental factors of ethical behavior of an economic entity (rational and free actors, solidarity, and scarcity) are all well-incorporated and implemented by the regulators and regulations.

However, despite our arguments in favor of ethically sound operations based on the complexity of regulations of the financial industry, ethical considerations cannot be completely excluded. All systems are designed, implemented, and run by people with different character, values and interests, and the financial system, the

embedded financial structures are by definition not exempt from human interference. Even with the best intentions and the highest attitude toward morally acceptable business practices and thus profitability, the outcome might be different than what can be regarded as ethical. Furthermore, evaluation of action, or interpretation of the necessary time-period, all bring new aspects into the discussion. Finally, as humans, we all make mistakes, we all pursue short-term or erroneous goals for our own interest. No legal system can prevent all the potential human risks, and paradoxically the growing complexity of the regulations might even increase the problem.

People have to sacrifice their ethical beliefs if they want to invest successfully or the return has to be lower than traditional investment, due to ethical restrictions in the investment selection process, as is suggested by mainstream economic and investment literature

Based on the statistical analyses presented in the fourth chapter and taking into consideration the examples of relatively successful niches of the financial industry – ethical banks, socially responsible investments and Islamic finance – the hypothesis can be rejected. These financial institutions and instruments seem to provide profitable solutions for ethically driven investors.

Nevertheless, the mentioned examples all have inherent problems, which are also discussed in the relevant subsections. Statistical analysis does not provide the full answer, as it works on the basis of samples over a limited time-period. Definition problems, deciding what to measure or even prejudice might influence our choices. In the case of socially responsible investments, ethical banking and Islamic finance, the problem of portfolio selection magnified by the use of restrictions implies that the results might be good for a given time period and for a limited number of investors, but they do not provide systematic solutions.

Further problems exist if we regard these segments within our framework. Due to the use of restrictions, one of the most essential concepts of ethics, i.e. the rational and free economic actor, is excluded. The most obvious example is Islamic finance, as in this case free agents are non-existing and actions are strictly determined by a

third absolute party. The same can be said about Ethical Banking or Socially Responsible Investment but instead of an absolute power, it is the new social context that is limiting the freedom. Solidarity is also in doubt, as the mentioned solutions do not provide a platform for all related parties. Scarcity is the least problematic concept, as according to the desired goal of alternative investments this is exactly the factor that is supposed to be solved, although the scarcity of natural resources or factors of production do not necessarily coincide with investment targets.

Nevertheless, the above statement can be accepted if we interpret it from a different aspect and with a different wording of the definition of ethics. If we disregard different sub-segments of the financial industry as ethical, no partial solutions are approved and we strictly accept that ethical actions are only those which satisfy the definition on a global level, so all relevant actors are behaving according to their maxims, then morality and profit do not exclude each other.

Financial institutions generally satisfy the operative definition of ethics defined and elaborated within the framework of the present dissertation.

Probably this is the hardest hypothesis to answer. It is independent from the previously discussed legal and regulatory framework of the financial system. To conclude anything meaningful about this statement, all factors and processes must be regarded in their global context, or holistically. However, with a global approach, it is extremely difficult to avoid being overly broad and not saying anything.

To start at the end, no human systems are perfect and as such, the hypothesis should be rejected. Financial institutions do not exist in a vacuum, separate from other segments of the economy and the society but they play a substantial role, including all human beings (or almost all) as a part of them. In addition, many of us are also employees of the financial institutions, and are definitely users of its services. Moral actions should be interpreted and understood in the case of both sub-segments and in their relations. Unethical action does not occur only solely due to the actions by the management of the particular institutions (not excluding

personal responsibility at all), but as much by the users or beneficiaries of the financial services. Higher interest on deposit, higher yield on investment within a relatively short time period with a low level of risk or none at all, or the desire of cheap credit for the long term: in all of these we pursue the same goals. To make it even more complicated, there are no complete markets or complete information, but instead a very substantial information asymmetry exists.

The greatest challenge to determine the validity of the third hypotheses lies in the Kantian concept of Ethics. We cannot regard whole societies, institutions, groups, or even individuals ethical or non-ethical. There are also no averages in Moral, no relatively ethical institutions. Just single actions can be labeled morally, which are conducted by the members, employees of the given group. Based on the previously said, the financial system as a whole does not fall under the definition. However, as any system is made up by people and by their work and decisions, the definition is valid and evaluation can be, at least theoretically, made.

If we ignore the arguments of the populist side of the debate about the role of banks and bankers, and we can also disregard the short-term-profit oriented models and products, then it is not excessive to claim that although it is not perfect and does not fully satisfy our definition, the financial system is nonetheless converging towards an ethical state. Without the present financial system, no modern money would exist, including the three basic functions of money (medium of exchange, storage of value, unit of account) and without it the world would decline into a prehistoric state and no real contribution would exist to a more efficient distribution of scarce goods.

To conclude the Dissertation, in reality, within our everyday life ethical behavior is not something final, it is never concluded, and it does not exist retrospectively but only in the present specific acts. Retrospective evaluation of past actions is useless, as their label in the present is completely irrelevant in respect to the current actions. Furthermore, no individual entity (either natural or legal) can be claimed as ethical or unethical, but their actions alone have moral value. Preparation of the act, the decision, the act itself, and the evaluation of the act is almost a simultaneous dynamic process, a continuous flow. It happens persistently

and in most instances there is no possibility to separate the particular segments of the process, since these segments regularly merge and happen at the same time.

The same concept is true in the case of economics and economic entities, specifically the financial industry and for the individual financial institutions, as they are inevitably part of everyday human life and these social institutions are created and operated by people. Moral questions are raised in every moment and no ad-hoc solution will ever satisfy them. Neither single-minded excessive regulation of the financial institutions, nor exaggerated restrictions of the depositors, lenders, or investors will lead to an optimal state. Without a global approach, involving each segment of the globalized world economy, the definition of ethics, though a matter of basic shared understanding, is non-existent.

On the micro level, as everything is decided by the individuals operating and using the constituents of the system, personal responsibility in relation to our own ethical system is fundamental. Apart from the responsibility forced by the society and by derived from regulations, we are all responsible for our actions and we must intend to act according our highest ethical standards.

Before labeling the actions of private institutions, we should keep in mind that their sole obligation is toward their owners and in case they deal with moral questions out of the scope of their regular business practices and primary responsibility - loyalty to their owners measured by long-term profit- they become unethical. We have to trust the people, or in our case more specifically the consumer, to be mature enough to make decisions with the appropriate responsibility. In addition, if we accept that people are mature, they cannot be deprived of the right to choose. In this context, as a division of labor, everybody deals with the issues most relevant for them and there is no need to delegate unnecessary issues to companies, which are also ill-suited and unprepared to address them. There is no reason why the employees of any given company could evaluate moral questions better (apart from their normal course of business in which they are the experts) than any of us.

To look the definition of ethics from a distance, the definition introduced and discussed in the present Dissertation, is a so-called Special Theorem modified for economics. It is not the topic of the present paper but with some augmentation, changing the economic term scarcity of goods and time, a general concept of ethics might be derived.

Nevertheless, and probably even more importantly than any other arguments (also independently of how they differently define morality), ethics is a practical concept it exist only in material actions. Thoughts and emotions without any actions do not fall under the concept of ethics. Morality of our actions can be evaluated if we regard the individual action itself, if we do not project the evaluation for distant future results but measure our current actions accurately. It is important to emphasize that despite the simultaneously occurring numerous actions in any given moment, we are capable to evaluate the moral value of all individual current actions. Ethics, being a practical concept, has to be exercised everyday in each and every moment of our activities in life.

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Appendices:

I. "JUST AND FAIR" TAXATION

In a change from the topic of private investment, the present chapter is devoted to the introduction of a few examples related to ethical problems in public finances, specifically through the revenue side items – taxes. In the first part of the chapter discussion focuses on the problems of the “evil” of offshore tax optimization. In turn, the second part introduces the concept of efficient, fair and just taxation and its effect on the economy, while it also discusses it why it is difficult to reach an optimal taxation system in the specific case of Hungary. In the subsequent sections, several seemingly arbitrarily-chosen types of taxes are introduced, in order to show how they can be used to create or to contribute to an optimal tax system. “Seemingly arbitrarily” does not mean that there is no linkage in between them, as all have been chosen according to one identifiable factor: they all failed to provide benefits to the taxpayers due mainly to their following of short-term political and personal advantages. These cases are all examples of how seemingly impractical ethical considerations can translate into practical failure. In addition, we will try to describe briefly why the selected taxes did not work properly, either in terms of what kind of mistakes were made, or what form of mismanagement happened. The following taxes will be discussed: royalties due to the state, property tax, and estate duty (inheritance tax).

Taxes and offshore tax optimization was chosen to demonstrate the previously mentioned practicality of ethical issues, and to provide case studies of how ethics might work, or how it definitely does not work.

In addition, considering the extent to which the recent crisis management of the Hungarian state budget, including the revenue side, has been placed at the forefront of public attention, no work about Ethical finances could be considered complete without discussing the relevant of moral considerations in this area. The

chosen taxes have an additional correlation, as they are deliberately all Hungarian examples for two reasons:

- The PhD dissertation is written in Hungary at Corvinus University;
- Even more importantly, as neither ethical banking (apart from Magnet Bank, no real ethical bank exists) nor socially responsible investment are widespread enough in Hungary, as such their inclusion in the relevant chapters would not offer much scope in our analysis. However, taxes are an eternal human phenomenon and in addition, they are highly suitable for presentation of the relationship of moral to financial considerations.

The discussion of some case studies of public finances was placed into the appendix of the Dissertation, as it is not part our original scope of Ethical Banking and Investment, however they represent a much debated and definitely interesting component of the analyses of Economics through the lens of Moral.

Offshore – a contemporary “evil”

Offshore business activity and especially tax optimization or avoidance, is one of the most debated topics now both on the part of politicians and economists. What is even more interesting in our case that the discussion is not only focused on economic issues but probably even more strongly about the ethical aspects of it. However, despite the general agreement on the unethical character and use of offshore operations, and the relative easiness of cracking down on them, offshoring is still in use and the largest opponents are the greatest beneficiaries. The best tax optimization solutions and the largest number of companies registered for such purpose are in the United States, as the number one offshore paradise, as well as in the U.K. (Péli, 2011) Although on one side, the moral aspects of offshore operations are easily labeled as harmful to the regular taxpayers and to the State, on the other side its existence is an opportunity or a necessity for use in today's extremely competitive corporate world, not only for private individuals and corporations but also for national economies.

The original meaning of offshore is out of the mainland, away from the coast. For an economic activity, it is an obscure and not precisely defined term. The concept of offshore differs in the U.S.A. – i.e. a company operating exclusively overseas – and in Hungary – i.e., a beneficial corporate structure, or tax optimization. For our purpose, it is enough to assume that anything can be regarded as offshore where there are certain advantages to do business and local operations are not required. In case of local operations, the companies are usually regarded as onshore and pay tax according to the relevant tax regulation in the given country. An offshore location can be a tax haven, or simply the presence of lax investment rules or easiness to manage corporate structures. Tax havens are the most popular association of offshore activities, yet due to the fast-growing restrictions and severe competition among countries, the tax rate is less and less the single most important factor in the choice of an offshore center. Now, a stable legal environment, a developed banking system, and agreements against double taxation are as significant determinant factors as the tax rate. (Péli, 2011)

The main reason why offshore activity is under scrutiny and subject to serious attacks by individual countries and by the European Union is that, due to the current economic crisis, all countries require more budget income from fewer taxpayers and a lower tax base, and hence the competition for tax money is furious. The result of the attacks is ambiguous: most probably some of the classical distant and small (both geographically and politically) offshore centers will vanish, while some other much more important centers will become even stronger. Due to the undefined term of offshore, it is sometimes not always clear what is being discussed. Even more importantly, due to the competition among nations for resources and as such the increasing tax rates or administrative hurdles, there will be always opportunities and temptations to exploit and utilize more relaxed regulations. With the development of telecommunications, the use of offshore techniques is not exclusively the prerogative of a small number of investors in a relatively distant island but almost for anybody. An enterprise that would like to survive has no other choice than to use these opportunities. The only solution that would achieve abolition of the existence of offshore would be the complete integration of the world economy, including national budgets, or the full

democratization of offshore operations, so it would be available for anybody without any restriction.

The number of offshore companies is growing annually by 140 000, and the number of active companies is over 3 000 000. As was mentioned earlier, the United States is the most advocate proponent of the offshore operations and at the same time one¹⁷ of the world largest offshore centers. However, what is even more appealing is that out of the 100 largest American companies publicly traded on the stock exchange, 83 have at least one registered subsidiary in at least one offshore center. Twelve companies have half of their subsidiaries registered in an offshore area, while one company (Citibank) has 427 daughter companies registered. Even more interestingly, out of the 83 companies, 74 had procurement contracts with the U.S. Government, while according to their tax reporting in 2007, only 67 of them acknowledged the subsidiaries and their ownership. According to some figures, the globally lost tax payment due to offshore operations is approximately USD 255 Billion, while in case of the U.S. it is approximately USD 100 Billion. Regardless of how enormous the lost tax payment seems to be, it is still not extremely large compared to the global or U.S. GDP. The amount kept on offshore accounts is in between USD 5000 and 7000 billion, which is 6-8% of the total global investments. (Layman, 2011)

The European Union is one of the most vociferous opponents of offshore operations, sometimes even using questionable techniques to acquire bank secrets or databases, and threatening state sovereignty. The European Union practice of cracking down on offshore operation includes also paying for stolen databases and using them in the official process against alleged tax evaders.¹⁸ (Layman, 2011) To stop any criminal activity and to create a transparent and widely accessible business environment is undoubtedly a primary exercise and purpose of any state. However, from the point of ethical analysis it has to be considered as well that the weapons used to kill a seemingly unethical business behavior, and at the same time

¹⁷ Probably, as of the time of writing, the Cayman Islands are the largest single offshore area with app. USD 1.4 trillion in offshore accounts. (Layman, 2011)

¹⁸ see, e.g.: Falciani vs. HSBC. (Layman, 2011)

acknowledging the importance of state funding, might be threatening possibly even more important spheres of life and citizens.

Few Thoughts on Fair Taxation

In an ideal world, there is no taxation, while in an ideal economy, built on the principal of maximum efficiency, the government or state interferes minimally into the operations of the private businesses and individuals. The extent of state organizations (including state administration, schools, hospitals etc.) and state property is limited only to providing real public goods, where in any other case private ownership would lead to a market failure. Given the limited distribution function of the state, we must also assume a restricted revenue side of the state budget. In the above-described ideal economy, the classical requirements from a tax system – efficiency and fairness – would be satisfied. In case of a limited distribution function, the revenues collected by taxation needed to be minimal as well and as such, no major interference and influence would be imposed in the behavior of the economic players.

According to the *efficiency* (neutrality) criterion, taxes should distort the behavior and decisions of economic players as little as possible. A completely inactive state intervenes in the economy through its very existence and unequally influences the distribution of social benefits and social burdens. In case of the tax systems of a modern state, which fulfills several economic functions that are often regarded as attractive, it is very difficult to find aspects of efficiency in their direct form and even in their indirect form they are hard to identify. However, evaluation of their impact is further complicated, as taxes are incorporated into the decision-making systems of economic participants - producers and consumers – motivating all actors to *optimize the tax*.

If the revenues are inefficient, than the optimal answer is not necessarily to cut back state expenditures but to redesign the tax system in order to interfere less into the economy. This new tax structure can be labeled as Tax Reform. (Balogh, 2013, p. 61)

Fairness (just/equal distribution of public expenses according to the marginal capacity of economic agents) would prevail if two taxpayers of the same financial position prior to taxation would remain in the same position after taxation as well. However, we should not have many illusions in relation to this criterion either. According to one of the major arguments, there is a limit on the progression of tax rates, as even the highest earning entities should be motivated to increase either their income and fully declare it. Based on the above matters, the basic principle of modern taxation can be defined, according to which *the number of taxpayers must be as large as possible, covering all parts of society*, including the lowest income classes.

In the real world, which is neither ideal nor optimal, governments happily and willingly exaggerate their interference into the private economy, and taxation is among their main tools. To reach Absolute Fairness would be a failure in the reality. However, some kind of partial incorporation of the idea of Fairness is an important aspect to safeguard the social stability. (Balogh, 2013, p. 23)

At present, in Hungary the above-described ideal minimal state is non-existent, and paradoxically one of the main reasons (apart from actual political considerations) was the privatization process itself. In the last 20 years - during the re-privatization of the previous “socialist ownership”, when a large proportion of the assets of the country were redistributed to private entrepreneurs – the governments in power made a number of very serious and not always optimal decisions.

Given the difficulties of defining a measurement based on alternative privatization strategies, it is not within the scope of the present work to examine the optimization of the whole process in its full extent. Nevertheless, the article would like to give some examples of how, with the application of a well-designed taxation system, some of the inefficient privatization decisions could be partially offset and some of the profit earned from the imbalance in between short-term funding needs versus the long-term utility of the country, could be repatriated to the tax payers.

The present

The global crisis hit Hungarian society in the autumn of 2008 – finding a substantial segment of it in a rather weakened condition. Following the social and economic transition of the 90's, members of the society, who had earlier been deprived of many goods and services available for their Western counterparts, desired a larger home, a weekend house, foreign travelling, and modern cars all at the same time: in short, the immediate mimicking of the Western (American) model of consumption. The income position of a significant part of society did not enable the above consumption model; hence, these persons ran heavily into debt. The primary victims of the crisis were drawn from the social class which otherwise moderately borrowed external (bank) funds to finance their consumption; those becoming unemployed and families dependent on only a single salary frequently landed in a debt trap and many social illusions vanished in a moment. Naturally, the belief in ongoing growth and individual life strategies built on growth became the first victims. It became evident that not even real estate and land is a safe haven, as it does not necessarily maintain its value, and the savings of many years and decades invested in real property lost their value quickly, as there is no further large demand for homes and houses even at depressed prices. As a self-reinforcing process, the crisis impaired the prospects even of those families on which it had no direct impact. The cutting of consumption became the social norm, contrary to the earlier consumption-oriented behavior. At an individual level, the rule of thumb became to wait and see until economic growth is stabilized and the rate of employment improves in a lasting and sustainable manner. At a social level, however, with only a substantially growing global economy or at least by the growth of the main export markets might initiate a positive change in the absence of internal, national growth of consumption, and subsequently a growing domestic consumption could support the process. At present, taking into account the magnitude of economic growth in Europe, it is hard to decide if our current position is only due to the economic problems of the global economy and specifically Europe, or if we are the only one to be consistently hit in each segment. There is no doubt that Europe is the main and direct driver of Hungary's growth.

In the period between the transition from a centrally planned economy to a free-market economy and the recent global crisis, large private ownership began to accumulate in Hungary. The large-scale privatization cases were always the results of *individual* negotiations, even if they were sold through tender, and even more so if the actual privatization model was developed by the management of the company to be privatized. If somebody had access to a valuable share of the public property in the course of privatization, it was equivalent to obtaining social support for the launching of his individual enrichment, and subsequently, for the further accumulation of assets that could not be replaced by anything else.¹⁹

It is a matter of international experience that favored sectors are generally able to enforce their interest in political and governmental decision-making. Hence, it does not come as a surprise that this finding has remained characteristic of large Hungarian companies even after market mechanisms gained ground.

At the time of the outbreak of the crisis, it seemed for a while that a positive outcome was possible, a new order of values could be created if humanity, or at least the societies providing life models, were intelligent enough and drew the lessons of the earlier model based on over-consumption. According to the expectations of many, the new model could have focused on the conservation of the natural environment or spoken in economic terms of internalization of the externalities. When enforcing the environmental aspects, the issue of justness and fairness is equivalent to enforcing the principle “let the polluter pay”, i.e., damage caused to the environment should be restored by the polluter. At present, though, it seems that there is not going to be any change in models, which is at all not comforting. It is no less damaging if the model change does not occur due to the

¹⁹ If a person was sufficiently talented, and the company privatised by him had a valuable market profile, the company managed to produce its purchase price in the course of a few years of operation. If the state was the seller, the purchase price was always substantially below what it could have been. (This finding is indirectly substantiated by the transactions when the company was resold within a short period following privatisation. Almost in every case, the on-sale prices were higher, by orders of magnitude, than the price applied in privatisation. The opposite case, if any, indicated individual unsuitability for managing the assets and operating the company, etc., rather than tough and successful bargaining by the state.) The new owner took out credits always with the new acquisition as security. He could do so as he had obtained the coverage.

fact that crisis is not over yet, independently if we are either only at the beginning, or at best in the middle of it.

A characteristic of the 20th century reaching well into the beginning of the next one has been the growing pace of tax centralization and the growing ratio of taxes on income from work [including social security contributions (Stiglitz, A kormányzati szektor gazdaságtana, 2000)]. Ecologically oriented tax reforms link the tax receipts collected on account of polluting the environment to the reduction of the burden on labor – as if designating the preferred subjects of just and equitable taxation.

In the following, we are not going to address the general features of the Hungarian system of taxation, nor even to introduce the problem. We are going to deal only with a few kinds of taxes, which, if applied by the government appropriately, could make the Hungarian system of taxation more just and more equitable for the majority of society carrying the tax volume.

Royalties

The state is entitled to the use of land and the extraction of royalties from the utilization of arable land for other industrial, communal purposes, as well as the raw materials and energy carriers brought up to the surface. The Hungarian government waives not only these natural royalties, but at times, as in the case of electricity generated by the Paks Nuclear Power Plant, generates a royalty of a financial nature (support) for the other power plants. At other times (the Robin Hood tax, the special tax on the energy sector), taxes are of an amount substantially below the amount of the natural or ordinary monopoly royalties.

Generally, as in the case of non-clean-cut solutions, the trap here, too, is that the roles are reversed: payment of these transitory taxes appears as sacrifice on the part of the eternally favored, while the regular transfer of the royalties generated by them in the absence of extensive individual bargains to the state, should be part of the ordinary course of business.

The privatization of the energy sector *generally* lacked a professional concept on the part of the government. The result is well known: either the company developed its own privatization model or, as it happened in the case of power plants and electricity providers, competing groups of foreign investors, the “buyers of continental influence” (M. Szabó, 2006) divided the Hungarian electricity market among themselves with state assistance in the mid-1990s. The government²⁰ not only made it easy for them to acquire markets, but also even guaranteed an eight percent return on assets (subsequently raised to ten percent). In the interest of privatization revenues totaling a billion dollars, the government gave up the mining royalties, which generated year-after-year stable revenue for the community to the energy sector participants.

According to experts in environment protection, virtually every segment of the energy sector is characterized by the realization of extra profits and royalties; and cross-financing is typical. The royalty, as well as the extra income, is one of the consequences of their monopolistic positions. The members of the Levegő Munkacsoport [Clean Air Action Group], who developed a complex eco-social reform of public finances in 2008 (Lukács, Pavics, & Kiss, 2008) quantified the royalties generated in the electricity, natural gas, crude oil and the Hungarian hydrocarbon sector in general, and retained within these sectors in other works (Pavics & Kiss, 2009). Below, we restrict ourselves to the presentation of those royalty items only in the case of which interrelations are self-evident, requiring no additional explanation²¹:

- MOL buys crude oil at the lower Ural (Med) price, yet it applies the higher Mediterranean (Brend) prices as the price base in calculating the

²⁰“At the time of the government of Gyula Horn, ‘the new government escaped from the monster of empty state coffers and the threat of the IMF (the World Bank would block the standby reserves of the country) by quickly selling the power stations and the electricity providers. ... the *revenue of one billion dollars* generated by this transaction was then regarded as extraordinarily high ... a genuine assessment of the condition of the assets has not taken place, similarly, nobody examined the damage to the environment caused till then in any depth. ... energy policy was essentially shaped from ÁPV Rt.’ ” (Szabó, 2006) (Highlighted by B.A.)

²¹I highlight only the energy sector and not even that in full, based on the proposal of the Levegő Munkacsoport (CAAG), and another study of the authors on the domestic subsidisation of fossil energy.

domestic prices of petroleum products; the amount of the extra profit realized by the company in this way amounts to HUF 20 billion a year;

- Cheap electricity produced by the Paks Nuclear Power Plant which in the hands of the State creates extra profit – a hidden subsidy – for the other power plants; the amount thus distributed among the power plants totaled HUF 100 billion in 2007 (Lukács, Pavics, & Kiss, 2008). The profits of the Paks Nuclear Power Plant (to put it more accurately, the price of electricity generated by it) was reduced by the eight-, and subsequently ten-percent return on assets guaranteed for the power plants as early as 2006, and also thereafter when the state's obligation to do so no longer applied;

The major outflow of profits can be substantiated also by an EU comparison. In Hungary, the price of electricity sold to households was 7.7 percent higher than the average price in the European Union. Taking into account purchasing power parities, prices (more accurately purchasing units) were the highest here, exceeding the (incidentally the lowest) French prices (purchasing units) more than twofold. "... the difference between the price for Hungarian households on 1 August 2009 (0.1605 euro/kWh) and the transfer price of 0.040 euro/kWh of Paks was about fourfold." (Pavics & Kiss, 2009).

Buyers paid a total of one billion dollars for the Hungarian electricity market in the mid-1990s – this is hardly twice the amount of the 2007 royalties regrouped at the Paks Nuclear Power Plant and left with the companies instead of being collected by the state.

- The mining royalty on hydrocarbons, a financial amount that should accrue to the general government, is the difference between the local cost of production and world market prices. In 2008, "MOL paid HUF 115 billion to the budget" on the production of crude oil and natural gas instead of the HUF 276 billion generated. In that same year, the amount

of the mining royalty realized by coalmining as extra profit was HUF 10 billion.²² (Pavics & Kiss, 2009);

- The price of electricity purchased from Ukraine is 33 percent lower than the world market price. In the absence of competition, a few electricity traders share the difference. At least half the foreign trade royalty generated is due to the state; in 2006, this amounted to HUF 23 billion. (Pavics & Kiss, 2009)

The highlighted items quantified for one of the years between 2006 and 2008 alone, together they correspond to 35 percent of the budget deficit of HUF 870 Billion planned for 2010, and 16.2 percent of the planned revenues from personal income tax (HUF 1,881 billion). (A Magyar Köztársaság 2010. évi költségvetéséről szóló T/10554. számú törvényjavaslathoz, 2009)

Towards a modern local governance: taxation of industrial and commercial properties

It cannot be regarded as accidental that all Hungarian governments (respectively finance ministers) of the past one-and-a-half decades have – with the exception of the one in power for the past few months – attempted to make property tax mandatory and *value-based*.²³ There is no uniform and value-based property

²² The basis of the mining royalty is termed as the “generated value” of the mineral raw material. Its rate is 12 percent in the case of crude oil and natural gas, 5 percent in the case of non-metallic mineral raw materials and 2 percent in the case of other solid mineral raw materials and exploited geothermal energy. No mining royalty needs to be paid on crude oil produced using increased efficiency procedures. The rate of the royalty can be reduced for reasons of public interest. In the case of mining activities exercised on the basis of concession contracts, the ministry establishes the rate of the mining royal individually.

²³It is since 1991 (1990. évi C. törvény a helyi adókról, 1990) that Hungarian municipalities are authorised to decide independently whether or not to impose local taxes on the population living in their settlement, the local enterprises or the possible objects of taxation and if so, whether they wish to impose all of the local taxes without fail, or only in part, or not at all. Municipalities are authorised to deviate downwards from the centrally maximised tax rates at their discretion, but not upwards. The absence of the *mandatory nature* of local taxes counts as a curiosity even in international practice. (1990. évi C. törvény a helyi adókról, 1990)

taxation in Hungary²⁴, yet we believe it could hardly be supposed that this state of affairs could be maintained in the medium-term. And that is so not only because property tax is suitable for channeling hidden incomes back into sharing the public burden, but also because it has something of a wide range as a tax base, and property is a tax base that cannot be carried offshore – and other exemplary countries pursue uniform and value-based property taxation without exception.

5. Table Income from Property Tax as a proportion of GDP

Country	2008	2009	2010	Country	2008	2009	2010
United Kingdom	4.2%	4.2%	4.2%	Greece	1.5%	1.2%	1.7%
France	3.3%	3.4%	3.6%	Ireland	1.9%	1.6%	1.6%
Canada	3.4%	3.6%	3.5%	Poland	1.2%	1.2%	n/a
United States	3.2%	3.3%	3.2%	Norway	1.2%	1.2%	1.2%
Israel	3.2%	3.0%	3.1%	Portugal	1.2%	1.1%	1.2%
Belgium	3.0%	2.9%	3.0%	Finland	1.1%	1.1%	1.2%
South Korea	3.2%	3.0%	2.9%	Hungary	0.9%	0.8%	1.2%
Japan	2.7%	2.7%	2.7%	Sweden	1.1%	1.1%	1.1%
Luxemburg	2.6%	2.5%	2.7%	Turkey	0.9%	0.9%	1.1%
Australia	2.2%	2.5%	n/a	Germany	0.9%	0.9%	0.8%
Iceland	2.2%	2.2%	2.5%	Chile	1.2%	0.9%	0.8%

Typically, municipalities impose property tax on the basis of *area* (max. HUF 900 /m²/year)– in recent years, they have frequently imposed property tax on household property as well. Earlier, they tended to impose the tax on non-housing property.

In the case of a *value-based* tax, the valuation of real property and the maintenance of such values require a large staff of well-qualified experts, as well as the accurate documentation and administration of the data of the individual properties (or at least of the districts or value zones, which can be regarded as having the same attributes). In Hungary and in the former socialist countries, the area-based property tax is characteristic because data available from the land registry are sufficient for this information.

²⁴In 2009, the property tax proposed by the Bajnai government (and adopted by Parliament) was annulled by the Constitutional Court.

Switzerland	2.2%	2.2%	2.2%	Slovenia	0.6%	0.6%	0.6%
New Zealand	1.9%	2.1%	2.2%	Austria	0.5%	0.6%	0.5%
Italy	1.9%	2.7%	2.0%	Czech Republic	0.4%	0.4%	0.4%
Spain	2.3%	2.0%	1.9%	Slovakia	0.4%	0.4%	0.4%
Denmark	2.0%	1.9%	1.9%	Estonia	0.3%	0.3%	0.4%
Nederland's	1.6%	1.5%	n/a	Mexico	0.3%	0.3%	0.0%
OECD	1.8%	18%	18%	OECD	1.8%	1,8%	1,8%

Source: (Kovács, 2012)

International experience has proven that property tax is generally one of the least accepted kinds of tax,²⁵ but a fair consensus can be developed along principles that can be well delineated. These principles are the following:

- practically the entire profession agrees that what is desirable is *a tax base as wide as possible and a tax rate as low as possible*, that is, it would be expedient to make the imposition of a *mandatory, uniform and value-based* property tax of around *0.2 percent* on any property within the confines of a municipality irrespective of the purpose of utilization;²⁶
- a property tax paid on housing property deductible from *personal income tax*, and property tax on commercial property *deductible from the local industry tax* is largely regarded as equitable;

²⁵ Property tax is a *visible tax*, because (in contrast to turnover tax built into prices, or income tax, which is deducted), it is paid by the taxpayer and it can be both advantageous and disadvantageous. It is disadvantageous because knowledge of the amount of the tax may increase the resistance among taxpayers to the tax. For the same reason, it may be, or it could be, favourable because it could direct the attention of the taxpayer to the service provided in exchange for the tax, demanding that an account be given for the use of the tax paid.

²⁶ Property below the value of HUF 2 million is normally excluded from the range of taxable property for rational reasons as in their case, the cost of collecting the tax exceeds the amount of the tax collected.

- it is necessary to define clearly the range of exemptions, the circle of those exempt from the obligation to pay the tax (low-income people, large families, pensioners);
- the database requirement of the method of valuation chosen cannot be excessive, and first and foremost, it must not violate the sensitivity and personal rights of the citizens;
- property tax is largely a *local* tax, or *shared* (central and local) tax – irrespective of whether it is collected by local governments or the central (regional) tax administration. Generally, the latter is more suitable for this task.

The point of departure of the tax introduced as of January 1, 2010, was populist (property tax = luxury tax). The so-called property tax (or asset tax) was applied to real property and means of transportation (road vehicles, vessels, and means of air transportation) above a certain value limit. This value-based property tax should not have been paid on all real property, but *housing property* in excess of a market value (or rather calculated value) of HUF 30 Million, and its amount was not deductible from personal income tax. This tax would have affected only about 200,000-250,000 of the 4.2 million housing properties in Hungary.

In an international comparison, the value of privately held housing property in Hungary is substantially more significant than what would follow from the living standards and income relations of the households. The desire of the people for a home of their own, and their ties to it are not typical in an international comparison, which explains the frequently excessive burden undertaken to buy the first home, and then subsequently more valuable homes. A home with a market value of thirty or even forty million forints does not belong to the luxury category even in Budapest, and definitely not outside Budapest, and their source is characteristically income from work (that is taxed income). Hence, insisting on the principle of “let the rich pay” in opposition to their owners is, in most cases, not only unjust but also untrue.

6. Table Distribution of real estate ownership and other forms of usage in Europe

<i>Country</i>	<i>Owner resident</i>	<i>Social resident</i>	<i>Private rent</i>	<i>Other</i>
Denmark	52%	20%	17%	11%
Finland	58%	17%	15%	10%
Norway	61%	5%	18%	16%
Sweden	39%	24%	19%	18%
Average of northern countries	60%	13%	16%	11%
Austria	42%	20%	19%	19%
Belgium	71%	5%	19%	5%
France	56%	17%	21%	6%
Germany	43%	6%	45%	6%
Ireland	78%	9%	9%	4%
Italy	67%	6%	8%	19%
Nederland	54%	34%	10%	2%
Spain	82%	2%	9%	7%
Switzerland	35%	14%	43%	8%
Great-Britain	69%	21%	10%	0%
Average of Other European Countries	60%	13%	19%	8%

Hungary	93%	4%	3%	0%
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Source: (Kovács, 2012)

Prior to, and even independently of, the introduction of a uniform property tax, it would have been expedient to impose a property tax precisely on the largest *industrial and commercial properties*, with a mandatory nature in accordance with international practice, and at a rate higher than that usually applied to housing property, regarded as a central tax or at most, *a tax shared with municipalities*. There is every reason to reduce the increasing differences between municipalities associated precisely with the differences in the number and economic potential of companies operating within the individual municipalities. The separate handling and target-oriented utilization of the part of the property tax proposed on non-housing property to be absorbed by the central budget offers an opportunity for this.

Presumably, the *environmental footprint* of these large industrial and commercial estates is a multiple of that of a smaller municipality and is not restricted to the given community, but gives rise to changes in a substantially larger area. With regard to commercial property, this circle includes shopping centers and the logistics centers of commercial networks. The implementation and operation of the major industrial and commercial properties required the construction of parking lots, roads leading there, covering of large areas. It is well known that this has a detrimental impact on the water balance and flora and fauna of the soil, as well as the local climate. Agriculture products are polluted by materials detrimental to health in a wide band along roads. For this reason, there is ample justification for breaking the pace of green field investments, instead of the so-called brownfield zones already in similar use which should be preferred.

In 1950, the share of areas withdrawn from agricultural cultivation did not reach eight percent of the territory of the country, and it made up not more than 11.5 percent even in 1990, in the year of the transition. Between 2000 and 2006, it seemed that this share was stabilizing at a relatively high level of 17 percent, but

the 16.4 percent of 2009 indicated some improvement. Close to one-fifth of the areas withdrawn from agricultural cultivation (19 percent) is re-categorized as an internal area, and the reason for this is almost exclusively the construction of industrial and commercial properties, shopping centers and, naturally, large housing estates. The appreciation of the Budapest agglomeration area is indicated by the fact that 24 percent of the nationwide figure for inclusion in internal areas is attributed to Pest megye (county). (Withdrawal from agricultural production at the largest extent is in any case characteristic of this county, but this figure is only 14 percent of the nationwide total.)

A non-recurrent *land protection allowance* is payable in the event of utilizing arable land for other purposes. Although the least possible size of area can and should be used for purposes other than agriculture according to Act CXXIX of 2007, everyday practice (large parking lots and/or warehouses beside the facilities; shopping centers of at most two or three levels, etc.) does not indicate full compliance with the law. It seems, for potential investors ranking their decisions, that the quality of the arable land to be used is not a priority aspect. In the case of arable land of a quality superior to the average, the obligation of an allowance payment substantially higher than before still fails to exert a substantially restrictive impact.

A thorough analysis of expected environmental impact must (should) be a necessary part of the licensing process, preceding the establishment of new industrial and commercial properties. At the same time, the damage and other environmental impact caused by already operational properties should definitely be modeled prior to determination of the tax rate.

The genuine value of industrial and commercial properties is left obscure, while they should be individually determined for specifying the tax base at all times. These figures are not available in any registry, as it is not the properties themselves, but their owner companies that are the subjects of sale and purchase transactions.

A property tax imposed mandatorily on large industrial and commercial properties on a value basis would substantially reduce the possibilities of bargaining with the local governments, which is undesirable from the viewpoint of society as a whole. In the case of the local industry tax, much favored by local governments, companies and enterprises with a view to attracting a large company (relocation of its headquarters), local governments readily employ preferential rates (of even zero percent).

The total freedom guaranteed for Hungarian local governments with regard to the application of local taxation has a number of negative consequences, of which perhaps the most severe is that it restricts the coming into being of modern local governance, particularly in terms of the municipalities having bodies of representatives that are more patriotic than what could be expected.

Estate duty

As discussed above, a socially just and equitable property tax is one in which the tax paid on housing property originating from income from work is deductible from personal income tax. A similar expectation can be formulated in the case of estate duty and the duty on gifts, resulting in a rearrangement of assets between generations. The tax exemption of inheritance stemming from income from work (the predominant share of which is housing property in Hungary today) can be regarded as socially just and equitable, pointing towards equality of opportunity. By contrast, the uniform taxation of large private ownerships in various assets, which originating from incomes other than from work (business quotas, shares, bonds, real estate) can be considered similarly to the value-based taxation of large industrial and commercial property.

The progressive estate duty or tax exemption up to a relatively substantial value of property/inheritance is a typical instrument of reducing social inequalities. An example of the former is that early in the 1940s “the rate of the estate duty [could

reach] 80 percent in England and France”, and at that time “the maximum tax rate was 60 percent in Germany, and 50 percent in Italy.”²⁷ (Ungváry, 2006)

In European countries, where there is an estate duty, the method employed is a mix of legal solutions and tax allowances. Every *Anglo-Saxon* country guarantees exemption based on the magnitude of the assets. The following are international examples of partial or full exemption from estate duty:

- *United States*: the amount of the tax is specified in the annual budget, in 2009 it was applicable to estates not exceeding USD 3.5 million (roughly HUF 700 million), irrespective of the number of heirs and the degree of kinship; 97 percent of Americans belong to this category;
- *England*: in 2009, GBP 312,000, the basis of determining the value is the price of an average house in London;
- *Germany*: EUR 307,000 for spouses and EUR 205,000 / capita in the case of children;
- *France*: spouses/life companions do not pay this duty at all, in the case of children it is EUR 156,000 / capita;
- *Italy*: EUR 1 million for every close relative;
- *the Netherlands*: in the case of spouses, in excess of half a million euro, for children it depends on age;
- *Czech Republic*: full exemption in the case of spouses and children. (Dr. Spielmann, 2009)

Currently, there is no estate duty in *Sweden, Slovakia* and (since 2008) *Austria, Egypt, Israel and Australia*. (Dr. Spielmann, 2009)

The abolition of the estate duty means that the amounts of assets generated in the course of privatization in Hungary exceeding HUF 20 Million have been removed from bearing the public burden, and as such, this opportunity to ensure equality of

²⁷ A radical increase in estate duty “has for long been urged by ruralist writers and progressive middle-class democrats, such as the writer Sándor Márai.” (Ungváry, p. 8)

taxpayers has been shut. Historically, it would have been the right time for exactly the opposite: while substantially raising the HUF 20 million limits for tax exemption, these assets should have been taxed at a more progressive rate than before. The wealthier part of society had an easy time in avoiding estate duty; now, its abolition may seem just and equitable. In Hungary, there are practically no assets left to be privatized, and in the future, the redistribution of assets and the network formation of large private companies can be expected. Large Hungarian companies entering the international scene continue to need the parent country because, owing to domestic references, they cannot even dream of a global economic role. To do so would require the exemption of those living off income from work in Hungary, and an improvement in the chances of the next generations – that is, the coming into being of the richest circle of owners, who recognize mutual interdependence and elevate it to the norm.

The chapter attempted to reveal the connection between the recent past (since the transition of the early 1990s) of Hungarian society, its economy and its environmental standards, and several discretionary selected type of taxes. The aim was to show that with appropriately chosen taxes applied in the proper way and in a morally sound practice by the governing structures, some of the social, economical, and even more importantly environmental inequalities created by the individual bargaining power of certain economic entities during the privatization process and the subsequent economic development can be remedied. In addition, the same can be said about the redistribution of equity or wealth among generations, which was a more politically driven decision, very strongly supported and lobbied by the winners of the privatization process. In addition, another important aspect was to prove that the proper selection of taxes and their appropriate utilization might lead to an efficient and fair system of taxation.

As is seen in the chapter, the selection of certain type of taxes solely for populist purposes can cause the situation to deteriorate even further (e.g.: the Hungarian property tax). To make it even worse, due to negative publicity/communication, it can completely block the use of the given tax instrument for an extended period, even if it would be an appropriate choice of type of tax. Of course, the above holds

true only if all the parameters of the selected type of tax – tax rate, taxpayers, monitoring and controlling of the tax declarations and the underlying activity or property – are selected properly.

One of the basic assumptions of the chapter was that all types of taxes should be levied on the widest available number of taxpayers. In this way, it can be ensured that while the individual tax rate will be relatively low, the people and the companies will not feel that they are being severely and unilaterally punished. Rather, in this way, it can be the proof of solidarity, proof that they are all part of the society and it is their civil obligation to contribute to its functions. This aspect is even truer in case of ecological/environmental issues, to remedy and prevent the damages by taxes. In the above case, an instrument which also either belongs to a larger part of the society or to another generation is to be taxed to counter-balance the externalities and inefficiencies (see local industrial and commercial taxes).

In the future, given the deterioration of our natural environment, there will be a growing need to develop new type of taxes. It is especially important to prevent further damage in the natural and build habitat, and to increase our awareness in order not to over-consume what is in the possession of the local community (both micro and macro-level) and ultimately the whole society.

The most important aspect of taxation or any individual type of tax is that it is an economic tool and as such before any decision of levying, a full-scale micro- and macro-analysis has to be performed, and even more importantly, it can be. The use of taxation for the purpose of only serving short-term populist and political goals can only cause long-term and very expensive problems for the whole society.

As part of the discussion, we have also tried to show that short-term populist directions by the political elite, expressed in general regulatory acts and in specific economic decisions and taxes, are also moral questions in their essence as they are attempts to sacrifice long-term stability for short-term ambiguous results – and as such are highly unethical. Following the above conclusions, to provide an ethically sound taxation is to create a just and fair system of taxes.

However, despite all the moral and economic considerations discussed during the introduction of tax issues, the most important aspect for our dissertation is the proof that seemingly impractical ethical issues are actually very much a practical matter, and influence each decision both on individual and macro levels.

Constituents of state finances - public institutions, decision-makers, taxpayers, and beneficiaries - always act according the present operative definition of ethics.

To include state finances, and particularly the matter of just and fair taxation, and its moral implications in the dissertation was essential. Nevertheless, it perfectly fits within our model of ethics and as such, it is not just useful to examine but it is essentially required in any discussion of the role of State and its citizens.

The ambiguity of the state finances originates from several aspects, even if solidarity is unquestionable. At first, the decision-makers, who influence the operations of financial institutions and the expectations of the participants, are also part of the financial system (in the preferable case only as users of its services), which already puts the rational and free agent theory under serious doubt. Second, either the decision-makers of state finances, as regulators (parliament, government, state agencies) or managers of state enterprises are not necessarily following the same incentives as a market entity and in addition might be competitors of the market itself, thus jeopardizing distribution of scarce resources. Third, their optimization is centered on the election cycles, which might not be coherent with the market cycles. Taxpayers and also beneficiaries of financing decisions of the state are also inclined to optimize according their best short term interest. However, they do it on their micro level, and rarely the decisions really influencing a large group of people like in the case of state institutions. These factors all bring into question the validity of the ethical definition. Despite the above facts, if most of the actors of the state finances systematically follow the maxims of their ethical approach, due to the proper election cycles (independent of their beliefs) and given that enough people votes to provide a sufficient mandate, than the whole system can be viewed as converging toward an ethical state.

II. Coding for the Statistical Analysis –Comparative Performance Analysis

In the final part of the Appendix of the Dissertation, the R language script is presented, which was used to program the calculations and the figures and tables during the interpretations of results.

```
islamic <- read.xls("islamic.xls")
social <- read.xls("social.xls")
msci <- read.xls("msci.xls")

desc <- function(data) {
  return(data.frame(n=sum(!is.na(data)),
                    min=min(data,na.rm=T),
                    max=max(data,na.rm=T),
                    mean=mean(data,na.rm=T),
                    median=median(data,na.rm=T),
                    sd=sd(data,na.rm=T),
                    iqr=IQR(data,na.rm=T)))
}

write.csv2(apply(social[,12:15],2,desc),"socialDesc.csv")
write.csv2(apply(islamic[,12:15],2,desc),"islamicDesc.csv")

par(mfrow=c(2,1))

bpSocial <- boxplot( data.frame(social$X1.eves.hozam,
social$X3.eves.hozam,annualizalt,
social$X5.eves.hozam,annualizalt, social$X10.eves.hozam),
horizontal = TRUE, names = c("1 year", "3 years", "5 years", "10
years" ), range = 4, main="Socially responsible",ylim=c(-80,80))

axis(1,at=seq(-80,80,10))
```

```

bpIslamic <- boxplot( data.frame(islamic$X1.eves.hozam,
islamic$X3.eves.hozam.annualizalt,
islamic$X5.eves.hozam.annualizalt, islamic$X10.eves.hozam),
horizontal = TRUE, names = c("1 year", "3 years", "5 years", "10
years" ), range = 4,main="Shariah compliant",ylim=c(-80,80))

axis(1,at=seq(-80,80,10))

par(mfrow=c(4,1))

boxplot( V1~V2, horizontal = TRUE, names = c("SRI", "Islamic" ),
range = 4, main="1 year",ylim=c(-80,80),
data=matrix(c(social$X1.eves.hozam,
islamic$X1.eves.hozam,rep(0,length(social$X1.eves.hozam)),rep(1,
length(islamic$X1.eves.hozam))),nc=2))

axis(1,at=seq(-80,80,10))

boxplot( V1~V2, horizontal = TRUE, names = c("SRI", "Islamic" ),
range = 4, main="3 years",ylim=c(-80,80),
data=matrix(c(social$X3.eves.hozam.annualizalt,
islamic$X3.eves.hozam.annualizalt,rep(0,length(social$X1.eves.ho
zam)),rep(1,length(islamic$X1.eves.hozam))),nc=2))

axis(1,at=seq(-80,80,10))

boxplot( V1~V2, horizontal = TRUE, names = c("SRI", "Islamic" ),
range = 4, main="5 years",ylim=c(-80,80),
data=matrix(c(social$X5.eves.hozam.annualizalt,
islamic$X5.eves.hozam.annualizalt,rep(0,length(social$X1.eves.ho
zam)),rep(1,length(islamic$X1.eves.hozam))),nc=2))

axis(1,at=seq(-80,80,10))

boxplot( V1~V2, horizontal = TRUE, names = c("SRI", "Islamic" ),
range = 4, main="10 years",ylim=c(-80,80),
data=matrix(c(social$X10.eves.hozam,
islamic$X10.eves.hozam,rep(0,length(social$X1.eves.hozam)),rep(1
,length(islamic$X1.eves.hozam))),nc=2))

axis(1,at=seq(-80,80,10))

islamicSel <- islamic$X1.eves.hozam == bpIslamic$out[1] |
islamic$X1.eves.hozam == bpIslamic$out[2] |

islamic$X3.eves.hozam == bpIslamic$out[3] |
islamic$X3.eves.hozam == bpIslamic$out[4] |

```

```

islamic$X5.eves.hozam      ==      bpIslamic$out[5]      |
islamic$X10.eves.hozam == bpIslamic$out[6]
islamic <- islamic[ !islamicSel, ]

socialSel <- social$X1.eves.hozam.annualizalt == bpSocial$out[1]
|

social$X5.eves.hozam.annualizalt == bpSocial$out[2]      |
social$X5.eves.hozam.annualizalt == bpSocial$out[3]

social <- social[ !socialSel, ]

bpIslamic <- boxplot( data.frame(islamic$X1.eves.hozam,
islamic$X3.eves.hozam.annualizalt,
islamic$X5.eves.hozam.annualizalt, islamic$X10.eves.hozam),
horizontal = TRUE, names = c("1 year", "3 years", "5 years", "10
years" ) )

bpSocial <- boxplot( data.frame(social$X1.eves.hozam,
social$X3.eves.hozam.annualizalt,
social$X5.eves.hozam.annualizalt, social$X10.eves.hozam),
horizontal = TRUE, names = c("1 year", "3 years", "5 years", "10
years" ) )

par(mfrow=c(2,4))

hist( social$X1.eves.hozam, xlab = "Return [%]", main = "1 year
return of SRI funds", prob = TRUE,

      ylim = c( 0, 0.1 ), xlim = c(-40,40) )

lines( density( social$X1.eves.hozam, na.rm = T, bw = "SJ" ) )

abline( v = msci$X1.eves.hozam[1], lty = "dashed" )

hist( social$X3.eves.hozam, xlab = "Return [%]", main = "3 year
return of SRI funds", prob = TRUE,

      ylim = c( 0, 0.1 ), xlim = c(-20,20) )

lines( density( social$X3.eves.hozam, na.rm = T, bw = "SJ" ) )

abline( v = msci$X3.eves.hozam[1], lty = "dashed" )

hist( social$X5.eves.hozam.annualizalt, xlab = "Return [%]",
main = "5 year return of SRI funds", prob = TRUE,

      ylim = c( 0, 0.1 ), xlim = c(-20,20) )

lines( density( social$X5.eves.hozam, na.rm = T, bw = "SJ" ) )

```

```

abline( v = msci$X5.eves.hozam[1], lty = "dashed" )

hist( social$X10.eves.hozam, xlab = "Return [%]", main = "10
year return of SRI funds", prob = TRUE,

      ylim = c( 0, 0.2 ), xlim = c(-10,20) )

lines( density( social$X10.eves.hozam, na.rm = T, bw = "SJ" ) )

abline( v = msci$X10.eves.hozam[1], lty = "dashed" )

hist( islamic$X1.eves.hozam, xlab = "Return [%]", main = "1 year
return of Islamic funds", prob = TRUE, ylim = c( 0, 0.1 ), xlim
= c(-40,40) )

lines( density( islamic$X1.eves.hozam, na.rm = T, bw = "SJ" ) )

abline( v = msci$X1.eves.hozam[1], lty = "dashed" )

hist( islamic$X3.eves.hozam, xlab = "Return [%]", main = "3 year
return of Islamic funds", prob = TRUE, ylim = c( 0, 0.1 ), xlim
= c(-20,20) )

lines( density( islamic$X3.eves.hozam, na.rm = T, bw = "SJ" ) )

abline( v = msci$X3.eves.hozam[1], lty = "dashed" )

hist( islamic$X5.eves.hozam.annualizalt, xlab = "Return [%]",
main = "5 year return of Islamic funds", prob = TRUE, ylim = c(
0, 0.1 ), xlim = c(-20,20) )

lines( density( islamic$X5.eves.hozam, na.rm = T, bw = "SJ" ) )

abline( v = msci$X5.eves.hozam[1], lty = "dashed" )

hist( islamic$X10.eves.hozam, xlab = "Return [%]", main = "10
year return of Islamic funds", prob = TRUE, ylim = c( 0, 0.2 ),
xlim = c(-10,20) )

lines( density( islamic$X10.eves.hozam, na.rm = T, bw = "SJ" ) )

abline( v = msci$X10.eves.hozam[1], lty = "dashed" )

t.test(social$X1.eves.hozam.annualizalt,
mu=msci$X1.eves.hozam[1])$p.value

t.test(social$X3.eves.hozam.annualizalt,
mu=msci$X3.eves.hozam.annualizalt[1])$p.value

t.test(social$X5.eves.hozam.annualizalt,
mu=msci$X5.eves.hozam.annualizalt[1])$p.value

```

```
t.test(social$X10.eves.hozam, mu=msci$X10.eves.hozam[1])$p.value

t.test(islamic$X1.eves.hozam, mu=msci$X1.eves.hozam[1])$p.value

t.test(islamic$X3.eves.hozam.annualizalt,
mu=msci$X3.eves.hozam.annualizalt[1])$p.value

t.test(islamic$X5.eves.hozam.annualizalt,
mu=msci$X5.eves.hozam.annualizalt[1])$p.value

t.test(islamic$X10.eves.hozam,
mu=msci$X10.eves.hozam[1])$p.value

t.test(social$X1.eves.hozam.annualizalt,islamic$X1.eves.hozam)$p
.value

t.test(social$X3.eves.hozam.annualizalt,islamic$X3.eves.hozam.an
nualizalt)$p.value

t.test(social$X5.eves.hozam.annualizalt,islamic$X5.eves.hozam.an
nualizalt)$p.value

t.test(social$X10.eves.hozam,islamic$X10.eves.hozam)$p.value
```