

# RE • THINK



EDITED BY  
ALEXANDER BRINK • DAVID ROHRMANN

# **Rethink – Ethics and Finance**

Edited by Alexander Brink and David Rohrman

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**ETHICS AND FINANCE**

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**Ethics in a  
Market Economy**

**ETHICS AND FINANCE**

# **Why Ethics and Morality are Inherent to a Market Economy**

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## ***1. Introduction***

Buying something in the supermarket, working in an assembly shop or making a decision to purchase bonds and shares: every action leaves a footprint in the market. People are part of a system which takes care of producing and distributing values. They influence it as consumers, employees, entrepreneurs, managers or investors. A benefit calculation and attitude of responsibility determine their action. Whether people act on an egoistic or on an altruistic respectively charitable motivation doesn't matter as long as their actions follow a code of ethics. The most important principle lies in not taking advantage of one's neighbour or putting their livelihood at risk. No matter from which perspective we look at the market, the economy is an integral part of our life. As formulated by Alfred Herrhausen, this leads to the central question whether a market system can represent a moral economic order under the conditions of human nature and the scarcity of resources (cf. Herrhausen 1984).

As postulated by Adam Smith, the father of classical economics, a society can only achieve growing prosperity if the economic man can simultaneously increase wealth through work and participation (cf. Smith 1776/1976). As a theologian and moral philosopher, Smith believed that people act out of empathy and care for their fellow human beings. This conviction has shaped Smith's economic theory. Yet how much do we care about respect and empathy today? Does the big picture still influence our daily decisions?

In the bigger picture, society for example cares about global warming and climate change leading to changes in the existential basis primarily of future generations. But in everyday life, such worries are blanked out. Although everyone knows that private transport produces more harmful emissions per head than local public transport, people still use their cars even for the shortest of distances. People do not behave coherently.

The same can be said about incoherent claims around our current financial climate: no-body wants unstable banks yet everyone wants to yield high interest rates. Thus demands that people should be held responsible for their actions are shaping the political debate about the last financial crisis. Those who generate returns should also bear the risk. Correctly set incentives respectively channel the efficient use of resources which can be judged positively in welfare economic terms. Otherwise there is the risk of moral hazard arising. Accordingly, the rescue and nationalisation of the banks by the taxpayer are subject to critical debate. The assessment of risk and opportunity, however, is a very complex subject, not just in times of crisis.

Beside economic conditions, also personal convictions and needs play a prominent role. Traditional behaviour patterns, influenced by different cultures, influence the way money is handled to a great extent. Thus it can still be observed, even today, that in cultures with a Catholic Christian character bonds are preferred to shares. This phenomenon traces back to the Church's twelfth century decree on the prohibition of interest which was officially lifted in 1830 but continues to exist to the present day in the form of zero bonds. In contrast, shares are favoured in the Anglo-Saxon Protestant world. The North Americans' affinity to shares illustrates the optimism of the early settlers and pioneers who set out at the time to build a new world through the acceptance of risk and uncertainty.

The North Americans were convinced that they could create a better life for themselves in the New World than in Europe. The spirit of optimism and adventure of those days find their continuation in today's stock exchanges. However, families who suffered huge losses under the German hyperinflation of the 1920s even today still react with great sensitivity to the danger of inflation and volatility. In the long term, the investors' behaviour will only change if the interdependence of politics, society and the economy is institutionalised (cf. Eucken 1999).

## ***2. Moral Foundations Have Deep Historical Roots***

“How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it” (Smith 1759: 9).

With this quote Adam Smith recognised the importance of a moral foundation for individuals in the market economy as long as 250 years ago. The subject is still of great social and political interest, especially after the sub-prime crisis of 2008. There was an explicit call for greater moral self-control, since without it the whole system was at risk and opportunistic behaviour appeared to be the dictate of the moment. There was the risk that well-understood self-interest would turn into egoism. For this reason, an enlightened sense of social responsibility is an important part within a market economy, the absence of which cannot be absorbed by legislation and control. In general, market interventions lead to a loss of prosperity, choice and individual freedom (cf. Kahl 1956).

The idea of the market economy will be demonstrated by the social market economy as set out by Ludwig Erhard. We will here define the word “social” in greater detail. To quote John F. Kennedy, it is not a matter what the state can do for each individual but what the individual can do for the community to bring forward its prosperity (cf. Kennedy 1961). Economic subjects participating in the market must not see themselves only as individual utility maximisers if the “invisible” coordination of their action plans is to succeed but they also have to understand themselves as actors who are dependent on one another (cf. Friedman 2004). There exist, in a certain sense, a mutual contract between them based on ethical principles and respect for others. Such guiding principles “invisibly” contribute to a general increase in prosperity and freedom.

From an economic perspective it is not, however, unlikely that moral standards have developed out of a stream of human experience in the course of centuries or millennia as the result of an evolutionary process and have forced back so-called “negative external effects” while simultaneously producing a positive influence on the actors in economic life. That is what Adam Smith suggests in his work *The Theory of Moral Sentiments*. According to Smith, there is therefore a causal connection between moral standards as market rules and our own practiced behaviour. Furthermore, a functioning system of institutional rules must be implemented within an economy so that its actors have normative foundations for doing business. That does not mean an interventionist state but rather a sovereign state which provides the legal framework conditions for the market actors which are necessary to guarantee fair competition or, indeed, appropriately safeguard the possibilities of entering or leaving the market. An efficient competitive order guarantees economic freedom (cf. Habermann 2005: 127ff.).

### ***3. Profits and Morality***

It is not fundamentally reprehensible to do something for egoistical reasons if a positive result for other people is also achieved at the same time. Here is a simple example: Let us assume that someone is queueing in front of a ticket machine and he is in a hurry. Therefore, he provides assistance to help the person standing in front of the machine having difficulties.

Equally two parties could firmly pursue their own interests in negotiating a contract by not taking advantage of the other party so that a fair contract for both parties is achieved. Adam Smith had a simple explanation in his classic liberalism for this mechanism which is not, however, sufficient

for the solution of modern problems in society as a whole. Smith advocated the position of the “invisible hand” which leaves it up to the acting forces to regulate themselves. Here, however, the growing complexity of economic relationships has to be taken into account. No one will necessarily want to trust today that all possible conflict situations can be resolved effectively by themselves because individual egoism is allowed a corresponding momentum. To this extent the consideration that certain fields in society should be meaningfully regulated should not be fundamentally rejected. It is the case, on the other hand, that the trust which has been lost in the course of the financial crisis will not be regained through the introduction of regulations, or at least not by that means alone. On the contrary, the endeavour should not just be to promote own interests through the enforcement of regulations but to work meaningfully for the purposes of society.

In cases of conflict, a decision with which the attempt is made not to increase the pain of others through our own actions is also always a decision with a moral quality. In some cases one can only prevent additional pain for one person and not for everyone. Following Freud, we consider the pain inflicted on us by other people, in comparison to the unavoidable disasters through external and internal nature, as fundamentally avoidable and thus as being particularly painful. Transferring to a corporate strategic decision which has negative consequences for its staff, that means to credibly communicate and justify that these negative consequences, e.g. by a good information policy. Arbitrariness and randomness should be rigorously avoided particularly with regard to unpopular decisions like dismissals. Unpopular decisions might have to be taken to maintain a company during a crisis.

Even if a company stands for a certain corporate culture and certain corporate values such as trust, security and discretion, there is always a residual risk corporate decisions neglect these norms. The suspicion may arise that these moral values are just preached by the management without any practical consequences. Perceived divergences between written words and commitments on the one hand and living practices on the other hand may disappoint and frustrate customers and the public (cf. Kummert 2013).

Fundamental trust in the reliability of companies depends on the extent to which such a suspicion has developed. People first and foremost trust other people not companies as institutions. People develop trust when they see how others brings to life abstract values through their own behaviour. When we endeavour to say what we think and when we endeavour to do what we say and then also to be what we do, then, Alfred Herrhausen believed, we should have a chance to develop credibility and the mistrust of what we say should also disappear as credibility grows (Herrhausen 1989).

#### *4. Individual Responsibilities and the Challenge of Globalisation*

To stay with the example of the social market economy, the latter evidently implies an ethic of responsibility, which cannot be prescribed by the sovereign state but rather has to be developed by the actors themselves. The Enlightenment idea of man is based on a mature, free and responsible citizen. Thus it is a cornerstone of the social policy, for example, that private initiative and self-provision is based on freedom rather than an omnipresent all-providing state restricts this freedom.

Other important elements of this model are monetary stability as the guarantor of efficiency and justice, a competitive order guided by the ideal of open markets which are indispensable for free price setting, as well as a liberal economic policy which refrains the state from market intervention. But this does not mean that the social market economy is a pure liberal market economy but which is deliberately socially accompanied. But, how do we responsibly make use of this economic power? As stated by Alfred Herrhausen, what happens in any place in the world has an immediate direct influence on many other places in the world, and looked at in this way it is already global, it is already a world in which we live and in which we therefore cannot just feel responsibility for ourselves but at the same time have to do so for everyone else as well (Herrhausen 1989).

Globalisation challenges politics and society as it changes shortage ratios worldwide. Four times as much labour is available in the world economy today than there was in 1980. It is the availability of simple, not highly productive workforce, which has enormously increased. The challenges to the occupational flexibility and mobility of less qualified workers in the developed countries in particular are correspondingly great. In many cases they can-not maintain their absolute income in their traditional workplaces and their position in the income structure even less so. Thus, warnings about increasing inequality cannot simply be rejected. The state has to withdraw where it reduces the achievement motivation and engage itself where it supports growth strengths and equal opportunity, such as for example through the qualification of people or intergenerational justice. In times of globalisation following Ludwig Erhard's model of the social market economy meets this expectations. Here the social market economy places its trust in the primacy of the market and the personal responsibility of consenting citizens without forgetting that the state has to set rules for the best possible incentives for market forces and is also called upon to be involved in the task of enabling all willing citizens to take part in it (Habermann 2005: 38ff.).

## 5. *The Market Economy as a Consensual Economic Order*

Since the times of Adam Smith, modern economists advocate the hypothesis that the market economy is superior to all the other concepts. Even though Adam Smith and his successors did not put it in these words, they would claim that the market economic order serves mutual interest and is based on an idea of freedom and equality (cf. Eucken 1999: 15f). In recent times it was Friedrich A. von Hayek who defends this claim emphatically and with thorough arguments. Like the constitutional economists he uses the game metaphor to illustrate his arguments against the background of social theory (cf. Vanberg 2011: 12f.). According to Hayek (1979), it is best thought of as a game which can be called the game of catallaxy, in order to understand the functioning of the market system, which not only leads to the creation of order, but also to a large rise in the proceeds which people obtain from their efforts.

The term catallaxy is derived from the ancient Greek word “katallatein”, which means both “bartering” or “trading” and “to admit into the community” and “turn an enemy into a friend” (cf. Vanberg 2011: 12f.). It had been this dual meaning, Hayek notes, which led him to propose “that we call the game of the market, through which we bring the stranger to be friendly with and useful to us, the game of catallaxy” (Hayek 2004: 195). What the term catallaxy – game or exchange – highlights is that the market is an arena for voluntary exchange and cooperation based on rules and contracts. The market price is the economic price for which a good or service is offered in the competitive marketplace. Or, expressly in Hayek’s words:

“The chief cause of the wealth-creating character of the game is that the returns of the efforts of each player act as the signs which enable him to contribute to the satisfaction of needs of which he does not know, and to do so by taking advantage of conditions of which he also learns only indirectly through their being reflected in the prices of the factors of production which they use. It is thus a wealth-producing game because it supplies to each player information which enables him to provide for needs of which he has no direct knowledge and by the use of means of the existence of which without it he would have no cognizance, thus bringing about the satisfaction of a greater range of needs than would otherwise be possible” (Hayek 1979: 115).

To sum up these constitutional economic considerations Hayek advocates the hypothesis that people have rational grounds to engage in the catallaxy game and to agree to the rules of the game (cf. Hayek 2002: 104ff.). The market economic order is to be recognised as a just order (cf. Vanberg 2011: 14f.).

## **6. Conclusion**

From the beginning, the guiding principle of the market economy was established as a compromise and thus open to conflict. Following Alfred Müller-Armack (1956), the basic idea is to combine the principle of freedom in the market with social equalisation. The basic conflict arises because the of the market economy are constitutive and, in the majority of cases, diverge from those which are justified on the grounds of the welfare state. Moral categories have been integrated in the set of rules governing economic life in the market economy. Morality then lies in the rules of the game and competition takes place in the moves of the game.

Additionally, responsible entrepreneurs should have a character, which is guided by the entrepreneurial virtues. These virtues are among others integrity and honesty, thrift and moderation, resolve and foresight, order, diligence as well as decency. Their virtues strengthen their own credibility and build the trust, which is indispensable for good business relationships. These virtues are not imposed or enforced from the outside but arise from mutual recognition of the economic actors. If no prior understanding between the actors on the market exists, Honneth (2013) specifies the conditions, that they should treat each other not just as egocentric utility maximisers but respect one another as trustworthy contractual partners, what happens in the market would be under constant threat of the danger of deceit and distrustfulness. In view of today's challenges in the market economy it is therefore high time to remember a tradition in which the market is interpreted as a morally demanding undertaking of modern societies contingent on many factors.

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# **ETHICS AND FINANCE**



**Ethical Trainee  
Development**

# Sustainability and Intrinsic Value in Trainee Development

Manuel Hohmann, Sebastian Lechner, and Isabel Ruckelshauß

## *Keywords*

*Moral Development, Moral Education, Trainee Development, On-the-Job-Training, Sustainability*

In our paper, we identify moral development as a great opportunity to improve the Deutsche Bank's current trainee program. The program has not yet been able to fully meet high potentials' growing demand for ethically outstanding employers- a decisive feature in the war for talent. Since morally educated professionals perform better, there is a positive effect on the bank's revenue and business performance. On the back of Lawrence Kohlberg's groundbreaking work on moral psychology and based on recent studies on moral education, we suggest modifications to the Deutsche Bank's trainee program.

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## ***1. Introduction***

“The Times They Are A-Changin” Bob Dylan was singing in 1963. Many things in this world have changed since then, but one thing has constantly remained true: Those who adapt to changes persist. Animals that adapt their diets to climate change are more likely to survive (cf. American Friends of Tel Aviv University 2010) and similarly, companies adapting to future challenges stay in business. The sooner they make adjustments to new challenges, the less painful the change will be. But what are upcoming challenges for a company in the 21st century?

Globalisation connects branches and actors that have never worked as closely together as they do today, and progress in information technologies has generated a more dynamic and faster process of decision-making. With an increasing transparency of business transactions, the group of stakeholders is growing day by day. All these aspects increase the complexity of successful leadership and leaders need new anchors and approaches. Especially among the generation that entered the workforce after 1 July 2000, the so-called millennials, there is a growing demand for moral values as a substitute for experience and detailed knowledge of previous generations (cf. Leipprand et al. 2012: 9 f.). While detailed knowledge is still of great value, when decisions about right and wrong have to be made in a matter of seconds, they have to be based on moral intuitions. In their recent study on a new conception of leadership, Leipprand et al. (2012) identify employees’ insufficient reflection as one of the future’s most important problems. Long-term thinking is difficult due to various challenges in day-to-day business. Leaders leave too little space for reflection. Values are needed as a compass to navigate through this increasingly complicated world. These very same values are demanded by young employees in their work environment. Deutsche Bank’s trainee program has not yet been fully able to meet high potentials’ growing demand for ethically outstanding employers – a decisive feature in the war for talents. Since morally educated professionals perform better, an additional positive effect on the bank’s revenue and business performance can be achieved as shown by a study by Deutsche Bank itself.

This study reveals that Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) factors produce, among other positive results – such as an improved public reputation, higher customer satisfaction or environmental protection – mark a beneficial effect on the cost of capital. Examining over 100 academic studies of sustainable investing, the study concludes that “100% of the academic studies agree that companies with high ratings for CSR and ESG factors have a lower cost of capital in terms of debt (loans and bonds) and equity [...].

89% of the studies [...] show that companies with high ratings for ESG factors exhibit market-based outperformance” (Deutsche Bank 2012: 5). This leads us to believe that there is a need to strengthen the trainees’ awareness of sustainable investment options and their concrete advantages. Here, moral behaviour and financial gain go hand in hand.

In our paper, we identify moral development as the key element to meet trainees’ expectations. The theoretical foundations of moral development according to Aristotle and Kohlberg will be revised. A trainee program that is enhanced through a component of moral development is something new in the world of corporations that not only attracts high potentials and future leaders, but also satisfies their demand for such a component. Our expectation is that those more satisfied trainees are then more likely to stay in the corporation. No such trainee program exists in the German market yet and we believe that these improvements should be established in the current programs. As Deutsche Bank will be a pioneer in implementing this program, it will set the benchmark for other companies.

Many articles, like “Die Zocker AG” (Hesse et. al 2012), with critical connotations suggest that the financial sector has been developing an increasingly bad reputation since the beginning of the financial crisis. The current focus of trainee programs fits perfectly to the requirements of “pre-crisis” business but the stakeholder perception of financial business has changed radically, as can be seen in the title of the Spiegel article or in new populist terms like turbo-capitalism, which criticize the established system of financial business. Implementing moral analysis in trainee programs helps banks show society that they take worries seriously.

What we attempt to do in this paper is to show how companies, and in particular Deutsche Bank Private Wealth Management, can advance their trainee programs to improve the soft skills of its future leaders. With our ideas, we will try to satisfy the demand of the millennials for moral integrity and socially responsible employers, and we will identify options to implement moral values as an explicit part of corporate culture. This will not only lead to more satisfied employees but also to more integrity and intentionally moral behaviour in corporations. The results of this process are first and foremost a strengthened intuition for moral conflicts and choices in everyday business, and an improved relationship between employer and employees. In this respect, the focus of the study lies upon Deutsche Bank Private Wealth Management. Especially in this business, it is important to serve customers’ demands for trust and integrity – the core values of this business (cf. Deutsche Bank – Private Wealth Management 2012).

We seek to implement a better understanding of moral conflicts, moral intuitions and the importance of values on the job into the existing program. This method is less radical than creating a completely new program and allows for a less labour-intensive implementation of moral aspects into existing structures. Our focus on trainees is based on the idea that a bottom-up approach, starting with the next generation leaders, is the best way to raise awareness of the issues of morality inside the corporation. Additionally, moral theory shows that trainees are at the ideal stage in life to further develop their moral judgment skills.

## ***2. Challenges for Deutsche Bank Trainee Program***

### *2.1 The Target Group*

To become a Deutsche Bank trainee, excellent analytical skills, strong decision-making abilities, excellent communication and relationship-building skills, resistance to pressure and many more skills are required (cf. Deutsche Bank 2012). All of these competences are plausible and well-established, and all of them will be strengthened in the program. Our approach adds one aspect that has not yet been in the focus of trainee programs which is important for employers as well as for employees: Employees' integrity and social responsibility play a major role for any institution that entrusts its employees with billions of euros in the hope that it will be well invested. Both the company's and the customers' trust establish the basis for successful dealing.

DB Private Wealth Management is in charge of wealthy customers with high and ambitious demands. A sustainable and intrinsically valuable advisory process is very important. We claim that this continuous sustainability can only be attained if Deutsche Bank implements the possibility of moral development in its private wealth management program. The need for this development is already given, since as DB Research claims "the market for responsible investments has seen a huge increase in recent years. Demands from (public) institutional investors and high-net-worth individuals have been among the main driving forces behind this development" (Deutsche Bank Research 2010: 1). Additionally, the investors will be "placing greater weight on ESG (environmental, social and governance) criteria, corporates and sovereigns will be pressured to adhere to higher standards" (1). In connection to the trainee program, this means that a program is needed

that enables professionals in the financial market sector to combine moral values with a mastery of complex and perpetually changing facts.

## *2.2 Young Professionals Seek Values at Work*

A study by PricewaterhouseCoopers (2007), PwC hereafter, reveals the millennials' wishes. For the survey, conducted in 2008, recent university graduates (4,271 from 44 countries) who were due to begin working for or were already working for PwC were interviewed. Out of these, 88% said they will choose employers who have CSR values that reflect their own and 86% would consider leaving an employer if CSR values no longer matched their expectations. It is interesting to note that despite these figures, only 7% would choose to have time off to do social or charity work as one of their top three benefits. From this, we conclude that millennials want the primary focus of CSR values to be situated in the company itself – moral actions should be part of their working lives and not only of their private lives. Apart from values, another wish is noticeable. Of all employee benefits, training and development is the most highly valued. The number of millennials choosing training and development as their first choice of benefit is three times higher than those who chose cash bonuses. Antithetical to this is the fact that younger workers receive vocational and educational training opportunities, while coaching and mentoring are mostly offered to senior employees. Trainees are educated – what they need is further advancement of their skills and identities. We seek to connect these major demands – the demand for CSR values in the company with the demand for further development and self-improvement. By further improving the values in the trainee development process, we hope to attract those individuals who will choose employers with CSR values reflecting their own, keep them in Deutsche Bank and convince them by means of a holistic program, the likes of which have never been seen.

## **3. *Can Moral Judgement Be Developed?***

### *3.1 Theoretical Foundations*

As Aristotle said, “it makes no small difference, then, whether we form habits of one kind or of another from our very youth; it makes a very great difference, or rather all the difference” (Aristotle:



Nichomachean Ethics, book 2, ch. 1), meaning habituation to moral values will eventually form a person's character, inevitably resulting in morally good behaviour. Since these values crucially depend on the environment, and employees spend the greatest part of their professional life in their job environment, it is important that the place of work contributes to the enhancements of these values. The philosopher's approach has since been affirmed by several moral psychologists, the most prominent being Lawrence Kohlberg and Jean Piaget. Even though their findings date back to the last century, they "laid the groundwork for the current debate within psychology on moral development" (Nucci 2008). We will base our suggestions for Deutsche Bank upon their findings. Kohlberg's theory of cognitive moral development is divided into six stages, each leading more closely to aptly respond to moral dilemmas. Aware of the fact that the stages of moral development are value-biased, Kohlberg states that the ideas comprised in the definitions of the stages originate from the subjects in his empirical studies (cf. Kohlberg 1996: 30). Despite this lack of neutrality, he claims that the stages are independent of the cultural environment (cf. Garz 2008: 101). Empirical evidence is provided by Gibbs, affirming that "apparently, moral development is not entirely relative to particular cultures and socialization practices" (Gibbs 2010: 51).

Based on this background, Kohlberg develops three main levels of moral development: the pre-conventional, the conventional, and the post-conventional level. They constitute stages of cognitive moral development. This cognitive aspect is defined as the structure of one's behaviour with regard to certain moral principles (cf. Lind 2000: 53). On the pre-conventional level, moral decisions are based on the material and hedonistic consequences of actions. On the conventional level, moral decisions are grounded on conformity with the expectations of the social environment and on securing the social order in the individual's society. The post-conventional level enables the individual to make decisions inconsistent with the society's view if they stand in contrast to his or her own principles which are typically marked by the basic human rights.

It is important to note that Kohlberg assumes four specific features of the stages: (1) qualitative differences in the way people think; (2) an invariant succession of the stages of development, so that there may well be differences in the speed that they are reached, but not in their order; (3) a structured whole of every stage, meaning that on each stage, a consistent response-scheme occurs that cannot be viewed as a solely learned reaction; (4) hierarchical integration, so that earlier-stage structures are retained and integrated into higher-stage structures (cf. Kohlberg 1996: 85 f.). The qualitative improvement and the assurance that steps can only lead up-, but never downward, indicate that moral development cannot have negative effects.

These three levels each consist of two stages (see Figure 1). The pre-conventional level includes: first, obedience and punishment orientation as well as, second, self-interest orientation. On the conventional level, third, interpersonal accord and conformity; and fourth, authority and social-order maintaining orientation succeed them. Finally the post-conventional level includes, fifth, social contract orientation as well as, sixth, universal ethical principles orientation (cf. *ibid.* 51 f).

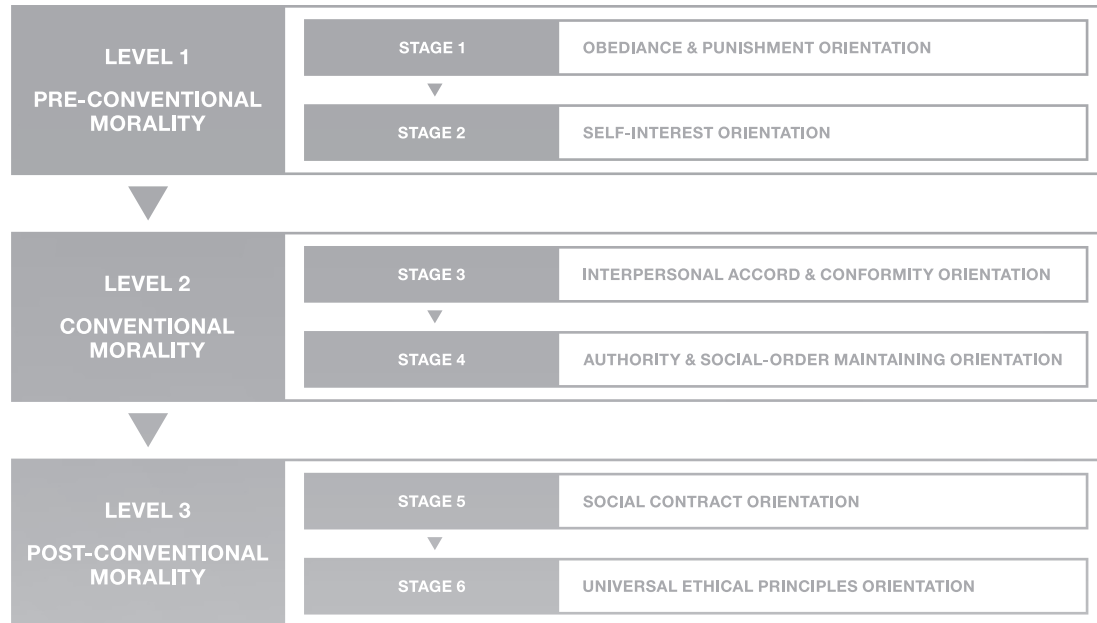


FIGURE 1: KOHLBERG'S STAGES OF MORAL DEVELOPMENT  
(BASED ON. KOHLBERG 1996: 128-132)

Kohlberg created his cognitive model in accordance with Jean Piaget's theory of moral development (cf. Piaget 1971), which we will not explore in detail in this paper. He thought it to be his task to connect Piaget's cognitive-structural model in which experiences promote development with a model of adults' experiences (cf. Kohlberg 1996: 102). However, it is interesting to note that Kohlberg drew parallels between Piaget's stage in logical development and the moral stage an individual is at, so that, e.g., those incapable of abstract thinking cannot overcome the pre-conventional level.

According to Kohlberg, logical development is a necessary, but not a sufficient condition for moral development, which requires more than clear thinking. We assume Deutsche Bank's trainees to have the necessary abstract thinking abilities and therefore think that all pre-conditions for a successful moral improvement are met (cf. *ibid*: 31). In addition to logical development, the environment plays a decisive role for an individual's moral development (cf. Kohlberg 1996: 31). The interaction between an individual and its environment strongly influences the individual. Thus, the place of work is an important factor in positively affecting moral judgment (cf. Kohlberg 1984: 8).

But Kohlberg's work has also encountered criticism. As Fraedrich, Thorne, and Ferrel underlined, "(t)he most common criticisms relate to disguised value judgments, gender-bias, and the invariance of stages (...) The theory was developed using an all-male sample and does not allow for vacillation between the stages of development" (Fraedrich et al. 1994: 3). Although they advise caution, they admit that "(t)here is general agreement that cognitive moral development is one variable that can assist in predicting ethical decision-making in business" (*ibid*: 7). Thus, in combination with the more recent studies already mentioned, the Kohlberg framework seems highly plausible to rely on.

### *3.2 Achieving Moral Development*

Moral development cannot be attained by studying textbooks. As Piaget noticed in the early 1980s, "it is obvious that affective factors are involved in even the most abstract forms of intelligence. For a student to solve an algebra problem or a mathematician to discover a theorem, there must be intrinsic interest, extrinsic interest, or a need at the beginning" (Piaget 1981: 2-3). But what does this imply for trainee development? How can interest in moral issues be kindled and maintained?

Education is a possible answer. Kohlberg (1985) has shown that education can accelerate moral development. Examining this claim, Kavathatzopoulos (1993) conducted a study to test whether simple instructions promote a shift in the individual's ethical function towards the autonomous phase of development. In Piaget's model, this autonomous phase is the one following the heteronomous phase, in which one is governed by oneself and makes independent moral decisions. While heteronomous decision makers refer to general moral principles, autonomous decision makers succeed in focusing on a concrete situation and critically assessing it (cf. Piaget 1932). The subjects in Kavathatzopoulos' study were asked to solve business ethics problems. Kavathatzopoulos showed that the instructions had a very strong effect on the shift from the heteronomous to the autonomous ethical phase. Thus, there is a need to consider the "significant difference in the effect

of two disparate teaching methods upon ethical attitudes and perceptions” (Kavathatzopoulos 1994: 1). The author emphasised that discussions of specific business scenarios are much more powerful than lectures on basic ethical principles (cf. *ibid*: 1-2). He showed that “acquaintance with various general philosophical methods alone is not sufficient to cause changes in the individual’s attitudes towards moral issues. Concrete training was found to be more effective” (*ibid*: 2). Even though this study was conducted using Piaget’s instead of Kohlberg’s framework, it covers all the necessary aspects. Consequently, while simple instruction cannot replace active involvement of the participants, it can very well have a positive effect.

This view is supported by Georg Lind. As he successfully demonstrated, well-directed education can change the moral-democratic atmosphere in schools and promote students’ ability to make high-quality moral judgments in Kohlberg’s sense (cf. Lind 2000: 191). At the same time, he emphasises that moral development does not end with schooldays, since high school graduates are less geared to moral norms than college students (cf. *ibid*: 250). Studies like the “Defining Issues Test” (cf. Schlaefli et al. 1985) show that moral development programs have an even stronger effect on adults than on children and youths.

Measures of cognitive moral development, Kohlberg emphasised, are seminars, case studies, role plays and, in particular dilemmas: “(t)o make a formally-operatorically thinking adult come to moral reasoning, he must experience social and moral situations (...)” (Kohlberg 1996: 103). In this view, he is supported by Lind, standing in the tradition of Habermas, who stresses that

“It is especially significant that the situative threshold of a once expressed opinion on a concrete dilemma can in principle be overcome. It can be revised on the basis of moral arguments that could find consensus. Thus, the line of arguments does not only serve the ‘rationalization’ of this opinion, but also its critical assessment” (Lind et al. 2000: 31; cf. Habermas 1973).

In dilemma situations, different values conflict or seem to conflict. Assessing them in groups helps realise how to sensibly structure and eventually master them. In the case of the trainee program, a variety of dilemmas can be explored, both highly dramatic and regular, everyday situations. Even if some of the trainees never enter senior management, dramatic cases serve as “caricatures of business ethics issues which help to emphasize that management cannot be regarded as a purely technical process” (Maclagan 2003: 6). A dilemma situation in the area of banking might look like this:

John is a high net worth individual and wants to invest his money. He is also a socially very responsible person, so he decides upon an ethical investment and asks his private wealth manager Steven for advice. Steven works in the Private Wealth Management of Deutsche Bank. His colleagues suggest that Steven should invest John's money in the brand-new fund ET-1, which is the bank's first ethical fund. Steven takes a closer look at ET-1 and finds out that in the fund's summarized evaluation, important issues were left out, leading to the conclusion that it is a socially responsible investment. When confronted with his issues, the bank changes a few words in the summarized evaluation but comes to the same conclusion, which says that the fund is ethically correct. Should Steve advise John to buy ET-1 at the risk of losing John's trust or should he tell him that his bank can't currently offer John an appropriate solution at the risk of losing him as a customer of the bank?

One way to tackle a dilemma is to structure it by asking certain questions. A questionnaire for our purpose might look like this:

WHAT ARE THE MORAL ISSUES?

CAN WE IDENTIFY THE STAKEHOLDERS, ESTABLISH THE FOCUS OF RESPONSIBILITY FOR THINGS THAT HAVE HAPPENED AND FOR TAKING CORRECTIVE ACTION IN THE FUTURE?

IS THERE A DILEMMA?

DOES SELF-INTEREST ENTER INTO THE PICTURE, AND IF SO, IN WHAT MANNER?

IS THERE EVIDENCE OF PERSONS' FAILURE TO ACT ON THEIR MORAL BELIEFS?

ARE LEGAL ISSUES INVOLVED?

FIGURE 2: EXAMPLE QUESTIONNAIRE (CF. MACLAGAN 2003: 8)

This can serve as an initial guideline to evaluate the situation and realize the crucial factors involved in handling the problem. Of course, before a dilemma like this is realized in the context of the program, it should be best adjusted to the bank's organizational structure and address existing compliance measures.

An additional aim of the program enhancement is to advance the trainees' guilt proneness. Through moral sensitizing, we seek to increase this guilt proneness which Cohen, Panter and Turan describe as "an emotional trait, referring to the anticipation of feeling guilty about committing transgressions" (Cohen et al. 2012: 2). A high disposition to guilt proneness is desirable for a bank, since it reduces counterproductive work behaviour, defined as "behaviours that harm or are intended to harm organizations" (ibid: 1). It has been confirmed by studies that people with high scoring guilt proneness make fewer unethical business decisions and commit fewer delinquent actions (cf. Cohen et al. 2011).

### *3.3 Effectiveness of Moral Training*

Empirical studies suggest that moral development is, as Kohlberg stated, not entirely bound to specific cultures (cf. Gibbs 2010: 49 ff.). While the specific society one lives in can have an effect on moving from one stage to another, the stages themselves are not culturally connected. Gibbs defines a stage of moral judgement "as a structure of moral justifications, that is, of reasons supporting a decision or evaluation in the context of the right and the good" (ibid: 46 ff.). Thus, a decision or evaluation refers to values (like telling the truth or helping others). Based on this definition, the Sociomoral Reflection Measure-Short Form (SRM-SF) for example has individuals "evaluate and justify the importance of specified moral values". Their answers are then compared with "inductively and deductively derived 'criterion' justifications found in the scoring manual" (ibid: 47) to assess the individual's stage of moral justification. Knowing that there are scientific methods of measuring moral judgement, we can focus on the benefits of moral training.

Jones (2009) studied the effectiveness of moral training, using a treatment and a control group. Participants were freshmen business majors, completing a test before and after the training. Controlling for pre-training levels of moral reasoning, his results showed that students in the training group have "higher levels of post-training principled moral judgment" compared to the students in the control group. The tests for this study were held before and after five 75-minute classes, thus controlling for this effect. This confirms Kohlberg's findings which stated that individual's moral

judgement tends to become more sophisticated over time. As Kohlberg (1964) and others have shown, development in moral judgment is positively related to moral behaviour. Thus, it ought to be every trainer's goal to support trainees in achieving the highest possible level of moral reasoning. The studies of Schlaefli et al. (1985) suggest that the effects of moral training are relatively weaker for people younger than 24 years of age. In Jones' study, participants were on average 19 years old. We thus assume that our program is applied at the right stage in life.

Other institutions have already recognised that their employees often have high individual moral values, but are not always able to put them into practice. Thus, some German Bundeswehr officers are currently undergoing moral training to improve their moral power of judgement. Chinese civil servants receive moral training to avoid moral laxity and to improve the "civil servants' loyalty to the country and people, as well as their sense of responsibility, honesty and fairness" (Wang 2011). The training consists of lectures as well as case studies where hypothetical dilemmas are discussed. The aim is to find a solution strategy based on moral principles as it is not possible to provide recipes that tell one what to do. Life is too complex for such instruction. These are just some examples showing an upcoming trend: Other institutions and branches are going to implement programs for moral development, but the financial branch has not yet reacted to the trend. That is why we suggest Deutsche Bank to be a pioneer in its sector.

#### ***4. Our Suggestions for the Improvement of Deutsche Bank's Trainee Program***

##### *4.1 The Program*

Since trainees join Deutsche Bank at a perfect age for further, intensive moral development and are already equipped with logical thinking abilities, we now suggest how to awaken the remaining potential. The problem with moral dilemmas is that they are often very complex, they include many stakeholders and, most importantly, there is no morally superior action to take.

In the course of the program, a few different philosophical approaches will be covered. The trainees will practice to apply them to different ethical issues and dilemmas that are likely to happen in their everyday business activities. As this reveals to the trainees new ways of thinking about these issues, we expect this to positively affect their moral reasoning. There are various conceptual links between philosophical approaches like Kant's conception of morality, the categorical imperative,

and stage 6 of Kohlberg's theory, the universal ethical principles orientation. Dilemmas used in our program will always be typical business cases, based on everyday contexts. Consequently, trainees will perceive them as highly relevant for their education and willingly accept the challenges arising in the program.

A substantial amount of the program time will be used for discussions in groups about the dilemmas and scenarios. This is based on Kohlberg's +1 logic: anyone (e.g., the instructor) at a more advanced stage of moral reasoning can pull up all the others one level higher. Group participation in every phase of the program and shared decision making are thus essential for developing higher levels of moral judgment.

In the following, we will describe a trainee program suited for Deutsche Bank. This approach needs about one year of time and can be seen as a basis in advancing moral behaviour. For the sustainable improvement of moral acting, a (work-)life-long process is needed. The main reason for such a trainee program focused on sustainability and intrinsic values is to give the participating future leaders and managers a tool to work with in morally critical situations as described in chapter 3.2.



FIGURE 3: OUR SUGGESTED PROGRAM (OWN ILLUSTRATION)



The core of this approach is a cooperation of trainees and students like those students from the Philosophy & Economics program at the University of Bayreuth. The development of moral awareness is based on four points: Enabling, generating, sensitising and rewarding – the EGSR Approach.

#### *4.2 The EGSR Approach*

The basis for the program is to enable the program members to consciously identify moral behaviour by participating in lectures and seminars on ethics. In a second step, program members have to apply the learned ethical basics to a situation in daily business which works as a generator for improved moral acting. In the context of enabling the program members to handle dilemma situations in a reflective and moral respecting way, it is important to sensitise the individuals to notice where moral behaviour plays an important and successful role. The last step is to honour the participants' efforts and reward them in attractive ways.

##### *Enabling*

The first step is enabling – we want the trainees, who are used to looking out for hard facts, to open their eyes to moral conflicts in everyday business. In practice, enabling means that the trainee program has to be complemented by seminars on ethics. Several programs connecting philosophical and business topics exist. The seminars could, for example, take place at the Institute of Philosophy at the University of Bayreuth. Here, the study program “Philosophy & Economics” (P&E) was founded over ten years ago and is a leader in connecting analytical, ethical, and economic thinking. In the seminars, trainees work together in tandems with P&E students. This will be done through visual presentations of both groups' knowledge and effectuate a win-win situation. While students contribute ethical knowledge, especially in economic and corporate ethics, trainees add the know-how of financial business, leading to a knowledge transfer. This agenda highlight has two functions. The first one is to bring the parties together so as to build teams. As an introduction, the aim is to motivate the members for the program and to create a network among them for the following knowledge transfer that has to be realised as a second function of the seminar.

In addition to this seminar, enabling will include activities to further kindle motivation and strengthen the program members' awareness for moral action. This approach should include a lecture by a leading figure in the field of economics and ethics three months after the seminar.

The social effect is that face-to-face relationships of the tandem partners will be improved which supports the team-building function, while the second function of knowledge transfer is served by the speaker through his lecture about connecting ethics and business.

### *Generating*

In the second stage, the focus on developing moral awareness rises, meaning that this approach will motivate the trainees to improve their skills from the inside. After the kick-off seminar, the real work process begins. An investment challenge will be established to connect moral acting directly with the everyday work of the trainees. Its aim is to show the benefits of moral acting not only in a social way but also in the financial, profit-oriented business.

The rules of this challenge will be different from rules of regular investment challenges that rank participants on the basis of the monetary return on investment; here, the new and most significant category is the social return on investment. Each tandem will get the same amount of money and the task to invest this sum as sustainably as possible. The monetary profit is not the leading approach but rather the idea of socially, ecologically and, as one of these three points, too, economically sustainable investments. This challenge will work as a “mind-opener”. The aim is to show trainees and students that sustainable investments are socially and economically rewarding. An important point that has to be made is that the investments are not supposed to be idealistic but hopeless investments in companies that cannot survive in a social market economy because their business plan is not workable. This has the effect that the tandems have to screen potential companies very intensely in the above-described ways of sustainability.

This kind of investment challenge is a challenge for the program members as well as for the experts that have to evaluate the performance of the tandems. A ranking for sustainability aspects of the portfolios has to be developed, and experts have to rate every company that appears in the different portfolios. In this new program, factors other than the standard financial ratios like EBIT or cash flows are of interest. Experts for this kind of rating are found in the Institute of Philosophy in Bayreuth as well as in the leaders of the participating company. Both parties have to install a committee consisting of managers and professors which evaluates the performance of the different tandems.

### *Sensitising*

Generating the power to act in a morally responsible and sustainable manner is the core of the approach. It will be accompanied by a measure to sensitize the trainees to the positive effects of their behaviour. Most human beings have an idea what moral behaviour looks like and live according to a certain value system, yet in most cases, this is exercised unconsciously. However, if moral skills are to be refined, it is important to see how moral theories are translated into practice. While the investment challenge is an active element of the program, fulfilling the need for sensitizing for conscious and unconscious acting, the lecture supports the passive part of sensitising. But the lecture by a well-established expert in the field only explains and highlights the connection of financial investments and moral behaviours. It is important for the participants to see how morality and self-reflection successfully work in real life and especially in the real economic environment. We suggest a visit to a social enterprise, succeeding socially and economically. Since this visit could be performed with the tandem partners, the relations inside the group will be strengthened as a side effect.

In addition to these points, the program has two evaluation meetings that have to support networking as well as knowledge transfer. However, the focus is on giving feedback to the investing students which strengthens the group from inside because exchanges concerning experiences lead to improved progress. The evaluations are an important module of sensitizing because while discussing their different investment strategies, the program members are forced to reflect on their decisions, a pause in time that is not necessarily available in business life.

### *Rewarding*

After one year of trading, company visiting and exchanging experiences amongst the group, it is necessary to draw a balance and see what has been the benefit of the program for every single participant as well as for Deutsche Bank. The outcome for the participants should be an open mind for moral dilemmas, and sustainable behaviour in social, ecological and economic ways. Experiences are made that hopefully lead to more reflective decisions and because of that, companies, especially in the service sector, strengthen their human resources as the future leaders have the skills to make morally sustainable decisions that serve both them and their company better. Since the demands of the PricewaterhouseCoopers study are met in the program, we dare hope for a decrease in trainee fluctuation after the end of their program as a result of better identification with the company.

Additional benefits we hope to generate are further improved employer branding and ameliorated stakeholder relationships.

The program will officially end in an awards ceremony, which could be incorporated into other important events of Deutsche Bank's schedule. This ceremony serves to celebrate the successful participation in the program in general and to celebrate the winning tandem of the investment challenge in particular. Each participant receives a certificate for his efforts and the winning tandem could win something of idealistic value, such as spending a day with the bank's CEO. Celebrating the program in public has benefits in two ways. The first one is the marketing action, to once again prove that bankers are able and willing to think beyond the short-term return on investment. The second one is the visible estimation of sustainable, reflective thinking and behaviour at Deutsche Bank. The obvious appraisal of these values is made present in all employees' minds.

We believe that after completing our program, trainees will more easily be able to identify the stakeholders involved in ethical dilemmas, as well as be able to apply various philosophical approaches to them. Being exposed to various approaches and levels of moral reasoning enhances their own capabilities of moral judgement. Furthermore, they will be better at recognizing an existing moral dilemma and their reasoning about it will be more sophisticated. As the dilemmas are inspired from everyday business activity, they will have a highly practical relevance for sustainable trainee development.

## ***5. Future Challenges***

Time will reveal employees' and clients' responses to this development approach. Possible key indicators for the efficaciousness of the program could be the number of applications to the program, the fluctuation of trainees after finishing, a possible downshift in days of sick leave, and the satisfaction of current employees with the changes to the regular program. Depending on the trainees' experiences, the moral development approach could also be integrated in an enhanced trainee program apart from the regular one, offered to the trainees on a voluntary basis. This might last longer by one year, but create extra value for both Deutsche Bank and the motivated trainees. Regardless which program will be implemented in the end, the longer or shorter version, Deutsche Bank will be the first to do so in the financial market and will be a huge step ahead of its competitors when it comes to sustainable trainee development.

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# **ETHICS AND FINANCE**

**Collective Risk  
Assessment**

# Collective Risk Assessment

How Swarm Intelligence Could Revolutionise Traditional Approaches to Financial Risk Assessment

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*Keywords*

*Risk Assessment, Swarm Intelligence, Expert Judgement, Behavioural Finance*

In recent years, traditional risk assessment has come more and more under fire. The judgement of experts in combination with statistical and historical data was often perceived as an objective measure and prediction of risk. However, these orthodox assumptions seem to be counterbalanced by empirical evidence. Yet findings in the fields of swarm intelligence and behavioural finance seem to lead to promising alternatives. This paper argues for an investment tool that is based precisely on these findings and thus could help reduce risk and enhance experts' judgements.

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## ***1. Introduction***

In recent years, traditional risk assessment has come more and more under fire. The judgment of an expert in combination with statistical and historical data is often perceived as an objective measure and prediction of risk. Especially in the financial sector, the role of risk assessment in structuring information and quantifying uncertainty has increased steadily over the last decades. Risk assessments are normally understood as “structured methods for identifying, analysing and evaluating risks, which provide useful support in the decision making and the regulatory processes” (Skjong/Wentworth 2001: 537). Hereby, experts’ judgements are assigned an essential position in the procedure of hazard identification and risk estimation. However, experts’ judgement has often been accepted as an objective estimation of risk, an assumption that empirical evidence does not support.

To shed light on the various problems of risk assessment and experts’ judgement, this paper first provides a condensed overview of the origin of mathematical perception of risk in the financial sector. That is to say, Harry Markowitz’s “Portfolio Selection” is presented as the first investment model that applies proper risk assessment procedures. Here, risk is based on statistical and historical data. However, especially during a crisis, the basic assumptions of the Modern Portfolio Theory (MPT) seem to waiver. As a next step, general suppositions of behavioural finance and collective intelligence are introduced as an alternative access to risk assessment in the financial sector. Hence, the rational, statistical approach of Markowitz and the irrational, but often correct decision-making of the crowd are to be confronted. Finally, the results are used to develop a conceptual investment tool for a company in the financial sector, preferably a bank. This tool suggests that these companies could benefit from the predictions of laymen, in contradistinction to predictions from experts. That is, we will discuss how to apply these theories to a tool, making investment decisions easier using the results of a probabilistic forecasting method. To achieve this goal, behavioural finance theories and studies on prediction markets and on the ability of laymen to make predictions on stock market prices will be considered. These concepts will deliver a basis for further studies and experiments, and the additional empirical evidence thereby gained will lead to a mechanism for a tool which is capable of improving and enhancing investment decisions according to our thesis.

## ***2. Modern Portfolio Theory and its Assumptions***

### *2.1 Portfolio Selection*

The financial crisis of 2008 harshly revealed the deficiency of the Modern Portfolio Theory (MPT), namely the Portfolio Selection that was introduced by Harry Markowitz in 1952. Although criticism accelerated after the weaknesses became obvious, Markowitz's model and especially its later modifications by James Tobin and William Sharpe are still predominately used in the banking and investment sector all around the world.

The pivotal sentences in the introduction of Markowitz's Portfolio Selection that was published in the *Journal of Finance*, sound nowadays very familiar, but were at that time nothing short of groundbreaking:

“We first consider the rule that the investor does (or should) maximize discounted expected, or anticipated, returns. This rule is rejected both as a hypothesis to explain, and as a maximum to guide investment behavior” (Markowitz 1952: 77).

Hence, Markowitz calls into question the thitherto-accepted theory of an investor who buys the share with the highest expected value at the best price.

“We next consider the rule that the investor does (or should) consider expected return a desirable thing and variance of return an undesirable thing” (ibid.).

The following line of mathematical argumentation appears very elegant and coherent. (1) The desired output from an investor's portfolio is a high return, while the “costs” to be minimised is the risk of that return. Here, risk is measured by standard deviation, whereas returns are measured by averaging returns over a specified past period. (2) A diversified portfolio on the Efficient Frontier offers a lower volatility and a higher return than the best singular share, as long as shares are not correlated. Thus, an investor would prefer an efficient portfolio to a singular share. (3) A portfolio is called efficient if and only if there is no other portfolio which attains the same expected return while having a lower volatility and respectively attains a higher expected return while having the

same volatility. (4) The sum of all possible efficient portfolios can then be calculated and a rational investor would choose the one that best suits his profit expectations and readiness to assume risk.

Naturally, the selection of an efficient portfolio is based on certain explicit and implicit assumptions. These are subdivided into characteristics of investors and features of the market (cf. Wagemann 2009: 20; Auckenthaler 1994: 154). Characteristics of investors include the pre-supposition that investors are rational and risk-averse, meaning investors prefer a portfolio with a lower risk to a portfolio with a higher risk under the condition that they both attain the same expected return. Moreover, all investors aim to maximise economic utility and are interested in the expected value and variance in order to optimize their portfolio. Thus, efficient portfolios can only be construed if and only if the expected value, the variance, and the covariance can be included in the portfolio analysis. The features of the market, on the other hand, can be summarised in four assumptions.

First, the market has to be frictionless, a theoretical trading environment where all costs and restrictions associated with transactions are non-existent. A further meaning in the context of the Portfolio Theory is the fact that assets can be divided into parcels of any size and that these parcels can be purchased on the free market. Second, complete competition is presumed. Hence, the access to the investor market is not subject to restrictions and therefore arbitrage opportunities are eliminated. From a complete competition on the market, Markowitz also follows the Gaussian distribution for asset returns. Third, short sales are excluded and capital is completely invested. Finally, the portfolio must not contain assets with a correlation coefficient of -1, and a risk-free asset with a variance of 0.

## *2.2 Critique of the MPT*

Obviously, the assumptions of the MPT have to be assessed critically, especially from a post-financial-crisis perspective. Actually, Markowitz himself addresses a crucial issue by formulating a provocative rhetorical question in the context of the financial crisis of 2008.

“You, Harry Markowitz, brought math into the investment process with your 1952 article and 1959 book. It is fancy math that brought on this crisis. What makes you think now that you can solve it?” (Markowitz 2008).

The mathematician Benoit Mandelbrot and the journalist Richard L. Hudson criticise precisely this “fancy math” used by Markowitz. In their opinion, the assumptions, which the orthodox financial theory is based on, seem to waver when confronted with empirical evidence. In fact, the movements on the financial markets do not seem to correspond to normal, distributed occurrences. Hence, financial markets are far more risky than the advocates of the MPT would like to admit. But since the normal distribution of returns is presented as a pivotal presupposition within the MPT, the mean-variance optimisation has to be scrutinised critically (cf. Mandelbrot/Hudson 2004).

Moreover, it seems as if the market does not cooperate with the assumption that past performance is indicative for future performance. Financial markets do not seem to have the characteristics of a slowly moving river. On the contrary, market prices seem to jump and twitch, and because they are so volatile, the better part of market price movements seem to occur in a very short period of time. Markowitz’s approach to investing has been criticised from a mathematical-empirical standpoint. In order to reduce risk in a portfolio, Markowitz argues that it would be crucial to own securities that do not have the same price movements, meaning if one component of the portfolio was moving downwards, an investor would want to own assets that move in the opposite direction. In other words, various components of the portfolio should not be correlated or even in some cases should be negatively correlated. However, evidently positive correlations between various asset classes increase more and more. The European standard index for assets Euro Stoxx 50 and the American S&P 500, for example, have in 80% of the cases steady development nowadays. This is a development that has evolved over the last 10 to 15 years (cf. Rottwilm 2008). Not only do assets appear to have the same price movements, but real estates, private equity, and hedge funds also have the tendency to move in the same direction. It could be argued that globalisation has finally reached the investor market and has torn down the separating barriers between various asset classes. But however one wants to construe causal reasons for positive correlations, we first and foremost have come to the conclusion that the assumption of no or negative correlations between assets is contradicted by empirical evidence. Nowadays, most asset classes display a positive correlation, especially during a crisis. Thus, today the MPT does not efficiently achieve its main task: reducing risk.

Another great criticism of the MPT relates to the assumption that investors are rational and risk-averse. In the bubble markets of the 1990s and of today, investors have shown remarkable and consistent behaviour in ignoring risk. Especially the theory of behavioural finance contradicts the model of a rational human being.

### ***3. Behavioural Finance and Swarm Intelligence***

#### *3.1 Behavioural Finance*

As a discipline, behavioural finance tries to explain financial phenomena by assuming that agents are not rational or only semi-rational. Although an inherent and accepted framework, such as the Homo economicus, does not exist in behavioural finance, the following framework provides an overview of the field. Financial decision makers' preferences tend to be multifaceted, open to change and often formed during the decision process itself. Agents are satisfiers and not optimisers; this means that agents do not optimise their market of goods but satisfy their needs (cf. Simon 1956). They are adaptive in the sense that the nature of the decision and environment within which it is made influence the type of the process utilised. Decision makers are neurologically predisposed to incorporate affect (emotion) into the decision process (cf. Razek 2011).

Behavioural finance has made great attempts to understand the psychology of the decision-making process. For the portfolio design, expectations of future revenues have to be formed. Traditional finance acts on the assumption of complete information. Hence, agents have enough knowledge to predict the future. In reality, this is not possible. Expectations are formed by beliefs. How beliefs are formed in practice has been examined by psychologists who have identified several cognitive biases.

Firstly, agents are not risk-neutral. They tend to be risk-averse and risk-loving at the same time. Instead of managing one portfolio, many people make separate mental accounts. These mental accounts are managed by different strategies. While being risk-averse during the conclusion of an insurance policy, the same agents love risk when gambling. Money is treated separately from other parts of wealth during gambles or similar events (cf. Barberis/Huang 2001). Generally, agents have the tendency to overestimate their predictions for success and their own skills. Experts are especially afflicted by this bias. For example, when asking for the level of the Dow Jones Index in a year, the 98% confidence intervals only include the actual value in 60% of the time. There are also certainty banks, which means that certain perceived events occur less often (~80%) and impossible perceived events occur more often (~20%) than people think (cf. Barberis/Thaler 2003).

If people face conflicting beliefs, they will feel anxiety and internal tension. Thus individuals try to reduce inner tension by either changing past feelings, opinions, and beliefs or by rationalising choices afterwards. This effect is called cognitive dissonance. Research has shown that investors

hold on to bad investments to avoid admitting they made bad decisions (cf. Ricciardi/Simon 2000). When estimating the probability of an event, for example being mugged, people search their memory for information or events. Although the method itself is reasonable, it can provide incorrect results, because not all memories are equally retrievable. The mugging of a close friend would weigh more heavily and falsify estimations. This effect is known as availability (cf. Barberis/Thaler 2003).

Estimates are often made by anchoring and adjustment. Agents start with an initial value (anchor) and adjust it to their final result. The context of the estimations can provide the anchor or it can be a result of a partial computation. But however the initial value is generated, the adjustments to it are insufficient (cf. Razek 2011). In an experiment, groups have been asked to estimate how many citizens of the U.S. being Afro-American. One group was asked to compare their estimation with 10%, the other with 60%. The first group estimated 25%, the second 45% (cf. Barberis/Thaler 2003). Especially complex systems, which can change abruptly even due to small influences, are estimated wrongly because of anchoring and adjustment.

Although economists argue that people learn to avoid biases, experts make fewer mistakes and incentives dispose of these effects, empirical evidence shows that this is not the case. Biases are attenuated by prior factors but cannot be avoided entirely. Together with the problems of the MPT presented earlier in the paper, the cognitive biases and the irrationality of agents create doubt in an effective investment process. The assessment of risk, in particular, is an emerging problem in a more complex world. The field of swarm intelligence has shown promising approaches in making accurate estimations and predictions and hence could solve problems for the investment sector.

### *3.2 Swarm Intelligence*

Swarm intelligence comes into existence when a group solves a problem as a collective, which no part of the group could have solved alone (cf. Fischer 2010: 23). To solve a complex problem as a group, it is not necessary that its individuals are very smart, informed or centrally organised. Ants or bees, for example, are very efficient foragers, although they lack the overview and capabilities to find and forage food sources or to determine good nests on their own. Humans also use swarm intelligence. Online platforms like Youtube or digg.com utilise the wisdom of the crowd to find interesting videos or news by applying voting mechanisms. For investments, the estimations of risk and revenue are crucial. Research has shown the greatest performance of estimations by crowds.

One simple way to understand swarm-based estimations is the so-called estimation of oxen. The underlying experiment is a carnival game that was observed by Francis Galton in 1906. Participants were asked to estimate the weight of an ox. About 800 fairgoers participated in the game. Galton later bought all tickets from the fair and plotted them. All guesses ranged from 1,074 to 1,293 pounds and the mean amounted to 1,197 lbs. Actually, the ox weighed 1,198 pounds, hence the mean only deviated by one pound. As long as estimations are independent, experiments show that the mean of a group is more accurate than its participants. One of the reasons for this phenomenon is explained by Scott Page's diversity law:

collective error = average individual error – diversity (deviation) of estimations

The collective error is the difference between the average of all estimations and the actual out-come. The average individual error is the average deviation of every single estimation from the actual outcome. According to Page's law, the collective error has to be less than the individual error because of the diversity of estimations (cf. Fischer 2010: 82 ff.).

Another swarm phenomena can be examined at the game show "Who Wants to Be a Millionaire?". When the audience is asked a question, it is right 90% of the time, while experts (phone jokers) are only correct 66% of the time. Condorcet, a French mathematician and democrat who lived during the American Revolution, tried to prove that the majority of a group was more likely to make the right choice than one individual on his own. His jury theorem proves his idea under some assumptions, most importantly that the members of the group are more likely to make the right rather than the wrong choice. Under this assumption, the probability for the majority to make the right choice rises with its members. Even if parts of a group are only as good as a coin or a dice, the jury theorem is still correct, but the variance of the results rises. (cf. Fischer 2010: 87 ff.) By using the swarm intelligence phenomena, a group can make the best of cognitive biases and make good estimations. Availability of information cancels itself out in a group, as different people have different memories. On the other hand, collective memories, like 9/11, will still affect whole groups. Mental accounting does not have an impact on groups, as the different risk-averse and risk-loving accounts can balance each other. However, the way questions are posed would have a strong impact. This is also true for anchoring and adjustment. If the question already imposes a frame, the estimations will be similar. Overconfidence problems can be averted because the confidence of participants' estimations does not have to be used for swarm-generated data. Even

if the confidence, for example in prediction markets, is part of the generated data, the different participants will balance each other out as they are all overconfident. In general, swarm intelligence allows the participants to be irrational and make mistakes, but the whole crowd's output is rational and correct or at least probably correct. But frames can impose irrational individual behaviour that does not cancel itself out. Therefore a tool needs a diverse – especially a cognitively diverse – group and rules to work properly. A group should have five diversity characteristics (cf. Fischer 2010; Page 2007):

1. A great diversity of relevant fields of knowledge
2. Different perspectives or diverse ways of representing situations and problems
3. Perspectives have to be categorised and interpreted diversely by the group
4. Members need to alter in their heuristics, meaning they need different problem-solving strategies
5. There have to be diverse ways of inferring cause and effect

Moreover, every individual in the group has to make its decisions and estimations independently and separately. They have to be objective or not directly affected by their answer, and everyone has to answer the same question. If a swarm intelligence tool fulfils the previous conditions, it can generate value for investment decisions. The MPT fails in a complex and correlated world. Risk is not assessed correctly. Crowds can help here because they aggregate vast amounts of information, beliefs and feelings. In this way, they can assess risk in situations when individual semi-rational agents fail.

#### ***4. Risk Assessment by Laymen***

Hereafter it will be discussed whether the results achieved beforehand can be fruitful for the investment business of a bank. Therefore, these results will be combined and reviewed in consideration of that objective. Firstly, a distinction between experts and non-experts has to be made. After that, it will be shown why it is reasonable to criticise expertise and to take opinions of laymen into account in financial issues as well as on many other topics. The concept of how the investment business could benefit from predictions of laymen will be built on this discussion. Due to the lack of empirical evidence, this paper will propose a concept of how our thesis can be applied to a working



tool and be the basis for further studies and experiments stressing this thesis. In our approach, we distinguish between experts and non-experts, or better yet, laymen. In this context, when referring to experts, we mean people working in the stocks and bonds department of a bank and are therefore confronted with stock markets daily (cf. Staël von Holstein 1972). They are experts in analysing data or making investment decisions based on these analyses. Anybody involved in an investment decision or the analysis leading to this decision is considered an expert. Corresponding to that, any person not involved in that decision-making process will be considered a non-expert and is therefore a potential participant of our tool. Though there are strong distinctions regarding the state of knowledge about stock markets among employees of a bank, this is useful to achieve a certain degree of diversity among the participating group (referring to the requirements for swarm intelligence in the prior section). Diversity is an inevitable prerequisite for achieving significant results.

Concerning forecasting events, different studies on probabilistic forecasting and information markets<sup>1</sup> have shown that non-experts are often as good as or sometimes even outperforming experts in their field. We will primarily rely on the results of Staël von Holstein (1972) on probabilistic forecasting related to the stock market, Yates, McDaniel, and Brown (1991) on probabilistic forecasts of stock prices and earnings and Chen, Chu, Mullen and Pennock (2005) on information markets versus opinion pools. Though there are distinctions between the approaches of the scientists named, they all lead to the conclusion that the accuracy of experts and laymen do not differ very much. The enquiry of the latter also admits to the conclusion that “averaging across all experts seems to result in better predictions than individual opinions and opinion pools with a few experts” (Chen et al. 2005: 9).<sup>2</sup> Since information markets also outperform the single expert’s judgement on average, it can be deduced that the consideration of aggregated opinions, regardless of whether they are experts’ or laymen’s, is a consistent way to improve the accuracy of predictions, even if isolated expert judgements are more accurate in some cases. The enquiry of Chen et al. has shown more extreme predictions (predicted probability of an event closer to 0 resp. 1)<sup>3</sup> tend to yield worse accuracy than the averaged and aggregated expert beliefs. It is noticeable that in the accuracy ranking compiled during the study, experts who were usually making more extreme

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1 Information market: market, on which securities are traded that either P or non-P occurs. The payoff of each security is 100, the price for a security that p occurs, indicates the predicted probability of P.

2 Opinion pools: belief aggregation method, in this case, to aggregate experts’ beliefs (cf. Yates p.1) Wo kommt das her? Seite 1? Jahreszahl angeben, etc.

3 More accurate predictions have to be more extreme judgements. Otherwise, they would be close to the average and would not occur as more accurate, but within the range of typical judgements.

predictions tended to rank lower (cf. *ibid*: 6). According to the findings of Yates et al., individuals with higher expertise even show a tendency to make more extreme judgements, resulting in worse accuracy (cf., 1991: 73). Hence, more extreme predictions are likely to have a worse average value than moderate predictions and are thus more risky. In conjunction with experts tending to predict in a rather extreme way, this allows for the assumption that experts' judgements strive towards risk.

Two findings of Staël von Holstein, namely that “people can quantify their beliefs reasonably well in probabilistic terms” (1972: 157) and the “relationship between accuracy and expertise [being] almost the inverse of what many people would expect” (cf. Yates et al. on Staël von Holstein 1991: 61), will be combined with the results of Yates and his colleagues hereafter. The results of the latter that will be considered now are support for the inverse relationship thesis, but also provide an explanation for that phenomenon. Experts' judgments are sometimes richer than those of laymen, but experts tend to be more likely to respond to irrelevant cues in a more extreme manner, since they are strongly convinced of the correctness of their beliefs, contrary to non-experts. Even if the cues were valid, due to the more extreme judgements resulting from the process, they are no guarantee for the enhancement of the judge's performance and rather increase risk. As there seems to be an inverse relationship between expertise and accurate predictions, and it seems possible to quantify non-experts' beliefs, which tend towards accuracy, it is reasonable that such laymen-based forecasts should be used more routinely in the financial world to gain information about stock markets. Although the studies seem to indicate that laymen are often just less inaccurate than experts and not necessarily accurate in absolute terms (cf. Yates et al. 1991: 75 ff.), a possible method to take these findings for real financial decisions into account should be considered. Even if these predictions lack the ability to legitimise decisions or replace an expert, making such probabilistic forecasts, when applied to investments, might be a helpful instrument to ease decisions and test if an expert's judgement is sound.

We now want to provide a concept for the development of a tool which applies the findings of the swarm intelligence section and the capabilities of non-experts' predictions and which can be employed in the investment department of a bank. This tool's purpose is to describe a possibility to improve investment decisions, using findings of behavioural finance, information markets and probabilistic forecasts. One result of the enquiries discussed be-forehand was that non-experts are capable of predicting changes in stock prices as well as experts. Now we want to refer to the definition of experts that we gave at the beginning of this section and exclude these individuals from participation in the mechanism, which this concept has as a result. This is due to the fact that

if they were participating, they would change the outcome in an undesirable manner, as instances of displaying overconfidence and extreme beliefs would shift the aggregated average. As such a tool needs motivated and reliable participants, we argue that the pool of potential participants should be that particular bank's employees with the exclusion of the experts. Several advantages are associated with that. The reachability of many diverse individuals in a short amount of time eases the search for participants. But even more important is the ability to exchange and vary a huge number of participants at a time in order to avoid interference in the operational procedure of the bank. If the same employees were always asked to participate, they would be discouraged and distracted, influencing their working flow. As a result, the employees' performance as well as the accuracy of the tool would suffer.

It appears to be reasonable to base such a tool on the probabilistic forecast studies by Staël von Holstein and Yates and his fellows, since their results assume what this tool is supposed to supply. Certainly some adjustments have to be made. For the foregoing reasons, the tool cannot be as time-consuming as the surveys of the mentioned scholars and the procedure has to be simplified. Instead of asking those individuals participating for the predictions for a set of stocks and a grading of these predictions into five (Staël von Holstein), respectively six (Yates et al.), classes of percentage increase or decrease in price, the individuals should be consulted concerning only one singular stock at a time. Furthermore, they are supposed to state their belief only if a stock price increases or decreases in the long term<sup>4</sup>, respectively to give advice to buy or sell (advice to buy corresponds to the belief in the increase in price, sell to the belief in the decrease), without predicting the range of variation. Indeed, the types of stocks have to be qualified. This tool will only apply to rather simple financials, such as shares, bonds, currencies, and gold. Additionally, to achieve the best and the most elaborate results from an employee, she should only be consulted once in a while, depending on the number of people contributing overall and the number of pieces of advice asked for by the investment department, but not more than once a month. For a significant outcome, a certain number of people have to contribute. To figure out what this critical mass is, further studies and experiments have to be conducted. But this mass should not exceed 200 people per valuation.

The prediction as to whether a stock price increases or decreases yields possibly observable issues. There is no data, however certain the participating individuals are about their predictions. In particular, it is not evaluated whether they were just guessing, or felt absolutely certain about

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<sup>4</sup> Short-term or day trades cannot be covered by such a tool, as they are often made within hours and the procedure of evaluation will take some time.

their decision. This might be remedied by asking for self-evaluated confidence. On account of this, a variation of the concept should be considered. In addition to predicting the direction of a price variation, the participants are asked how confident they are about this prediction. Since studies exist that detailed self-evaluation fails concerning confidence, this will be kept as simple as possible. The individuals are asked to measure their decision either as 'I am 5% sure', 'I am 50% sure' or 'I am 95% sure'. The former, basically, is equivalent to guessing or more pictorially, flipping a coin. The second means the individual is quite sure but not absolutely certain. The latter means that the particular individual is very sure about her decision; as we have seen in the former enquiry, such extreme confidence should be suspect to suspicion. Therefore, through a simple additional question, much data can be generated. To find out if this additional evaluation also holds additional value and which of the concepts responds better to the purpose of enhancing accuracy of stock price, predictions are also subject to further investigations, as is the relation between the additional data gained on confidence and the related predictions. It might be of great value to know whether higher values cohere with higher accuracy, or whether there is no relation or even an inverse one. The final result will be a mechanism of great value for an investment department of a bank.

## ***5. Conclusion***

First, it was argued that MPT does not yield its main task: to be risk reducing. The assumed rational decision makers tend to ignore risk - a fact that in turn leads to an indirect increase of risk. Behavioural finance tackles the assumption of an individual's ability to make rational decisions. Decisions are often made by instinct but are nevertheless appropriate and potentially generate a higher value. A further enquiry into that topic disclosed the great ability of a crowd to provide accurate answers and predictions. Since information markets and probabilistic forecasts adapt these findings and make them fruitful for different topics, the claim can be made that it is possible to use these outcomes to enhance risk assessment in the investment department of a financial institute. Experts' predictions regularly indicate less accuracy than aggregated predictions of laymen. It was shown that the findings can be utilised to enhance experts' judgements by developing an advisory mechanism based on probabilistic forecasts and behavioural finance. Therefore, it seems reasonable to conduct further research and implement such a mechanism for decision making in investments

in order to reduce risk and enhance performance. Now, more than ever, the promising alternatives to traditional investment models should be taken advantage of.

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**Economy in Crisis**

**ETHICS AND FINANCE**

# Ökonomie in der Krise

Über Vertrauensverlust und Vertrauensbildung auf dem Interbankenmarkt

Alexander Baumann

## *Keywords*

*Interbankenmarkt, Vertrauen, Prinzipal-Agenten-Theorie, Risikoprämie, Verhaltensunsicherheit, Kreditklemme, Informationsasymmetrien*

Die Arbeit konzentriert sich auf den Zusammenhang zwischen Kreditbeziehungen auf dem Interbankenmarkt und Vertrauen. Sie versucht die Bedeutung und den Nutzen von Vertrauen bei der Kreditvergabe zwischen Banken zu bestimmen bzw. zu zeigen, dass ein Mindestmaß an Vertrauen grundlegend für einen funktionierenden Interbankenmarkt ist. Um dies zu erreichen, werden zunächst die Rolle des Interbankenmarktes im Wirtschaftssystem und die Notwendigkeit von Vertrauen bei interdependenten Handlungsentscheidungen erläutert. Mit Hilfe der Prinzipal-Agent-Theorie werden die beiden Bereiche zusammengeführt und auf den Interbankenmarkt angewendet. Es wird gezeigt wie Vertrauenskrisen entstehen und sich ausbreiten. Außerdem wird der Zustand des Interbankenmarktes der Eurozone anhand einiger Indikatoren kurz dargestellt.



## *1. Einleitung*

Seit dem Platzen der Immobilienblase in den USA und der damit verbundenen Lehman-Pleite 2008 sind die internationalen Finanzmärkte von Unsicherheit geprägt. Der Zusammenbruch des Interbankenmarktes, also dem Markt auf dem sich Banken gegenseitig Kapital leihen, gilt als eines der Hauptmerkmale der Finanzkrise 2008 (cf. Clemens et al. 2010: 1). Trotz eines umfangreichen Maßnahmenkatalogs, wie der Rekapitalisierung schwacher Banken, umfangreicher Konjunkturpakete und einer expansiven Geldpolitik, konnte für die Finanzinstitute der Zugang zum Interbankenmarkt nicht nachhaltig wiederhergestellt werden. Der Ausbruch der Staatsschuldenkrise in der Eurozone hat seit Mitte 2011 zusätzlich einen negativen Effekt auf das Verhalten der Banken. Ein Zusammenbruch des Interbankenmarktes kann zu einer Kreditklemme, welche eine außerordentliche Bedrohung für die Realwirtschaft und damit das wirtschaftliche Wachstum darstellt, führen.

In diesem Zusammenhang wird in der Literatur immer wieder von einer Vertrauenskrise gesprochen. Allerdings wird der Begriff ‚Vertrauen‘ dabei häufig nicht einheitlich bzw. nur äußerst unklar verwendet. In der vorliegenden Arbeit soll daher die Bedeutung von Vertrauen für Kreditbeziehungen zwischen Banken und damit für einen funktionierenden Interbankenmarkt beschrieben werden. Dabei wird gezeigt, dass ein Mindestmaß an Vertrauen grundlegend für einen gesunden Interbankenmarkt ist.

Die vorliegende Arbeit ist wie folgt aufgebaut: In den ersten beiden Kapiteln werden die theoretischen Grundlagen geschaffen. So soll im Einstiegskapitel (Kapitel 2) die Bedeutung des Interbankenmarktes für die Banken selbst, sowie für die Realwirtschaft dargelegt werden. Dafür ist es notwendig zunächst kurz die Funktion des Finanzsektors zu bestimmen (Kapitel 2.1), um danach zu zeigen, wie der Interbankenmarkt die Liquidität der Kreditinstitute steigert (Abschnitt 2.2), was wiederum eine erhöhte Kreditnachfrage nach sich zieht (Kapitel 2.3). In Kapitel 3 wird der Nutzen von Vertrauen in einfachen Kooperationsbeziehungen näher illustriert. Dies ist wichtig, da Kreditverträge zwischen Banken als eben solche interdependenten Beziehungen charakterisiert werden können. Es wird gezeigt, welche Arten von Unsicherheiten die Entscheidung eines Akteurs beeinflussen (Kapitel 3.1) und welche Mechanismen seine Erwartungen stabilisieren können (Kapitel 3.2 und 3.3). In Kapitel 4 werden die bis dahin gewonnenen Erkenntnisse zusammengeführt. Nachdem die Rolle von Vertrauen in einem Prinzipal-Agenten-Problem bestimmt wurde (Kapitel 4.1), werden Kreditbeziehungen zwischen Banken mit Hilfe dieser Theorie rekonstruiert, um

so den Nutzen von Vertrauen auf dem Interbankenmarkt darzustellen (Kapitel 4.2). Kapitel 5 erläutert, wann von einer Vertrauenskrise auf dem Interbankenmarkt zu sprechen ist, bzw. wie solche entstehen und sich ausbreiten, und gibt außerdem einen kurzen Überblick über die Situation des Interbankenmarktes der EWU im Jahr 2012.<sup>1</sup> In Kapitel 6 sollen schließlich die Ergebnisse zusammengefasst und, soweit möglich, ein Ausblick auf den weiteren Verlauf der Krise gegeben werden.

## ***2. Die Rolle des Interbankenmarktes im Wirtschaftssystem***

### *2.1 Die Intermediation des Finanzsektors*

Dem Interbankenmarkt als komplexe Institution auf dem internationalen Finanzmarkt wird für die volkswirtschaftliche Aktivität eine große Bedeutung zugemessen. Jedoch ist der Zusammenhang zwischen wirtschaftlicher Prosperität und einem gesunden Interbankenmarkt nicht direkt ersichtlich. Dieses Kapitel soll daher zeigen inwieweit eine funktionierende Kreditvergabe zwischen Banken einen positiven Einfluss auf die Realwirtschaft hat. Dies ist notwendig um zu verdeutlichen, dass dem Interbankenmarkt bei der gesamtwirtschaftlichen Entwicklung einer Volkswirtschaft ein großes Gewicht beizumessen ist und eine Krise auf diesem Markt verheerende Folgen für eine große Zahl von Volkswirtschaften haben kann.

Dazu soll zunächst erörtert werden, welche Aufgaben der Finanzmarkt allgemein erfüllt, um danach zu zeigen, wie der Interbankenmarkt hilft, die Geschäfte der Banken effizienter zu machen. Schlussfolgernd wird im letzten Abschnitt dieses Kapitels dargelegt, dass ein gesunder Interbankenmarkt nicht nur die Gewinne der in ihm partizipierenden Banken erhöht, sondern auch maßgeblich für den Wohlstand einer Volkswirtschaft verantwortlich ist.

Finanzmärkte schließen die Lücke zwischen zwei volkswirtschaftlichen Modellen. In der konsumorientierten Wirtschaft wird zum Zweck des sofortigen Verbrauchs sämtliches Einkommen für Güter und Dienstleistungen ausgegeben, während in der frugalen Wirtschaft Haushalte, Unternehmen sowie Staaten mit Blick auf die Zukunft sparen und investieren (cf. Honeygold 1989: 15).

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<sup>1</sup> Eine ausführliche empirische Analyse zum Thema findet sich in Baumann 2012.

„In jeder Gesellschaft gibt es Wirtschaftseinheiten [...] denen nach Befriedigung aller unmittelbaren Konsumbedürfnisse noch überschüssige Mittel zur Verfügung stehen.“ (ebd.)

Genauso gibt es in jedem wirtschaftlichen System Akteure, deren Investitions- oder Konsumbedürfnisse größer sind als ihr derzeit verfügbares Kapital. Letztere sind mitunter dazu bereit, einen gewissen Preis zu zahlen, um sich die überschüssigen Mittel von den Sparern auszuleihen, um heute zu konsumieren bzw. mittel- oder langfristig zu investieren (cf. ebd.). Dies tun sie genau dann, wenn die Opportunitätskosten der verpassten Investition (bzw. des verpassten Konsums) höher sind als die Kosten der Kapitalbeschaffung. „Die Sparer sind ihrerseits willens, diese Mittel zu einem bestimmten Preis zeitweilig [gegen den Erhalt von Zinszahlungen] zur Verfügung zu stellen, anstatt sie in bar aufzuheben. [...] Die grundlegende Funktion der Finanzmärkte besteht [nun] darin, diesen [Vermittlungsprozess] zu erleichtern“ (ebd.). Sogenannte Finanzintermediäre schalten sich somit zwischen Sparer, Konsumenten und Investoren und übernehmen dabei die Rolle der Intermediation (cf. Gischer et al. 2012: 8). Abbildung 1 stellt diesen Brückenschlag skizzenhaft dar.

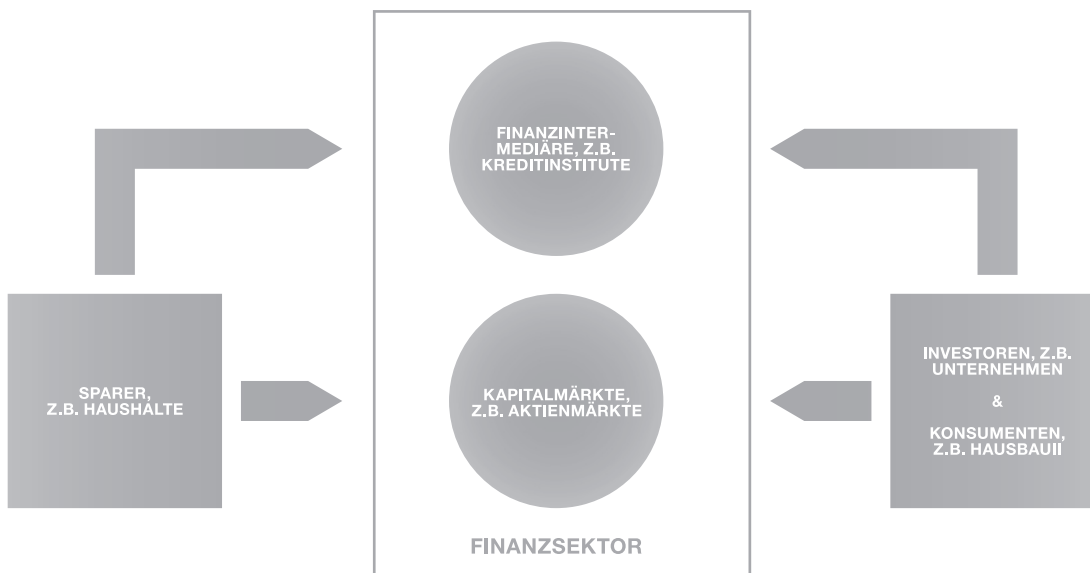


ABBILDUNG 1: EIGENE DARSTELLUNG, IN ANLEHNUNG AN GISCHER ET AL. 2012: 6

Sparern steht dabei ein direkter Weg über die Kapitalmärkte, wie Aktien- und Renditemärkte, und ein indirekter Weg über die Finanzintermediäre (z.B. Kreditinstitute), welche wiederum selbst an Kapitalmärkten aktiv sind, offen (cf. ebd.: 5) Diese Rolle wird in der Literatur oft auch als „Allokationsfunktion des Finanzsektors“ (ebd.) bezeichnet.

Mit dem faktischen Beginn der Europäischen Währungsunion (EWU) im Januar 1999 hat die EZB den Terminus Monetäre Finanzinstitute (MFI) als Sammelbegriff für die Zentralbanken der Euro-Länder und Banken bzw. Kreditinstitute nach herkömmlichem Verständnis eingeführt (cf. ebd.: 120). Wohlwissend, dass sich die Bezeichnungen in Einzelheiten durchaus voneinander unterscheiden, werden aus Gründen der Einfachheit in der vorliegenden Arbeit im Folgenden Banken, Kreditinstitute und MFIs als Synonyme verstanden.

Nachdem die Funktion des Finanzmarkts kurz dargestellt wurde, soll im folgenden Kapitel näher auf die Banken selbst eingegangen werden. So werden zunächst die unterschiedlichen Geschäftsprozesse der MFIs vorgestellt, um danach zu zeigen, wie der Interbankenmarkt den Banken hilft, die Effizienz dieser zu steigern.

## *2.2 Der effizienzsteigernde Charakter des Interbankenmarktes*

Die Geschäftstätigkeiten von Banken lassen sich grundsätzlich in zwei Gruppen einteilen. Traditionell generieren sie Gewinn, indem sie bei dem oben erläuterten Intermediationsprozess zwischen Sparern und Investoren eine Zinsmarge zwischen Einlage- und Kreditzins setzen. Geschäftsprozesse dieser Art werden in der Literatur oft unter dem Oberbegriff ‚interest income‘ (Zinsgeschäfte) subsumiert (cf. DeYoung et al. 2004: 34). Eine jüngere Ertragsquelle sind die sogenannten ‚noninterest income‘ Geschäfte (nicht-Zinsgeschäfte), welche den Banken erst durch die Deregulierung in den 90er Jahren möglich wurden (cf. ebd.: 49). Hierzu zählen zum Beispiel das Investment Banking, der Wertpapierhandel, der Versicherungs- und Anlagefondsverkauf (cf. ebd.: 34). Der ‚noninterest income‘ Bereich ist in den letzten Jahren enorm gewachsen. So schätzt die ‚Federal Reserve Bank of Chicago‘ deren Anteil inzwischen auf etwa die Hälfte des Gesamtgewinns der Branche (cf.: ebd. 48 f.) Stark vereinfacht lässt sich folgern, dass Banken je nach Geschäftsmodell versuchen,

eine hohe Zahl an (sicheren<sup>2</sup>) Krediten zu vergeben oder in viele Geschäfte aus dem ‚noninterest income‘ Bereich zu investieren, um so einen möglichst hohen Gewinn zu erwirtschaften.<sup>3</sup>

Bei der Kreditvergabe wie auch bei allen anderen Aktivgeschäften sind den MFIs jedoch Grenzen gesetzt. Für Banken ist es notwendig ihre geschäftlichen Aktivitäten und ihre Mindestreservedisposition bei der Zentralbank ausreichend gegen Liquiditätsschwankungen abzusichern (cf. Görgens et al. 2008: 249). Die Mindestreservepflicht besagt, dass jedes Kreditinstitut einen bestimmten Prozentsatz seiner Kundeneinlagen auf einem Einlagenkonto des Eurosystems halten muss. Dabei kann der Mindestreservesatz nach Ermessen der EZB erhöht oder gesenkt werden (cf. EZB 2002: 38).<sup>4</sup> Die Geldschöpfung der Kreditinstitute ist darüber hinaus durch die sogenannte Bargeldhaltungsquote beschränkt. Da (außer bei langfristigen Einlagen, wie z.B. Sparbriefen) bei Kundendepositen mit Barabhebungen gerechnet werden muss, sind Banken dazu verpflichtet, einen relativen Anteil dieser Einlagen in Bargeld zu halten (cf. Gischer et al. 2012: 71). Dementsprechend müssen sich MFIs um das eigene Aktivgeschäft bzw. einzelne Aktivgeschäfte, wie Kreditgewährungen oder Wertpapierkäufe, zu finanzieren, regelmäßig selbst Geld am Kapitalmarkt beschaffen (cf. Büschgen 2006: 775 f.). Die Bilanz einer Bank teilt sich also ähnlich wie die eines nicht-finanziellen Unternehmens (einer Unternehmung, deren Hauptfunktion in der Produktion oder Bereitstellung bestimmter Waren und Dienstleistungen besteht) in eine Aktiv- und eine Passivseite auf. „Während auf der Aktivseite die Erträge bringenden Bestände aufgeführt sind, bildet die Passivseite gleichsam die Kosten verursachenden Transaktionen ab.“ (Gischer et al. 2012: 121)

„Ein wesentlicher Gesichtspunkt dabei ist die Fristigkeit der Passiv- im Vergleich zur Aktivseite [in der Bilanz einer Bank], wobei [...] eine Tendenz zu längeren Aktiv- als Passivbindungen[, zu welchen Einlagen von Privat- und Unternehmenskunden sowie Verbindlichkeiten gegenüber anderen Kreditinstituten zählen,] besteht“ (ebd.: 67 ).

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2 Auf den Aspekt des Risikos, das Banken bei einer Kreditvergabe eingehen, wird an dieser Stelle bewusst verzichtet. Kapitel 4.2 widmet sich ausführlich dieser Thematik.

3 Denn umso mehr Kreditgeschäfte abgewickelt werden, desto mehr Zinsmarge-Einnahmen kann eine Bank erreichen. Siehe hierzu: Köppen 1963: S. 43ff. und Gischer et al. 2012: S. 127f.

4 Weitere Erläuterungen zum Mindestreservesystem und zur aktuellen Gestaltung dieses geldpolitischen Instruments finden sich in Baumann 2012: 51f.

Die hohe Fluktuation auf der Passivseite der Bankbilanz verstärkt daher die Notwendigkeit regelmäßiger Refinanzierung. Diese geschieht in der Regel über die Zentralbanken oder den Interbankenmarkt. Die EZB stellt den Banken Liquidität über die sogenannten Offenmarktgeschäfte bereit. Dabei sind die beiden wichtigsten Verfahren die Hauptrefinanzierungsgeschäfte (HRGs) und die längerfristigen Refinanzierungsgeschäfte (LRGs) (cf. EZB 2011a: 113). Da HRGs wöchentlich durchgeführt werden, jedoch verhindert werden soll, dass die gesamte Liquidität am Geldmarkt jede Woche umgeschlagen werden muss und den Banken gleichzeitig der Zugang zu längerfristigen Finanzierungsmitteln gegeben sein soll, bietet die EZB neben den HRGs auch LRGs an (cf. ebd.: 115). Diese haben normalerweise eine Laufzeit von drei Monaten. Die EZB kann jedoch bestimmte Sondermaßnahmen einführen, welche die Laufzeit auf sechs bis zwölf Monate, oder - wie jüngst Ende 2011 - drei Jahre ausweiten. Die Zuteilung erfolgt bei LRGs traditionell über Zinstender und bei HRGs über Zins- oder Mengentender (cf. ebd.: 114). Bei einem Mengentender gibt die Zentralbank den Zinssatz vor. Die Teilnehmer geben daraufhin Gebote über den Betrag ab, den sie bereit sind zu diesem Festsatz zu leihen. Beim Zinstender geben die Banken sowohl Gebote über den Betrag als auch den Zinssatz ab (cf. ebd.). Da das oberste Ziel der Geldpolitik der EZB die Preisniveaustabilität ist, langfristig jedoch ein kausaler Zusammenhang zwischen Geldmengenzuwachstum und Inflation besteht<sup>5</sup>, teilt die EZB den Banken die nachgefragte Liquidität traditionell nicht voll zu. „Bei beiden Tendersverfahren entscheidet die EZB [deswegen selbst] über die Höhe der bereitzustellenden Liquidität.“ (ebd.: 114) Aufgrund dieser geldpolitischen Restriktion refinanzieren sich Banken ebenfalls auf dem Interbankenmarkt. So können sie ihre bilanzielle Beweglichkeit, welche wie oben beschrieben durch die Mindestreservepflicht, die Bargeldhaltungsquote und die begrenzte Zuteilung von Zentralbankgeld beschränkt ist, erhöhen. Da der Kundenmarkt für diesen Zweck nicht liquide genug ist, nimmt die Bedeutung des Interbankenmarktes in Hinsicht auf die Gewinnmaximierung der Kreditinstitute eine entscheidende Rolle ein (cf. Gischer et al. 2012: 67). Darüber hinaus dient der Interbankenmarkt den MFIs

„[...] [zur] Steuerung von Risiken, indem offene Positionen geschlossen werden oder in Erwartung von vorteilhaften Kursbewegungen bewusst eingegangen werden“ (ebd.).

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5 Siehe hierzu: Deutsche Bundesbank 2005.

Demzufolge erhöht der Interbankenmarkt die Flexibilität der MFIs und ermöglicht ihnen damit eine erhöhte Kreditvergabe, über welche sie ihren Gewinn steigern können. An dieser Stelle ist es wichtig zu verstehen, dass die Hauptfunktion des Interbankenmarktes nicht die Gewinngenerierung durch Einnahmen von Zinsmargen ist, sondern der Gewinn nur indirekt maximiert wird. Oder in anderen Worten: die höhere bilanzielle Flexibilität ermöglicht eine erhöhte Kreditvergabe und steigert so das Gewinnpotential.

### *2.3 Die Bedeutung des Interbankenhandels für die Realwirtschaft*

Unternehmen sind ständig bemüht, ihre Gewinne zu maximieren. So versuchen sie einerseits, über den Bau neuer Fabriken und den Kauf effizienterer Maschinen Kosten einzusparen, andererseits soll durch Innovationen im Produktangebot (im produzierenden wie auch im Dienstleistungsgewerbe) ein höherer Absatz generiert werden (cf. Blanchard et al. 2009: 373). Beide Methoden zur Steigerung des Gewinns sind grundsätzlich mit Investitionstätigkeiten verbunden. Aggregiert man dieses individuelle Verhalten auf die makroökonomische Ebene, wird die Kausalität zwischen hohen Investitionen und volkswirtschaftlichem Wachstum deutlich.

Unternehmen können Investitionen entweder intern oder extern finanzieren. In der Regel ist ein Mix dieser beiden Formen vorzufinden. Bei interner Finanzierung tilgen Unternehmen Investitionskosten mit nicht ausgeschütteten Gewinnen, während sie bei externer Finanzierung versuchen, sich das notwendige Kapital auf dem Finanzmarkt zu beschaffen (cf. Smith et al. 2003: 1284). Um im Folgenden die Relevanz der externen Finanzierung sowie insbesondere der Kreditfinanzierung nachzuweisen, wird die Finanzierungssituation deutscher Unternehmen dargestellt. Da die Anteile der Finanzierungsquellen in den anderen Ländern der Eurozone ähnlich sind, ist ein Verweis auf die deutsche Wirtschaft als Vertreter der Unternehmenslandschaft der EWU an dieser Stelle legitim (cf. Gischer et al. 2012: 31).<sup>6</sup> In Deutschland finanzieren Unternehmen den kleineren Teil ihrer Investitionen aus eigenen Ersparnissen (bzw. zurückgehaltenen Gewinnen). Dies bedeutet, dass den Finanzinstituten bei der Unternehmensfinanzierung eine entscheidende Rolle zukommt (cf. ebd.: 29). „Die Aufnahme von Krediten ist in Deutschland mit Abstand die wichtigste Art der Kapitalbeschaffung ‚von außen‘“ (Deutsche Bundesbank 2000: 33 f.). Abbildung 2 zeigt den relativen Anteil der wichtigsten externen Finanzierungsquellen deutscher Unternehmen.

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<sup>6</sup> Eine Akkumulation ist aufgrund von Datenlücken hier nicht möglich. Daher wird allein die deutsche Wirtschaft als Vertreter herangezogen.

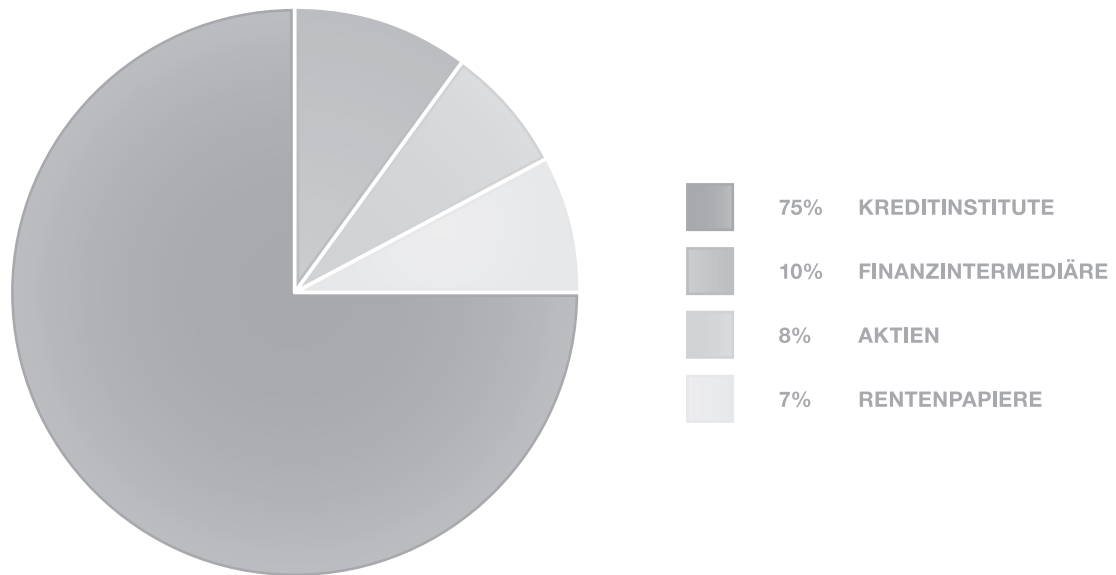


ABBILDUNG 2: EIGENE DARSTELLUNG, DATEN: MISHKIN 2010: 17

Auffallend ist der große Anteil der Finanzierung über Kreditinstitute, wohingegen Rentenpapiere, Finanzintermediäre und Aktien eine untergeordnete Rolle spielen. Da Aktienmärkte in den Medien so viel Aufmerksamkeit bekommen, erscheint es auf den ersten Blick etwas überraschend, dass gerade deren Gewicht im Vergleich zur Kreditfinanzierung so gering ist (cf. Mishkin 2010: 169). Der geringe Anteil der direkten Finanzierung mittels Ausgabe neuer Aktien oder Anleihen von nur 15% liegt in der Beschaffenheit der deutschen (bzw. europäischen) Unternehmenslandschaft begründet. Kleinstunternehmen sowie kleine und mittelständische Unternehmen (KMUs) nehmen in der Europäischen Union<sup>7</sup> (EU) eine zentrale Rolle ein. Laut der Europäischen Kommission machen KMUs in der EU 99% des gesamten Unternehmensbestands aus (cf. Europäische Kommission 2006: 5). Da KMUs jedoch keinen bzw. nur einen schlechten Zugang zum Aktien- und Rentenmarkt haben, finanzieren sie sich hauptsächlich über Subventionen und Bankkredite (cf. Mishkin 2010: 171). Der große Anteil der Kreditinstitute von 76% bei der Unternehmensfinanzierung (in Deutschland), sowie die Notwendigkeit ständiger Investitionen seitens der Unternehmen, um ihre

<sup>7</sup> Für die EWU liegen keine Daten vor; es ist jedoch anzunehmen, dass sich die EU Werte approximativ ebenso auf die EWU anwenden lassen.



eigene Prosperität sicherzustellen und damit das Wachstum in einer Volkswirtschaft voranzutreiben, zeigt, wie wichtig ein liquider Finanzsektor ist. Empirische Studien haben die hohe Bedeutung eines entwickelten Finanzsektors (was einen funktionierenden Interbankenmarkt mit einschließt) nachgewiesen. Vereinfacht man wirtschaftliches Wachstum (G) auf den linearen Zusammenhang zwischen dem Beitrag des Finanzsektors (F) und allen weiteren, das Wachstum beeinflussenden Faktoren (X), lässt sich mit der folgenden ökonometrischen Gleichung messen, ob ein heute entwickelter Finanzsektor (i) das Wachstum in einigen Jahren beeinflusst (cf. Gischer et al. 2012: 12):

$$G(j) = \alpha + \beta \cdot F(i) + \gamma \cdot X + \varepsilon$$

„Studien, die diesen Zusammenhang [in] viele[n] Ländern über mehrere Jahrzehnte [...] untersuchten, zeigen, dass längerfristige Wachstumsdifferenzen zwischen Volkswirtschaften größenordnungsgemäß zu 20% durch den Entwicklungsgrad des Finanzsektors bedingt sind“ (ebd.).

Daraus lässt sich folgern, dass ein funktionierender Interbankenmarkt, welcher wie in Kapitel 2.2 beschrieben, die Effizienz und somit die Liquidität des Finanzsektors erhöht, für den Wohlstand einer Volkswirtschaft von außerordentlicher Bedeutung ist.

### ***3. Die Notwendigkeit von Vertrauen bei interdependenten Handlungsentscheidungen***

#### *3.1 Von Umweltunsicherheit zu Verhaltensunsicherheit*

Kreditbeziehungen auf dem Interbankenmarkt lassen sich als Kooperations- bzw. Tauschbeziehungen, also als interdependente Entscheidungssituationen charakterisieren. Um im vierten Kapitel die Bedeutung von Vertrauen für einen funktionierenden Interbankenmarkt mit Hilfe der Prinzipal-Agent-Theorie bestimmen zu können, ist es notwendig zunächst zwei grundlegende Fragen zu beantworten: (1) Welche Risiken bestehen für einen Akteur in einer interdependenten Entscheidungssituation? (2) Wie kann er mit diesen Risiken umgehen? Diese beiden zentralen Fragen sollen im folgenden Abschnitt näher diskutiert werden.

Laut der neoklassischen Ökonomik wird die Entscheidung eines Individuums durch zwei Elemente beschrieben: Der ‚homo oeconomicus‘ entscheidet gegeben seinen eigenen Präferenzen und den jeweils vorzufindenden Restriktionen (cf. Kirchgässner 2000: 13). Das Problem der Knappheitsbewältigung ergibt sich somit aus dem Spannungsfeld zwischen Bedürfnissen (Präferenzen) und knappen Mitteln (Restriktionen) zur Befriedigung dieser. Das Homo-oeconomicus-Modell ist dabei das klassische Modell der Ökonomik zur Analyse menschlichen Verhaltens in derartigen Knappheitssituationen (cf. Erlei et al. 2007: 2, 4). Die Präferenzen ergeben sich aus den Intentionen des handelnden Individuums. Sie sind die Grundlage für die Bewertung der zur Wahl stehenden Handlungsmöglichkeiten eines Akteurs, d.h. sie entscheiden, als würden Vor- und Nachteile, bzw. Kosten und Nutzen der einzelnen Alternativen gegeneinander abgewogen werden (cf. Kirchgässner 2000: 14).

„Schließlich entscheidet [...] sich [das Individuum] für diejenige(n) Möglichkeit(en), die seinen Präferenzen am ehesten entspricht (entsprechen) bzw. von der es sich den höchsten ‚Netto-Nutzen‘ verspricht. Menschliches Verhalten wird somit in diesem Modell als rationale Auswahl aus den dem Individuum zur Verfügung stehenden Alternativen oder auch, um in der Sprache der Ökonomie zu reden, als ‚Nutzenmaximierung unter Nebenbedingungen bei Unsicherheit‘ interpretiert“ (ebd.).

In jeder Entscheidungssituation begrenzen bestimmte Restriktionen den Handlungsspielraum des Individuums. Hierzu gehören zum Beispiel „[...]das Einkommen des Individuums, die auf den Märkten geltenden Preise, die rechtlichen Rahmenbedingungen seines Handelns, aber auch die (erwarteten) Reaktionen anderer.“ (ebd.: 13, Hervorhebungen von AB). Der axiomatische Ansatz von John von Neumann und Oskar Morgenstern (1955) plausibilisierte die nutzenmaximierende Entscheidung mathematisch und machte sie damit objektiv nachvollziehbar. Dies ist vor allem bei der Betrachtung von Entscheidungssituationen, bei denen mehrere Akteure aktiv sind, interessant. Es sei an dieser Stelle darauf hingewiesen, dass neben der Von-Neumann-Morgenstern-Nutzenfunktion eine Reihe weiterer mathematischer Herangehensweisen existieren. Für die gegenwärtige Argumentation reicht es jedoch aus, lediglich eine Maximierungs- bzw. Entscheidungstheorie vorzustellen.<sup>8</sup>

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8 Für einen Überblick siehe, Peterson 2009.

Im Folgenden wird das Entscheidungstheorem von Neumann und Morgenstern auf interdependente Entscheidungssituationen, in welchen mehrere Akteure beteiligt sind und die Entscheidung des einen direkte oder indirekte Auswirkungen auf den Nutzen des anderen Akteurs (und vice versa) hat, angewandt. Von Neumann und Morgenstern verstehen ihre Nutzenfunktion als eine Beschreibung des Verhaltens nutzenmaximierender Akteure. Dieser deskriptive Charakter führt zu dem Schluss, dass alle rational handelnden Akteure, unter Einbeziehung der erwarteten Handlungen ihrer Interaktionspartner, strategisch agieren (cf. Elster 1984 48 f.). Das heißt, über Antizipation der Handlung aller weiteren beteiligten Akteure (welche ebenfalls rationale Entscheider im Sinne der Nutzenmaximierung sind) wählen sie die für sich rationale Alternative, gegeben der Strategie aller anderen.<sup>9</sup> Die Sozialpsychologie stimmt dabei mit der Ökonomik überein, dass das Verhalten des homo oeconomicus „[...] systematisch durch Anreize bestimmt wird und voraussagbar ist.“ (Frey et al. 1980: 93). Daraus kann abgeleitet werden, dass es für den homo oeconomicus nur eine Umweltunsicherheit aufgrund zukünftiger Ereignisse gibt (cf. Ripperger 1998: 21). Sein Handeln wird also allein durch den Zufall beschränkt.<sup>10</sup> Das Modell wurde jedoch häufig aufgrund seiner unrealistischen Annahmen angegriffen. Laut Homo-oeconomicus-Modell sind rationale Akteure in der Lage (cf. Erlei et al. 2007: 7),

1. alle denkbaren Alternativen wahrzunehmen,
2. die Konsequenzen dieser abzuschätzen und
3. eine vollständige und konsistente Bewertung der möglichen Ergebnisse vorzunehmen.

Offensichtlich verfügen Menschen jedoch nicht über vollständige Informationen und sind darüber hinaus aufgrund der immensen Komplexität ebenso wenig dazu fähig, allein die gegebenen Informationen vollständig zu verarbeiten (cf. Simon 1966: 198). Herbert Simon prägte deshalb den Begriff der ‚bounded rationality‘ (begrenzte Rationalität).

„Wie viele Kritiker hält [...] [er] den Homo oeconomicus für ein artifizielles Konstrukt, dessen Fähigkeit, sich stets für die optimale Lösung zu entscheiden,

<sup>9</sup> Siehe Nash 1950.

<sup>10</sup> ‚Beschränkt‘ ist in diesem Zusammenhang nicht mit der ‚Beschränkung durch Restriktionen‘ gleichzusetzen. Restriktionen, wie oben aufgeführt (Einkommen, Preise usw.), grenzen das Handlungsfeld des Akteurs weiterhin ein. Sie lassen sich aber im Gegensatz zum Zufall antizipieren und verringern dementsprechend die Wahrscheinlichkeit bei der strategischen Abwägung des Akteurs in intersubjektiven Situationen – im Gegensatz zum Zufall – nicht.

nichts mit menschlichem Entscheidungsverhalten in der realen Welt zu tun hat“ (Erlei et al. 2007: 7).

Simon argumentiert, dass Menschen aufgrund ihrer beschränkten kognitiven Fähigkeiten keine Optimierer, sondern eher sogenannte Satisficer sind (cf. Simon 1966, 204 f.). ‚Beschränkt rational‘ darf dabei nicht mit ‚irrational‘ verwechselt werden.<sup>11</sup> Der ‚Satisficing man‘ orientiert sich an seinem situativen Anspruchsniveau und entscheidet sich für die Alternative, welche seine Präferenzen ‚gut genug‘ erfüllt (cf. ebd.: 205). Das Anspruchsniveau der Akteure ist grundsätzlich subjektiv: Jeder legt sein eigenes Zufriedenheitsniveau individuell fest. Die Entscheidungstheorie verliert auf diesem Weg ihre intersubjektive Nachvollziehbarkeit. Für Situationen, in welchen eine Interaktion mit anderen Akteuren notwendig ist, bedeutet das, dass ein Entscheider die Vorlieben seines Gegenübers auf Grundlage der Rationalität nicht mehr erkennen kann, was die Antizipation seines zukünftigen Verhaltens erheblich erschwert. Obwohl der Mensch versucht rational zu handeln, ist er aufgrund seiner informativen und kognitiven Beschränkungen nur begrenzt dazu in der Lage und kann sich irren (cf. Clemens et al. 2010: 3). Die Entscheidung eines Akteurs verliert damit ihre Objektivität oder in anderen Worten: Zur Umweltunsicherheit kommt die Verhaltensunsicherheit hinzu. Neben der beschränkten Rationalität ist die Motivation eines Akteurs verantwortlich für das Entstehen von Verhaltensunsicherheit. Das Motivationsproblem bezieht sich nicht auf das Können, sondern auf das Wollen eines Akteurs (cf. Ripperger 1998: 18). So herrscht in der Neuen Institutionenökonomik die Annahme des opportunistischen Verhaltens. Akteure setzen bei der Verfolgung ihrer Interessen auch List und Tücke ein. Dazu werden zum Beispiel Informationen bewusst zurückgehalten oder verzerrt (cf. Williamson 1993: 458).

„Opportunismus begründet damit die Möglichkeit eines Schadens durch strategisches Verhalten eines anderen und schafft dadurch [...] [eine der notwendigen] Bedingung[en] für die Existenz von Verhaltensrisiken“ (Ripperger 1998: 23).

Damit wurde gezeigt, welche Risiken für einen Akteur bei interdependenten Entscheidungssituationen bestehen. Festzuhalten bleibt, dass Akteure Umweltunsicherheiten nicht in ihrem Sinne reduzieren können. Hingegen stehen für Verhaltensunsicherheiten einige Mechanismen bereit,

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<sup>11</sup> Siehe hierzu: Selten 2002.

welche die ökonomischen Risiken einer Kooperation begrenzen können (cf. ebd.: 17). Diese werden im folgenden Abschnitt umfassend diskutiert. Dabei wird nachgewiesen, dass die zusätzliche Informationsbeschaffung sowie die Sanktionierung auf Grundlage expliziter Verträge allein die Erwartungen eines Akteurs nicht ausreichend stabilisieren können und das verbleibende Risiko daher nur durch Vertrauen, welches als impliziter Vertrag dargestellt wird, weiter reduziert werden kann. Nachdem sich die bisherige Betrachtung in diesem Kapitel mit der Frage auseinandersetzt, welche Risiken für einen Akteur in einer interdependenten Entscheidungssituation bestehen, wird der übrige Teil sich mit der zweiten der beiden zu Anfang vorgestellten zentralen Fragen auseinandersetzen, nämlich: Wie kann ein Akteur mit diesen Risiken umgehen?

### *3.2 Mechanismen zur Stabilisierung unsicherer Erwartungen und Risikoreduktion*

Da bei Umweltunsicherheiten die Quelle der Unsicherheit, wie oben erläutert, grundsätzlich außerhalb der Einflussmöglichkeiten des Akteurs liegt, kann kein Mechanismus die Wahrscheinlichkeit positiv (d.h. im Sinne des Akteurs) beeinflussen. Auf das Eintreten eines zufälligen Ereignisses lässt sich also lediglich hoffen. Demensprechend ist die Hoffnung das einzige zur Verfügung stehende Mittel, welches ein Akteur anwenden kann, um seine Erwartungen diesbezüglich zu stabilisieren (cf. ebd.: 37 f.). Hingegen stehen für Verhaltensunsicherheiten Mechanismen zur Verfügung, welche die Erwartungen stabilisieren und damit die Unsicherheit sowie das ökonomische Risiko der Handelnden reduzieren können.

Ein Weg, Unsicherheit zu reduzieren, der in der Literatur oft vorgeschlagen wird, ist die Beschaffung zusätzlicher Informationen: Je mehr Informationen einem Akteur zur Verfügung stehen, desto näher liegt seine subjektiv wahrgenommene Eintrittswahrscheinlichkeit eines bestimmten Ereignisses an der objektiven Wahrscheinlichkeit (cf. Clemens et al. 2010: 6). Allerdings ist dieser Ansatz mit einem Problem behaftet, welches seine Nützlichkeit in Hinsicht auf die Reduzierung von Unsicherheit in Frage stellt. Da die tatsächliche Handlungsintention eines Interaktionspartners in Tauschbeziehungen nicht erkennbar ist, wird die subjektiv wahrgenommene Wahrscheinlichkeit auch bei noch so großer Informationssuche normalerweise (d.h. außer durch Zufall) nie der tatsächlichen Wahrscheinlichkeit entsprechen. Selbst wenn der Akteur seine Intentionen (scheinbar) offenlegt, bleibt ein Glaubwürdigkeitsproblem. Dieses existiert jedoch bei allen Informationsquellen. Da die Kosten der Informationsbeschaffung einem abnehmenden Grenznutzen gegenüberstehen, kann dieses Dilemma nicht gelöst werden (cf. Bosshardt 2001: 126). „Aufgrund der begrenzten

Rationalität erzeugt die Informationsbeschaffung also unter Umständen sogar neue Unsicherheit“ (Clemens et al. 2010: 6).

Neben zusätzlicher Informationsbeschaffung stehen Individuen Institutionen bereit, welche Mittel zur Risikoreduktion und Erwartungsstabilisierung liefern. Sie kanalisieren die Handlungen von Individuen, indem sie Einfluss auf deren Anreize nehmen. „In diesem Sinne beeinflussen Institutionen strategisches Entscheidungsverhalten und dessen soziale Konsequenzen.“ (Ripperger 1998: 28) Die neue Institutionenökonomik versteht unter einer Institution einen Vertrag oder ein Vertragssystem, inklusive der jeweiligen Durchsetzungsmechanismen (cf. Erlei 2007: 22). Über die Etablierung von Verträgen definieren bzw. limitieren sie den Wahlbereich des Einzelnen und erhöhen somit die Vorhersehbarkeit menschlichen Verhaltens (cf. North 1992: 4, 6). Hinsichtlich der Sanktionsmöglichkeiten und der Konstituierung ist zwischen expliziten und impliziten Verträgen zu differenzieren.<sup>12</sup>

Das Ziel solcher Verträge ist das Erreichen einer möglichst weitgehenden ökonomischen Immunisierung der Vertragsparteien gegen potentielle Schäden. Dafür soll zum einen die Eintrittswahrscheinlichkeit des schädigenden Ereignisses verringert werden und zum anderen die Kosten der negativen Konsequenzen so weit wie möglich dezimiert werden (cf. ebd.: 30).

Der Handlungsraum der Akteure wird bei expliziten Verträgen durch die Sanktionierung unkooperativen Verhaltens (d.h. nicht vertragsgemäßen Verhaltens) eingeschränkt. Eine Risikobegrenzung wird dementsprechend über eine Verringerung der Komplexität erreicht. Die Minimierung der Kosten möglicher negativer Konsequenzen wird bei expliziten Verträgen erreicht, indem die Zahlung von Entschädigungen vertraglich festgelegt und auf die verantwortlichen Akteure umverteilt wird (cf. ebd.: 30 f.). Dennoch können explizite Verträge die Verhaltensunsicherheit und die damit verbundenen Risiken nicht vollständig begrenzen. Eine gänzliche Risikobegrenzung wäre nämlich nur mit vollständigen Verträgen, welche Verhalten und Zahlungen für alle möglichen Kontingenzen spezifizieren und darauf aufbauend, die vertraglichen Explikationen formulieren, realisierbar. Dieses Antizipationsvermögen setzt jedoch vollkommene Rationalität voraus. Kapitel 3.1 hat bereits gezeigt, dass die Annahme vollkommener Rationalität nicht haltbar ist. Ein vollständiger Vertrag ist deswegen lediglich als hypothetisches Konstrukt zu verstehen, welches wegen der beschränkten kognitiven Fähigkeiten des Menschen in der Realität nie vorzufinden

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12 In der Literatur wird auch oft von ‚formellen‘ und ‚informellen‘ Institutionen gesprochen. Dies bezeichnet generell dieselben Sachverhalte. Um die Konsistenz zu bewahren, wird im Folgenden allein auf die Begriffe ‚implizite‘ und ‚explizite‘ Verträge abgestellt.

sein wird (cf. ebd.: 32). Darüber hinaus würde ein solcher Vertrag allein wegen den prohibitiv hohen Transaktionskosten nicht zustande kommen. Transaktionskosten bezeichnen die Kosten der Vertragsanbahnung, des Vertragsabschlusses, Vertragsüberwachung und gegebenenfalls der Vertragsanpassungen (cf. Grüniger 2001: 46). Damit sind explizite Verträge erstens ökonomisch nicht sinnvoll und zweitens physisch nicht realisierbar.

Im Unterschied zu expliziten Verträgen sind implizite Verträge nicht rechtlich manifestiert. Dementsprechend können sie als sogenannte ‚self-enforcing contracts‘ (selbstdurchsetzende Verträge) bezeichnet werden (cf. Ripperger 1998: 28).

„[D]as heißt als Vereinbarungen, die aufgrund der nicht gegebenen Sanktionierbarkeit durch eine richterliche Instanz, allein durch die Drohung des potentiellen Abbruchs der Kooperationsbeziehung zwischen den beiden Parteien durchgesetzt werden können“ (ebd.).

Auf der Basis des selbstdurchsetzenden Charakters sind die Transaktionskosten dieser Vertragsart minimal. Allerdings sind implizite Verträge deswegen in besonderem Maße von der Existenz sozialer Normen und Reputationsmechanismen abhängig (cf. ebd.: 28).

### *3.3 Vertrauen als impliziter Vertrag*

Bei einer Vertrauensbeziehung handelt es sich um einen, wie oben beschriebenen, impliziten Vertrag. Ripperger definiert Vertrauen als:

„[...] die freiwillige Erbringung einer riskanten Vorleistung unter Verzicht auf explizite vertragliche Sicherungs- und Kontrollmaßnahmen gegen opportunistisches Verhalten in der Erwartung, dass sich der andere trotz [dem] Fehlen [...] [von] Schutzmaßnahmen, nicht opportunistisch verhält“ (ebd.: 45).

Vertrauen wird hier folglich als ‚strategisch-rationales Vertrauen‘ (eng: ‚encapsulated interest‘) verstanden (cf. Hardin 2004: 1). Mittels der Drohung des Abbruchs der Kooperationsbeziehung verändert Vertrauen die Anreizstruktur der beteiligten Akteure. Da sich opportunistisches Verhalten für einen Akteur damit nicht mehr lohnt, wird ein pareto-superiores Ergebnis ermöglicht.

Insbesondere bei Kooperationen bei denen die Leistungen der Akteure zeitversetzt abgewickelt werden, kommt Vertrauen eine große Bedeutung zu. Das spieltheoretische Dilemma einer riskanten Vorleistung wird in Abbildung 3 dargestellt.

Im ‚Einfachen Vertrauensspiel‘ muss der vorleistende Akteur dem anderen Akteur Vertrauen einräumen, um das für sich optimale Ergebnis erreichen zu können. Akteur X steht dementsprechend zuerst vor der Entscheidung Vertrauen zu gewähren oder nicht. Wenn er es nicht tut, ist das Spiel vorbei und beide erhalten eine Auszahlung von 0. Gewährt er hingegen Vertrauen, dann steht

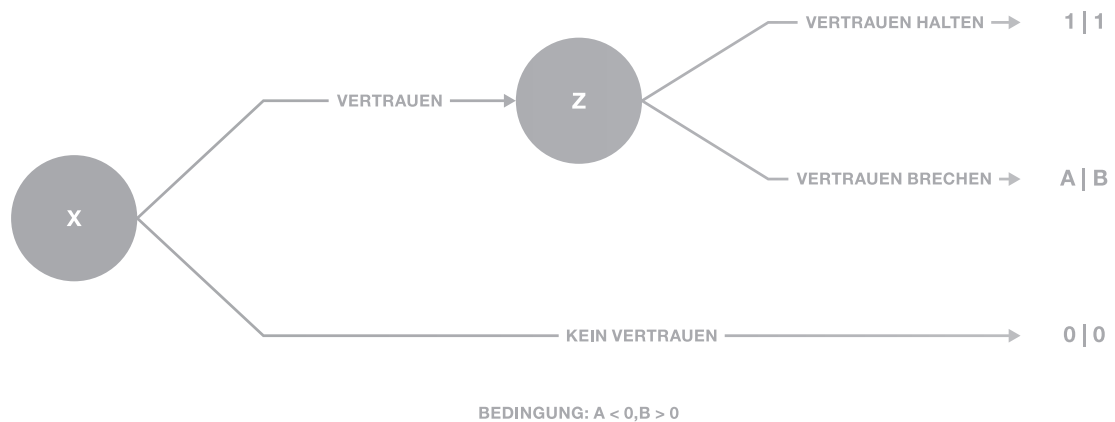


ABBILDUNG 3: EIGENE DARSTELLUNG, IN ANLEHNUNG AN PREISENDÖRFER 1995: 266

Akteur Z im nächsten Zug vor der Entscheidung das Vertrauen zu halten oder zu brechen. Die Problemstruktur beim Vertrauen wird über die Auszahlungen der beiden Akteure deutlich. Da  $b$  größer ist als 1 hat Akteur Z einen Anreiz, das Vertrauen zu brechen. Dieser Vertrauensbruch würde für X eine Auszahlung von  $a$  bedeuten, welche für ihn schlechter ist als 0. Dieses Spiel entspricht der Auszahlungsstruktur des ‚Gefangenendilemmas‘; für welches bekannt ist, dass opportunistische Akteure im Punkt (0,0) enden werden, obwohl sich beide Akteure durch Vertrauen besser stellen könnten (cf. Preisendörfer 1995: 266).<sup>13</sup> Vertretern der Spieltheorie gelang es zu zeigen, dass Kooperation und Vertrauen entgegen dem opportunistischen Charakter der einzelnen Individuen

<sup>13</sup> Für mehr Informationen zum Gefangenendilemma, siehe: Fudenberg et al. 1996: 9-10, 110-112.



unter zwei Bedingungen entstehen können: Erstes, wenn eine dauerhafte Beziehung zwischen X und Z besteht und das ‚Vertrauensspiel‘ somit wiederholt wird<sup>14</sup> und zweites, wenn X eine intensive Beziehung zu einem anderen Akteur Y hat, welcher wiederum mit Z interagiert. Die Gefahr, die Reputation im sozialen oder wirtschaftlichen Umfeld zu verlieren (selbst wenn es sich um eine einmalige Interaktion handelt), hält Z davon ab, das Vertrauen von X zu missbrauchen (cf. ebd.: 266 f.). Für Herbert Simon, einen der renommiertesten Wissenschaftler der Entscheidungstheorie, erreichen Individuen ihre Ziele besser mittels als ohne Organisation (cf. Simon 1966: 199). In diesem Sinne kann die Institution des Vertrauens als Organisationsform, die Kooperationsprobleme opportunistischer Akteure löst, verstanden werden.

Die vorangegangenen Abschnitte haben gezeigt, dass explizite Verträge es nicht schaffen, das spieltheoretische Dilemma in wiederholenden Kooperationen aufzulösen. Hingegen stehen Vertrauen (gestützt durch Reputationsmechanismen) begrenzte Rationalität und prohibitive Transaktionskosten nicht entgegen. Dementsprechend können Akteure die Verhaltensunsicherheit und das damit verbundene Kostenrisiko mit gegenseitigem Vertrauen entscheidend verringern.

#### ***4. Prinzipal-Agent-Theorie: Modellierung von Vertrauensbeziehungen auf dem Interbankenmarkt***

##### *4.1 Vertrauen in der Prinzipal-Agent-Theorie*

Im nächsten Abschnitt wird erläutert, inwieweit sich Kreditbeziehungen auf dem Interbankenmarkt als Prinzipal-Agent-Beziehung rekonstruieren lassen. Darüber hinaus soll gezeigt werden, dass Vertrauen für das Funktionieren der Kreditvergabe zwischen MFIs von entscheidender Bedeutung ist. Dafür wird in Kapitel 4.1 zunächst die Prinzipal-Agent-Theorie unter Berücksichtigung von Vertrauen dargestellt, um sie danach auf den Interbankenmarkt anzuwenden und die Rolle des Vertrauens auf diesem zu erörtern.

Eine sogenannte ‚Agency-Beziehung‘ beschreibt eine Leistungsbeziehung zwischen zwei Akteuren: Prinzipal und Agent treten in Kooperation, um ihre individuellen Ziele erreichen zu können (cf. Ripperger 1998: 65). Beide sind bei der Verfolgung ihrer Interessen maßgeblich von

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<sup>14</sup> Siehe hierzu: Axelrod 1985.

der Handlung des Anderen abhängig (cf. Arrow 1984: 1). In diesem Sinne ist das kooperative Verhalten von Prinzipal und Agent allein durch die egoistische Zielerreichung und nicht etwa aus altruistischen Motiven begründet. Genauso treten Banken einer Agency-Beziehung nur bei, um jeweils ihre eigenen Ziele, wie die Erhöhung der bilanziellen Beweglichkeit und Gewinnmaximierung, erreichen zu können.<sup>15</sup>

Um im zweiten Teil dieses Abschnitts die Anwendung der Prinzipal-Agent-Theorie auf den Interbankenmarkt besser verstehen zu können, wird sie zunächst am einfachen Beispiel der Arbeitsteilung näher erläutert. Aufgrund fehlenden technischen Know-hows, beschränkter finanzieller Ressourcen und einem begrenzten Zeitbudget sind wirtschaftliche Akteure oft gezwungen, Arbeitsteilungen einzugehen. Sequentiell gestaltet sich eine arbeitsteilige Prinzipal-Agent-Beziehung ähnlich dem in Abschnitt 3.3 dargestellten ‚Einfachen Vertrauensspiel‘: Der Prinzipal leistet vor, das heißt, er spricht dem Agenten eine Zahlung für die Bewältigung einer Aufgabe zu. Der Agent muss dementsprechend im nächsten Schritt nachleisten, also die ihm übertragene Aufgabe im Sinne des Prinzipals erledigen (cf. Laux 1990: 11). An der Lösung des aufgetragenen Problems partizipiert der Auftraggeber nicht aktiv. Er kann lediglich mit Hilfe verschiedener Mechanismen versuchen, einen Agenten auszuwählen, der die Aufgabe zu seiner Zufriedenheit löst, und diesen vertraglich an bestimmte Bedingungen binden. Konstitutives Element eines Prinzipal-Agent-Problems ist das Vorliegen asymmetrischer Informationen (cf. Ripperger 1998: 64).

„Der Agent, als der besser Informierte, wählt zwischen einer Reihe möglicher Handlungen, die nicht nur seinen eigenen Nutzen, sondern auch den des Prinzipals beeinflussen, wobei er mehr oder weniger im Interesse des Prinzipals handeln kann“ (ebd.).

Da die Interessen von Prinzipal und Agent in der Regel nicht deckungsgleich sind, können durch diese arbeitsteilige Beziehung zusätzliche Kosten entstehen (cf. Erlei et al. 2007: 74). Nach Vertragsabschluss steht der Prinzipal dementsprechend zwei Gefahren gegenüber: Erstens existiert das Risiko eines ‚Moral Hazards‘ (Moralisches Wagnis) und zweitens kann der Agent bei sehr spezifischen Investitionen des Prinzipals einen sogenannten ‚Hold Up‘ durchführen. Bei einem Moral Hazard, handelt es sich nicht, wie der umgangssprachliche Wortsinn vermuten lässt, um

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<sup>15</sup> Siehe hierzu auch Abschnitt 2.2, welcher den Nutzen des Interbankenmarktes für die MFIs spezifiziert und Abschnitt 4.2, in dem die Kreditbeziehung zwischen Banken als Prinzipal-Agent-Problem rekonstruiert wird.

ein ethisches Problem, sondern um die Möglichkeit des Agenten, explizit und implizit vereinbarte Leistungen zurückzuhalten (cf. Grüninger 2001: 55 und Kirchgässner 2000: 74). Während ein Moral Hazard zuallererst aus dem Informationsvorsprung des Agenten entsteht, liegt die Quelle des Hold Ups vor allem in der spezifischen Investition des Prinzipals in eine Kooperation. Entsprechend des Grades der spezifischen Investition bzw. der Kosten der Desinvestition, kann der Agent eine höhere Kooperationsrente durch Erpressung erreichen (cf. Grüninger 2001: 58). Kapitel 3 hat gezeigt, dass Vertrauen bei interdependenten Entscheidungssituationen eine große Bedeutung zukommt. Prinzipal-Agent-Beziehungen können als genau solche Entscheidungssituationen interpretiert werden. So weisen sie dieselben Probleme auf, wie die in Abschnitt 3.2 dargestellten Entscheidungsprobleme: die an der Kooperation beteiligten Akteure verhalten sich egoistisch bzw. opportunistisch. Die daraus resultierende Unsicherheit wird durch die Gegebenheit asymmetrischer Informationen noch verstärkt.

Die Lösungsvorschläge der ‚Neuen Institutionenökonomik‘, die Gefahren des Moral Hazards und Hold-Ups durch strengere Überwachung und Kontrolle der Agenten, sowie über „Ausgaben, die eine glaubhafte Bindung des Verhaltens des Agenten erzeugen“ (Erlei et al. 2007: 75) einzudämmen, sind insuffizient. Eine vollkommene Überwachung ist genauso wie ein vollkommener Vertrag mit prohibitiv hohen Kosten verbunden (cf. Grüninger 2001: 56). Wie bei interdependenten Entscheidungssituationen kann durch Vertrauen auch in Prinzipal-Agent-Beziehungen eine pareto-superiore Lösung erreicht werden. Einerseits kann Vertrauen als effiziente Alternative zu den herkömmlichen Steuerungsmaßnahmen verstanden werden, andererseits kann es in Kombination mit Überwachung, Kontrolle und dem Setzen von monetären Anreizen die Reibungskosten einer Agency-Beziehung entscheidend verringern (cf. Ripperger 1998: 68 f.).

In der Literatur finden sich eine Reihe weiterer Bereiche, auf welche die Agency-Theorie angewandt werden kann. Neben dem normalen Arbeitsverhältnis, der Vermietung und der demokratischen Politik, ist auch die Kreditbeziehung ein bekanntes Beispiel für ein Prinzipal-Agent-Problem (cf. Erlei et al. 2007: 75).

#### *4.2 Anwendung auf den Interbankenmarkt und die Rolle des Vertrauens*

Im folgenden Abschnitt wird die Prinzipal-Agent-Theorie auf den Interbankenmarkt, konkreter auf das Kreditverhältnis zweier MFIs, angewandt. Es soll darüber hinaus gezeigt werden, warum und in welchem Ausmaß Vertrauen für einen funktionierenden Interbankenmarkt eine Rolle spielt. Dafür werden erstens die Probleme dargestellt, mit denen sich MFIs in einer Interbankenkreditbeziehung konfrontiert sehen. Dabei wird erläutert, wie Kreditinstitute versuchen die damit verbundene Unsicherheit durch Kreditwürdigkeitsprüfungen und Kreditüberwachung zu reduzieren. Zweitens soll gezeigt werden, warum es den Banken nicht gelingt, über diese Mechanismen die Unsicherheit gänzlich zu beseitigen und welche ökonomischen Risiken daraus entstehen. Drittens wird dargestellt welche Kreditformen auf dem Interbankenmarkt zu finden sind und inwiefern Vertrauen für das jeweilige Zustandekommen und die möglichst effiziente Gestaltung des Kreditverhältnisses notwendig ist.

Charakteristisch für ein Kreditverhältnis ist, dass ein Kreditgeber (d.h. Gläubiger) einem Kreditnehmer (d.h. Schuldner) eine Leistung in Form der Bereitstellung von Kapital in der Gegenwart zuspricht, während die Gegenleistung des Schuldners zunächst lediglich als Zahlungsverprechen besteht. Dieses beinhaltet die Verpflichtung, das geliehene Kapital, sowie einen zu Anfang vereinbarten Zins zu einem (oder mehreren) vereinbarten Zeitpunkt(en) in der Zukunft, zu zahlen (cf. Terberger 1987: 1).

Der entscheidende Unterschied zwischen Kreditgeschäften und klassischen Transaktionen mit physischen Gütern ist also der zeitliche Aspekt.<sup>16</sup> Die Kreditvergabe des Gläubigers ist somit als riskante Vorleistung zu verstehen. Beim Gläubiger entsteht daher eine Erwartungsunsicherheit, ob, wann und in welchem Umfang die versprochene Gegenleistung vom Schuldner erbracht wird (cf. Gischer et al. 2012: 138). Bezüglich des eigenen Ausfallrisikos hat der Schuldner darüber hinaus einen Informationsvorsprung. Dies gilt bei Verbraucherkrediten wie auch bei Kreditverhältnissen zwischen MFIs. Damit ist die Kreditbeziehung auf dem Interbankenmarkt nachhaltig „[...] von der asymmetrischen Ausstattung mit entscheidungsrelevanten Informationen [...] geprägt“ (Gischer 2012: 138).

Da die kreditgebende Bank der kreditnehmenden Bank die Verfügungsgewalt über einen Teil ihres Vermögens gibt und zwischen den Banken eine Informationsasymmetrie zugunsten der kreditnehmenden

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16 Der Ausdruck ‚klassisch‘ schließt Zahlung auf Rechnung oder Ratenverträge hier aus Gründen der Einfachheit aus.

Bank herrscht, kann eine Kreditbeziehung auf dem Interbankenmarkt als Prinzipal-Agent-Beziehung verstanden werden (cf. Holst 1996: 31). Abbildung 4 stellt dieses Agency-Problem graphisch dar.

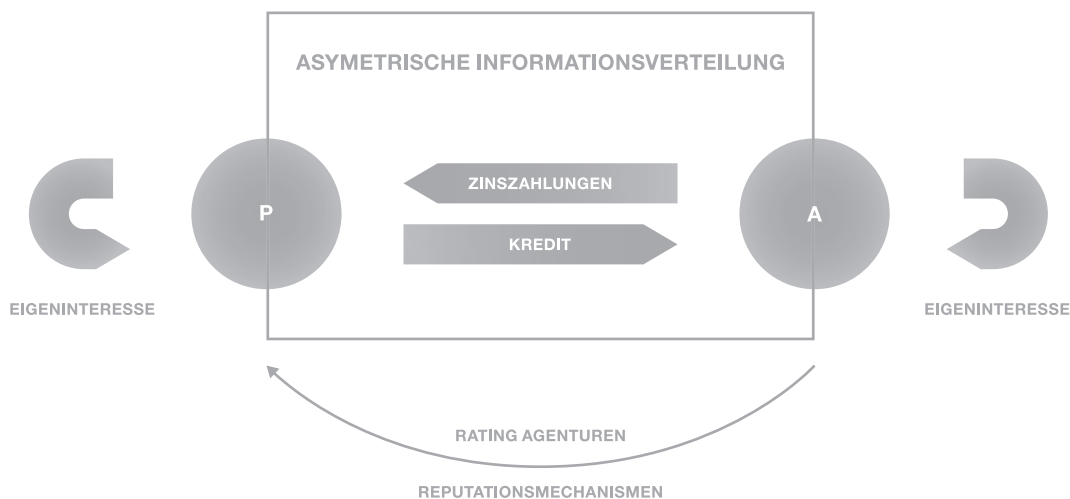


ABBILDUNG 4: EIGENE DARSTELLUNG

In dieser Agency-Beziehung ist die kreditgebende Bank der Prinzipal und die kreditnehmende Bank der Agent. Wie in einem Prinzipal-Agent-Verhältnis üblich, verfolgen sie ausschließlich ihre eigenen Interessen. Der Agent fragt für seine eigenen Zwecke einen Kredit bei dem Prinzipal nach, wohingegen dieser für seinen Kredit Zinszahlungen vom Agenten erhält.

### *Informationsasymmetrien*

Wie bei jedem Kredit liegt auch bei einem Kredit auf dem Interbankenmarkt eine asymmetrische Informationsausstattung zwischen Schuldner und Gläubiger vor. Denn der Kreditnehmer hat mehr Informationen hinsichtlich des Erfolgs der Investition des Kreditgebers, da er selbst am besten einschätzen kann, inwieweit er den Kredit zu vereinbarten Konditionen zurückzahlen kann (cf. EZB 2011b: 69). Dementsprechend lässt sich „[...] zwischen Darlehensnehmern, die ihren Kredit vollständig bedienen können, und solchen, die hierzu nicht in der Lage sind“ (ebd.), unterscheiden.

Die daraus resultierende Unsicherheit versuchen Kreditinstitute durch Kreditwürdigkeitsprüfungen (Screening) und einer möglichst intensiven Kreditüberwachung (Monitoring) zu verringern (cf. Gischer et al. 2012: 133). Im Vergleich zu Bonitätsprüfungen bei Verbraucherkrediten ist das Screening von MFIs wesentlich umfangreicher und komplexer. Ein zentraler Aspekt der Kreditprüfung ist das sogenannte ‚Credit Rating‘ (oder kurz: ‚Rating‘), welches vor etwa 100 Jahren in den Vereinigten Staaten von Amerika entstand und sich heute als fester Bestandteil der Kreditvergabe auf den internationalen Finanzmärkten etabliert hat (cf. Munsch et al. 2002: 9). Hierbei ist zwischen internen und externen Ratings zu unterscheiden. Bei internen Ratings führen die Kreditinstitute die Bewertung selbst durch, während beim externen Rating eine Agentur mit der Prüfung beauftragt wird (cf. ebd.: 14). Da die Entwicklung eines bankinternen Ratingverfahrens ein äußerst aufwendiger Prozess und daher mit hohen Kosten verbunden ist, nutzen Banken meistens externe Ratings (cf. Hartmann et al. 2007: 27 und Munsch et al. 2002: 49). Marktführer für externe Ratings sind die amerikanischen Agenturen ‚Moody’s‘, ‚Standard & Poor’s‘ und ‚Fitch‘ (cf. Munsch et al. 2002: 25). Credit Ratings können von Investoren (bzw. der kreditgebenden Bank) in Auftrag gegeben werden oder die Kreditinstitute (sowie nicht-finanzielle Unternehmen) beantragen es selbst. Banken können ein positives Rating dazu nutzen potentiellen Kapitalgebern die Kreditwürdigkeit zu signalisieren (‚Signaling‘) und so leichter an neue Refinanzierungsmittel zu kommen (cf. Rosenbaum 2009: 18).

Externe Ratings weisen allerdings eine Reihe von Problemen auf. Erstens sind die großen Ratingagenturen wegen der Intransparenz ihrer Bewertungsmethodik immer wieder heftiger Kritik ausgesetzt (cf. ebd.: 51, 71 f.). Zweitens besteht die Gefahr eines Interessenkonflikts: Um die oben beschriebenen ‚Signaling‘-Effekte zu nutzen, sind seit 1970 die Auftraggeber in der Regel die zu bewertenden Unternehmen selbst. Den Ratingagenturen wird infolgedessen vorgeworfen, sie bewerten die eignen Auftraggeber tendenziell besser, um sich so auch den Folgeauftrag sichern zu können (cf. Forster 2008: 40). Ein dritter Kritikpunkt ist die Qualität der Ratings. In der Vergangenheit kam es immer wieder zu Vorkommnissen, welche die Aussagekraft der Ratings direkt in Frage stellten. Besonders der ‚Enron-Skandal‘ und die Finanzkrise in Island haben dabei großes mediales Interesse erfahren: Enron, ein ehemaliger Vorzeigekonzern und seinerzeit siebtgrößtes amerikanisches Unternehmen, stürzte den US-Kapitalmarkt im November 2001 in eine schwere Krise. Das ursprüngliche Energie-unternehmen, welches seine Geschäftstätigkeiten überproportional in den Investmentbereich ausweitete, wies seine Gewinne über Jahre hinweg deutlich zu hoch aus (insgesamt 600 Millionen Dollar). Somit konnte Enron trotz seiner eigentlich schlechten Verfassung

weiterhin gute Credit Ratings erhalten. Die Agenturen sind ihrer Kontrollfunktion demnach nicht ausreichend nachgekommen (cf. Rosenbaum 2009: 49). Auch die Bewertung Islands vor der schweren Finanzkrise, welche 2008 begann und bis heute (2012) nicht ganz überwunden ist, ließ Zweifel an externen Ratings aufkommen (cf. Chand 2009: 19 f.). Island galt als neoliberales Wirtschaftswunder und wurde selbst kurz vor dem Zusammenbruch des Bankensektors noch überdurchschnittlich bewertet.<sup>17</sup> Im Mai 2008 wurde Island von den Ratingagenturen mit der Note ‚High grade, low risk‘ noch ein äußerst geringes Ausfallrisiko bestätigt. Nur wenige Monate später stand das Land kurz vor dem Staatsbankrott und musste vom Internationalen Währungsfond mit Rettungskrediten gestützt werden (Cf. Chand 2009: 26ff. und Steuer 2008: 1). Es lässt sich demnach schlussfolgern, dass Credit Ratings die Informationsasymmetrien nicht beseitigen können. Dies steht im Einklang mit der These aus Abschnitt 3.2, dass zusätzliche Informationsbeschaffung aufgrund der begrenzten Rationalität der Akteure und ihrer Ausstattung mit knappen Mitteln die Unsicherheit nicht nachhaltig verringern kann.

Neben der ex ante zu prüfenden Kreditwürdigkeit besteht für den Prinzipal die Gefahr eines Moral Hazards seitens des Agenten (ex post Informationsasymmetrie).

„Während dem Kreditgeber über die Laufzeit des Darlehenskontraktes keine nennenswerten Handlungsspielräume offen stehen, bestimmt der Schuldner u.a. die Wahl des durchzuführenden Investitionsprojektes“ (Gischer et al. 2012: 138).

Der Gläubiger kann die Handlungen des Schuldners nach Vertragsabschluss hinsichtlich seiner Investitionen nicht beobachten und damit nicht intervenieren. Die kreditgebende Bank kann diesem Problem nur mit einem vollständigen Vertrag oder vollkommener Kreditüberwachung entgegen. Jedoch ist beides, wie in Abschnitt 3.2 erläutert, nicht bzw. wenig zielführend. Wie im Einfachen Vertrauensspiel können auch hier Reputationsmechanismen der Gefahr eines Moral Hazards entgegenwirken. Vertrauensunwürdiges Verhalten gegenüber einer Bank (d.h.. Zahlungsausfall) kann das Vertrauensverhältnis zu anderen Akteuren mitunter soweit stören, dass es zu einem vollständigem Ausschluss aus dem Geldhandel kommt (cf. Clemens et al. 2010: 43). Ein Zahlungsausfall aufgrund riskanter Investitionen seitens der kreditnehmenden Bank verringert sich zwar über diesen Mechanismus signifikant, kann allerdings nicht vollkommenen

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17 Für eine Übersicht der Ratingentwicklung Islands siehe: <http://www.cb.is/the-bank/government-debt-management/the-republic-of-icelands-sovereign-credit-rating/> (accessed: 10.01.2015).

ausgeschlossen werden. Die kreditnehmende Bank könnte nämlich auch wegen falscher Risikobewertung oder externer Faktoren wie dem Zahlungsausfall eines von ihr ausgegebenen Kredits in Liquiditätsschwierigkeiten geraten.

Aufgrund der Tatsache, dass sich die ex ante und ex post existierenden Informationsasymmetrien nicht vollkommen beseitigen lassen, kann ein Zahlungsausfall der kreditnehmenden Bank nicht gänzlich ausgeschlossen werden. Daraus entsteht für den Gläubiger eine Reihe von Risiken (cf. Fuhrmann 1978: 49):

1. Minderung der Verzinsung – Ertragsrisiko
2. Verlust des eingesetzten Geldes – Vermögensrisiko
3. Nichteinhaltung der Zahlungstermine – Verzugsrisiko und
4. Veränderung der Marktfähigkeit – Liquiditätsrisiko

Insbesondere das Liquiditätsrisiko stellt eine gesamtwirtschaftliche Gefahr dar. Dieses bezeichnet das Risiko, „[...] dass ein Kreditinstitut nicht über ausreichende finanzielle Mittel verfügt, um seinen Verpflichtungen bei Fälligkeit nachzukommen“ (EZB 2012: 23). Durch den Zahlungsausfall der kreditnehmenden Bank kann nämlich die kreditgebende Bank wiederum selbst in Liquiditätsprobleme geraten, wodurch aufgrund der enormen Vernetzung des Bankensektors eine bedrohliche Kettenreaktion ausgelöst werden kann.

Nachdem nun dargestellt wurde, mit welchen Problemen MFIs bei Interbankencreditbeziehungen konfrontiert sind, und gezeigt werden konnte, warum es den Banken nicht gelingt, die daraus resultierenden Unsicherheiten bzw. die ökonomischen Risiken durch Kreditwürdigkeitsprüfungen (Ratings) und Kreditüberwachung ausreichend zu beseitigen, widmen sich die beiden letzten Abschnitte dieses Kapitels den unterschiedlichen Kreditformen des Interbankensektors.

Banken geben sich gegenseitig entweder unbesicherte oder besicherte Kredite (cf. Clemens et al. 2010: 44).<sup>18</sup> Im Folgenden werden beide Formen der Kapitalbeschaffung vorgestellt. Darüber hinaus wird die jeweils relevante Form von Vertrauen erörtert.

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<sup>18</sup> Devisenswapgeschäfte als eine weitere Form des Geldhandels werden in dieser Arbeit nicht betrachtet.



### *Besicherter Geldmarkt*

Um sich gegen den Zahlungsausfall zu schützen verlangen Banken bei konventionellen Verbraucherkrediten häufig Sicherheiten. Das heißt, um im Sinne einer Bank als kreditwürdig zu gelten, müssen Schuldner Sicherheiten, wie etwa Immobilien, Aktien oder Ersparnisse, vorweisen (cf. Campbell et al. 1988: 150).

In gleicher Weise können MFIs auf dem Interbankenmarkt unbesicherte oder besicherte Kredite (sogenannte Repogeschäfte) vergeben. Bei einem Repogeschäft muss die kreditnehmende Bank eine Sicherheit (in der Regel) in Form von Wertpapieren vorweisen, welche mindestens den Wert des zu vergebenden Kredits plus Zinsen haben (cf. Büschgen 2006: 782). Der Schuldner überlässt dem Gläubiger dabei die Wertpapiere bis zum Ablauf des Kredits. Die Besonderheit ist, dass die kreditnehmende Bank ihre Sicherheiten am Ende der Laufzeit zurückkauft und damit gleichzeitig den Kredit tilgt. Der Pensionsnehmer muss grundsätzlich jedoch nur Wertpapiere gleicher Art und nicht etwa die tatsächlich Erhaltenen an den Schuldner zurückzahlen (cf. Schinke 2004: 64). Ein erhöhter Rückkaufwert wird vertraglich vereinbart. Die Differenz zwischen Verkaufs- und Rückkaufwert entspricht damit dem Umsatz der kreditgebenden Bank (Zinsmarge) (cf. ebd.).

„Solange der Kreditgeber ein Drittvertrauen gegenüber der die Zahlungsverprechen emittierenden Institution hat, ist es nicht nötig, dass er dem Kreditnehmer eine vertrauenswürdige Absicht unterstellt oder ihm die Fähigkeit zutraut, den Kredit auch zurückzuzahlen“ (Clemens et al. 2010: 42).

Liegt dieses Drittvertrauen allerdings nicht vor, werden die Papiere nicht als Sicherheit akzeptiert und der Geldhandel kann nur noch unbesichert vollzogen werden (cf. ebd.: 42). Repogeschäfte sind insgesamt zwar mit weniger Risiko verbunden, weisen jedoch weitaus höhere Transaktionskosten auf als unbesicherte Kredite. Insbesondere für den kurzfristigen Liquiditätsausgleich scheint daher die Nutzung unbesicherter Geldgeschäfte besonders sinnvoll.

### *Unbesicherter Geldmarkt*

Um sich bei unbesicherten Kreditgeschäften gegen einen Zahlungsausfall und den damit verbundenen Risiken abzusichern, verlangt der Gläubiger eine mit dem Risiko steigende Prämie. Die Bonität

des Schuldners (ex ante Informationsasymmetrie) und die Gefahr des Moral Hazards (ex post Informationsasymmetrie) finden daher durch entsprechende Risikoaufschläge im Nominalzins ihren Niederschlag (cf. Gischer et al. 2012: 95). In diesem Sinne kann die Risikoprämie als Substitut für Vertrauen angesehen werden – wenn eine kreditgebende Bank nämlich, gegeben der ihr zur Verfügung stehenden Informationen, der kreditnehmenden Bank bzgl. der zu erfüllenden Zahlungsverpflichtungen nur wenig vertraut, dann kann sie dies über einen Zinsaufschlag kompensieren.

Gischer et al. demonstrieren die Vorgehensweise der Risikoabgeltung an einem einfachen Beispiel: Angenommen eine Bank hat die Wahl einen Betrag  $K$  zum sicheren Zins von  $i_s$  für eine Periode anzulegen oder für denselben Zeitraum zum Zinssatz  $i_r$  als Kredit zu vergeben, bei welchem die Kredittilgung mit einer Wahrscheinlichkeit  $p$ ,  $0 < p < 1$ , vollständig ausfällt. Die Bank ist indifferent zwischen den beiden Anlagemöglichkeiten, wenn die Erwartungswerte der Rückzahlung gleich sind, d.h. wenn gilt

$$I. \quad K \cdot (1 + i_s) = K \cdot (1 + i_r) \cdot (1 - p)$$

Durch einfache Äquivalenzumformung lässt sich der risikoadäquate Zinssatz  $i_r$  ermitteln:

$$II. \quad i_r = ((1 + i_s) / (1 - p)) - 1$$

Es lässt sich erkennen, dass der Zinssatz für den risikobehafteten Zins (wie intuitiv erwartet) mit der Ausfallwahrscheinlichkeit zunimmt (cf. ebd.: 140).

MFI's sind natürlich an möglichst billigen Krediten interessiert. Dementsprechend kann erwartet werden, dass sie durch die Etablierung von Vertrauensverhältnissen versuchen die Kreditkosten zu reduzieren. Damit dient Vertrauen an dieser Stelle nicht nur dazu, dass eine Kreditbeziehung überhaupt zustande kommt, sondern auch dazu, dass diese möglichst effizient ist (i.S.v. kostenminimierend). Es ist allerdings wichtig festzustellen, dass fehlendes Vertrauen in die Rückzahlung nicht unendlich durch eine höhere Risikoprämie substituierbar ist. Jeder Kreditgeber hat seinen eigenen Risikohorizont, worüber hinaus er ablehnt, einem potentiellen Schuldner einen Kredit zur Verfügung zu stellen, selbst wenn dieser bereit wäre, noch höhere Kreditzinsen zu zahlen (cf. Holst 1996: 76ff.; Clemens et al. 2010: 41).<sup>19</sup>

<sup>19</sup> Für die mathematische Präzisierung und weitere Ausführung zum Risikohorizont bei der Kreditvergabe, siehe Stiglitz et al., 1981.

Damit konnte gezeigt werden, dass selbst für Kreditbeziehungen auf dem Interbankenmarkt, welche von Informationen, Kontrolle und Sicherung geprägt sind, ein Mindestmaß an Vertrauen erforderlich ist (cf. Holst 1996: 3). Die Erwartungsunsicherheit der kreditgebenden Bank bezüglich des Rückzahlungsausfalls, welche letztendlich auf den ungleich verteilten Informationen beruht, kann nicht vollkommen beseitigt werden. Kreditwürdigkeitsprüfungen und Reputationsmechanismen sind dementsprechend nicht im Stande dem Gläubiger ausreichend stabile Erwartungswerte hinsichtlich des Nutzens seiner Investition zu generieren. Sowohl bei besicherten als auch bei unbesicherten Geldgeschäften wird also Vertrauen benötigt. Die lateinische Wurzel des Begriffs „Kredit“ dokumentiert bereits diesen Aspekt des Kreditgeschäfts („Kredit“ = lat. „credo“; jemanden vertrauen, Vertrauen schenken, trauen, anvertrauen) (cf. ebd.). Für einen funktionierenden Interbankenmarkt, auf welchem MFIs zur Refinanzierung und zum Liquiditätsausgleich ausreichend Gelder bekommen, ist Vertrauen damit von zentraler Bedeutung.

Wann von einer Vertrauenskrise auf dem Interbankenmarkt zu sprechen ist, bzw. wie eine solche entsteht und sich ausbreitet, soll im folgenden Kapitel erläutert werden. Darüber hinaus werden einige Symptome einer solchen Krise sowie ihre Auswirkungen auf Finanz- und Realwirtschaft kurz besprochen.

## ***5. Vertrauenskrise auf dem Interbankenmarkt***

### *5.1 Zur Entstehung und Ausbreitung von Vertrauenskrisen auf dem Interbankenmarkt*

Ist in einem komplexen System wie dem Geldmarkt einmal ein gewisses Maß an Misstrauen gegen einen Akteur, ein Produkt oder eine Institution entstanden, kann sich dieses äußerst schnell ausbreiten. Insbesondere auf Finanzmärkten, welche von einem sehr dynamischen Informationsaustausch geprägt sind, ist die Gefahr, dass sich individuelles Misstrauen zu einer systemweiten Vertrauenskrise ausbreitet dementsprechend groß. Nach Luhmann hat „Misstrauen [...] eine inhärente Tendenz, sich im sozialen Verkehr zu bestätigen und zu verstärken“ (Luhmann 2000: 98). Ein Vertrauensverlust kann sich somit in einer Gruppe von Akteuren ohne die direkte schlechte Erfahrung (e.g. Vertrauensbruch) jedes Einzelnen, bis hin zu einer Vertrauenskrise steigern, wenn sich die Akteure bei ihren Einschätzungen an denen der anderen orientieren (cf. Clemens et al. 2010: 27). In einem System wechselseitiger Vertrauensbeziehungen und reger Kommunikation, in

dem Akteure Informationen hauptsächlich von denen bekommen, deren Position und Interessen an einer Vertrauensvergabe den eignen ähneln (cf. ebd.) – sprich, den anderen Banken – kann es somit zu einem „Phänomen wechselseitiger Verstärkung“ (Machinek zit. n. Clemens et al. 2010: 27) kommen. Eine rapide und systemweite Vertrauensabnahme kann also mit einer solchen Verstärkung erklärt werden.

Iyer und Pedro-Alcade zeigen, wie sich ein einzelner Vertrauensbruch (z.B. Zahlungsausfall) einer Bank auf den gesamten Interbankensektor auswirken kann.

„Geht [...] eine Bank wirklich insolvent und kommt dieses Ereignis unerwartet für die anderen Banken, z.B. weil die Rating-Agenturen nicht davor gewarnt haben, kann das eine Kettenreaktion auf dem Interbankenmarkt in Form eines allgemeinen Vertrauensabbaus auslösen“ (Clemens et al. 2010: 48).

Die Ansteckungsgefahr liegt letztendlich in der hohen Vernetzung des Geldmarktes und der begrenzten Rationalität der Akteure, welche in Abschnitt 3.1 besprochen wurde, begründet. Die Kettenreaktion kann auf drei Wirkungskanäle zurückgeführt werden. Im Modell reicht daher die vereinfachende Annahme von drei unterschiedlichen Banken bzw. Bankengruppen auf dem Interbankenmarkt aus.

1. Durch eine falsche Risikobewertung und einen damit verbundenen Kapitalverlust oder einen exogenen Schock (wie etwa einen Preisschock auf dem Immobilienmarkt) kann die Bilanz einer Bank (A) unter Umständen so stark belastet werden, dass diese zahlungsunfähig wird. Die Insolvenz dieser Bank kann nun zu negativen Rückschlüssen „[...] auf Banken mit einer ähnlichen Geschäftsstruktur (Bankengruppe A) führen“ (ebd.: 48) und damit die Bereitschaft zur Aufnahme oder Fortsetzung von Kreditbeziehungen mit allen Banken dieser Bankengruppe (A) sinken lassen (cf. Iyer et al. 2005: 2).
2. Ist eine andere Bank B bzw. eine ganze Bankengruppe B bilanziell (z.B. über vergebene Kredite) mit der insolventen Bank verbunden, können diese durch Zahlungsausfälle von Bank A ebenfalls in Liquiditätsschwierigkeiten geraten (cf. Iyer et al. 2005: 2; Clemens et al. 2010: 48).
3. Gegenüber den beiden ersten Wirkungskanälen liegt im dritten keine direkte Verbindung zu den insolventen Banken (A) vor. Die Bankengruppe C würde nämlich allein aus Vorsichtsgründen die Kreditbeziehungen zur Bankengruppe B einschränken oder sogar abbrechen.

Die Liquiditätsschwierigkeiten dieser eigentlich kreditwürdigen Banken (B) können dadurch mitunter so stark verschärft werden, dass sie aufgrund fehlender Refinanzierungsmöglichkeiten ebenfalls zahlungsunfähig werden (cf. Clemens et al. 2010: 48).

„[D]as strategische Verhalten der Bankengruppe C gegenüber den Bankengruppen A und B [hat] die Liquiditätskrise über den Ausgangsschock hinaus deutlich [verschlimmert]“ (ebd.: 48).

Im Unterschied zu einer Liquiditätskrise liegt bei einer Vertrauenskrise eigentlich noch genug Kapital vor. Das individuell rationale Verhalten der Banken, aus Sicherheitsgründen die Transaktionen mit den MFIs, welche mit den insolventen Kreditinstituten bilanziell verbunden sind, abzurechnen, führt zu einem pareto-inferioren Ergebnis. Hätte die Bankengruppe (C) den Banken (B), welche zwar über einen Kredit mit der insolventen Bankengruppe (A) verbunden waren, jedoch noch ausreichende Kreditwürdigkeit vorwiesen, hinsichtlich der Zahlungsfähigkeit vertraut, wäre die Abwärtsspirale unterbrochen worden. Durch ihr Verhalten hat Bank C ihren eigenen Refinanzierungsmarkt selbst verkleinert. Erweitert man dieses Modell auf eine Vielzahl von Banken, dann wird deutlich, wie eine Vertrauenskrise zu einer Liquiditätskrise führen kann.

Der Interbankenmarkt der EWU ist nach der „Lehman-Pleite“ 2008 in einen, wie oben beschriebenen, plötzlichen Misstrauenssog geraten. In Teilen konnte er sich bis etwa Mitte 2011 zwar erholen, jedoch scheint es, als würde er im Zuge der ausgebrochenen Unsicherheiten während Staatsschuldenkrise in der Eurozone umso härter getroffen.

Der folgende Abschnitt beinhaltet eine kurze Analyse des Interbankenmarktes der Eurozone. Es soll anhand einiger Indizien geprüft werden, ob bzw. inwieweit eine Vertrauenskrise auf dem Interbankenmarkt der EWU vorliegt. Außerdem werden die Folgen der vermeintlichen Krise kurz umrissen. Dabei wird zum einen die Auswirkung der Vertrauenskrise auf die Kreditvergabe zur Realwirtschaft und zum anderen auf die Geldpolitik der EZB betrachtet.<sup>20</sup>

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20 Die folgenden Ausführungen fassen die Erkenntnisse aus Baumann 2012: 33ff. zusammen. Für eine ausführliche Analyse (mit graphischer Auswertung) wird ein Blick in diese Arbeit empfohlen. Der Betrachtungszeitraum dieser Arbeit und damit ebenfalls der dieser Zusammenfassung endet zum zweiten Quartal 2012.

## *5.2 Der Interbankenmarkt der Europäischen Währungsunion*

Die empirische Analyse des Interbankenmarktes der EWU zeigt, dass sich die Banken der Eurozone seit der Pleite von Lehman weniger vertrauen. Mehrere Symptome weisen auf einen angespannten Interbankenmarkt hin. Der Anstieg der Risikoprämie bei dem Referenzzinssatz EURIBOR zeigt, dass Banken die Wahrscheinlichkeit eines Rückzahlungsausfalls 2011 und 2012 gegenüber 2010 als deutlich wahrscheinlicher einschätzen. Hinzu kommt, dass Staatsanleihen vieler Euroländer an Attraktivität verloren haben und somit der Markt für kreditfähige Sicherheiten maßgeblich geschrumpft ist. Banken scheinen einander mitunter so wenig zu vertrauen, dass sie ihre überschüssigen Mittel lieber zu einem geringeren Zins in der Einlagefazilität der EZB halten als sie (und sei es nur für eine Nacht) bei anderen Kreditinstituten anzulegen. Die Ergebnisse des Euro Money Market Survey vom September 2011 bestätigen diesen Eindruck. Sowohl auf dem besicherten als auch dem unbesicherten Geldmarkt ist laut dieser Umfrage der Zugang zu Refinanzierungsmitteln für die MFIs schwieriger geworden.

Anhand des Interbankenmarktes der Eurozone kann außerdem gezeigt werden, wie sich eine Vertrauenskrise auf die Realwirtschaft auswirkt. Die sinkenden Wachstumsraten der Kredite sowie die verschärften Richtlinien zur Kreditvergabe signalisieren, dass von einer solchen Krise eine große Gefahr für eine Volkswirtschaft ausgehen kann. Würde sich die Lage weiter verschärfen, könnte sogar eine generelle Kreditklemme entstehen. Diese hätte für eine Volkswirtschaft verheerende Folgen. Das wirtschaftliche Wachstum würde einbrechen, Arbeitsplätze würden abgebaut und die Inlandsnachfrage sinken. Ein Sog, der ein Land ohne fiskal- und geldpolitische Gegenmaßnahmen in jahrelange Rezession bringen kann. Durch die Einführung des Dreijahrestender, sowie der Lockerung der Bestimmungen der refinanzierungsfähigen Sicherheiten und der Senkung des Mindestreservesatz konnte die EZB die Eurozone jedoch (zunächst) vor dieser bewahren.

## **6. *Fazit und Ausblick***

In der Arbeit wurde gezeigt, dass Vertrauen bei interdependenten Kooperationsbeziehungen Verhaltensunsicherheit und die damit verbundenen Kostenrisiken der Akteure signifikant reduzieren kann. Gerade auf dem Interbankenmarkt, welchem für die Liquidität des Finanzsektors und den Wohlstand einer Volkswirtschaft eine große Bedeutung zukommt, ist Vertrauen ein wesentlicher

Bestandteil. Die Rekonstruktion von Kreditbeziehungen zwischen MFIs mit Hilfe der Prinzipal-Agent-Theorie macht deutlich, dass gegenseitiges Vertrauen der Banken nicht nur kostensenkend, sondern ebenfalls notwendig ist, damit ein Kreditverhältnis überhaupt zustande kommt. Wenn nämlich der Risikohorizont der kreditgebenden Bank einmal überschritten ist, kann fehlendes Vertrauen auch nicht mehr mit einer erhöhten Risikoprämie kompensiert werden. Es konnte damit gezeigt werden, dass ein Mindestmaß an Vertrauen grundlegend für einen gesunden Interbankenmarkt ist.

Anhand von mehreren Indizien kann nachgewiesen werden, dass dieses Mindestmaß auf dem Interbankenmarkt der Eurozone zum ersten Quartal 2012 nicht vorliegt. Durch die Einführung von Sondermaßnahmen konnte die EZB eine Kreditklemme zwar verhindern, jedoch ist es schwierig vorherzusehen, ob die Vertrauenskrise nachhaltig überwunden wurde. Die weitere Entwicklung ist von vielen Faktoren abhängig. So muss vor allem für die Staatsschuldenkrise eine adäquate Lösung, welche die wirtschaftliche Aktivität der Länder der Eurozone dauerhaft stabilisieren kann, gefunden werden. Problematisch ist besonders die hohe Anfälligkeit des Interbankenmarktes für externe Effekte. Die MFIs reagieren auf wirtschaftliche Krisen äußerst volatil. Dies hat wiederum direkte Auswirkungen auf das gegenseitige Vertrauen der Kreditinstitute. Eine Lösung dieses Problems könnte in der Schaffung einer neuen Institution liegen. Diese sollte das Ziel eines langfristig gesunden Interbankenmarktes verfolgen und nicht versuchen nur kurzfristige Ungleichgewichte auszugleichen.

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# **ETHICS AND FINANCE**

**The Idea of  
Venture Philanthropy**

# The Idea of Venture Philanthropy

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## *Keywords*

*Venture Capital, Philanthropy, Social Investing, Social Enterprises, Social Funds, Giving Back*

This paper deals with the combination of Venture Capital and Philanthropy, creating a new concept: Venture Philanthropy. Philanthropy has a long history and has been redefined many times in an evolutionary process. Philanthropic initiatives, private or corporate, are considered fair in a sense of a subsequent giving back after previous success. Philanthropy offers an enormous social and economic impact if it is done in a strategic and efficient way. Venture Capital is said to be an efficient method in aspiring companies, markets and projects. The potential of a purposeful combination of these activities has not yet been fully realised. We argue that it is possible to unite philanthropic intentions and instruments of venture capitalism, leading to a win-win situation.

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## ***1. History of Philanthropy***

Philanthropy etymologically consists of the words ‘philos’, which means friend or love in the sense of caring or hospitality, and ‘ánthropos’, meaning human being or humanity, which together implies a broader sense of thinking and acting in a humane manner. Philanthropy has a long history: first mentioned in Ancient Greece, redefined and reinvented by Kant, Schopenhauer and at last in the 20th century. We are going to follow the term through its history.

Already in Ancient Greece the meaning of philanthropy changed many times, depending on who used it. In general, it was characterised as a term used for the acting of gods, kings and judges and their benevolent nobleness towards the poor and weak. Furthermore, it asserted that our nature and behaviour in life was educational and we could make ourselves more humane through self-development and a more positive kind of thinking. While Homer spoke about a generally kind attitude, Isokrates drew a distinction between the barbarian and the Athenian. Only the Athenians were educated and communicated in a proper language, and as these were conditions for philanthropy, only the Athenians had a sense of philanthropy. In the chapter about friendship in Aristotle’s *Nicomachean Ethics*, we find philanthropy as the natural friendship between humans. Especially Plutarch dealt with the idea of Philanthropy as the top virtue, while he had a broad understanding of philanthropic approaches. They included politeness, democratically-minded ideas and a humane treatment of animals. After Plutarch’s intensive use, philanthropy cannot be found over the following centuries until the Romans translated the word into the related “humanitas”.

It was mentioned again in the 18th century in a philosophical background, for example in Kant’s *Metaphysics of Morals* (1797) as maxime of benevolence (cf. Gründer and Riiter 1989), which means that a philanthropist feels pleasure considering other people, both far away and close by, in good health. Besides Kant, other philosophers who used the term, for example, Basedow, often mixed philanthropy with altruism and declared it to be a leading definition in describing human nature. This development reached its climax in the foundation of a Philanthropic School by Basedow in 1744 and in a pedagogic movement called “Philanthropism”. Following Kant, Schopenhauer defined the “love of humanity” as one of his “cardinal virtues” from which every other virtue could be reduced. It was in the 18th century as well that the notion of philanthropy changed its context from the philosophical point of view to an economic one and could be found within the work of one man, known as the “capitalist” himself – Adam Smith. Hardly anyone

links Smith to charitable giving, but besides his famous theory about the self-interested butcher, brewer and baker, in his work *The Theory of Moral Sentiments* (1759) we find the following quote:

“How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it” (Smith 1759: 11).

Smith demonstrates that we are moved by altruistic sentiments, which he calls benevolence, and refers to benevolence as a universal element that makes us human. Although these sentiments are limited, optional and focused on our surroundings, the idea of philanthropic giving back could already be seen in the work of Smith. While Smith published his work in Europe, a big group of donors mostly businessmen emerged in the United States. Here, philanthropy was connected with humanitarianism and was generally associated with “doing good”, closer connected to what we call “charity” today. Over the following decades and especially at the end of the 19th century, a more systematic approach to the question of how to improve social conditions was developed by private donors. This was the era of individuals and families such as Rockefeller or Carnegie, who earned their wealth in the steel, oil, railroad or automobile industries and who were known for their philanthropic engagement as well. Carnegie, who established several foundations, illustrates his opinion:

“The Question then arose, What should these do with their surplus wealth? and the “Gospel of Wealth” contended that surplus wealth should be considered as a sacred trust, to be administered during the lives of its owners, by them as trustees, for the best good of the community in which and from which it had been acquired” (Carnegie 1889: 684).

He also writes “the man who dies rich, dies disgraced” (ibid: 684). Along with Carnegie, wealthy benefactors such as John D. Rockefeller set up some of the nation’s first grant-making philanthropies, meaning organisations that donate monetary revenues to non-profit activities. While of course these activities are honourable, they clearly differ from philanthropy, as the notion was defined in Ancient Greece or even today. The motive which stands behind rich donors like Carnegie and

Rockefeller and their engagement for a better society is more or less the legitimation of their success afterwards. During their years of success, it was not part of their business model to engage in philanthropy, but they did so afterwards to give some of their earnings back to society. In the United States, this was part of the predominant picture concerning philanthropy, and remained so for quite a long time. Until the last quarter of the 20th century, philanthropy was not regarded as a field of systematic endeavour within the business environment. The American model of philanthropy was followed by a period of increased activities of the government in the early 20th century and during World War I.

Nevertheless, since 1980, more and more firms, managers and professors have started again to develop concepts of how to combine business strategies with ethical and social goals. Remarkable at this point is the work of Michael E. Porter and Mark R. Kramer, who have developed concepts dealing with Corporate Social Responsibility and Philanthropy over the last ten to 15 years. Several research centres and institutions which focus on the non-profit sector initially emerged in the United States, but over the last two decades, business ethics, strategic investment and corporate philanthropy have experienced a fast and still growing improvement and awareness in Europe. This is why it is no longer an outstanding quality of a business to engage in the social sector or donate parts of its profit, but is more or less a precondition for commercial success to develop a green or social strategy in order to be seen as an honourable and successful company in the consumer's eyes and in the public opinion.

This creates a question: Why and how can philanthropy play an important part in the business environment and what distinguishes philanthropy from other social engagement?

## ***2. Profile of Philanthropy***

To define philanthropy first of all, it is important to distinguish between redistribution or giving back and the creation of new opportunities and welfare. The meaning of redistribution is closer to the meaning of charity and associated with donation. Everybody can make a charitable donation and literally give some of his earned money to people who suffer from illnesses, who live in poor conditions or who happened to be a disaster victim. Meanwhile, philanthropy is more about investing money and ideas that create opportunities and more wealth through the social sector or new

business ideas and concepts. It includes the concept of voluntary giving by an individual or group to improve the common good and is most of all an important resource for the non-profit sector.

Furthermore, we have to draw another distinction: the distinction between private and corporate philanthropy. Private philanthropy describes the willing contribution of resources - including money, volunteer hours, knowledge or connections – by a single person or a family, with the intent of addressing the needs and issues of individuals, groups or society as a whole. The purpose, of course, is to improve current social conditions wherever they seem the most urgent from the point of the private philanthropist's view. Often private philanthropists are so-called High-Net-Worth Individuals (HNWI) who are wealthy enough to realise their own projects or ideas. Thereby this is one reason why private philanthropy is an interesting way of donating money: it is possible to find a fitting project for everybody's individual concern, and a private philanthropist can literally be part of a developing idea, if this is wanted. Even though when we have a look at the volume of donations in Germany in 2008, which was about €26bn, with an annual increase of 3.5% over the last 10 years (cf. McKinsey & Company 2008), it shows us that there is huge potential and substantial willingness to create social impact.

On the other hand, there is corporate philanthropy, which is similar to individual philanthropy except for the fact that donations, profits or resources are given by a corporation, not an individual. Corporate philanthropy is always done through a corporation directly or a corporation's own non-profit entity, and it is usually done without the expectations of a direct corporate benefit. Unfortunately, in some cases, corporate philanthropy is not as efficient as it could be regarding its cost-benefit ratio. The engagement of most of the firms is unfocused and uncoordinated and therefore potential is not used. As Porter and Kramer outline the problem:

“The majority of corporate contribution programs are diffuse and unfocused. Most consist of numerous small cash donations given to aid local civic causes or provide general operating support to universities and national charities in the hope of generating goodwill among employees, customers, and the local community. Rather than being tied well-thought-out social or business objectives, the contributions often reflect the personal beliefs and values of executives or employees” (Porter/Kramer 2002: 6).



Furthermore, Porter and Kramer describe that philanthropy is often misused for purposes like public relations or advertising to support a company's reputation. Strategic and intelligent philanthropy should be able to create social impact and end in itself and should not be part of a company's image campaign (cf. *ibid*: 5).

This raises one question: why are successful companies, which possess a lot of money because of their efficient and strategic behaviour, not able to donate their money and resources in a way so that they can have the most efficient impact? This question weighs even greater when we consider that there could be a win-win situation for both the corporation and society in general. Following Porter and Kramer's concept of the so-called "context-focused philanthropy" (*ibid*: 7) in order to achieve social and economic gains is a step in the right direction. With context-focused philanthropy, the efficiency problem can be addressed, as the corporation focuses on its immediate context and business environment and on social needs that affect the corporation. In accordance with Porter and Kramer's theory, "the more a social improvement relates to a company's business, the more it leads to economic benefit as well" (*ibid*: 7).

While Porter and Kramer's context-focused philanthropy is one good idea of how to solve the efficiency and the reputation problem, other concepts are imaginable as well. On the following pages we will have a closer look at another concept, the concept of Venture Philanthropy (VP).

### ***3. Venture Philanthropy***

Venture Philanthropy, which integrates modern financial methodology with philanthropic goals, could solve the problem of ordinary philanthropic projects not usually being efficient regarding a cost-benefit ratio. To understand how, we have to overcome the actual separation between philanthropic behaviour and economic instruments. If philanthropy is applied in business areas, it is either a direct donation for corporate reputation or expenditure for strategic purposes. A broader understanding of what philanthropy is and what possibilities are there to apply its concept in investment enables us to employ additional instruments in order to achieve higher efficiency, which again could lead to higher gains in the corporate, public and private sector. The integration of the aspects of efficiency and social or non-profit projects encourages the application of entrepreneurial approaches in managing these philanthropic enterprises. The old idea of philanthropy as unrelated to economic benefits and measurability seems to be out-dated due to the rising field

of social impact measurement. Finally, due to the fact that most of these engagements are done monetarily and are often built from zero, venture capitalism seems to be an adequate instrument for realising these goals.

First mentioned in 1960 by John D. Rockefeller III, the term “Venture Philanthropy” (VP) describes a concept which meets the requirements of providing philanthropic projects, for example social enterprises, efficiently with capital by applying venture capital methods (cf. Alberg-Seberich and Wolf 2011: 288). If we want to use this approach, we have to re-adjust our perspective and regard philanthropic actors as kind of investors. Additionally, we have to understand how it is possible to achieve philanthropic goals through return-orientated projects. In comparison to classical venture capital projects, socially-motivated investments have different objectives. Nonetheless, financial returns can still be taken into consideration if the philanthropist prefers to do so, for example because he wants to use the rents for other projects later on. This is different from pure donations. By aiming to realise the two goals of social and financial returns, this intention is called the double-bottom-line approach (cf. Bernandez 2009: 18). Within this hybrid purpose, the mixture of an individually defined blend between financial and social returns has a wide range of possible adjustments. The project-specific differentiation of criteria is referred to as the respective blended return. Through this combination of different objectives, some trade-offs between the financial and social aims naturally arise, and with these, there are also new challenges of the measurement and comparison of figures. Although there does not necessarily have to be a conflict of objectives, it is imaginable that the social goals foster the financial ones and vice versa, which would allow for the achievement of a greater overall value than without such an reciprocal relation (cf. Achleitner et al. 2011: 269 ff.).

Venture Philanthropy also solves the fundamental problem that most current social engagement is backward-oriented. This means that most people who donate money for good purposes do so as a result of their own economic success as a justification. While it is possible to make Venture Philanthropy investments as a consequence of economic success, the direction of the Venture Philanthropy process itself however is aimed forward. A Venture Philanthropist provides capital to promising originating projects and not to existing non-profit organisations. We have to overcome the view that philanthropy is just about giving back. It is more the idea of assuming risks to provide social benefits within a certain project with the prospect of getting these risks refunded. The notion of investments already contains the aspect of future orientation. In this context, it is about assuming responsibility for future generations through professional methodology. The advantage

of this approach is that the professional knowledge of investors helps to select more worthwhile investment projects in terms of economic success than if the evaluation had been carried out by pure philanthropists. Owing to the hybrid character of Venture Philanthropic objectives, there is also the necessity of estimating the social effects of the particular projects, leading to the subject of social impact measurement.<sup>1</sup> The core issue of each VP project is the balancing of financial and social aims. The possible range within such projects is wide, from purely non-profit donating to extensive profit maximisation, whereas these two extreme tails of the scale are excluded by definition (cf. Alberg-Seberich and Wolf 2011: 290).

In the literature and in the peripheral areas of financial services industry, we can find a few models of applied Venture Philanthropy. There is, for example, the Private Equity Foundation in London, which focuses mainly on funding ventures supporting socially-disadvantaged young people. The foundation employs a four-stage screening process to ensure the identification of projects with high effectiveness in their work, good management practices and last but not least, the aim that the capital is invested efficiently (cf. Private Equity Foundation 2012). LGT Venture Philanthropy, a philanthropic subsidiary of the Liechtenstein LGT group, employs similar models (cf. LGT 2012). There has to be no explicit financial return on the investment but the proof that it is used effectively and efficiently. They place more emphasis on the philanthropic aspect within the spectrum of social and financial returns. The Social Venture Fund declares to aim at increasing its equity by searching for highly innovative and socially or ecologically relevant projects which have a balanced proportion between financial and social returns (cf. Social Venture Fund 2012). Thus, the main difference in VP financing compared to classic philanthropy is that there is a repayment of capital. But we cannot define whether one of both possibilities should be preferable. If money is provided, the possible social impact can be maximised but even if a financial return is required, the capital can be reinvested and hereby lead to further social impacts. It is therefore simply a question of the definition of objectives. If we want to analyse the characteristics of VP, we should focus on the differences compared to classical investments and ordinary philanthropy rather than comparing different approaches within VP concepts.

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1 See in this volume Jakob/Krull 2015.

#### *4. Advantages and Challenges*

What is the competitive advantage of Venture Philanthropy? The crucial point is: Professional investors are able to allocate capital to its most efficient use instead of spreading it according to purely philanthropic considerations. This means it is possible to realise much more social impact with the same amount of money, which implies that investors and philanthropists can also maximise their individual blended returns unlike classical giving back. In this context, a distinction between VP and Socially Responsible Investing (SRI) approaches also has to be made. SRI is a screening method for selecting portfolios in accordance with ethical parameters, such as excluding armaments industries (cf. DB Climate Change Advisors 2012). The difference is that VP projects contain the idea of taking risk in order to realise goals that aim high. In a SRI frame, the investor puts his capital in existing enterprises and can withdraw it every day whereas a Venture Philanthropist is committed over a longer period to only one or two nascent projects; respectively, a social venture fund is committed to few projects in the long term and will not disinvest at short notice.

In this commitment, there are advantages and restrictions for Venture Philanthropy. In the classic view of philanthropy, there is no need for continuing engagement or proved achievements of objectives. The restrictions of a lower availability of the money invested lead to necessary measures, which make VP a more complex method than social investing on the stock market. There are essentially three main differences that make the VP approach more laborious and which lead to more efficient social and financial results as well. The first one is an extensive ex-ante screening and due diligence process, targeted at clearly defined objectives. The second aspect is the possibility of individually defining the aspired blended return of social and financial goals the investor wants to achieve. The third one is the measurement of and reporting on the realisation of these goals.

There seem to be three alternatives for Venture Philanthropy to be applied in matters of the sources of capital. Following corporate philanthropy, successful enterprises could put effort into building up social enterprises and hereby reach similar strategic effects as with CSR methods but additionally receiving financial returns. The advantage of this Corporate Venture Philanthropy (CVP) would be that experienced corporations could also make some managerial skills available to the venture projects. But CVP runs into danger due to the lack of legitimacy if it is not strictly focused on strategic objectives for the company from a shareholder value point of view. Even by employing the stakeholder approach, a VP project should at least benefit some close stakeholders of the respective company and not uninvolved parties. If we consider private philanthropy, it is

basically the same concept but without problems of legitimacy due to the qualities of private wealth. In Private Venture Philanthropy (PVP), it is, however, even more important to the investor to be able to fund projects which perfectly meet his expectations and to get extensive reporting on how his or her social enterprise develops. Lastly, the third kind of venture philanthropic approaches would be a hybrid as well as a collective one. For example, the Social Venture Fund provides Bundled Venture Philanthropy (BVP) for corporate and private social investors to participate in. But principally, it would be also possible for some corporate or private investors to join together individually to fund a social project. The challenge in this case is the coordination of similar social objectives of different investors; as a result, either there is strict pre-selection or the handling of such funds becomes very complicated. This leads to the point that at least for Private and Bundled Venture Philanthropy, it seems to be useful to have independent agencies providing services in VP in order to lower transaction costs. These intermediaries should be able to screen possible projects for certain social and financial criteria, register them in databases, execute monitoring and establish communication between investors and the social entrepreneurs. Established banks and equity funds with expertise in evaluating venture projects seem to be appropriate for this but they could be reliant on specialised consulting firms in matters of evaluation, social start-up ideas and social impact measurement.

The VP concept also faces limitations. The most operational restrictions nowadays are the lack of social measurement professionalism and the absence of consistent standards. If the idea of conditional giving is pursued too extensively, the risk of competition within VP could force inefficient projects out of the market so they would remain unfunded. But this argument only refers to such projects and VP investors which aspire to gain financial returns, not to cost-impact considerations, for instance from the Private Equity Foundation. Through its hybrid character, the price mechanisms of competition only take place if the social impacts are comparable. Without extremely similar social output, two projects could hardly be compared and if so, an allocation of capital to the more efficient projects seems desirable. This demonstrates the individual possibilities to design VP projects – even more individual than Venture Capital projects because there is more than the financial return to calculate. This may be a disadvantage with respect to transparency of markets, but to us, it seems that VP is rather an instrument for the optimisation of identifying and funding ideas with social value added.

To conclude, we do not see VP as a replacement of all “old philanthropy” up to now. Furthermore, it is a constantly rising and developing supplement for broad areas within private and

corporate philanthropy, providing tools for selection of effective projects. It will hopefully catalyse the segment of philanthropy towards more measurability and help to fill the gap between investors and philanthropists in order to realise more social impact with higher efficiency and therefore also higher financial returns.

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**Private Venture  
Philanthropy**

**ETHICS AND FINANCE**

# Private Venture Philanthropy

A New Model of Donation and Investment

Edda Becker and Tabea Schär

## *Keywords*

*Social Entrepreneurship, High-Net-Worth-Individuals, Private Wealth Management, Social Impact, Venture Philanthropy*

This paper presents a new model of venture philanthropy investment and donation. We want to link social entrepreneurs with High-Net-Worth-Individuals (HNWI) Our vision is to achieve philanthropic goals by means of venture capital financing. Therefore, we transfer the economic principle of utility maximisation to the social sector. Creative minds are eager to implement their social entrepreneurial ideas to carry out a change in society but usually face a problem of funding. Meanwhile, the number of HNWI, who have huge financial potential, grows steadily. The concept of Private Venture Philanthropy targets exactly this issue by implementing a new player in this sector consisting of staff of the P&E institute and external experts. The so-called P&E board brings social entrepreneurs and HNWI together, providing high-quality social investments in cooperation with the Private Wealth Management service of a bank.

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## ***1. Introduction***

In the last years, a new player became increasingly relevant and important for the voluntary sector: the social entrepreneur. Muhammad Yunus set the ball rolling. In 2006, he got the Nobel Peace Prize for his successful idea of microcredits. Since then, the number of papers in economic journals addressing social entrepreneurship has doubled each year. Three years earlier, SEKEM, another successful example for social entrepreneurship and its founder Ibrahim Abouleish, received the Alternative Nobel Prize for combining commercial success with social and cultural development.<sup>1</sup> In Germany in the beginning of 2010, the first Social-Business magazine *enorm* went on sale with the title: “*enorm – economy for humans*”.<sup>2</sup> Today, there are 97 German professorships for social entrepreneurship.

In this paper, social entrepreneurship is defined as a symbiosis of three components following Dees: Firstly, a stable but social unjust equilibrium is identified. From this identification, a social value proposition is developed which replaces the old equilibrium with a new and stable one. Thus, better conditions for the targeted group or even for the whole society are ensured (Dees 1998: 3). In achieving their aim, social entrepreneurs face different hurdles in diverse sectors. Among those, one of the most substantial is to overcome the lack of financial and management support.

Aside from the social entrepreneurs, there is a group of very wealthy people, in financial terms described as High-Net-Worth Individuals (HNWI), who have the funds and often also management expertise. They hesitate to donate money since there is a deficit of transparency of how the donation is invested. Another reason for their reluctance is that they do not identify with the organisation or project they contribute to (Breidenbach 2011: 1).

In order to reduce these social imbalances and to address the growing gap of equal opportunities, we look for a means of linking social entrepreneurs with HNWI. Our vision is to achieve philanthropic goals by means of venture capital financing. Therefore, we transfer the economic principle of utility maximisation to the social sector by establishing a new concept called Private Venture Philanthropy (PVP). We want to establish a “Philosophy & Economics” (P&E)<sup>3</sup> board

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1 SEKEM was founded in 1977 by Dr. Ibrahim Abouleish in the desert of Egypt and became famous for having a holistic concept integrating societal, economic and cultural life. Biodynamic agricultural methods are used to revitalize desert land so that with age, SEKEM is now the umbrella of a multifarious agro-industrial group of companies and NGOs.

2 dt. “*enorm – Wirtschaft für den Menschen*”.

3 The aim of the interdisciplinary academic program “Philosophy & Economics” is to provide rigorous training in understanding complex social, economic, and political decision-making. The philosophy curriculum is focused on analytical skills

with the aim of identifying and consulting socially orientated start-ups. Hence, we are able to provide high-quality social investments in cooperation with the Private Wealth Management service (PWM)<sup>4</sup> of a bank. By creating a project data bank, we help PWM consultants to select suitable projects for their clients. Doing so, a win-win situation for social entrepreneurs, HNWI, the bank and also for society at large is created.

In the following, the concept of PVP is outlined, starting with a description of the two agents that are to be connected. Throughout the paper, we will focus on Germany concerning the analysis of HNWI and social entrepreneurship. After a definition of social entrepreneurship in Chapter 2, we demonstrate the barriers these entrepreneurs have to face. Subsequently, the HNWI and their motives, behaviour and fears concerning donations are outlined in Chapter 3. In Chapter 4, the problems of the two actors that have been identified are then tackled by introducing the concept of PVP. Here, the concept of PVP is sketched, showing the dependencies of social entrepreneurs, HNWI, the PWM and the P&E board. Finally, in Chapter 5, the added value for each party is clarified.

## ***2. The Social Entrepreneurs***

To understand social entrepreneurship, it is necessary to understand the two components that constitute the term. The word “entrepreneur” derives from French and describes someone who undertakes a noteworthy project. It was Jean B. Say who stated already in the 19th century that entrepreneurs “shift economic resources out of an area of lower and into an area of higher productivity and greater yield” (Dees 1998: 1). According to Joseph A. Schumpeter, entrepreneurs cause progress in economy as they produce new supplies or renew old ones. Their “creative destruction” makes the change from old to new states possible (cf. Schumpeter 1975/1942: 82 ff.). In Schumpeter’s understanding, entrepreneurs are the change agents of society. What the two economists have in common is that both perceive entrepreneurs as innovators and facilitators for economic progress, instead of attaching much weight to the idea of starting a business. A contemporary understand-

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in logic and argumentation theory, ethics and decision theory. The economics curriculum provides basic and advanced training in micro- and macroeconomics and econometrics.

4 The PWM delivers highly customized and sophisticated investment management as well as financial planning services to High-Net-Worth Investors.

ing of entrepreneurship is given by Peter Drucker who characterises entrepreneurs as exploiters of opportunities which create change in several sectors (cf. Dees 1998: 2). According to Drucker, people who set up a business which is not innovative or not focused on exploiting opportunities occurring by change of circumstances do not act entrepreneurially.

Subsequently, the ideas of Say, Schumpeter and Drucker will be applied in the social sector, as social entrepreneurs are entrepreneurs with a social mission. Their comprehension of entrepreneurship is applicable to the field of social entrepreneurship since after Say, resources are shifted into an area of greater yield pursuing the opportunity of social change by means of creative destruction (cf. Schumpeter 1975/1942).

The motivation for founding a social start-up is the professional context (35%), followed by the wish for social change (15%), the social environment and personal concern. The area of activity is also widely spread and ranges from social services (20%) over social inclusion, education and science to working integration (cf. enorm 2012). Another interesting aspect is that in contrast to business entrepreneurs, impact measurement does not have to go along with an enlargement of the organisation itself or an increase in profit. The task of impact measurement is therefore much more difficult to fulfill in the field of social entrepreneurship. Another difference to business entrepreneurs is that the scale of success is not the creation of wealth, but the mission-related effect they achieve. Here, wealth is only a means that leads to social impact, which coincides with Drucker's notion of entrepreneurship, since he states that entrepreneurship does not necessarily include profit orientation. An example he gives for entrepreneurship is the establishment of universities. Another person who made reference to profit is Muhammad Yunus:

“Business is about problem-solving, but it does not always have to be about maximizing profit. When I went into business, my interest was to figure out how to solve problems I see in front of me. [...]Ask yourself these questions: Who are you? What kind of world do you want?” (Yunus 2007).

As Yunus pointed out, financial return is not essential in the field of social entrepreneurship but social return is. The considerations of financial and social return concerning the concept of PVP are to be seen here. Since our vision is to achieve philanthropic goals by means of venture capital financing, we look to incorporate social entrepreneurs whose aims are per definition the social mission and therefore social return. PVP is located in the field of venture capital financing, as

financial return cannot be guaranteed in the field of social entrepreneurship. Even if the social entrepreneur calculates with financial return, it may be that it fails without generating profit.

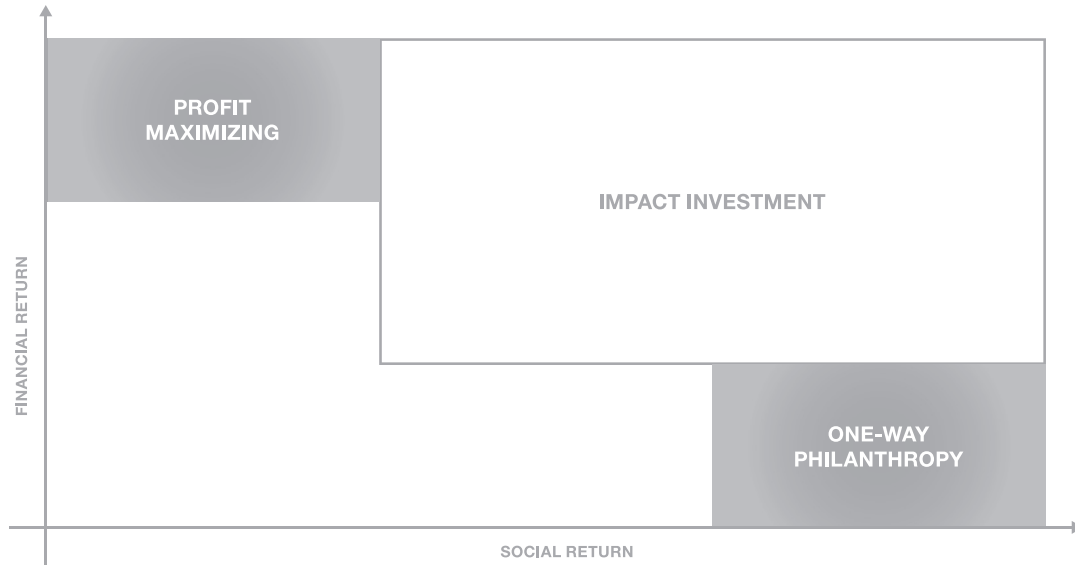


FIGURE 1: FINANCIAL AND SOCIAL RETURN (AFTER PORTER & KRAMER 2002: 45)

If the entrepreneurial aim is profit maximising, which means achieving high financial returns without achieving social ones, the business is irrelevant for PVP. A project whose aim is one-way philanthropy, which means high social return without a financial one, is conceivable. In this case, it might be more difficult to find an investor since there is no probability of generating financial return, but projects which do not create profit are not excluded from PVP. A mixed form of both financial and social return is probably the most interesting form for investors. This impact investment generates monetary profit and therefore satisfies the investors' return assumption.

“What business entrepreneurs are to the economy, social entrepreneurs are to social change. They are the driven, creative individuals who question the status quo, exploit new opportunities, refuse to give up, and remake the world for the better” (Bornstein 2004).

Social start-ups often have a short lifespan: one quarter does not withstand the first five years of existence, and another quarter does not exist longer than five to ten years (cf. enorm 2012: 36). The problem of lacking management expertise and experience often complicates the successful implementation of a project in the field of social entrepreneurship as in every other start-up. Since social entrepreneurs often even have less of an economic background, they lack knowledge concerning finance, organisation and team management. Additionally, social entrepreneurs are in conflict with welfare organisations (13%). The latter see social entrepreneurs as competitors and social entrepreneurs, on the other hand, think that welfare organisations are non-innovative. This vicious circle of distrust prevents cooperation. Moreover, the network in the area of social entrepreneurship is not well developed, due to a lack of trust and the fear that others might adopt new ideas more capably. The missing network might account for the fact that social start-ups' reach is often restricted to a certain region (53%). Only 20% of social start-ups act Germany-wide or are restricted to a federal state (9%) (cf. *ibid.*). The fourth hurdle is the missing lobby. As no lobby exists, social entrepreneurs do not have access to political decisions and cannot introduce their perspectives. The biggest hurdle that every fifth social entrepreneur faces is the lack of financial assistance (cf. *ibid.*). Since financial return is not guaranteed in the field of social entrepreneurship and in some cases even not aspired to, investors often refuse backing. Moreover, banks regularly deny lending them money since banks are risk-averse (Höll and Oldenburg 2011: 2). Due to this, financing mostly consists of donations by the project's target groups (20%), followed by public backing, grants (15%) and donations in general (10%). The grants often come from organisations that support social entrepreneurs. The Schwab Foundation, for example, accepts only projects with at least three years of operation at the time of their application. Overhead costs after this period are often not covered, which makes it difficult to build up reserves for future growth phases. The largest organisation in Germany that gives advice and financial backing is Ashoka Germany, with 35 so-called "fellows" who are supported.

### ***3. High-Net-Worth-Individuals***

HNWI are classified as people who are in funds of an investable asset of more than one million USD, owner-occupied property as well as collections of valuable objects and consumables excluded. Ultra-HNWI are in funds of an investable asset of at least 30 million USD. According to the

World Wealth Report 2012, after an increase by 8% in 2010, the numbers of HNWI in the world only grew by 1% up to eleven million in 2011. In Germany, the number of HNWI grew above average by about 3% in 2011 from 923,900 up to 951,200 individuals. Germany is ranked third, right behind the U.S. and Japan, regarding the countries with the most millionaires in the world. Prospects by Capgemini expect a new strong increase of the number of HNWI and their assets worldwide till 2013 (cf. Capgemini and RBC Wealth Management 2012: 6ff). Connected with the increase in asset and the number of HNWI, a debate about the social responsibility of the HNWI has broken out (Kaiser.Partner 2012: 3ff). In article 14 of the German constitution, it is said that property entails obligations. Its use shall also serve the public good. Due to high material resources, rich households and people have substantial opportunities to take over such social responsibility. The following analysis of HNWI in Germany is mainly based on the study “Wealth in Germany – Heterogeneity and Responsibility” (Lauterbach et al. 2011).

In general, it can be said that a high rate of HNWI are socially involved, with 85% of HNWI demonstrating either financial investment or time investment or both. This percentage is considerably higher than it is regarding the involvement of the total population of Germany. Wealth obviously boosts the probability of becoming socially involved and of taking over social responsibility. But what parameters have an influence on the socially active involvement of HNWI? These parameters are analysed below.

The parameter of the state of employment has an important influence on the degree of social involvement. A positive relation of gainful employment and volunteer work exists. Another significant observation is the fact that retired HNWI are the group of most socially involved HNWI (87%). Assumedly, social responsibility replaces work as a meaningful activity and contribution subsequent to work life. Furthermore, it allows for further social participation. Generally, the rate of involved HNWI increases significantly with their age. When analysing the genesis of wealth of the HNWI, significant differences arise. Whereas those HNWI who got wealthy through inheritance, stock exchange or real estate property have the lowest rate of social involvement, 88% of HNWI who got wealthy due to their own work get socially involved. The individual experience of hard work has a positive influence on the acceptance of social responsibility. HNWI that believe each person and especially wealthy people have to have some kind of responsibility towards society are significantly more often actively involved. However, looking at all parameters at the same time, the sense of responsibility becomes less important, but not less statistically significant as a parameter.<sup>5</sup>

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5 A parameter is statistically significant if it is so extreme (without external variables which would influence the correlation results of the test) that such a result would be expected to arise simply by chance only in rare circumstances. Hence, the



The parameter of personality can be determined by Goldberg's five factor model of personality (the Big Five).<sup>6</sup> It differentiates among five different feature characteristics: (1) neuroticism, (2) extraversion, (3) good-naturedness, (4) openness and (5) diligence. No influence of neuroticism on social involvement was found. The same is held true for extraversion. However, the traits of openness, good-naturedness and diligence do in fact have a positive influence. The higher the distinctiveness of these three characteristics is, the higher is the rate of social involvement. All in all, personality traits seem to have less influence on the degree of social involvement than social contexts have.

Now that we could identify some influential and significant parameters that influence HNWI's social involvement, we will focus on the different ways HNWI get involved. The active involvement can manifest itself in various ways: physical aid in the form of financial donation or donation in kind, as well as giving time in the form of volunteer work in organisations or aid projects, in associations or in trusts. With 82%, the financial donation is the most popular way chosen by HNWI to get involved with the social sector. 45% donate in kind, 43% are active members in an association or organisation or trust, and only 13% participate in aid projects. Most of the HNWI who are socially involved do not only choose one type of active involvement, but several types. Financial investment is the most common and applied approach to social involvement, but it is often combined with other ways of taking social responsibility.

Annually, HNWI's financial donations average € 8,740. In the majority of cases, HNWI do not just invest in one, but different areas. The areas HNWI financially donate to the most are social purposes, followed by the area of emergency aid and culture. Compared to the charitable donation behaviour of the total population of Germany, HNWI invest proportionally more in the areas of research and development, science, culture and education, and proportionally less in the area of emergency aid. In general, HNWI more often invest in long-term projects that drive further developments. They prefer acting to reacting.

For what reasons do HNWI get involved with the social sector? Although most HNWI have several reasons for their active involvement, we can distinguish among four possible motives: (1) social participation, (2) social responsibility, (3) moral- grateful responsibility and (4) self-fulfilment. People motivated by social participation want to maintain and increase contact with people of other social ranks. Often, these HNWI have grown up with the tradition of social involvement.

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parameter of responsibility has an "effect" on the degree of social involvement but compared to all the other parameters, it has relatively little influence on it (i.e. it is less important).

6 For further information see (Goldberg 1990).

Motivated by social responsibility, HNWI get involved out of sympathy for needy people. They want to help where politics fails and strongly believe that their active involvement helps to address social disequilibria. People motivated by some moral-grateful responsibility believe that it is their religious duty to get involved. They want to legitimize their wealth, given by God, by investing part of it in social purposes. These people consider their social involvement as giving something back to society. Those motivated by self-fulfilment want to reach their personal goals by means of social involvement. Getting involved has a positive effect on their self-esteem. Focussing on HNWI, the motive of social responsibility seems to be the strongest reason for getting involved. The second most important motive for social involvement is social responsibility, followed by the motive of self-fulfilment and the motive of social participation. Only the motive of moral-grateful responsibility does not seem to be very important for social involvement. For HNWI, social involvement seems to be an intentionally chosen way to contribute to social responsibility and this contribution generally is voluntary and target-oriented.

On the basis of the hitherto analysed characteristics, parameters, preferences and motives of the HNWI, eight different types of HNWI can be identified. Of these eight types, only four are of note, because they do not believe in a “just” world. Since the aim of the social sector is to solve social disequilibria, the belief in the existence of unjust circumstances is necessary. For people who believe that unjust circumstances are fated or divinely ordained, there is no point in solving social disequilibria, as these conditions cannot be changed by their actions. For those who do not think of the world as unjust because “everyone gets what he deserves”, there is no need to solve social disequilibria. Therefore, only HNWI who believe in the existence of an unjust world with unjust but alterable circumstances will be interested in solving social disequilibria.

### *The Solidary HNWI*

The group of solidary HNWI is the biggest group among all others. They are sociable people showing solidarity with others. In addition, a solidary HNWI has a strong belief in his agency and thus he also has a strong positive attitude towards social participation. His diverse motives back up this spirit of solidarity: The solidary HNWI gets socially involved because he wants to help others, influence social processes, counteract social misfortune and give something back to society. Moreover, he thinks he has a moral obligation to get socially involved due to his own wealth. Concerning the manner of social involvement, the average solidary HNWI prefers donating

money but is above average in donating in kind. Furthermore, 60% of these types of HNWI are members in a social organisation or club. Especially in areas that are in accordance with the idea of the participatory democracy – politics, foreign aid and culture – the solidary HNWI gets involved above the ordinary level. This strong orientation towards solidarity and social actions reinforces the assumption that he will hardly operate or take responsibility detached from a certain social context or community of values.

### *The Individualist HNWI*

The average individualist is a self-made man and ingrained with his home. Additionally, he does not believe in a just world. His negative attitude towards participation in general is accompanied by a strong locus of control: The individualist strongly believes in his own power to act and in his effort. He prizes his effort compared to the effort of others. This may be a reason why his circle of acquaintance consists of people with the same financial background. The individualist's beliefs and attitude are reflected in his motives for social involvement: He does not donate due to sympathy with the needy and does not believe that it is possible to justify wealth by becoming socially involved. In his opinion, one's own effort already justifies his wealth. His negative attitude towards social responsibility also has an effect on his social involvement; he is hardly solidary and gets involved under average. Only 44% of these types of HNWI donate money. This low rate of social involvement can be explained by the fact that the individualist is not interested in any kind of traditional form of social involvement, but in new, more innovative forms. As a self-confident, capable and proactive person, he may invest in diverse support or sponsorship projects as long as they are in accordance with his idiosyncratic interests and goals.

### *The Idealist HNWI*

The average idealist is 60 years old, thus having the highest average age of all groups. Compared to the other types, the rate of women among this type of HNWI is significantly high. The typical idealist became wealthy through marriage and can be described as a very religious and risk-averse person. He has a moderate locus of control, not believing that he is able to have influence on social circumstances. Additionally, he is strongly participation-orientated. Asked about his motives, mainly religious obligation and sympathy for the needy are indicated, followed by the belief that he is

able to help where politics cannot. To get involved, the idealist focuses on donation: Nearly 90% of the idealist HNWI donate money, and most of the money is donated to churches or religious institutions and social purposes. The typical idealist is not really proactive, but gets involved with projects already established. This involvement is mainly financial, implying little responsibility and no direct control of the project. The idealist wants to stay in the background, seeing himself as the sustainer of the system or project.

### *The Eccentric HNWI*

The average eccentric HNWI is a woman whose source of wealth is both marriage and heritage. He does not feel rooted with his home. The personality of the eccentric HNWI can be described as less diligent, less communicative, less inventive and less sociable compared to other types of HNWI. The eccentric worries the most, is nervous and rather resentful. His circle of acquaintances tends to consist of people with different financial backgrounds. The personality of the average eccentric together with his belief that needy people do not have to be responsible for their situation are indicators for social discomfort. He does not believe in a just world or social participation. Looking at the motives of the eccentric, there is not one main motive but many different kinds of motivation. The only belief all eccentric HNWI share is that social organisations and projects need support and most of them reject the idea of a connection of wealth and social responsibility. However, the eccentric HNWI does get involved. With 28% involvement, relief actions are the most popular way, followed by 10% of the eccentrics who establish a fund or support the establishment of one and a further 15% who get involved with any other form than the traditional ways of social involvement. This data indicates a certain non-conformity of this type of HNWI.

The four types of HNWI described above can be divided up into two groups: The group of the solidary and idealistic HNWI and the group of the individualistic and eccentric HNWI (see figure 2): The first group (solidary and idealistic) gets involved the most and has a strong positive attitude towards social participation. Their preferred way of involvement is financial donation. The other group (individualistic and eccentric) hardly gets involved with the traditional forms of social involvement. They have a negative attitude towards social participation. The individualist is critical towards the system and handles his resources responsibly. He needs other ways of social involvement allowing him an individual and personal organisation and implementation. As self-made men, self-determination and economic principles are important to the individualists. Similar observations

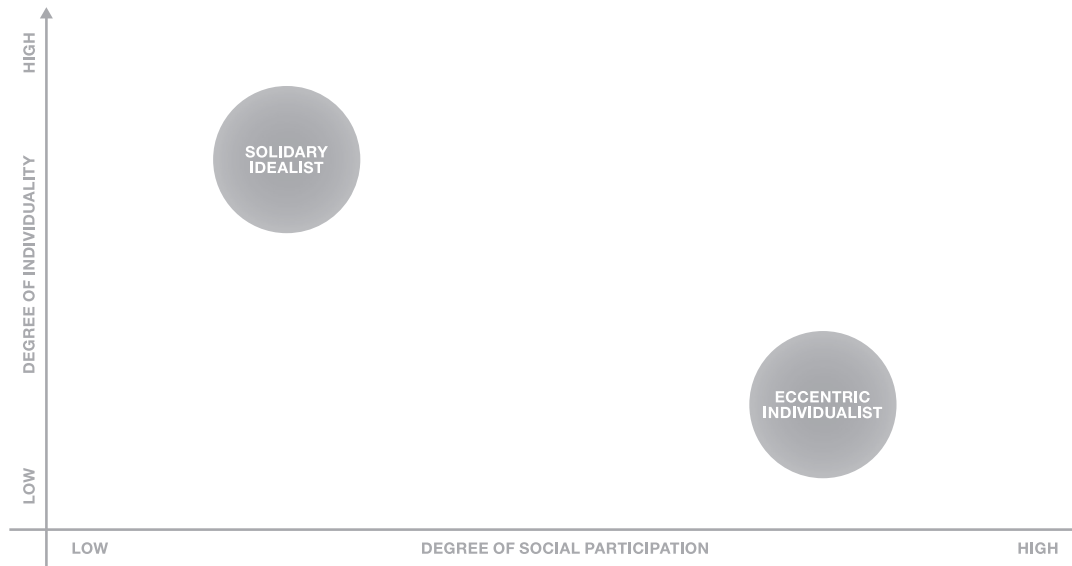


FIGURE 2: THE FOUR TYPES OF HNWI (OWN SOURCE)

can be made in the group of the eccentrics. In order to motivate this kind of HNWI, special and individually creative ways of involvement are needed with which the HNWI can identify.

Next to the lack of more individual forms of social involvement, there are some other reasons why the huge potential HNWI embody cannot be used exhaustively. One reason is the negative publicity and reputation that is connected to some traditional ways of social involvement: Examples like Madonna's visit in Malawi or Barack Obama's donation to the Central Asia Institute may deter HNWI from getting socially involved. A lack of transparency and control strengthens this issue. Today, the social sector in Germany avoids transparency and no disclosure requirement exists. Due to this fact, the HNWI often does not know what his money is invested in or to whom it goes. In addition, HNWI demand measurable results. As most of the HNWI have an economic background, they see themselves rather as social investors (cf. Güssow 2007: 90ff, cf. Breidenbach and Buchmann 2012: 8ff).

Summing up, more individuality, identification, transparency, co-determination and better economic management are important criteria for a higher degree of social involvement. If these needs can be addressed by the social sector, a huge new potential can be generated.

## 4. The PVP Approach

### 4.1 Definition

The term “Private Venture Philanthropy” (PVP) consists of venture capital principles and the individual investor. Venture philanthropy<sup>7</sup> is an innovative approach of philanthropic giving that combines long-term-orientated financial investment with the active support of young and fast-growing projects in the field of social entrepreneurship. Compared to Corporate Venture Philanthropy, in the approach of PVP, a “one to one to one” relationship exists between the social entrepreneur, the PWM-trusted advisor and his client (the HNWI). The PWM advisor acts as an intermediary who proposes one specific project to one HNWI investor. The latter chooses the project best in line with his conceivabilities and supports it by providing both financial and management expertise. Because it is not a corporation but one HNWI who invests in one personally chosen project, this style of Venture Philanthropy is called Private Venture Philanthropy.

### 4.2 Five-Step-Matching Process

The structure of PVP consists of four parties, social entrepreneurs, P&E, PWM and HNWI who are interrelated in different ways. Their interaction is illustrated by figure 3 and explained in the following.

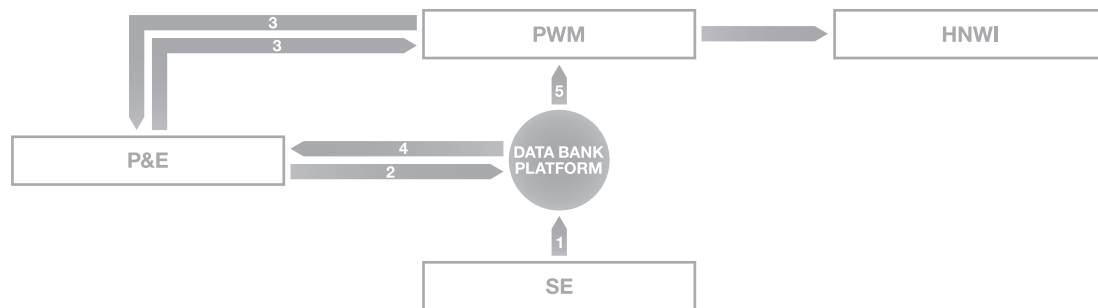


FIGURE 3: CONCEPT (OWN SOURCE)

7 See in this volume Becker/Schär 2015.

1. *Social Entrepreneurs Apply via Platform*

Social entrepreneurs who need support establishing their concept can apply via the PVP platform provided by P&E. After filling in the blanks of the application form and attaching their financial blueprint, they are in the pool of potential candidates for the PVP program. In the application, they describe the social disequilibrium they aim to address as well as their motivation. They need to define the area of impact (education, family, environmental protection, among others) and their target group. Besides that, the stage of development and the intended growth prospect are to be specified. In order to estimate the expertise and engagement of the applicant, references are required.

2. *Social Evaluation by P&E*

Through the PVP platform, the P&E board has direct access to all applications. The board evaluates them according to SROI criteria and other criteria that are, amongst others, the degree of innovation and their references. The board consists of P&E students, who have the interdisciplinary knowledge and experience of both philosophy and economics, academic staff of the P&E institute and external experts. Applications which meet the approval of the board reach the next stage of the process. Projects with too little social impact are withdrawn from the application process.

3. *Financial Evaluation by PWM*

Applications that have been inspected successfully for social criteria are passed through to PWM to be checked on financial criteria. The criteria include financial feasibility, expected rent, entrepreneurial risk and estimated payoff time.

4. *Editing*

After receiving the PWM's feedback, the P&E board rejects those projects without financial approval. The other applications are fed into an internal data bank that only P&E and PWM have access to. There the proven criteria are categorised in search masks.

5. *Matching*

After evoking interest in PVP, the HNWI expresses his ideas of a project he would like to invest in. Together with his trusted advisor of PWM, he refines his expectations concerning the area of impact and the degree of personal involvement (e.g., anonymous investment, monitoring the process without active participation, or mentoring the project with personal economic and management expertise). The decision of whether to be the only investor or whether to support a project partly depends on the amount of capital the HNWI wants to invest in a certain project. Then the trusted advisor searches the internal data bank for appropriate projects.

### *4.3 Post-Matching*

In case of a successful match, the four actors have a new and enlarged spectrum of tasks. The social entrepreneur has annual disclosure requirements, which consists of a financial report and the project progress report. PWM advisors monitor the social entrepreneur's report and measure the financial impact of the project. After the P&E board has assessed the project's social impact, the report (including the financial and social impact measurement) is forwarded by the PWM advisor to the HNWI. As the PWM-trusted advisor is constantly in personal dialogue with the HNWI, the latter has the possibility to express special wishes (e.g. visiting the project or contact with the social entrepreneur) and to provide feedback (e.g. ideas for improvement) at any time. The wishes and the feedback are then passed to the social entrepreneur through P&E by means of PWM. The intermediary role of the P&E board is not only in demand in the case of feedback, but also in the case of general communication between the social entrepreneur and PWM (i.e. HNWI). This relationship between the P&E board and the PWM advisors is enforced by the provision of a one-to-one advisor, so that each PWM advisor has a personal P&E contact. Moreover, the P&E board is responsible for the internal data bank as well as for the PVP platform. The data bank is consistently updated by feeding in new projects, renewing the profile of current projects and improving the search masks. The platform not only provides the online-application form for the social entrepreneurs but also a forum where they can exchange views and network.

## **5. *Added Value***

The concept of PVP creates a win-win situation for HNWIs, PWM, social entrepreneur and society. The HNWI's desire for transparency, for identification with the investment and for individuality is addressed by PVP. The annual financial and social reports support transparency. Economic criteria, social impact measurement and transparency convince especially entrepreneurial HNWI to increase their social investments. Due to the financial know-how of PWM, the ethical competence of the P&E board, and the HNWI's possibility to monitor developments, trust in the investment is augmented and risk is reduced. As there is often only one driven social entrepreneur behind each idea, the HNWIs can identify better with the project they invest in than when donating money to an organisation. The identification is also intensified by the fact that each project is chosen by



criteria the HNWI is personally interested in. Additionally, identification is enhanced since the HNWI can act as a mentor and has the possibility to visit the project. The HNWI's desire for individuality is satisfied since they can bring in improvement suggestions through the PWM or directly as mentors. Furthermore, their identification with the project as well as their function as a mentor increases their awareness of social disequilibria and strengthens their sensitization concerning social problems.

PWM also gains added value since they can manage a higher volume of money: All the money the HNWI would otherwise have donated to some NGO is now also managed by the PWM advisor. The reputation of the P&E board makes PWM more reliable and underlines the social aim of PVP. Another benefit of PVP is that it creates trust as it deepens the client relation between the PWM advisor and the HNWI. Because of this amelioration of relations in addition to constant feedback of the HNWI and the social entrepreneur, better adjustment of offers and a more appropriate demand analysis are possible. Furthermore, the portfolio of PWM is enlarged by unique service and offers in the area of venture philanthropy. The greatest advantage for the social entrepreneur is the opportunity to receive financial and management support by the investor. The consulting of the P&E board along with the financial expertise of PWM and their feedback makes the social entrepreneur's project perform more efficiently. By means of the annual reports and the disclosure requirement, additional efficiency is guaranteed. Through the platform where the entrepreneurs can exchange information about their experiences, another added value is generated. Finally, society is the biggest winner, as through the implementation of PVP, problems are solved that society could not solve itself since a higher rate of social investment leads to more social entrepreneurships that remove social disequilibria. More efficiently working social entrepreneurs increase competition in the voluntary sector which leads to more innovation, transparency, etc. and thus to a pro-fessionalism of the voluntary sector. As added value is realised for all actors, PVP is a strong, new alternative to conventional concepts of social investment.

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**Social Impact  
Philanthropy**

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**ETHICS AND FINANCE**

# Social Impact Philanthropy

## Linking Governance and Social Impact Assessment

Martin Jakob and Jonathan Krull

### *Keywords*

*Social Impact Assessment, Cost-Benefit Analysis, Social Return on Investment, Agency Theory, Social Capital Theory*

In this article the concept of Social Return on Investment (SROI) and its applicability to the Private Venture Philanthropy (PVP) project are analysed and assessed. PVP is a network that connects financially highly potent investors with promising social entrepreneurs who put forward innovative social business ideas with the ambition of contributing to the solution of current social problems. After a short introduction considering the four constituents of the PVP network, we will depict the screening-signalling and monitoring-reporting network within PVP in order to offer a better understanding of the various relations between the parties involved. It will turn out to be crucial to consider this unique network within the light of two economic theories - agency theory and social capital theory. Given this, we will evaluate the existing forms of social impact assessment and employ the promising concept of SROI. In a last step, it remains to make some adaptations for enhanced applicability and draw up a clearer picture of the advantages of the interaction between the approaches of SROI and PVP.

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## ***1. Introduction***

The network of Private Venture Philanthropy (PVP) is closely tied to various governance mechanisms. Their applicability to carefully chosen impact assessment tools within the concept of PVP, namely Social Return on Investment (SROI), needs to be analysed.

Since the crucial aim of PVP is to generate social value, one would assume that the most sensible thing would be to look first of all for a clear definition of the term “social value”. Scholars such as James A. Phills Jr., Kriss Deiglmeier, Dale T. Miller as well as Harvard economist Robert Barro all argue in very different ways about the correct conception of the term. Hence, a consistent, standard definition of the concept of social value cannot be easily found. Philip Auerswald suggests that we must not stick closely to one single definition. Instead, one must rather widen the field of consideration and also be aware of the various aspects surrounding the area of social value such as the citizens’ well-being, social capital, and social innovation. If not perceived too narrowly, the definition of social innovation as

“[t]he creation of benefits or reductions of costs for society – through efforts to address societal needs and problems – in ways that go beyond the private gains and general benefits of market activity” (Auerswald 2009: 52).

can be an eligible conception. In the following, we will assume this definition as a basis for our further discussion of social impact. For a better understanding of the theoretical framework of PVP, we refer to the article *Private Venture Philanthropy* (Becker, Schär 2012). The four constituents of the PVP network are: Private Wealth Management (PWM) of Deutsche Bank, the herein participating High Net Worth Individuals (HNWI), students, academic staff, and other experts from the University of Bayreuth’s “Philosophy & Economics” program (P&E board), as well as social entrepreneurs.<sup>1</sup> Being highly interconnected within this network, these four constituents share the goal of maximising the generated social value in a financially sustainable manner, or, if possible, even with financial returns.

The responsibility assignments as well as the various duties and rights to influence decisions within PVP will be outlined within this essay in three main steps. Firstly, we will present the reader

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<sup>1</sup> For reasons of better reading, we will speak in the following only of social entrepreneurs, though the term should be understood to include social start-ups as well.

an economic and a socio-scientific theory, which highlights the governance mechanisms underlying the network of PVP. In the next step, we will discuss two techniques of measuring social impact in detail, that is, cost-benefit analysis and SROI, so that finally, the assessment and integration of SROI into PVP will be emphasised as a promising tool for generating social value.

## *2. PVP and the Necessity for Governance*

In order to create an effective, efficient and well-working network consisting of the highly interconnected members of the PVP network, it will be indispensable to establish institutionalised bonds between the involved constituents. In the following, we will describe a governance framework on the basis of two commonly discussed theoretical concepts, namely agency theory and social capital theory. The analysis of these theories is intended to offer the reader, who might not be overly familiar with such conceptual economic frameworks, a better understanding of the structures and mechanisms subject to the PVP network.

Agency theory assumes, contrary to the neoclassical idea of complete information, the existence of information asymmetries and uncertainties being involved in any transaction between two agents. Commonly, the principal – commercially, the shareholder – lacks four types of information about the agent – commercially, the potential manager – which imply uncertainties, albeit temporarily; before a contract is signed, there might arise hidden characteristics as well as hidden intentions from the agent, which means that the principal cannot gain access to every possibly existing piece of information on the agent. Moreover, the principal is not able to observe the agent's hidden action and hidden information after having signed to the contract. Hence, the resulting dangers of information asymmetries are such of adverse selection and hold up ex-ante (before the conclusion of the contract) as well as moral hazard ex-post (after the conclusion of the contract). These potential risks lead to a pareto-inferior equilibrium, implying deadweight loss since most information will only unveil ex-post, causing both principal and agent to be unwilling to invest as much as what would be most desirable in terms of economic welfare. According to the New Institutional Economics (NIE), certain incentives for the purpose of guaranteeing the mutual abidance must then be implemented by the contract.

In order to abolish information asymmetries as well as uncertainties concerning the agent's actual performance, NIE suggests four possibilities: Ex-ante, the principal might screen the potential

agent through scrutiny. The agent, on the other hand, might send out some signal (signalling) to the principal in order to demonstrate his willingness to cooperate. This might be exercised through explicit contracts, voluntary self-commitment, or, as frequently implemented, through some hybrid form, such as a governance codex. The ex-post possibilities consist of monitoring and reporting. The principal might claim permission to monitor the agent's actions so that the principal has the right to quit the contract at any time in case of the agent's defection.

Perhaps the most important tool within the context of PVP is the one of reporting. It often turns out to be very difficult to report adequately and in a comprehensive manner, and it is essential to this paper to discuss eligible methods of reporting as a means of assessing adequate impact measurement tools. In the context of the classic agency theory, which assumes as one of its premises self-interested, opportunistic behaviour, it is also possible to analyse the governance mechanisms within the concept of PVP. Since the social entrepreneur's success and compensation is related closely to his own performance, there is an incentive to avoid uncertainty and variability with reference to his own wages.

As depicted below in figure 1, the social entrepreneur can be seen here as the agent, contractually bound to perform according to the principal's will. The principal within PVP mainly consists of the HNWI, but to some extent also of PWM and the P&E board, since all three of them commission the agent to generate social or monetary profit, or both. In contrast to the common constellation of rational actors who intend to maximise their utility on an individual level which might be opposing to the other party's interests, within PVP, there is much less room for conflicts of interest. The entrepreneur is also more dependent on his own acting than a common manager of an enterprise is, since the latter generally earns a contractually fixed income.

Considered on a macro level, the social entrepreneur not only has the incentive to maximise profits for himself personally, but on top of that, he seeks to maximise returns – whether social, economic, or socio-economic – for the investor (HNWI). If successfully done, other potential investors will take note of the agent's doing and bring more resources into the growing social business. Consequently, the agent might, in the end, also benefit personally from an increase in the amount of investment resources. Despite the fact that the investment is in a direct way exclusively deployed into the social business' financial stock, it does also indirectly foster the agent's sustenance as a 'newcomer' in the field of social business. The traditional problem of moral hazard, that is,

the risk of one of the bound parties being prone to shirk<sup>2</sup> or free-ride, is thus drastically reduced through the stated incentive mechanisms. In addition, the agent's self-commitment to the investor decreases, although not fully diminishes, the principal's need to practice monitoring after the contract has been signed.

The joint pursuit of goals does nonetheless not mean that the principal does not have any authority to decide anymore. It is still the case that he has the decision-making power to end his engagement in the case of shirking and if the agent does not act according to the investor's will. But in the end, rather soft bonds might need to be taken into account, which determine long-term cooperation. According to Nahapiet and Ghoshal, the notion of social capital can be understood as:

“[T]he sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet/Ghoshal 1998: 243).

This concept can further be subdivided into two dimensions: a structural one and a relational one. The former refers to how to gain access to the resources of others within a social pattern in which norms and the potency of sanctions can be observed. The relational dimension is rather to be related to resources such as trust, norms, and identity which themselves are part of relations and are most prominently activated through the latter (cf. Volery and Hackl 2010: 160).

Specifically within PVP, these social resources constitute crucial control mechanisms and are thus of great importance. Taking distance from the ideal of the homo economicus, Volery and Hackl prefer to replace the notion by what they call within the context of social franchising, the homo reciprocans. Abolishing a merely short-term utility maximising strategy of purely self-interested, rational homines economici, it appears sensible to perceive the actors involved within the PVP project as long-term, socially-engaged human beings, or institutions geared to reciprocity. Those remarks imply that, in comparison with commercial investment relations, there is much less need for complete contracts, which can in reality not be guaranteed anyway. In that respect, the agency theory approach's applicability is limited with regard to PVP. Nevertheless, it constitutes the necessary condition for the transactions and investments to be realised as can be observed within figure 1. On top of that, it is rather self-commitment, engagement, trust, and identity, which provide security for the parties involved in mutually cooperative behaviour (cf. Becker

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2 Shirking is understood here as to evade certain duties.



and Schär 2012: 22.). As can be observed in figure 1, beyond the governance mechanisms known from agency theory, there appears to be a net of soft bonds, here displayed by the greyish background. This is to emphasise the power of non-explicitly documented accords within PVP, which is commonly known from the social sector. The illustrated trilogy of trust, norms, and identity does not intend to claim that all three of these exist between each player within the network. Deutsche Bank cannot, for example, identify itself with each social entrepreneur. Since these components of social capital are hard to quantify, it becomes expedient to assume a background of non-circumscribable social governance mechanisms as shown below.

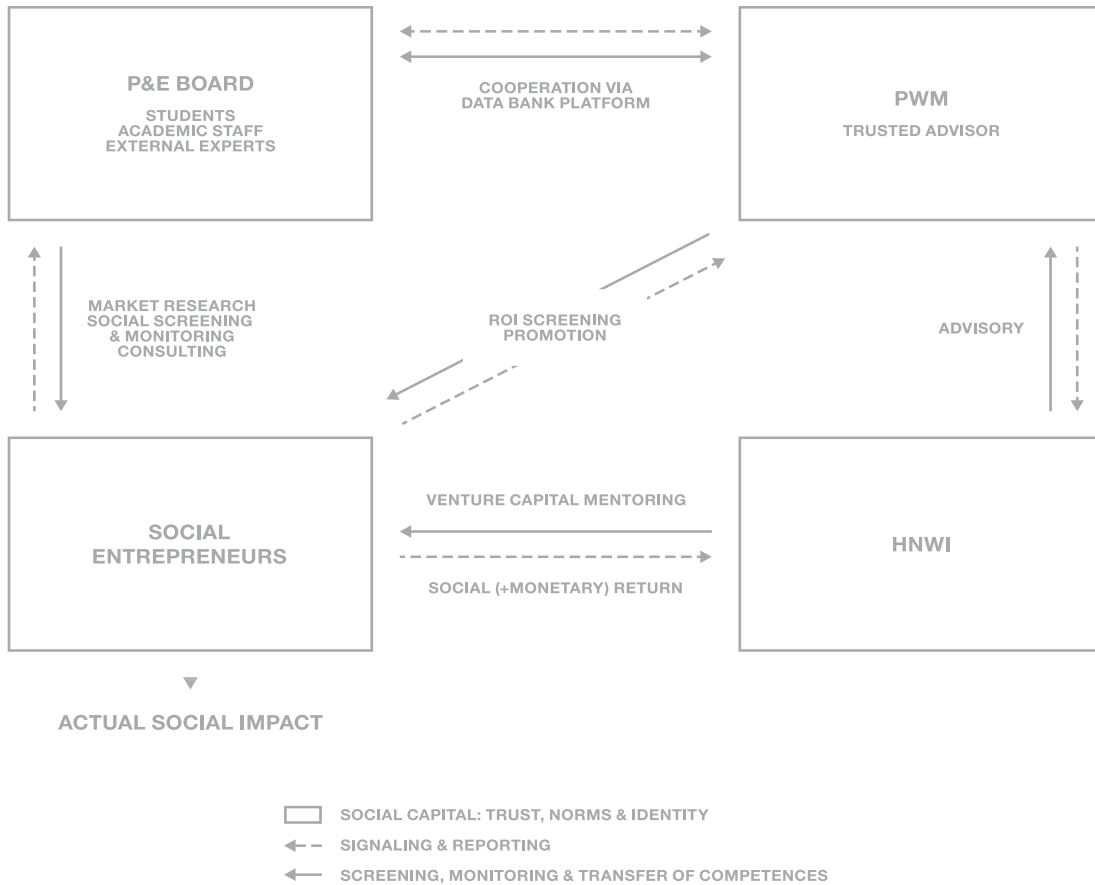


FIGURE 1: PVP NETWORK AND GOVERNANCE MECHANISMS (OWN FIGURE)

Figure 1 depicts the various relations and dependencies among the different parties of PVP. It becomes clear that the underlying network of PVP does, in contrast to common social impact analysis, not consist of a unilateral analysis of a surveying impact measurement institution that tries to assess the social impact of a possibly unrelated project, NGO, or social business. Concerning ordinary impact analysis, it mostly proves very difficult to collect all data necessary to evaluate the impact in a comprehensive manner. The complex network of PVP, on the other hand, rather allows for an intense exchange of information, competences and other resources, such as monetary ones, and it therefore facilitates the resource-intensive process of impact assessment. Whereas it is close to impossible to create complete contracts due to information asymmetries, within the concept of PVP, complete surveillance in the form of signalling, screening, reporting, and monitoring appears to exist - usually only known from the idealistic state of the agency theoretic model. Though, the main focus here lies on the ex-ante mechanisms, meaning screening and signalling, additional monitoring and reporting during the implementation of the project will be necessary to guarantee the formerly screened social impact. Transparency, thus, turns out to be crucial for mutual consent and success when trying to measure social value.

The mentioned convergence of goals between the parties involved facilitates a common evaluation of future and present investments. Through the homogeneity of the participants, the PVP network represents a completely unique connection of highly potent and capable actors. There are HNWI who are in control of extensive funds compared to ordinary donors to charities. Beyond that, these HNWI are mostly formerly or still active businessmen and are thus able to offer their experience and know-how to the social enterprises to the extent they wish to. The PWM department of Deutsche Bank, as well as the HNWI, commands many useful contacts, and thereby social capital, all over the world. Together with the P&E board, PWM ensures accurate screening and assessment of the businesses' success. Whereas PWM brings in its competences in the field of due diligence, here referred to as ROI screening, P&E adds the crucial element of impact measurement, here named social screening. Through the high degree of interconnectedness between the four players of PVP, most information asymmetries and uncertainties, as observed to a large extent within common social impact analysis, can thereby be reduced.

It is the innovation and creativity of the social entrepreneurs and those who are just starting out, that enable the HNWI's vast resources to be used most efficiently and effectively in order to satisfy societal needs. The finally chosen concept of social impact assessment is thereby lifted to a new level compared to mere donations to NGOs and foundations. It remains doubtful whether

the concept of PVP can, if combined with SROI, be considered as one that could fully replace the traditional Return on Investment approach. Nonetheless, it is a promising alternative compared to merely regarding social investment as incompatible with profit gaining, as it has mostly been considered within the literature. In order to grasp more concretely why the SROI tool seems to be most eligible for PVP, it is necessary to present the reader with a more profound discussion of two of the most widespread impact assessment tools, namely cost-benefit analysis and Social Return on Investment.

### ***3. Social Impact Assessment***

Over the last few decades, one could observe a growing interest in metrics as a useful means of social impact measurement. Philanthropists of all fields longed for easy-to-interpret tools which would help them to properly assess the efficacy and the impact of projects, both social and economic. Thus inspired by economic metrics as the ROI and other financial auditing tools, NGOs, foundations, and social entrepreneurs challenged themselves to come up with new ways of measuring social value. This has led to a now ample field with a myriad of different tools to measure social value, of which each sets its own focus and has its own weak spots to be overcome. One needs to take special care in choosing the right method for one's own project. The possibilities for projects here are just as numerous as the methods to evaluate them, which makes it very difficult to agree upon one universal measurement tool. Keeping this impediment in mind, we will elaborate on two different tools of social impact assessment, namely cost-benefit analysis and Social Return on Investment. Afterwards, we will draw the conclusion that SROI is the more suitable tool for PVP, but needs to be further adapted for practical use.

The first tool we consider is the already widely known and well implemented concept of cost-benefit analysis (here, we will keep closely to de Rus 2010). Cost-benefit analysis is about measuring welfare, but as this is difficult, it rather tries to assess the social value produced from the output of a given project. Money is used as an instrument of universal comparison and measurement to properly achieve this goal. In cost-benefit analysis, one differs between seven steps of planning and implementation. Firstly, one needs to identify the objective of the project X, examine relevant alternatives Y, and fit the project into its proper context. This is an important step because analysing an isolated project without regard to its alternatives or surroundings can lead to a severe

misjudgement of the output. Only if X is, after all considerations, superior to Y and thus leads to a better outcome, it is to be chosen. Furthermore, we deem it advisable to clearly define the limits of X and focus on a few core elements, since one will lack precision in the evaluation of the output otherwise. Secondly, one needs to identify all occurring costs and benefits of X. This can be either done rather easily if direct benefits of X arise in the same market, but becomes quite tricky as soon as the benefits arise in several different markets and have indirect effects. Thirdly, one needs to measure the costs and benefits of X. Here, it is even trickier. Whereas some direct benefits and market goods of the project might be easily monetized, non-market goods and secondary effects are usually not easily described in monetary terms. This can, for example, be done with stated preferences (asking people about their willingness to pay for a certain benefit) or by drawing more usable information from comparable markets. The fourth step consists of the aggregation of costs and benefits. Since costs and benefits occur over time and can be valued differently from different individuals, two discrete weighing mechanisms are needed – one discount rate for future benefits and one variable for more preferred benefits. Through these weighing mechanisms, one calculates the net present value (NPV) of a project: “It consists of the sum of all the discounted benefits and costs of the project” (De Rus 2010: 134). In a fifth step, the calculated results are interpreted and decision criteria are applied. Here, the net present value is an unmistakable criterion. If the net present value is a negative one, the proposed project X is rejected, while if it is a positive one, the project is accepted. The sixth step compares the project with the counterfactual world. The counterfactual world or base case is the hypothetical world without project X and other possible costs that might occur there. An example here would be that our project X might replace another already existing project, which would be financed instead if X were not implemented. The last step is to examine the economic return and financial feasibility. Cost-benefit analysis also calculates the revenues and private costs of the project in order to assess the project’s economic status. This is obviously an important step, as many projects are planned on a tight budget. The reason why it is listed last here is to set the focus on the social value produced, and not its financial returns.

However, there are some difficulties that cost-benefit analysis faces. On the one hand, it is immensely challenging to identify and measure especially the indirect effects of a project. On the other hand, the future discount rates of produced social value might appear rather arbitrarily than deliberately chosen – as are the weights applied to the specific costs and benefits. All these aspects have thus a vast influence on the net present value and thereby directly on the decision of whether the project is deemed reasonable. The comparisons with the base case, respectively the

counterfactual world, are similarly problematic as they are just as difficult to calculate. First of all, this leads to severe doubt about whether cost-benefit analysis is well-engineered, and secondly, whether it is the properly fitting tool for PVP.

The second and more important tool that we examine is the Social Return on Investment method or SROI analysis. The SROI analysis is largely based upon the concept of the SROI Network. SROI evolved out of the above-discussed cost-benefit analysis and social accounting.

“Social Return on Investment [...] is a framework for measuring and accounting for this much broader concept of value; it seeks to reduce inequality and environmental degradation and improve wellbeing by incorporating social, environmental and economic costs and benefits” (Nicholls et al. 2012: 98).

SROI, just as any other social impact tool, acknowledges that there is another kind of value – of social nature, being non-monetisable, and additional to the economic value. SROI also uses money as an intermediate for evaluative purposes but does not regard it as the desired objective itself. The analysis can either be evaluative, which means it is done ex-post in order to survey the outcomes and report them afterwards, or it is meant as a forecast and hence done ex-ante, predicting the social value which is created if all activities are realised as planned. Thus, SROI can help enormously to improve the planning of projects. SROI is a very adaptive tool since it can be used for merely internal management purposes, which leads to a much slender version than the one used for publishing. Accordingly, it is much less resource intensive. Nevertheless, it is always based upon seven principles (cf. Nicholls et al. 2012: 96):

1. Involve stakeholders
2. Understand what changes
3. Value the things that matter
4. Only include what is material
5. Do not over-claim
6. Be transparent
7. Verify your results.

These principles are the basis for the six stage procedure which builds the foundation of every successful SROI analysis. The first step consists of setting the proper scope for the analysis and identifying the main stakeholders. It is essential to know what has to be changed in order to be able to measure it later on, and it is important to set the right scope and neither to look merely at the isolated project nor take every possible aspect into account. The stakeholders, who consist of all the people and institutions being affected in some way by the changes induced by the project, can help tremendously with this task. During the course of the entire analysis, it is advisable to work closely together with the stakeholders to identify the induced changes more easily, keep track of them and calibrate the measurement techniques. In a second step, an impact-map or theory of change is created, informed by the stakeholders. An impact-map tries to depict how the resources are allocated and correspond to the outputs. Identifying and valuing all pieces of input is the main task here, since afterwards it is possible to clearly distinguish between the various sorts of output produced. The theory of change is extraordinarily helpful in developing a better understanding of how input needs to be dealt with. Thirdly, evidence or predictions on outcome is collected. Afterwards, the outcome is valued in monetary terms. This step is closely related to the calculation of costs and benefits in CBA. The fourth step attempts to eliminate change from the impact that would have arisen anyway – that is, without the project – since one obviously cannot claim the responsibility for these. This is a fussy task since a statement as to what would have happened without intervention must be established. On account of this, there will always be a certain amount of inaccuracy. The fifth step aggregates all the benefits of the project and subtracts the losses as well as the counterfactuals calculated in step four. One last step remains: The sixth step is about the reporting of the analysis' results, such as the newly found evidence for stakeholders, and the consideration of the results in further planning.

Some problems with SROI analysis arise which are actually quite similar to those of cost-benefit analysis. Being a further development of CBA, SROI has to cope with many of the same issues. The weightings of the different inputs and the discount rate of future outputs seem the most pressing. There is also a debate about the intended audience of the analysis, as to which stakeholder to involve and which to leave aside. The SROI manages, though, to climb down from the macro-level which inhibits the cost-benefit analysis and is thus much more useful for small-scale enterprises and NGOs. This, together with the focus on the theory of change, is the main reason why we deem SROI more suitable for our purposes.

#### ***4. SROI Embedded in PVP – A Practical Approach***

As far as the theory goes, SROI is a powerful concept, but in practice it has shown that one needs to mend and adapt it a little further in order to make it a credible tool. It turned out that an ex-post analysis of a project is, as with CBA, too, extremely difficult. We can simply not convincingly state what would have happened, had the project not been undertaken and thus surrenders the analysis to usefulness. This leaves us with the ex-ante analysis, which in fact proves to be a very adequate and powerful planning tool. It has proven to be useful to set the focus on the impact-map or theory of change.

The theory of change tries to identify all inputs and the corresponding outputs of any kind. Properly done, it provides a deeper knowledge of current actions, achievements, and especially what input needs to be changed in order to change a desired output. After mapping out all inputs and corresponding outputs, we can now distinguish between economic, socio-economic and social effects. The first two are in some way quantifiable, whereas we come to the conclusion that purely social effects must be measured qualitatively, not quantitatively. Now, we can calculate the SROI for the first two effects and, having left the non-quantifiable social effects aside, the numbers will be much more robust than before. Such an analysis is an extremely resource-intensive task, and thus for social entrepreneurs not easily undertaken. The unique system of Private Venture Philanthropy makes it possible, though, to take exactly this step. As the Deutsche Bank does the due diligence, the P&E board can focus on consulting with the social entrepreneur. Additionally, there are cases where the HNWI provides mentoring for the entrepreneur. These auxiliary forces make it possible for the social entrepreneur to execute this resource-intensive analysis. As mentioned above, the focus here lies on the theory of change, which helps to provide a better understanding of the field of action. This should allow the social start-up to increase its efficiency and, moreover, its chance of survival enormously. It is important, though, to keep the following always in mind:

“SROI cannot and should not be used as the sole indicator of social performance, in the same way that ROI is not used as a sole indicator of financial performance. Instead, as with financial metrics, having both additional quantified outcome measures and a qualitative, narrative description (as in a standard annual report) is the only way to gain a more complete understanding of a business” (Lingane and Olsen 2004, 129).

All in all, one can say that a win-win situation is created. The social entrepreneur gets much needed funding and professional consulting. The social impact assessment with SROI and the theory of change improve planning of the project and help to communicate its success. The HNWI finds a project she can personally relate to and with good faith donate her money to. PWM can tighten its client-advisor relationship. P&E and the connected experts can strengthen their standpoint in the area of expertise with a focus on social entrepreneurship. In the end, we draw the conclusion that a SROI analysis is an extremely powerful planning tool, especially when the focus lies on the theory of change. The numbers for the economic and socio-economic effects may then be transformed into a SROI, but the purely social effects must finally always be measured qualitatively. By evaluating the social innovation in such a delicate manner, one can eventually provide a comprehensive and reliable assessment tool which is adequate for fostering further social value.

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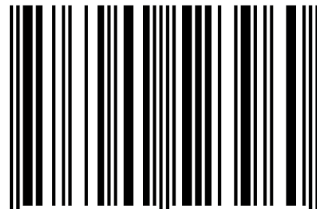
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