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Contents:

Karasavvoglou G. Anastasios
Foreword **5**

Molochny Boris
Essay on International Financial Crisis and Endogenous Growth Theory..... **7**

Jablecki Juliusz
The impact of Basel I capital requirements on bank behaviour and the efficacy of monetary policy..... **16**

Souto Fernández-Feijóo Belen
Crisis and Corporate Social Responsibility: Threat or Opportunity?..... **36**

Müssig Anke
The Financial Crisis: Casued by Unpreventable or Organized Failures? **51**

Ziolkowska Jadwiga
Environmental benefit, side effects and objective-oriented financing of agri-environmental measures: case study of Poland **71**

Bluemle Gerold
200 Jahre Darwin und 250 Jahre Theory of Moral Sentiments von Adam Smith: Zur Aktualität eines vergessenen Werkes..... **89**

Volume 2 Issue 1 June 2009

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Foreword

It has already been a year since the first issue of the "International Journal of Economic Sciences and Applied Research" was published.

The IJESAR editorial team had initially set two fundamental goals: the acceptance and publication of articles of high scientific interest and standards and the promotion of the journal to as many scientists, universities and research centers possible. There are many reasons to make us believe that we have achieved both our goals. Every issue is released in 1000 copies and is sent to universities, libraries and research centers worldwide. The number of hits (visitors) to the journal's website presents a rapidly increasing tendency, while the number of the articles submitted for review and publication is satisfactory, considering that the journal was first published just a year ago.

Moreover, IJESAR already appears in various international data bases and it will soon be indexed in JEL.

The current issue includes four articles that refer to Financial Economics placing special emphasis to the Financial Crisis. They present some particularly interesting analyses on a variety of aspects of this phenomenon and it is hoped that they will be conducive to a thorough discussion and further speculation on this area. I would like to thank, at this point, Dr Thomas Gstraunthaler, member of the Editorial Board, who launched the idea this issue to focus on the "International Financial Crisis", and coordinated effectively all the procedures for the submission of relevant articles. I cordially thank him and look forward to similar future collaborations with other academics, researchers and practitioners.

We would also like to ensure you that we will continue our efforts to improve the quality of the journal. I am convinced that IJESAR will contribute to a further enrichment of discussions on various fields of the Economic Science and will substantially add to the "Babel" of development and diffusion of scientific knowledge.

Kavala, June 2009
Editor-in-Chief
Prof. Dr. Anastasios Karasavvoglou

Essay on International Financial Crisis and Endogenous Growth Theory

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Abstract
This paper reviews endogenous growth theories in the light of the modern reality. It seems that economies which are similar in technologies and preferences are expected to converge to the same level of per capita income. The question "How are repetitions of financial crisis best predicted?" is still not answered. It also seems that combining of these models in a singular theory of business coexistence between neo-classical growth models during "Peace time", and unpredicted forces and engines, which move economics during "Crisis time", provide a treatment solution.

Keywords: Business Coexistence, Endogenous growth theories

JEL classification: E20, G10, M21

1. Introduction

The global financial crisis, brewing for a while, really started to show its effects in the middle of 2007 and into 2008. Around the world stock markets have fallen, large financial institutions have collapsed or been bought out, and governments in even the wealthiest nations have had to come up with rescue packages to bail out their financial systems. Until the 1980s, long-run productivity growth was interpreted mostly with exogenously driven explanations. In the mid-1980s, a number of growth theorists became dissatisfied with this approach. "This dissatisfaction motivated the construction of a class of growth models in which the key determinants of growth were endogenous to the model" states Barro (1995, p.38), led to determination of the long-run growth within the approach, more than some exogenously growing variables. The neo-classical growth model, based on works of Solow (1956) and Swan (1956), has seen a revival of interest with the appearance of the new endogenous growth theories that have challenged its predictions as well as its consistency with the new stylized facts of growth.

The main prediction of the neo-classical model, supported by the refinements of Cass (1965) and Koopmans (1965), is that economies which are similar in technologies and preferences are expected to converge to the same level of per capita income. If technologies exhibit constant return to scale and declining capital productivity, the per capita growth rate tends to be inversely related to the starting level of output or income per capita. Therefore, an initially poorer economy with a lower starting value of the capital/labor ratio tends to grow faster in per capita terms than a richer one. Since the growth rate would fall to zero as capital per worker increases, a related prediction of the standard neo-classical model is that internal growth is feasible until the capital stock reaches a steady-state. When it is reached, the growth rate of income per capita is independent of internal factors of growth, such as the rate of saving and investment, and depends only on the rate of exogenous technological progress. On the assumption that the latter is a public good, available to all, the neo-classical model predicts that GDP per capita in all countries will grow at the same rate.

Economic theory, which was originated essentially under the impact of economic development, indicates the rise of an endogenous, self-sustaining mechanism of cumulative economic growth. This mechanism hinges on entrepreneurial initiative which, chiefly through innovative decisions, harnesses the resources of technology, in the broadest sense, focuses on how to serve, making them one main basis of profitability and competition. The studies on endogenous growth that followed Kaldor's (1960) function of technical progress, Arrow's (1962) idea of learning by doing and Shell's (1967) specification on the inventive sector devoted to produce knowledge represent the most advanced answer to some of these weaknesses. Romer (1990), Grossman and Helpman (1991) have enriched Shell's intuition by linking the appearance of new intermediate products and quality based innovation to the development of knowledge.

All the above models explain endogenous growth through the addition of some particular factors in the production function. Hence, they consider production simply as the transformation of given inputs into output, ignoring that modern dynamic economies are characterized markedly by repeated shifts of production functions due to innovation, as well as by uncertainty and the entrepreneurs' discovery role.

2. Models of Long-Run Growth and Endogenous Technological Change

The long-run growth model is based on the suggestion that growth rates can be increasing over time (Romer, 1986). For the aggregate growth model, over time, states Romer (1986, p.1002), "...wage rate and capital-labor ratios across different countries are expected to converge". The absence of technological change, lead to convergence per capita output with a steady-state value with no per capita growth. Convergence in the alternative endogenous growth model is defined as such models that can generate positive steady state per capita growth rates of the main economic variables k, c and y. This model, in which per capita income can grow indefinitely, departs from the traditional theory in some important ways (rate of investment, rate of return on capital, level of per capita output in different countries etc.). "The model proposed here offers an alternative view of long-run prospects for growth" (Romer, 1986, p. 1003).

The new growth theory relies more on the Arrow mechanism, rather than on Kaldor's technical progress function, in assuming that there are important externalities with the development of technical change. Arrow analyzed a model in which improvement in techniques depends on the experience within the production process, such experience being measured by cumulated investment. The consequences are analogous to increasing returns to scale: the higher the investment, the greater the opportunity for learning, the faster the rate of technical progress and thus the level of production. Arrow's idea was incorporated by Sheshinski (1967) in a model in which the level of knowledge of workers is a function of the wide capital stock. In contrast to Arrow's model, in which technical change is embodied in the latest vintage of capital, Sheshinski treats technical progress in a disembodied way. However, the Arrow-Sheshinski model was not suitable to generate endogenous growth, as in Solow model, the incentive to accumulate capital vanishes as K increases and growth ceases to occur if population growth becomes zero.

Romer offers an alternative interpretation of the Arrow-Sheshinki model. In his version of the model, the input K is the stock of knowledge (rather than the stock of plant and machinery), which, being a non-rival input, displays increasing returns. Knowledge can be created via an R&D process in a specific research sector which uses the same inputs as the production of tangible goods (Romer, 1990). Romer wrote (1990, p.S84) "A new design enables the production of a new good that can be used to produce output. A new design also increases the productivity of human capital in the research sector." A new design can be also a by-product of other investment activities "there is a trade-off between consumption today and knowledge that can be used to produce more consumption tomorrow" (Romer, 1986, p.1015). In both cases, firms contribute unintentionally to a public pool of knowledge from which other firms can benefit. Thus, investment activities create a social benefit that goes beyond the private return that accrues to investors. This benefit is reflected in an addition to the economy knowledge level.

"While exogenous technological change is ruled out" claimed Romer (1986, p.1003), "the model here can be viewed as an equilibrium model of endogenous technological change in which long-run growth is driven primarily by the accumulation of knowledge by forward-looking, profit-maximizing agents. This focus on knowledge as the basic form of capital suggests natural changes in the formulation of the standard aggregate growth model." Romer assumed diminishing returns in the production of private knowledge but increasing returns in the production of final output from labour and total (public and private) knowledge. The condition for sustainable growth depends on the assumption that the former does not outweigh the latter. These assumptions about the nature of knowledge spillovers and dynamic externalities change the main conclusion of the standard model, since increased investment in R&D permanently increases the rate of growth. In the overall literature, technology is usually conceptualized in relation to knowledge and its application. By comparison, whereas elsewhere Romer appears to focus on knowledge and ideas, his specific definition of

technology is wanting in zeal, ". . . technological change - improvements in the instructions for mixing together raw materials - lies at the heart of economic growth'' (Romer, 1990, p. S72). Assuming that for growth theory the interesting case is the set of rivalry and excludability.

> Romer (1990, p.S75) argues "*...nonrivalry has two important implications for the theory of growth. First, nonrival goods can be accumulated without bound on a per capita basis, whereas a piece of human capital such as the ability to add cannot. Each person has only a finite number of years that can be spent acquiring skills... Second, treating knowledge as a nonrival good makes it possible to talk sensibly about knowledge spillovers, that is, incomplete exludability. These two features of knowledge - unbounded growth and incomplete appropriability - are features that are generally recognized as being relevant for the theory of growth. What thinking about nonrivalry shows is that these features are inextricably linked to nonconvexities."*

The introduction of non convexities is not compatible with the equilibrium framework but if the effects of externalities on productivity are not recognised by individuals they will act as if constant returns prevail. Probably, the solution ensures that an equilibrium can be found. However, because of externalities, it will be inefficient. Market economies in this situation will underinvest.

According to Romer (1990), non-perfect competition allows firms to fix prices greater than the marginal cost so it also inclines the research activity to have a reward. In endogenous growth model with externalities, instead, equilibrium is possible because only labour and capital are compensated, knowledge being treated as a public good. The presence of non-convexities in an endogenous model of growth can be captured with different specifications of the production function. Externalities can derive from the social level of knowledge as in Romer (1986, p.1008) statement "...the focus is generally on the social optimum and the set of taxes necessary to support it as a competitive equilibrium."

When technological knowledge is not a random process but it is the outcome of intentional investment activity by profit seeking firms, we would expect to find a wide variation in the rate of growth of different economies without negative correlation with the initial level of per capita income. This correlation should be positive if the cumulative effect of the technological progress is taken into account. Every new variety or quality of machinery or products adds to the stock of knowledge already possessed so that the cost of innovation falls as knowledge accumulates. Consequently, the rate of growth of an economy will vary directly with the rate of innovation and technical progress, which offsets any tendency to diminishing returns.

3. New Growth Theories and Menu of Policy Directions

The growth of GDP depends on growth of aggregate hours of work, quantity of capital per hour of work and improvements in technology. The influences on economic growth interact with each other to make some economies grow quickly and other slowly. Sometimes, a country's long-term growth rate speeds up and sometimes slows down. Comparing the new growth theory with neoclassical growth theory and classical growth theory, based on the postulate that population growth is determined by the level of income per person, the neoclassical growth theory explain how capital accumulation and saving interact to determine the economy's growth rate. The different point of view shows that the growth rate depends on the exogenous rate of technological change, or in other words, the growth results from technological advances that are themselves determined by chance. The endogenous growth theory suggests that scarcity leads people to devote resources to innovation in the pursuit of monopoly profit. The models presented by Romer, are "...one-sector neoclassical model with technological change, augmented to give an endogenous explanation of the source of the technological change" (Romer, 1990, p.S99). The knowledge in the model of long-run growth is supposed to be an input in production, which is increasing marginal productivity. In the model with endogenous technological change growth rates could be increasing over time. Also the effects of small interruptions and changes could be fixed and increased using the actions of private agents.

The new growth theories successfully overcome errors of previous exogenous growth theories. They are currently in vogue and attempt to incorporate technological change as endogenous growth process. While making a commendable effort to see into that black box of technological change, these so-called new growth theories are also subject to question and critique on a variety of grounds. One of these is that the new growth theories are not really that new. For example, Nobel laureate, Douglass North, places the work of Romer under the overall rubric of ". . . neoclassical models of growth . . ." (North, 1990, p. 133). Consequently, while the new growth theorists claim to represent a break from neoclassical theory, others still classify them basically as neoclassical. The new growth theories offer a menu of policy directions which goes from policies favouring R&D, education, saving rates, to policies which have the scope to redirect entrepreneurship from rent-seeking activities to productive ones. The role of public policies is even more important. Policies capable of affecting growth could be law, order and justice as well as institutional changes, regulation and the like. Increasing growth of rates implies that there is a tendency of divergence across countries with different levels of income. Therefore, these models exhibit multiplicity of steady state growth paths.

4. Linkage between growth and financial crisis

What is the relationship between growth and the financial system? This is an ancient question that has received many different answers over the years. Different authors emphasize that financial systems played a critical role in igniting industrialization by

facilitating the mobilization of capital (Hicks, 1969). At least during the last 10 years, well-functioning banks encourage technological innovation by identifying and funding entrepreneurs with the best chances of successful innovation. On the other hand, authors, such as Robinson (1952) and Lucas (1988), argue that financial systems do not matter for growth and financial development simply follow or reflect anticipation of economic development. In addition, the role of finance is often simply ignored in development economics. For example, Stern's (1984) review of development economics does not discuss the financial system, even in a section that lists omitted topics. Early models focus on factor accumulation as the engine of growth. In these models, reproducible inputs, such as physical and human capital, ultimately show diminishing returns. This feature leads the models to predict the convergence of economies towards a steady state. Growth based on factor accumulation stops eventually. Long run growth takes place as a result of exogenous technological progress (Cass (1965), Koopmans (1965), Solow (1956), Swan (1956)).

Endogenous growth models usually contain an innovation "production" process. Innovation is the crucial source for long-run growth. Innovative activity requires the use of scarce resources, and the incentives for innovation are provided by monopoly profits. Because of this imperfectly competitive market structure, the market solution is not usually Pareto-optimal (Grossman and Helpman (1991).Romer (1986), (1990)). Financial systems channel household savings to the corporate sector and allocate investment funds among firms. They allow both firms and households to share risks. These channels are the sources connecting financial development and financial structure to economic growth. Numerous researchers have conducted different econometric methods to pick up the correlation between financial development and growth (Goldsmith (1969), King and Levine (1993)). They add financial development (FD) indicators to a growth regression and find a strong positive relationship between financial development and growth. The researches that try to formally analyze the overall cost of financial crises in terms of economic growth and welfare are relatively new. The main result is to show that if it is possible both empirically and theoretically for economies to grow faster and have higher welfare with crises than without them (Obstfeld, 2008). Or, if countries that have experienced occasional crises have grown on average faster than countries without crises. According to an endogenous growth model where the production technology for non-tradable goods, which are used as inputs for tradable consumption goods, is linear in reproducible capital consisting of non-tradable goods, firms can issue default free bonds either in domestic or foreign currency to finance their investments, but the no tradable sector faces contract enforceability problems that might constrain their borrowing to a function of their net worth, which inefficiently depresses investments. The financial crisis of 2008 ruminates a few types of questions. How and why did it start? How is it best fought now? How are repetitions best prevented? How are repetitions best predicted? There are no genuine answers. Generally, sources describe phenomena but cannot predict an exact timing. Nobody predicted the financial crisis starts in 2006, 2007 or 2008. Anup Shah (2008) and many other sources focus on a collapse of the US sub-prime mortgage market and

the reversal of the housing boom in other industrialized economies, which have had a ripple effect around the world. As a result, people will cut back on consumption to try and weather this economic storm, although other businesses will struggle to survive leading to further fears of job losses. The real economies in many countries are already feeling the effects. Many industrialized nations are sliding into recession if they are not already there. Furthermore, other weaknesses in the global financial system have surfaced. Some financial products and instruments have become so complex and twisted, that as things start to unravel, trust in the whole system started to fail.

5. Epilogue

It would be a lack of physician responsibility in provision of a prescription against uninvestigated disease, but it seems, that it would be possible to provide a local treatment against visible symptoms. The gravitation rules determine the following phenomenon: water in its natural course runs away from high places and permeates downwards. The modern physical models explain this phenomenon as conversions of potential and kinetics energies and *vice versa*.

The author concerns about reflections of already discovered scientific approaches, which separately describe physical evidences, and implementation of such knowledge in understanding of mechanisms and driving forces in the global market, and combining of these models in a singular theory of business coexistence between neo-classical growth models which work during "Peace time", and unpredictable forces and engines which move economics during "Crisis time".

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The impact of Basel I capital requirements on bank behavior and the efficacy of monetary policy

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Abstract

The paper attempts to investigate the influence of the 1988 Basel Accord on bank behavior and monetary policy. It is argued that the Accord was successful in that it forced commercial banks in all of G-10 countries to maintain higher capital ratios. Tentative research suggests, however, that – at least among American banks – the Accord also encouraged the widespread resort to regulatory capital arbitrage techniques, in particular securitization. The paper also reviews the literature on the transmission mechanism of monetary policy and shows that the Basel Accord has affected the bank lending channel.

Keywords: Basel Accord, Capital Ratios, Bank Regulation, Monetary Policy

JEL classification: E51, G28

1. Introduction

After the spectacular collapse of two large international banks, Long Island's Franklin National Bank in the US[1] and Bankhaus Herstatt in Germany in 1974, monetary authorities and policy makers throughout the world decided that the increasingly more common cross-border capital flows and the resulting integration of financial markets that had been going on for some time, required a new global regulatory framework which would help ensure the stability of the international financial system. In particular, it became obvious that even though the prudency of domestic banks might be secured via home country regulations, the international activities of these banks lacked proper

[1] The fall of FNB, whose insolvency had been covered up for a few years by fraud, falsification of records, bribery, and embezzlement of its major shareholder and mafia figure Michele Seldona, constituted the greatest bank failure in the history of American banking, up to the unfolding of the current crisis. DeWan (2008)

supervision.[2] Thus, against the backdrop of these considerations, the Basel Committee on Banking Supervision was established under the auspices of the Bank for International Settlements in Switzerland by the central bank governors from the G-10 countries (Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, the UK and USA) in cooperation with the monetary authorities of Luxembourg and Switzerland. The Committee's task was to analyze the complexities of the modern banking system and respond to them with propositions of guidelines for appropriate supervision. It should be stressed, however, that (BIS 2007, p. 1):

> The Committee does not possess any formal supranational supervisory authority, and its conclusions do not, and were never intended to, have legal force. Rather, it formulates broad supervisory standards and guidelines and recommends statements of best practice in the expectation that individual authorities will take steps to implement them through detailed arrangements - statutory or otherwise - which are best suited to their own national systems.

In other words, the Committee acts as an advisory body the purpose of which is to produce recommendations of concordats and accords, rather than laws *sensu stricto*, encouraging the harmonization of member countries' regulatory standards. This is meant not only to ensure efficient supervision of the international banking sector, but also to promote competition by ensuring that banks worldwide comply with the same bylaws, and thus face similar costs. Jackson *et al.* (1999, p. 22) note, for example, that "when banks are required to maintain equity cushions exceeding what they would otherwise choose it is natural for banks to view capital standards as a form of regulatory taxation." Thus, to the extent that international regulation imposes the same standards on banks, it may be perceived as a roller leveling the global financial playing field.[3]

The first proposal of an accord worked out by the Committee was the 1975 Basel Concordat which attempted to resolve the nontrivial question of which supervisory authorities should have jurisdiction over branches of banks operating abroad – should the home or the host country regulations apply. The Concordat proposed that the host country supervisor be responsible both for liquidity and solvency issues of

[2] Of course, it might very well be argued that these efforts were merely a natural consequence of promoting moral hazard among commercial banks in the first place. In other words, it is conceivable that had it not been for the lender of last resort, banks would have acted much more prudently even in the absence of any governmental regulations. Thus, Selgin and White (1994, p. 1744) write: "The moral hazard created by deposit insurance and last-resort lending is in turn used to rationalize regulations on bank balance sheets. The theoretical and historical research cited above on whether "inherent instability" would characterize a laissez faire regime casts doubt, however, on the idea that confidence externalities clearly provide a rationale for government intervention."

[3] As an aside it is worth noting that in most instances of such international leveling regulations, harmonization occurs by some sort of averaging out of particular national regulations. As a result not every country – or branch of business – ends up better off. A stark example of such averaging out was the adoption of the common external customs tariff by the European Community in 1968.

foreign bank subsidiaries, whereas the home country should supervise the liquidity of foreign branches.[4] The changes introduced were of rather minor character and it was not until thirteen years later that the Committee's true *raison d'être* was established with the introduction of the 1988 Basel Accord (henceforth referred to as Basel I). Heffernan (2005, p. 181) calls the Accord "a watershed", and this seems to be a very astute appellation since Basel I focused expressly on effective supervision of international[5] banking operations and contained proposals aimed at harmonizing various national capital adequacy regulations. Specifically, a supervisory framework was devised, resting on a common standard of risk assessment, which required all international banks to maintain a certain minimum fixed relation between their capital and assets. This fixed relation soon came to be known as Basel capital ratio and was defined in the following way:

$$\text{Basel capital ratio} = \frac{\text{capital}}{\text{risk - weighted assets}} = \frac{\text{capital (tier 1 and 2)}}{\text{assets (weighted by credit type)} + \text{credit risk equivalents}}$$

Under the Accord, banks were required to hold a backing for weighted assets of no less than 8% total capital and at least 4% of tier 1, or core, capital. Core capital was defined as issued and fully paid ordinary shares/common stock plus non-cumulative perpetual preferred stock and disclosed reserves. Supplementary capital (tier 2) consisted simply of all other capital (i.e. undisclosed reserves, property where the value changes, bonds etc.). Assets were to be weighted according to their risk with:

- no risk (0% weight) being assigned to cash, gold and bonds issued by OECD government;
- 20% weight characterizing claims on agencies of OECD governments and local public sector entities;
- 50% weight attributed to mortgage loans;
- 100% weight assigned to all claims on the private sector, non-OECD governments, real estate, investments and all other assets.[6]

Even though the division between tier 1 and tier 2, as well as the specification of assets and weights, proposed under Basel I was hardly unambiguous,[7] the standards were immediately adopted by the G-10 governments and by the late 1990s the Accord has spread to over 100 countries worldwide (Jackson *et al.* 1999, p. 1).

[4] For a concise treatment of the 1975 Concordat see Heffernan (2005), pp. 180-181.
[5] The accord was originally meant to apply only to internationally active banks leaving national authorities the freedom to set stricter standards as they might see fit (BIS 1988, p. 2), however most countries adopted the Basel I framework for both national and international credit institutions.
[6] For the technicalities of the regulations see BIS (1988).
[7] For a critical treatment see Heffernan (2008), pp. 184-185.

Clearly, the main purpose of the implemented regulations was to put a check on banks' activities as originators of credit by encouraging them to boost their capital positions. However, as the risk asset ratio might be increased by altering either the numerator or the denominator in the ratio, banks could improve their position not only by securing larger amounts of capital, but also by restructuring their balance sheets and resorting to arbitrage, in particular securitization. This would certainly be a viable option if banks were to perceive the new Basel framework as a form of undue taxation. Nevertheless, certain conditions with regard to the financial market ought to be satisfied for securitization to flourish. Hence, the popularity of this particular form of capital arbitrage seems, at least a priori, to be somewhat dependent on the institutional framework of a given country.

While it has been of some concern to regulators that the Accord might render the reported capital ratios somewhat misleading (Jackson *et al.* 1999), the present paper is more interested in its impact on monetary policy. In a stylized exposition of monetary policy, the central bank affects the economy via changes in commercial banks' reserves. For example, when the monetary authorities wish to relax economic conditions, they buy securities from commercial banks and increase their reserve holdings. This, as the theory goes, allows banks to accept more reservable liabilities (deposits) and grant more loans, thus expanding the supply of money and credit. However, this textbook account overlooks the fact that most central banks use short-term interest rates as their operational targets, and thus stand ready to supply any amount of reserves to keep their price (i.e. the short-term interest rate) at a level consistent with the monetary authorities' macroeconomic model. Hence, as Disyatat (2008) astutely observes, in modern conditions it is not the endogenous supply of reserves that constrains credit expansion but the level of capital ratios imposed by the regulators. After all, with a binding risk-based capital requirement, banks cannot simply expand credit without obtaining additional capital. Thus, if after the implementation of Basel I, banks have found their equity levels to be at or below the minimum requirement, their lending may have been less responsive to changes in the interest rate, and thus monetary policy may have had a weaker impact on general economic conditions.

The paper is structured in the following way. Section 2 provides some data supporting the view that the implementation of the Basel Accord has been successful in encouraging banks to hold higher capital adequacy ratios. It also investigates whether and to what extent the rise in capitalization may have been a result of capital arbitrage (securitization). Section 3 reviews the literature assessing the impact of the Accord on monetary policy and discusses the question whether the newly implemented Basel II framework might change that impact. Section 4 closes with some conclusions.

2. Basel I and securitization

In trying to assess the successfulness of Basel I, the first question to ask is whether the new universal capital requirements introduced in 1988 led banks to hold higher capital ratios. Figure 1 uses the data collected by De Nederlandsche Bank to plot the evolution of capital ratios in a group of 29 OECD countries over the years 1990-2001. It is clear that capital-to-asset ratios increased significantly from roughly 8.5 to about 12%. This

result closely resembles that of Bondt and Prast (1999) who report an increase of about two percentage points (from 9 to 11%) in a selected group of G-10 countries (the UK, US, Italy, France, Germany, and the Netherlands) in the years 1990-1997, whereas Peura and Jokivuolle (2003) note that the average capital ratio for G-10 banks in 2001 stood at 11.2% (11.9% in the US and 10.8% in Europe). Naturally, reliance merely on descriptive statistics would render any analysis guilty of the *post hoc ergo propter hoc* fallacy. In other words, the observation that the introduction of Basel I was followed by an increase in capital ratios in and of itself does not yet prove that the increase in prudence was a direct result of the imposition of new regulations. After all, banks may have set aside more capital due to, e.g., competitive challenges, which seems all the more plausible as capital ratios have risen more than would seem necessary to comply with the new regulations.[8] Econometric analysis indispensable to set this matter straight is however rather challenging. The problem essentially boils down to comparing bank behavior with and without capital requirements all other factors held constant.

Figure 1

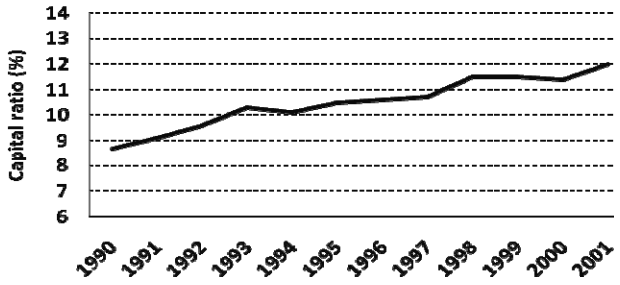

Figure 1. Average risk to assets in a group of 29 OECD countries. Source: De Nederlandsche Bank

Even though there seems to be no comprehensive statistical comparison of trends in bank behavior, a number of papers, e.g. Bondt and Prast (1999), Shrieves and Dahl (1992), and Ediz *et al.* (1998), have argued that relatively poorly capitalized banks tend boost their capital ratios to a greater extent than better capitalized ones. Rime (2001) who studied bank behavior in Switzerland reports, for example, that banks which at some point find themselves close to the minimum regulatory capital requirement tend to subsequently increase their ratio of capital to risk-weighted assets (RWA).

These observations were given a detailed explanation by Furfine (2000) who argues that in their portfolio management banks tend to take into account the considerable costs of falling below or even approaching the required level of capital adequacy. These costs include not only the official penalty imposed by the regulator and possibly intensified supervisory review, but also reputation losses. Furthermore, banks realize that if they should fall below the required capital ratio, they would have to

[8] Such mechanism is described in detail by Bernauer and Koubi (2002) who, having investigated the American banking sector, show that the better capitalized banks face significantly lower borrowing costs.

immediately cut back on their lending or obtain additional capital, neither of which is free. Thus, banks perceive costs of building up capital buffers exceeding the minimum requirement to be lower than possible losses, both in financial and reputational terms, incurred in the event of noncompliance. This conclusion is further substantiated by Furine's (2000) econometric analysis (based on 362 American banks) which reveals that even though many factors might conceivably have accounted for changes in banks' portfolios, only changes in capital regulation can simultaneously explain all of the observed alterations.

Additional light on the impact of the implementation of Basel I capital framework on bank behavior is shed by researches who have not been explicitly interested in regulatory issues as such, but studied instead the "credit crunch", or economic slowdown, in the early 1990s. For example, Haubrich and Wachtel (1993) note that American banks have substantially increased their holding of government securities from roughly 15% in 1989 to 22% of their total assets in 1993. The reason being, of course, that under the new regulatory standards banks were required to hold at least 8% capital backing for loans and 0% for government securities. The authors believe that to the extent that such a restructuring limited commercial lending, it might have contributed to a slowdown of the economy. Hall (1993) presents evidence that from 1990 to 1992 American banks have reduced their loans by approximately $150 billion, and argues that it was largely due to the introduction of the new risk-based capital guidelines. He goes even so far as to say that "To the extent that a "credit crunch" has weakened economic activity since 1990, Basle-induced declines in lending may have been a major cause of this credit crunch." Hence, it is not an overstatement to say that Basel I did have an impact on bank behavior as it forced them to hold higher capital ratios than it otherwise would have been the case.[9]

Now that it has been established that Basel I did contribute, or even cause, an increase in capital ratios, it seems important to ask whether and to what extent this constituted a true increase in prudence. Clearly, to the extent that banks perceive compliance with capital requirements an unnecessary, or excessive, burden, it is reasonable to expect that they will develop techniques aimed at circumventing them. These techniques are usually called capital arbitrage and in principle involve such restructuring of a bank's portfolio that it has basically the same – or even greater – risk, yet a lower capital requirement. In a classic article Merton (1995) brilliantly observed that such practices are likely to continue as long as capital regulations are not based

[9] Some authors stress, however, that the general compliance with the regulations regarding capital requirements would still persist even should those requirements be purely optional or even if they were not directly imposed by any government agency. In other words, even in the absence of government supervision and regulations, the market would itself still impose a certain "minimum" capital adequacy ratio binding for most banks. Bondt and Prast (1999) point out that there usually tends to be some "normal" level of capital holdings in the banking industry which banks tend to hover around since falling below it, would result in losses of credibility and higher borrowing costs. It remains an open question, however, whether this "normal level" would be smaller or greater than the 8% imposed by Basel I. See also Bernauer and Koubi (2002).

directly on the portfolio's underlying risk, but instead on a broad class of asset categories weighted by risk. To illustrate the extensive possibilities for arbitrage under Basel I, Merton offered the following example (pp. 468-469):

> If a bank were managing and holding mortgages on houses, it would have to maintain a capital requirement of 4%. If, instead, it were to continue to operate in the mortgage market in terms of origination and servicing, but sells the mortgages and uses the proceeds to buy US government bonds, then under the BIS rules, US government bonds produce no capital requirement and the bank would thus have no capital maintenance. However, the bank could receive the economic equivalent of holding mortgages by entering into an amortizing swap in which the bank receives the total return on mortgages, including the amortization features and prepayments and pays the returns on US Treasury bonds to the swap counterparty. The net of that series of transactions is that the bank receives the return on mortgages as if it had invested in them directly. However, the BIS capital calculation, instead of it being 4%, appears to produce a capital requirement using the swap route of about 0.5%.

To understand in greater detail the mechanics of capital arbitrage recall first that if a bank wanted to boost its capital-to-asset ratio, it would – from a purely arithmetic point of view – have only two ways of achieving that. It could either increase the numerator, i.e. obtain more capital, or decrease the denominator by cutting back on its loans or reducing their riskiness. While some banks really have improved their soundness by choosing one of these two options, there is ample evidence that many have simply exploited the deficiency of Basel I regulations described in Merton (1995) by inflating the measures of capital or reducing their measures of accounting (nominal) risk with no corresponding reduction in economic risk.[10] The problem with the former approach, i.e. with artificially inflating capital by, say, gains trading, is that it only increases capital in the short run. What seems much more attractive from the bank's point of view is the second alternative which involves reducing the measures of risk most notably through securitization.

Securitization is a broad concept, but in what follows it will be always understood simply as issue of asset backed securities (ABS), or as Heffernan (2005, p. 45) succinctly puts it "a process whereby traditional bank assets (for example mortgages) are sold by a bank to a trust or corporation, which in turn sells the assets as securities." In other words, the bank first originates a certain class of assets, such as home mortgages or consumer loans, then pools them together and takes them off its books by selling to a separate entity (called special purpose vehicle, or SPV) which subsequently resells them as fixed-income securities to third party investors. In the final step, proceeds from the sale are transferred to the bank (see Figure 2).

[10] See on this in particular Jones (2000).

Figure 2. The process of securitization

In the US the process of securitization was sparked by the establishment of agencies that were either government owned – as in the case of the Government National Mortgage Corporation (Ginnie Mae) – or government-related – as in the case of the Federal National Mortgage Association (Fannie Mae) and the Federal Loan Mortgage Corporation (Freddie Mac) – and whose purpose was to facilitate home ownership.[11] Ginnie Mae started the issue of mortgage backed securities (MBS) in 1970 and Freddie Mac with Fannie Mae soon followed suit. Though it has not been stressed before, crucial for the viability of the whole securitization undertaking is the rating that credit rating agencies (such as e.g. Standard and Poor's or Moody's) assign to the issued obligations. As Heffernan (2005, p. 46) astutely observes, Ginnie Mae, Fannie Mae or Freddie Mac were perceived by the market as government-sponsored enterprises, or GSEs, whose debt was essentially guaranteed by the government (even if their respective charters did not explicitly mention that), and hence the MBS they issued had the same credit rating as those of the US government (nb. under the Basel I set up it was very profitable for banks to originate home mortgages, sell them to, say, Ginnie Mae, and then buy them back on the secondary market after the credit rating has been improved).

Even though securitization has been technically a possibility since 1948, its spectacular growth intensified only in the late 1980s. Ergungor (2003) estimated securitization of loan portfolios by private and government sponsored entities in the US to be a $5 trillion business of which roughly $3 trillion consisted of mortgage backed securities. Since then, according to the Flow of Funds data of the Federal Reserve, GSE-backed mortgage pools have grown to roughly 5 trillion dollars. To put this into perspective it is worth noting that in the early 1980s the extent of non-mortgage securitization was very limited and totaled less than $4 billion. In the euro area the popularity of ABS transactions is somewhat less pronounced, but it has increased significantly after the introduction of the euro (which naturally extended the market), and the issuance of collateralized debt obligations reached €124 billion in 2006.[12] Although it is somewhat problematic to estimate the full scope of securitization due to

[11] Fannie Mae was founded in 1948, whereas Ginnie Mae and Freddie Mac were an outgrowth of a split within the New Deal's S&Ls (saving and loan banks) which occurred in 1968.
[12] See ECB (2008)

the fact that many banks and financial institutions do not regularly disclose sufficient information, it nevertheless should be clear that securitization has in recent years gained considerable prominence. In fact, Ergungor (2003) notes that the dynamic development of loan securitization coincided with the imposition of new capital requirements and regulations limiting asset growth.[13] This seems rather plausible since while banks may find securitization beneficial for a variety of reasons (it allows them, for example, to retain their function as originators of credit, and thus maintain their customer base, without having to bear the potential cost of debt default), its most important aspect consists in reducing their capital-to-asset ratio.

Bank's balance sheet: benchmark scenario

Loans	$100	Deposits	$87
Reserves	$1	Equity	$12
Total	$99		

Bank's balance sheet: securitization

Loans	$80	Deposits	$67
Reserves	$1	Equity	$12
Total	$79		
Loans	$20	ABSs	$20

Figure 3. Securitization from an accounting point of view.

Figure 3 presents the process of securitization from an accounting point of view. In the benchmark scenario, on the left hand side of the picture, the bank holds all the loans on its balance sheet, whereas on right hand side the bank decides to securitize a $20 package of its loans.[14] In the former case its total risk-weighted assets equal $100 (assume a 100% weight) and its total capital is $13, hence the Basel capital ratio equals 13%. When $20 of its loans are securitized, total risk-weighted assets decline to $80 and the capital ratio increases to 16.25%.[15] It is clear, then, that the transfer of loans has increased the bank's potential to originate further loans. It might be argued that in the case where a full transfer of risk occurs – such as the one described above – the bank's situation really does significantly improve as is indicated by the increase in the capital ratio. Note however, that even though all loans were assumed to have a 100% weight (as is the case under Basel I with commercial loans), it hardly ever means they are necessarily of uniform quality, since borrowers' ratings may vary from as high as triple A to as low as single B. Thus, a bank might very well select a pool of high-quality loans

[13] This was the case of the Competitive Equality Banking Act of 1987 which was meant to limit the asset growth of credit card banks to 7% a year.

[14] For the sake of clarity, tax deductions and possible servicing fees, which do not substantially change the overall picture, were omitted.

[15] Proceeds from the sale of loans are usually used to repay the bank's obligations vis-à-vis its creditors (either on the interbank or otherwise) or to buy back the issued share capital, hence the corresponding drop in liabilities.

in order to bolster the rating of the ABS, which – as has been demonstrated – would decrease its risk-based capital requirement in proportion to the reduction in total loans, though due to the relatively poorer quality of the remaining assets its true risk exposition would actually increase. This becomes even more evident once a much more popular case of retained risk securitization is concerned.

Assume, as before, that a bank holds $100 worth of loans of which it decides to securitize $20. Nevertheless, the situation changes in that the SPV requires that in order to enhance the credit rating of the ABSs the bank should offer it a $1 loan that would function as a collateral for the issuance. Obviously, in this case the transfer of risk is only partial, yet as the maximum potential credit loss is concentrated in a $1 loan instead of the $20 pool, the capital ratio also increases from the base scenario to 15%.[16]

Thus far, it has been argued that the introduction of the Basel Accord has contributed to the general rise of capital adequacy ratios in OECD countries. It has also been suggested that capital regulations might be an incentive for banks to resort to capital arbitrage, the most prominent technique of which is asset securitization. Now it is time to put the two together and pose the question whether indeed it can be argued that Basel I regulations have facilitated the growth of securitization. The issue can be approached from a more general angle, as proposed most notably by Obay (2000), who tried to find out to what extent banks that resort to asset securitization are different from non-securitizing ones, expecting that the possible differences may manifest themselves in such characteristics as size, capitalization, profitability, funding costs, liquidity, competitive advantages, level of international banking, level of wholesale business etc. The study was based on a set of 200 American banks, of which 95 securitized assets whereas 105 did not, and used multivariate analysis of variance (MANOVA) to assess group differences across multiple metric dependent variables. The results of the analysis are reproduced in Table 1 below.

Dependent variable	Mean (securitizors)	Mean (non-securitizors)	Significance level (Bonferroni t-test)
Assets ($bn)	19.792	9.917	0.0075
Foreign asset ratio	0.0152	0.0069	0.0570

[16] Credit enhancement adds some confusion to the calculations of total risk-weighted assets. Usually, provided that the amount of enhancement is less than 8% of the securitized pool, the RWA consists of the loans kept on the balance sheet (weighted accordingly) and an add-on amount corresponding to the enhancement, which is calculated in the following way $EA/(C-E)$, where E stands for the amount of the enhancement, C for capital, and A for the risk-weighted assets excluding the enhancement (see Jackson 1999). Thus, in the case discussed above, E=1, C=13, A=80, the total RWA=80+6.67=86.67, and the Basel capital ratio equals 15%.

Wholesale ratio	0.3218	0.3748	0.0210
Risk-based capital ratio	0.1554	0.1785	0.0001
Diversification index	0.2198	0.1915	0.2796
Net charge-off ratio	0.0061	0.0045	0.1995
Fee income ratio	1.1901	1.6647	0.5650
ROA	0.0129	0.0121	0.4168
Deposit to loan ratio	1.0412	1.1901	0.0293
Volatile deposit ratio	0.2415	0.2162	0.3181
Securitizable loan ratio	2.3922	1.0949	0.0086
Loan growth ratio	74.800	89.150	0.4080
Funding cost ratio	0.6533	0.6930	0.1856
Funding efficiency ratio	0.4808	0.4160	0.0811
Securitization in 1994	0.1037	0.0007	0.0007

Table 1. MANOVA results. Source: Obay (2000)

Multivariate tests of significance indicate that the overall financial characteristics of the two groups are significantly different at the 0.01% level. The univariate statistics based on the Bonferroni t-test show that 6 out of 15 variables differentiated between the securitizing and non-securitizing banks. Importantly, one such distinguishing feature was the level of risk-based capital ratio, which appears to be significantly higher for non-securitizors. Obay (2000) draws from this the conclusion that "compliance with regulatory requirements (…) has been an important motive behind banks' adoption of financial innovation in general and asset securitization in particular" (p. 145). It should be emphasized, however, that even though Obay's (2000) research focused on the period in question (i.e. the early 1990s, shortly after the adoption of Basel I) and thus might be treated as an important evidence that Basel regulations did facilitate the growth of securitization, it nevertheless covered only American banks. Hence, it still remains to be validated to what extent this conclusion might be extended to other G-10 countries.

Unfortunately, securitization seemed to be a phenomenon of rather minor importance outside the U.S. prior to the year 2000. There are several possible explanations for that. First of all, as Coles and Hardt (2000) observe, securitization outside the U.S. remained costly and capital intensive during the 1990s. For example, the 98/32/EC directive allows only for a 50% weighting of MBSs, which is clearly less

favorable than the 20% prevalent in America where the securities are guaranteed by government-related enterprises (e.g. Fannie Mae, Ginnie Mae). Second, and related to the latter argument, Article 87 of the EC Treaty expressly states that "any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, insofar as it affects trade between Member States, be incompatible with the common market." Thus, the EU member states are not allowed to create enterprises similar to Freddie Mac and Fannie Mae, and in this way promote securitization. Third, in the decade of 1990s, there existed no common, harmonized financial market in Europe. This has changed significantly with the adoption of the common currency, and, unsurprisingly as ECB (2008) notes, it is the introduction of the euro along with the resulting financial integration – and not the Basel regulations as such – which gave impetus to the rapid growth of securitization in Europe. Finally, as might perhaps be intuitively clear, the extent to which banks resort to capital arbitrage should correspond to the degree to which they find the regulations excessive or burdensome. For example, Wagster (1999) reports that due to the implementation of the Basel framework, American banks increased their ratio of tier 1 capital-to- risk-weighted-assets in the period 1990-1992 by over 38% – a change three times bigger than the one that occurred in Japan.

Banks in the United Kingdom, on the other hand, increased their tier 1 capital-to-risk-weighted-assets ratio by only 0.89%.[17]

Hence, American banks may have been under greater pressure than their European counterparts and – taking advantage both of the prevalent institutional framework and certain loopholes in the Basel setup – have to a greater extent resorted to capital arbitrage techniques.

The observation that capital requirements fostered the development of securitization, and thus the transformation of banking model from "originate-and-hold" to "originate-and distribute," seems especially relevant in trying to assess the impact of various regulations on the current crisis. Securitization has been blamed for reducing banks' incentives to monitor credit risk and for the erosion of lending standards which seems to be at the heart of the current crisis (e.g. Demyanyk and van Hemert 2007). Nevertheless, the extent to which the financial sector has been hit by the burst of the real estate bubble, suggests that securitization is not the only culprit. After all, the whole idea of securitizing assets is to spread risk more evenly across the economy by putting on the balance sheets of those able and willing to bear it. Interestingly, however, a recent study

[17] The reason behind that is that the framework of the Accord was modeled after a system that had been used in the United Kingdom since around 1980. In fact, the end result of the negotiations at the BIS forum in 1988 resembled the U.K. risk-based capital model to such an extent, that the United Kingdom implemented the Accord almost immediately, completely forgoing a four-year implementation period allowed by the Basel Committee. Thus, as far as Britain was concerned, Basel I meant essentially nothing new.

by Greenlaw et al. (2008) persuasively argues that roughly 49% of the subprime-securitization exposure rests in the U.S. leveraged sector – commercial banks, investment banks, hedge funds – and adding foreign investment banks and hedge funds increases the extent of potential subprime-related losses concentrated in the leveraged sector to over two thirds. Apparently, therefore, something must have gone seriously wrong with the risk-dispersion process supposedly inherent in the securitization process.

One way to understand where and why possible frictions might have occurred is to consider an idealized securitization transaction whereby the originator, bound by capital adequacy rules, sells a pool of assets to an off-balance-sheet entity. What is of critical importance, however, is the issue exactly what kind of an off-balance sheet entity takes control over the assets. It may be a special purpose vehicle (SPV), i.e. what Gorton and Souleles (2005) call a bankruptcy remote, "robot firm," with no employees, no physical existence, and no capacity to make substantial economic decisions. SPVs typically carry out predefined tasks of tranching pools of receivables obtained from the originator into asset-backed securities which are then sold on the market in much the same way as described above. Alternatively, the originating bank could set up an off-balance-sheet conduit called structured investment vehicle (SIV), a physically existing, managed and leveraged financial company whose purpose will be to undertake arbitrage by buying long-term fixed-income assets from its sponsors to fund them with short-term liabilities such as asset-backed commercial paper (ABCP).

As Shin (2008) astutely observes, the critical difference between SPVs and SIVs stems from the fact that selling a loan is entirely different from issuing liabilities against it. While the former – to the extent that loans are indeed passed down the chain – contributes to spreading credit risk around the whole economic system, the latter keeps it concentrated around the very bank that originates the loans and only hides it from the regulators. As recognized by the IMF (2008, p. 69) in one of its latest reports on global financial stability:

> …SIVs and commercial paper conduits, are entities that allow financial institutions to transfer risk off their balance sheet and permit exposures to remain mostly undisclosed to regulators and investors; to improve the liquidity of loans through securitization; to generate fee income; and to achieve relief from regulatory capital requirements.

For our present purposes, the issue of why exactly the SIVs were so eager to hold securitized assets in their balance sheets is of minor importance (see on this Jabłecki and Machaj 2009). It is sufficient to note that Basel capital rules – based on fixed risk measurement and designed to protect from excessive credit expansion – could be circumvented and that risks could be conveniently hidden from the sight of supervisors and investors alike. Unfortunately, the necessity to obey regulatory rules is just that and nothing more. In particular, it does not entail the necessity to avoid too risky investments, but rather the necessity to satisfy governmental rules and minimize the risk on paper, not in reality. This turns out to be especially important when it is implied by the institutional setup of the financial system and incorporated into the expectations of market agents that fiscal and monetary policy tools – whether in the form of buying

stocks and junk bonds with taxpayers' money, or in the form of special liquidity operations undertaken by the central bank – will most likely be used to such an extent as is necessary to guarantee the stability of the financial system.

3. Capital requirements and monetary policy

Having investigated the impact of capital rules on securitization, we can move on to their impact on monetary policy. The investigation of the possible effects of capital regulations on monetary policy starts with the recognition that monetary policy influences the economy not only via the conventional interest rate channel (which concentrates on the fact that the lowering of short-term interest rates, due to sticky prices, affects also the short-term real interest rates which stimulates spending and raises aggregate demand),[18] but also via the so-called bank lending channel, central to which is the idea that changes in the policy rate translate into changes in the supply of loans which in turn dampens or stimulates economic activity more than would be the case solely on the basis of changing interest rates (Kashyap and Stein, 1997). For example, the theory would have it that when the central bank conducts open market operations and lowers banks' reserves, it reduces in the same time the extent to which banks can collect deposits. The problem with such an explanation is that in the current circumstances, when central banks tend to control the short-term interest rate, reserves are endogenous, supplied by the monetary authority in an amount sufficient to accommodate the demand of the banking sector. This does not imply that banks do not alter their supply of loans in response to changes in the interest rate, but rather that they do so for reasons other than the shortfall in reserves.[19] Indeed, as explained by Disyatat:

Given that central banks supply reserves endogenously, the existence of a bank lending channel [avenue via which central banks can directly affect the amount of loans and deposits in the economy – JJ] in practice depends on whether changes in money market interest rates can have an independent effect on banks' loan supply. For example, an increase in interest rates may affect the economic outlook of banks and increase the perceived riskiness of loans leading to an inward shift in banks' loan supply function… To the extent that monetary policy has an independent impact on loan supply, it is likely to take place through the balance sheets effects and revisions of risk perceptions rather than through any mechanical link between stance of policy and quantity of deposits (Disyatat, 2008, pp. 16-17).

Hence, one factor that may account for the fall in the loan supply following an interest rate hike is the fall in borrowers' perceived creditworthiness (as a result of a fall in collateral values). Another – and one of more importance for our present purpose – is the bank's capital adequacy.

[18] See e.g. Mishkin (1996).

[19] After all, it would be most unusual to hear – having approached a bank for a loan – that even though the bank would like to extend it, it has not enough reserves to do so.

Consider, for example, what would happen should a bank find itself below or at the very level of the mandatory capital requirement of 8%. Clearly, in such a case the bank could not expand its loan supply without obtaining additional capital. If it were additionally for some reason impossible to issue equity, any increase in reserves would lead to a corresponding increase in reservable deposits, but – for the purpose of improving the capital ratio – the new funds would have to be invested in government securities, not commercial loans, and thus the bank lending channel would be completely inoperative.

The simplistic and static argument presented above has been significantly extended and developed by Van den Heuvel (2007) who assumes that: (i) there exists a market for capital, but it is imperfect, i.e. there are frictions – such as, e.g., costs and taxes – which impair the issuance of equity; (ii) banks are subject to interest rate risk due to the mismatch between the maturity of their assets (which tend to be long-term) and liabilities (which are mainly short-term). Van den Heuvel designed a highly sophisticated model, but the stylized exposition of the way it operates runs as follows. If the central bank pushes the market interest rates up, banks seek to renegotiate their loans and deposits. Nevertheless, since it is harder to raise the interest rates on long-term loans, than on short-term deposits (the phenomenon is of course exacerbated by the presence of competition), banks are likely to exhibit lower profits, which over time will translate into lower capital. Given that there are costs of issuing equity, as described in (i), banks will reduce lending in order to comply with the capital requirements. Importantly, Van den Heuvel's model predicts that while this effect is strongest for the poorly capitalized banks, it holds even if banks are well above the Basel adequacy ratio, since they might optimally reduce lending now – in response to a monetary policy tightening – in order to mitigate the probability of falling below the capital requirement in the future. Of course, this result is particularly interesting, since, as shown in Figure 1, for the most part of the 1990s banks tended to be significantly above the minimum capital ratio of 8%. Gambacorta and Mistrulli (2004) provide some empirical evidence on the strength of such a "capital channel," assuming that banks hold capital levels above the 8% required by the Basel I framework. They show that an increase of one basis point in the ratio between the maturity transformation cost (depends on the maturity mismatch between assets and liabilities and reflects the loss per unit of assets that the bank suffers when the policy rate increases) and total assets is followed by a 1 percent reduction in the growth rate of bank lending.

There is also one other conceivable way in which bank equity might be related to the strength of monetary policy signals (Van den Heuvel, 2002). To see it, consider two banks which have similar quality assets, but different composition of liabilities. Let the first bank have less equity and more deposits, and the second have relatively more equity and less deposits. If after a monetary policy tightening both banks face an outflow of deposits, they will both seek to replace them with non-insurable debt, say certificates of deposits, to keep their lending unchanged. Even though – as has been assumed – assets of the two banks are essentially of the same quality, the first one will find it more expensive to issue CDs, since due to its lower capitalization they will be

perceived as more risky than the CDs of the second bank. In other words – borrowing the term from George Akerlof – the first bank has to pay its investors a "lemon's premium," and thus it is likely to reduce its lending to a greater extent than the second, well-capitalized bank. Hence – somewhat paradoxically – to the extent that capital regulations force banks to maintain higher capital ratios and boost their equity, they may also weaken the bank lending channel. Indeed, Gambacorta and Mistrulli (2004) estimate that well-capitalized banks are completely insulated from the effect of a monetary tightening (i.e. the effect is statistically not different from zero).[20]

It follows from the discussion above that the investigation into the effects of Basel I on bank lending, and thus monetary policy, is perhaps not conclusive, but allows for at least one generalization. It seems that the lower the capital-to-risk-weighted-assets ratio, the stronger the response of lending to monetary policy signals (both because of the adverse selection problems and the maturity mismatch and interest rate risk). A question could be raised, however, to what extent these effects are likely to change under the new, improved Basel Accord of 2006/07. While a detailed description of Basel II is beside the scope of this paper, largely due to the complexity of the new system (a detailed treatment might be found e.g. in Heffernan, 2005, pp. 192-210), a few casual remarks can perhaps be made. Most importantly, Basel II imposes a much more sensitive set of risk weights which are meant not only to eliminate capital arbitrage techniques, such as securitization, prevalent most notably in the U.S., but also ensure that riskier banks hold more equity. One interesting novelty is that under the new framework, banks' capital requirements are based on their internal estimates of the probabilities of default (PDs) and losses given default (LGDs) of their loans. Clearly, PDs and LGDs are highly pro-cyclical, i.e. the creditworthiness of borrowers moves with the economic cycle, and thus more capital will have to be set aside during a depression and less during an economic boom. In other words, when interest rates increase due to a monetary policy tightening, PDs and LGDs are likely to rise as well, and hence lead to higher capital requirements, which in turn, on both accounts mentioned before, might reduce bank lending. Thus, the tentative conclusion regarding Basel II is that it strengthens the bank lending channel.

The efficacy of monetary policy, however, is influenced by many other factors, some of which, e.g. securitization (see footnote 21), seem to work in the opposite direction, and thus it is hard to make any predictions regarding the overall effect of changes in the financial market setup.

[20] There might be yet another way for capital regulations to alter the efficacy of monetary policy. To the extent that the implementation of the Basel I framework has facilitated the growth of securitization, which – as has been argued above – seems to be the case at least in the U.S., it may have additionally insulated banks' loans portfolios from monetary policy shocks and impaired the measurement of money and credit aggregates. On the impact of securitization on loan supply see e.g. Estrella (2002), Loutskina (2005), and Altunbas *et al.* (2007). On the distortion of money and credit statistics see Collins *et al.* (1999).

4. Conclusions

The paper attempted to analyze the effects of the implementation of Basel I capital requirements on bank behavior and monetary policy. It has been argued that the new regulations generally led banks to set aside higher amounts of capital, nevertheless, at least in the U.S., part of the increase seemed to be attributable to capital arbitrage (securitization). The paper has also reviewed some tentative research regarding the effects of Basel I on the efficacy of monetary policy. Due to adverse selection problems and possible capital depletion resulting from the maturity mismatch, banks mindful of the capital requirements, will reduce lending in response to a monetary policy tightening, amplifying the bank lending channel. This result being the stronger, the lower their capital-to-risk-weighted-assets ratio is. Finally, it has been argued that the new Basel II framework is likely to strengthen monetary policy even further, yet conclusive empirical research to support this hunch is still needed.

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Crisis and Corporate Social Responsibility: Threat or Opportunity?

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Abstract

The objective of this paper is to reflect on the consequences of the current economic and financial crisis on Corporate Social Responsibility (CSR), a concept of great importance nowadays. The core approach is the possible link between CSR and the crisis, if both elements can be combined. After an introduction to the current economic and financial situation, some conceptualizations about CSR are made to clarify the perspective used for this complex and incompletely defined concept. The last part of the paper presents an approach to the combination of both concepts, concluding with the idea that CSR in crisis periods can be converted from being a threat to an opportunity.

Keywords: Crisis, Corporate social responsibility, Business ethics

JEL classification: M10, M14, M21

1. Introduction: the Current Crisis

A great number of economic and financial experts agree in considering the current world-wide economic and financial crisis to be the worst since the Second World War. The crisis began in the United States with the burst of the subprime mortgage housing bubble, after governmental, supervisory and regulatory authorities undervalued the real risk of the situation. But as the world has become closer, economic and financial markets have diminished in number but increased in size and interconnection. The effects of a financial problem are wide-sweeping and all the world economies suffer the consequences.

Other circumstantial elements have made economic and financial markets more unstable. Noteworthy among them are the evolution of the price of oil, the conduct of currency exchange rates, the continued increase of interest rates, the liquidity contraction of the banking system and the uncontrolled growth of several economic sectors, with the loss of investor confidence as a result. All these elements are linked to sustained favourable economic and financial performance. As Geithner[1] said in his speech at the Council on Foreign Relations Corporate Conference in New York City last year:

> "The origins of this crisis lie in complex interaction of number of forces. Some were the product of market forces. Some were the product of market failures. Some were the result of incentives created by policy and regulation. Some of these were evident at the time, others are apparent only with the benefit of hindsight. Together they produced a substantial financial boom on a global scale.
>
> …….
>
> Global savings appeared to rise faster than did perceived real investment opportunities, and this development helped to push down real long-term interest rates around the world. At the same time, many emerging market economies built up very large levels of official reserves to reduce external vulnerability and to hold the value of their currencies stable against the dollar. The exchange rate policies in these economies—economies that together accounted for an increasing share of global GDP—made overall global financial conditions more accommodative, even as the United States and other countries tightened their monetary policies".

Therefore, the crisis is a result of financial and economic globalization but domestic market weaknesses, after a long period of uncontrolled growth[2], have also played a role. The current decade can be described as a period of "easy money" due to, among other reasons, interest rate policy in industrial countries.

As has been said, the economic and financial bubble exploded with the subprime mortgage crisis in the United States the beginning of this chain reaction. For the financial sector, the role played by the supervisory and regulatory authorities that underestimated the extent of the problem and its short and long-term consequences is questionable. Instead of recognizing the real risk the financial system was supporting, the supervisory and regulatory authorities opted for further deregulation.

Whether the world economy, basically the United States and Europe, will overcome the crisis in a long or short period and what the economic and financial markets will be like when it is over, are questions without answers at the moment. There

[1] Geithner is the President and Chief Executive Officer of the Federal Reserve Bank of New York. http://www.newyorkfed.org/newsevents/speeches/index.html. Date: 08/September/05

[2] The average world economic growth during the 1990s was around 3 per cent per year, while during the 2000s up to 2007, it was 4.5 per cent per year.

are several aspects to be considered to construct the scenario in which the performance of the new economy will operate:

- How and when it will be possible to recover the previous world growth figures.
- When private consumers will recover their trust in the economy.
- The evolution of economic and industrial activity and investment after this cooling-down period.
- The evolution of financial activity, especially the activity of banks as they assume their role as suppliers of funds, with full guarantees, to promote consumption and investment.
- …

But the current economic and financial crisis is not the only world-wide crisis. In a broad sense, entrepreneurial business activities are undergoing a long process of change which can be considered a crisis of maturity oriented towards the role they play within society[3]. As Porter and Kramer (2002) highlight, companies have to change their focus towards the social setting in which they act and interact. Economic, social and environment goals with a long-term perspective are not independent or in conflict in spite of the fact that they can be contradictory in the short-term.

Specifically, there is a tendency which links the lack of ethics, principles and values in the classic entrepreneurial model as one of the most important reasons explaining the current economic and financial crisis. Stigliz (2008) argues that financial authorities have not innovated as they should have done to respond to the needs of society, in the sense of incorporating other social and environmental variables beyond pure economic profit for the decision making process.

As a result of the combination of the economic and financial crisis with what has been called an entrepreneurial crisis of maturity, Corporate Social Responsibility (CSR) has risen to prominence in the last decade. Even though CSR is a new controversial concept, everybody in the academic and business spheres agree that it is a fundamental strategy for achieving the sustainable development that our globalized world needs.

2. Corporate Social Responsibility

Friedman´s conclusion (1970) about Corporate Social Responsibility (CSR) has probably become one of the most referenced arguments for researchers in this field. The simplification of shareholder goals like "to make as much money as possible while conforming to the basic rules of society, both those embodied in law and those embodied in ethical custom," and the summary of CSR through the payment of taxes, have hardly been criticised since they were published.

[3] Jonker and De Witte (2006b:1).

In spite of this position, CSR is in an exponentially growing path and, generally speaking, companies are increasingly assuming and integrating a social perspective in their internal culture in advance of what is required by law. It can be asserted that responsible firms incorporate benefits from this attitude in several scopes: the enhancement of reputation, retention of high- quality employees and becoming an eligible employer.

However, as the concept of CSR is studied in depth starting from a simple thought, *companies must consider other obligations within society beyond profit-making for shareholders,* it appears to be quite a confusing concept. Academics have not been able to offer a clear and generally accepted framework for CSR. Even basic questions like "*What is CSR*? *How can you define CSR*?" do not have a unique answer. A clear example of what is said is Carroll's paper (1999), which presents close to 25 definitions that have appeared for CSR since 1953, when Howard Bowen's (1953) book, "Social Responsibilities of the Businessman," was published.

Carroll's paper ends with the following quote:

> "As we close out the 1990s and look ahead to the new millennium, it is expected that attention will be given increasingly to measurement initiatives as well as theoretical developments. For these concepts to develop further, empirical research is doubtlessly needed so that practice may be reconciled with theory. The CSR concept will remain as an essential part of business language and practice, because it is a vital underpinning to many of the other theories and is continually consistent with what the public expects of the business community today. As theory is developed and research is conducted, scholars may revise and adapt existing definitions of CSR or new definitions may come into the literature" (1999:292).

These ideas are now, nearly ten years later, perfectly adapted to the current times, including and completed with the assumption that cultural differences vary definitions of CSR, due to dynamic and evolving ethical standards (Maignan and Ferrell, 2003).

With this background of the growing use of CSR all over the world, firms are increasingly incorporating social strategies and CSR initiatives, giving a positive response to a real citizen's demands.

Different aspects of CSR can be highlighted:

- The participation of different actors, agents, named stakeholders, with different motives.
- The implications for managerial strategy and decisions.
- The growing importance of international initiatives by different institutions for CSR.
- The necessary adaptation of CSR initiatives to the particular scenario where they are going to be applied: the cultural, social and environmental

particularities of each enterprise, each geographic area and each country, where a firm has activity.

- The possibility of implementing a CSR strategy for all kinds of organizations: small or large, private or public companies, for any possible type of ownership structure.

CSR is not an entirely new concept. It can be considered to have part of its roots in guilds and brotherhoods, economic or not, and charitable institutions. Currently, however, CSR cannot be simplified to social activities because there is much more involved in it. The ample literature by different authors like England (1967), Rokeach (1979), Gutman (1988), Frederick (1995), Agle et al. (1999), Adler (2002) and Locke and Latham (2004), in addition to the well-known Carroll (1999), can help in the analysis and revision of this complex and difficult concept, which even Godfrey and Hatch (2007: 87) describe as "a tortured concept within the academic literature". Godfrey and Hatch's agenda (2007) formulate suggestions for future research in CSR. Rundle-Thiele and McDonald, L. (2008), furthering with the agenda, propose a break-up of the CSR concept into different areas, giving the consideration that CSR is a set of different activities that have to be all considered to valuate the overall social performance of the firm.

CSR conceptual evolution and the increasing number of companies that incorporate this strategic business approach offer us an initial argument to analyze CSR benefits: "Over the past decade, a growing number of companies have recognized the business benefits of CSR policies and practices" (Mittal et al. 2008: 1437).

CSR benefits have been extendedly worked on academic literature[4] . The most important benefit is the organization satisfaction for its own responsibility. In addition to this satisfaction and as a resume of key CSR benefits, the following can be highlighted:

- building a reputation as a responsible business; linked to increasing market share, maintaining key personnel and directing investors confidence towards CSR
- assuming consumer selective elections that are increasingly including CSR criteria to make business more competitive5
- changing relationships all along the chain value, based on trust and doing things the right way with suppliers and customers
- improving working climate, thus increasing employee permanence, motivation and productivity
- reducing legal conflicts on complying with regulatory requirements

[4] Freeman (1984), Soloman and Hansen (1985), Stanwick and Stanwick (1998), Ruf et al. (2001), Geczy et al. (2005) or Bechetti et al. (2007), among others.

[5] Maigna and Ferrel (2003) analyze the perception of costumers of CSR dimensions. This paper is oriented to demonstrate Carroll 1979 and 1999 models.

- improving relations and implications within the local community, given the wide range of opportunities this question poses in terms of reputation, positive press and wealth
- assuming positive and negative impacts of the company activity as a key question in management decisions, with a long-term perspective
- re-designing processes with CSR green parameters, reducing waste, that often simplifies operations and saves money.

Levine (2008) highlights managing risks as a main benefit of CSR in the short-term:

"Why implement a CSR program? In short, to manage risks and to ensure legal compliance companies may be exposed to a variety of legal and reputational risks if they do not have adequate social compliance or corporate social responsibility/sustainability programs in place[6]" (2008: 2).

3. Crisis and Corporate Social Responsibility: Threat or opportunity?

The recent financial scandals and industrial bankruptcies have had consequences on the business perspective of managers and stockholders. This situation has strengthened the tendency to believe in a necessary change of business, which entails focusing on a wider concept of entrepreneurial profit with a long-term view and giving the proper importance to stakeholders, people or groups of people that affect or are affected by a firm's activity[7].

Therefore, the key question is whether there is any relation between CSR and economic magnitudes linked to prosperity, and if so, what is this relation like? There is ample literature dealing with these questions, but the result is inconsistent. Links between CSR and cost, profit, long-range survival, etc. are not clear.

The following table (Table 1) shows a summary of the *state of the art*, reflecting the confusing scenery around CSR and its relationship with financial performance, shareholder's value and investor's perspective, among other economic and financial parameters.

[6] Levine (2008: 2) continues:

> "Such risks include: lawsuits under the Alien Tort Claims Act, and related class action litigation; governmental investigation by federal and state labor departments, project finance/investment contract issues, and the receipt of shareholder resolutions on labor, human rights, supply chain and sustainability issues, among others".

[7] Becchetti et al. (2007, 3).

Geczy et al., 2005	Investors' positive attitude towards CSR and ethical considerations in deciding on investments	Positive

Author	**Conclusion**	**What is the relationship?**
Ingram and Frazier, 1983	Environmental performance has a negative effect on financial statements	Negative
Freeman, 1984	CSR minimizes transaction costs and potential conflicts with stakeholders	Positive
Soloman and Hansen, 1985	CSR costs are clearly covered with benefits in employee morale and productivity	Positive
Freedman and Jaggi, 1982	CSR and shareholder's value don't coincide	Negative
Pava and Krausz, 1996	CSR and financial performance are positively linked	Positive
Preston and O'Bannon, 1997	CSR and the magnitude of financial evolution coincide	Positive
Waddock and Graves, 1997.	Social and economic performance have opposite consequences on financial statements	Negative
Stanwick and Stanwick, 1998	Importance of stakeholders' recognition for a positive evolution of financial magnitudes	Positive
Verschoor, 1998	Positive relationship between corporate performance and stakeholder relationships	Positive
Jensen, 2001	Social constraints and responsible social behaviour can work against value maximization.	Negative
Ruf et al., 2001	CSR and sales increase are observed in several companies, with temporal continuity	Positive
Bauer et al., 2002	Comparison of ethical and traditional investment finds mixed results, with a light positive trend towards ethical funds	Not conclusive
Orlitzky et al., 2003	The results of their meta-analysis confirm a positive relation between social responsibility and financial performance	Positive
Barnea and Rubin, 2005	CSR investment is negatively related to insiders' ownership	Negative

Bauer et al., 2007	Investors appreciate ethical investment funds	Positive
Bechetti et al., 2007	Market penalizes the exit from social responsibility index and ethical funds	Positive
Mittal et al., 2008	Strong evidence against the idea that CSR initiatives have universal or systematic positive financial impacts	Not conclusive

Table 1. CSR and economic-financial performance

It is noteworthy that in many of these contributions, evidence of a positive effect of CSR strategies on economic performance has been found, but this effect is not so clear regarding financial performance. Furthermore, CSR has a positive effect on internal variables, like motivation or entrepreneurial culture. However, the possible benefit for a shareholder's value or the real cost of CSR implementation is not probed. Another important point to highlight, that can explain the aforementioned inconsistent results besides the confusion and complexity of the concept, is the use of different methodologies of analysis, not always appropriated to what is required for CSR[8].

In any case, there is no conclusive and unanimous opinion about the relationship between CSR and economic-financial performance measures. And implementation of CSR needs financial funds because it generates costs[9]. The consequence is evident: CSR in periods of crisis is a threat for firms' survival and such a strategy is not expected in these times of uncertainty. But the decisions based on the cost of implementing responsible strategies are not the only threat, despite being an error in the long-term perspective. The overuse of corporate sponsorship, based on CSR, only with marketing purposes, can change the customers' initial positive perception. Customer sensitivity is much more likely to break out in crisis periods. The press of consultants and advisers, that asset CSR as a new business opportunity, is also a threat to be considered.

Nonetheless, some observations can be made to soften these somewhat harsh assumptions. And even to change the perspective and turn round to convert the negative deduction in an opportunity for those companies who decide to begin or continue with CSR implementation.

The new perspective, necessary for the aforementioned turnaround, is based on the hypothesis that establishes that CSR is more than a tempora**ry** fashion[10]; it is a management tool under constant renovation which will last throughout time[11]. The world is still far away from the ideal situation of a global and unique framework for

[8] Orlitzky et al. (2003) argue that most of contradictory results are due to the use of inappropriate methodological and statistical tools.
[9] Levis, 2005, 7.
[10] Fernández-Feijóo, 2008, 209.
[11] Gil et al., 2007, 384.

CSR. To move towards this goal, the development of models to manage CSR tools is necessary. And this important work is being done in several fields: academic, entrepreneurial and institutional, as Jonker and De Witte (2006a) tested with the compilation of more than forty models for managing CSR developed over the five previous years, with different scopes and diverse orientations[12].

Although these models are diverse, there are a set of common issues in nearly all of them which can be redirected to change the perspective of implementing CSR models from a threat to an opportunity in periods of crisis (Figure 1):

Figure 1. CSR implementation process and crisis periods: necessities.

1. CSR model implementation can be assessed as innovation, a key concept for achieving long-term entrepreneurial survival, a logical objective in situations of crisis.

2. CSR provides the desired atmosphere (internal culture, motivation) in which exceptional periods (crises) can be approached.

3. CSR gives adequate treatment to stakeholders, changing their possible position of risk towards the firm to an attitude of alliance.

4. CSR implementation reinforces business strategy, a necessity always covered but which has special relevance in periods of crisis.

[12] A great number of models compiled by these authors have been designed with EU research projects. This financial support makes it clear that the European authorities want to promote the trend of CSR implementation.

5. CSR model implementation strengthens companies' market position, when it is perceived as such[13]**.** That is why communication and transparency are important. These two characteristics are inherent to CSR.

6. CSR offers a guarantee and confidence to investors, due to information offered by responsible companies. Financial resources are always necessary but they become critical in time**s** of crisis.

7. CSR implementation obligates one to reflect deeply about main concerns clearly linked to long-range survival: identity (including mission and vision), systems (incorporating procedures and rules), accountability (defining what and how much responsibility is wanted) and transactivity (clarifying who affects and who is affected by the firm's activity) (Figure 2).

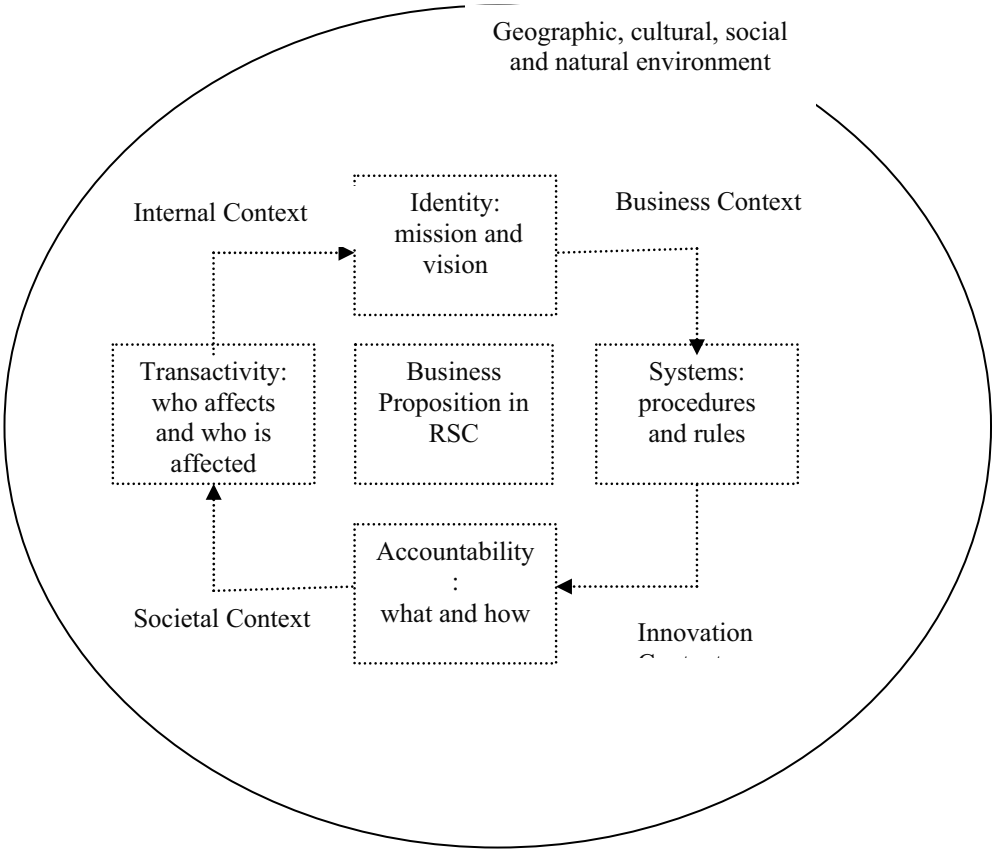

Figure 2. Developed from The CSR Management Model. In: Jonker and De Witte (2006, 5)

[13] Maigna and Ferrel (2003) and Rundle-Thiele and McDonald (2008) approach to CSR through consumers' perception.

This last issue, a deep internal reflection about who the firm is - what it is like, where it is and where it wants to be, and how and with whom it wants to advance on its way towards achieving its objectives - is essential. This task, well done, is enough in itself, because the result obtained by the firm strongly justifies the effort to be made. Another important consequence of this internal reflection is to bring out what Gray (1997, 2001) calls 'silent social accounts':

> "Law has steadily increased the areas of disclosure required of (particularly) companies on such matters as employees, political and charitable donations and governance. At the same time, organisations have steadily increased their areas of voluntary disclosure, most obviously on environmental issues but also on matters such as consumers, product safety and interactions with the community.
> …
> Taken together, these data form the basis of a social account – a 'silent' social account" (2001, 10).

4. Conclusions

Throughout this paper, the double relationship between CSR and the crisis has been acknowledged and explained. This relationship appears in both the lack of CSR as one of the causes of the current economic and financial crisis and as a tool for managing the current situation and helping firms overcome the consequences of the crisis.

The current economic and financial structure, with global markets that, as we have seen in recent months, feel the effects of domestic financial problems all over the world, must be revised. After the evolution of the world economic systems over the last twenty years, capitalism has become the best of all existing economic models, all of which are imperfect. But this affirmation is not enough to resign and not try to improve an old model that needs numerous changes. Each company has its own responsibility in this necessary task, as CSR is a management model for control, with guarantees to avoid undesired facts and to offer more market transparency.

In their CSR implementation process, organizations must redefine their essential business objectives. These objectives must be aligned with the strategy of the company and have to be coherent with the change in organizational culture that CSR represents. The new attitude, forms and perspectives should be the result of a deep internal reflection that will increase the core value of the firm. This core value will be favoured by the innovation inherent in CSR; its positive effects on internal variables, like motivation or entrepreneurial culture; the support of stakeholders in their new role within and towards the firm; reinforcement of business strategy; strengthening of company market position; and investor confidence. With this panorama, firms will be in a better position to overcome the turbulent situation of the current economic and financial crisis, using CSR as a business opportunity.

This paper should not conclude without mentioning the negative potential of CSR in periods of crisis. In spite of the benefits that in the long-term are widely recognized, the cost of RSC implementation cannot be forgotten. Throughout this paper,

it has been relegated to the background, because the implementation of responsible policies and strategies is a long- term process. This characteristic allows for the planning of a series of tasks, basing the decision of which tasks to carry out on the circumstances of the moment. The implementation process of CSR is long and it can always improve. The output of the deep internal reflection on which CSR must be based, will also provide enough material for a first version of social accounting. Companies have more silent accounting than they realize.

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The Financial Crisis: Caused by Unpreventable or Organized Failures?

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Abstract

In this paper, I analyze cutaways of the current financial crisis against the background of normal accident theory, high reliability theory, and disaster incubation theory. To avoid future financial crises I recommend reducing pressures to make profit and organizing the global financial markets like high reliability organizations. Furthermore I argue that risk management within organizations must no longer only be a symbolic gesture. The paper's purpose is to break with the isolated financial view of the crisis's causes and effects. It is a plea for a new understanding of the financial crisis, transferring the view from the crisis's impact to its features and causal factors. The study at hand should be regarded as preparatory work for a more interdisciplinary approach to the current crisis and for special branches of science to cooperate.

Keywords: Financial Crisis, Normal Accident Theory, High Reliability Theory, Disaster Incubation Theory

JEL classification: A12, A13

1. Introduction

During the last few weeks and months a feeling of doom has dominated the financial markets. One reads and hears about crashes and disasters, collapses, and infarcts. In the words of George Soros: "We are in the midst of the worst crisis since the 1930s. […] The current crisis is the end of an era of credit expansion based on the dollar as the international reserve currency" (Soros, 2008: vii). This has led him to call for a new paradigm for financial markets.

The two mortgage institutes Fannie and Freddie and the world's largest insurance group AIG has been nationalized, the investment bank Lehman Brothers has failed, while another, Merrill Lynch, has been forced to accept a bail-out. In the UK, the state has rescued HBOS, likewise a mortgage institute. This is not a finite list, because the maelstrom of failures and stock markets crashes is continuing. The American government and the sing le states of the European Union confront this turbulence with

forceful interventions, for example, the Bush administration's 700 bn. USD emergency bail-out of the banking industry. The bill allows the US treasury to clean up banks' balance sheets by purchasing distressed mortgage-backed securities. Other countries too are reverting to public intervention. In addition, central banks are trying to avoid the financial dehydration of markets and bank insolvencies. In the meantime, the financial crisis has affected the real economy. The global economy is on the brink of an economic recession, motivating national administrations to approve action plans to stimulate their economies.

Warren Buffet's words regarding complex financial products apply specifically to one source of this crisis: mortgage-backed securities. He once used the term "financial weapons of mass destruction" (BBC News, 2003) to refer to the structured credit derivatives that were sold for trillions of dollars. Investment banks constructed and sold these paper investments that were supposedly backed by loans on houses, cars, businesses, and credit cards. These products have played an important role in this crisis. However, the ongoing events show that this description also fits the financial markets as a whole. Billions of dollars of book value has had to be written down, well-establish financial institutions have disappeared, and tens of thousands of jobs have been lost. Are these the indicators of the "creative destruction" process as described by Joseph Schumpeter (e.g., Joseph Schumpeter, 1942)?

What teachings should be drawn from the crisis? What action should be taken? Besides the obvious first-aid provisions, there should be a deeper analysis of the current crisis's true causes. However, first a core question needs to be answered that will bring us closer to the actions we should take. Could this crisis have been averted or not? In other words, what could individuals and organizations have prevented? Are people helpless in the face of crises based on complex and tightly coupled systems? These questions raise the fundamental issue of the true causes of this disaster. Since the crisis's dimensions affect the real economy and, thus, lives, one might wonder whether it could have been averted. Research findings on risk handling in high risk technological systems could specifically provide evidence with which to answer this core question. However, this approach means reverting to a continuing debate: A debate between proponents of the normal accident theory, supporters of the high reliability theory, and disaster incubation theorists on the inevitability of accidents and disasters in modern, high risk systems.

The author's interest in normal accident theory, high reliability theory, and disaster incubation theory stems from an attempt to shed light, from an alternative perspective, on the current crisis. Therefore, the aim of this paper is to analyze cutaways of the current crisis against the background of normal accident theory, high reliability theory, and disaster incubation theory. What issues in the three theories provide the key to understanding what might have been avoidable about this crisis?

Although normal accident theory, high reliability theory, and disaster incubation theory originally stem from the analysis of high technology, their application to this crisis is warranted by the similarity between the current financial system's and financial

products' characteristics and those of technology. There is a good reason for using, for example, "financial engineering," a term that describes a cross-disciplinary field that relies on mathematical finance, numerical methods, and computer simulations to make trading, hedging, and investment decisions, as well as facilitating the risk management of those decisions. Normal accident theory, high reliability theory, and disaster incubation theory might provide analytical frameworks for a deeper understanding of the financial crisis.

Thus, the purpose of the paper at hand is to break with the isolated financial view of the crisis's causes and effects. It is a plea for a new understanding of the financial crisis, transferring the view from the crisis's impact to its features and causal factors. Therefore, this paper also calls for a more interdisciplinary approach to the current crisis and for special branches of science to cooperate.

The remainder of the paper is organized as follows: Normal accident theory's and high reliability theory's findings with respect to the causal factors of accidents and disasters are discussed in section 2 and 3. Section 4 provides insight into the common features of major disasters' development according to the disaster incubation theory. The analysis of the current crisis' causes and recommendation theses are addressed in the discussion in section 5.

2. Normal Accident Theory

Perrow (1981) was the first to introduce the thesis that serious accidents are inevitable in special technological systems. This thesis has become known as the normal accident theory. Proponent of the normal accident theory regard the causes of failures as due to the two main dimensions of these special technological systems: interactive complexity, as opposed to linear interactions, and tightly coupled, as opposed to loosely coupled (see, e.g., Perrow, 1999: 95 ff.; Marais, Dulac, and Leverson, 2004: 1-3; Sagan, 2004: 17; see Wolf and Sampson for empirically testing the principle hypothesis of normal accident theory).

Complex interactions are unfamiliar sequences, or unplanned and unexpected sequences, and are either not visible or not immediately comprehensible (see Perrow, 1984: 78). Consequently, owing to these technological systems' complexity, there can be an interaction of multiple, independent failures[1] that designers could neither have foreseen, nor operators have comprehended. These failures differ from component failure accidents, which apply to the failure of only one component, although this may lead to the predictable failure of other components. Such latent independent failures remain undetected in the system until causal factors, or a linking of situations, reveal them (Robert and Bea, 2001: 71). In a tightly coupled system, one event follows another rapidly and invariably, so that operators have very little opportunity to intervene. The combination of interactive complexity and tight coupling results in failures escalating

[1] E.g., a simultaneous but independent failure of a fire alarm and a fire breaking out (Perrow, 1992: 16-17).

rapidly beyond control and making accidents inevitable. Before anyone understands what is happening and is able to intervene, the incident leads to a system breakdown. Thus, accidents are endemic in such a system and are called normal or system accidents.

With respect to the research question regarding the inevitability of the current crisis, the central point in Perrow's normal accident theory is whether or not people's decision making contributes to an accident or can avoid it. Beyond this paper's interest in this point, whether or not the type of decision-making structure is an integral part of normal accident theory is debatable (Perrow, 1984: 332, for critique see Hopkins, 1999: 97-98). Perrow argues that accidents are inevitable because of complexity and tight coupling's contradictory needs with regard to the way authority is structured to avoid accidents. In tightly coupled systems, in which there is little time for reflection, "authority must be highly centralized with operatives doing what they are supposed to do in a pre-determined and unquestioning manner" (Hopkins, 1999: 97). Conversely, in complex systems, decentralized decision makers may cope better with failures' unplanned interactions. Consequently, the two imperatives pull in opposite directions, making accidents inevitable. The key question raised by high reliability theorists in this argumentation is whether or not authority structures can afford both centralized and decentralized decision making. If we believe the proponents of high reliability theory's empirical evidence, accidents are preventable – even in complex, tightly coupled systems – as a simultaneously centralized and decentralized authority structure is possible.

Beyond complex interactions and tight coupling in high technology systems, Perrow extends and "more sharply conceptualize[s] normal accident theory" (Perrow, 1994b: 216) by appropriating the so-called garbage can theory (Cohen, March, and Olson, 1972). Garbage can theory relies on a model of decision making in organized anarchies, which are organizations characterized by three important characteristics: Firstly, the organization operates on the basis of problematic, inconsistent and ill-defined preferences. Secondly, the organization's processes are not understood by its members, thus the technology applied remains unclear. Thirdly, participation in the organization's decision-making process is fluid (Cohen, March, and Olson, 1972: 16; Sagan, 1993: 29). Such organizations are risky systems with a high degree of uncertainty and Perrow (1994b: 216) thus expects garbage can processes. This is a process "in which problems, solutions, and participants move from one choice opportunity to another in such a way that the nature of the choice, the time it takes, and the problems it solves all depend on a relatively complicated intermeshing of elements" (Cohen, March, and Olson, 1972: 16). Such a garbage can process inevitably results in organizations behaving in unpredictable ways.

Against this background, Perrow investigates the politics of risk decision making and of accident investigations in industries like the nuclear industry, the error-inducing marine industry, and error-avoiding industries, such as aviation (see Perrow, 1994a). The main contribution of this extension of Perrow's theory is the evidence that normal accident theory is not only applicable to high risk technology systems, but also to all error-inducing systems. This means that inevitable accidents are, in the first

instance, not dictated by technology, but by poor organization and unionization in industries in which interest groups, so-called system elites, have no interest in safety. In Perrow's (1999: 339) words: "[…] there is no imperative inherent in the social body of society that forces technologies upon us. People – elites – *decide* that certain technological possibilities are to be financed and put into place." When answering the question why system elites do not put safety first, he argues: "The harm, the consequences, are not evenly distributed; the latency period may be longer than any decision maker's career; few managers are punished for not putting safety first even after an accident, but will quickly be punished for not putting profits, market share or prestige first. Managers come to believe their own rhetoric about safety first because information indicating otherwise is suppressed for reasons of organizational politics. Above all, it is hard to have a catastrophe, so the risk to any one set of managers or elites is small, while it is substantial for society as a whole." (Perrow, 1994b: 217)

While Perrow's extension of normal accident theory seems to be a great contribution, it actually has an important disadvantage. For opponents of this extension, like Hopkins (1999), garbage can theory and the incorporation of group interest and power do not refine normal accident theory. By predicting that any organized anarchies – whether or not tightly coupled and complex – will inevitably experience disaster at some stage, garbage can theory actually replaces normal accident theory. The same argumentation holds with respect to the key social science concepts of group interest and power – they are not unique to normal accident theory.

Sagan (1993) extended normal accident theory further and attempted to specify it. After studying the US nuclear deterrence system, he drew the conclusion that accidents are not only inevitable due to the complex and tightly coupled system and the organizational contradiction, but also due to more banal organizational, economic, and cultural reasons. From Sagan's point of view, production pressures and parochial interests are causes of failures because they lead to safety goals being disregarded and make safety only one of a number of competing objectives. Further causal mechanisms lie in organizations' reactions to failures, such as accusing operators of making mistakes rather than addressing the underlying causes of accidents (denial of responsibility), thereby covering up the failures for legal or public relation reasons (faulty reporting). From these reactions, Sagan drew the conclusion that organizations do not learn from such events, making accidents normal (see also Rijpma, 2003: 38, for a discussion of Sagan's extension).

Clarke (1999) focused on risk and accident management within normal accident theory. His main conclusion was that organizations' preparations for serious disasters are symbolic, not much more than window-dressing. This is above all due to the unrealistic, often overoptimistic, assumptions underlying organizations' risk management. The purpose of organizations' control arrangements is therefore not actual preparation for accidents, but rather convincing the public, especially regulatory agencies and pressure groups, that they can control the risks they face and that taking these risks is manageable. However, before a reality check of the assumption can be made, the public accepts such risks on the basis of an unrealistic assumption. There is

therefore a structural coupling between the social system and the technical realization, as Luhmann (2003: 108) describes the interconnection between the social body and technology. The social body simply responds to the existence of technology, and, in this case, to the risk management and control systems within organizations, without any critical reflection on their effectiveness. It assumes that the technology/risk management is functional. Consequently, risk management is no longer organizations' private business, but has come to play a very significant external public role. Metaphorically speaking, organizations are being turned "inside out." According to Power (2007: 34-63), this is the main cause of the risk management explosion demanding the externalization and justification of organizational control arrangements.

The normal accident theory's implications for disaster avoidance seem very disillusioning and, simultaneously, quite simple. Firstly, reduce the likelihood of disasters by avoiding complex and tightly coupled systems at all cost and, secondly, by decreasing the degree of complexity or loosening a system's coupling (Hopkins, 1999: 101). Luhmann's suggestions (2003: 110) point in the same direction. First, reduce social systems' dependence on technology, second, call researchers' and organizations' attention to the informal and inherent risk measures of the installed technology's actual handling, and third, avoid excessive fear and excitement to avoid causing disasters through these factors.

In concluding the research review of the normal accident theory's status quo, it is easy to agree with Rijpma (2003: 38): "Normal accident theory has evolved from a technological theory of particular accidents to an overall pessimistic perspective on accidents and the possibilities to prevent them and cope with them." This appraisal is in line with Hopkins's (1999) critique of normal accident theory. He blames normal accident theory's limited relevance and the absence of criteria for measuring complexity and coupling. From his point of view, many of the most public disasters and accidents of our time are no more than component failure accidents and cannot therefore be analyzed with normal accident theory. The absence of clear criteria for measuring complexity and coupling makes the analyzed accidents and failures seem inconsistent and subjective, therefore making it hard to specify normal accident theory. He regards Sagan's attempt to specify normal accident theory as a failure because organizations' reactions to failures are applicable to all disasters (see also Turner, 1978) and are neither a feature of system accidents, nor do they have anything to do with complexity or coupling (Hopkins, 1999: 99).

This review of normal accident theory clarifies that normal accident theory can only be successfully applied to the current crisis if the two basic conditions of normal accident theory – complexity and tight coupling of the system – have been fulfilled. Thus, global financial markets have to be analyzed with respect to those integral parts of normal accident theory.

3. High Reliability Theory

According to the proponents of high reliability theory (first see La Porte, 1981; later, e.g., Roberts, 1990a; Roberts, 1990b; La Porte and Rochlin 1994; Weick, Sutcliffe, and

Obstfeld, 1999; Carrol, Rudolph, and Hatakenaka, 2002; Weik and Sutcliffe 2003), some organizations, called high reliability organizations, achieve outstanding safety records (Roberts, 1993) despite all of them facing complexity and tight coupling. High reliability organizations are a subset of hazardous (in the engineering sense) organizations that can be identified by answering the question: "How often could this organization have failed, with dramatic consequences? If the answer to the question is man thousands of times the organization is highly reliable" (Roberts, 1990b : 101-102; see also Roberts and Gargano, 1989; Rochlin, La Porte and Roberts, 1987). Besides this outstanding safety record, high reliability organizations, such as air traffic control systems, aircraft carriers, and nuclear power plants, are characterized by "their unique potentials for catastrophic consequences" (Weick, Sutcliffe, and Obstfeld, 1999: 81). Researchers have discovered that high reliability organizations all apply similar strategies regarding how to engage in processes to ensure reliable operations in situations fraught with potential risks and to apparently contribute to their desire to be failure free. Based on these similarities, researchers have analyzed the main influencing factors and characteristics that lead to high reliability. These factors are a "collective mindfulness," a "conceptual slack," and the organization's ability to learn.

These high reliability organizations' efforts to ensure that their personnel can respond rapidly and adequately to contingencies without having to be guided in detail by a senior person, seem the most important. Consequently, low-ranking personnel are also socialized and trained in groups to build a common group spirit of vigilance, which does, however, leave room for a critical attitude (e.g., at the team or crew level, see Flin, 1996, Zsambock and Klein, 1997, Flin, 2001). Such a culture, characterized by cogitation and by an aversion to simple interpretations (Weick, Sutcliffe, and Obstfeld, 1999; Weick and Sutcliffe, 2003), gives individuals an enduring license to think. This culture is convinced that diversity is essential and therefore it tolerates a "conceptual slack." The latter means "a divergence in analytical perspectives among members of an organization over theories, models, or causal assumptions pertaining to its technology production processes" (Schulmann, 1993: 364). Such a culture entails a decentralized decision-making ability and the power to act, even in respect of low-ranking personnel. An example of this is that crew members on a nuclear powered aircraft's carrier deck can prevent planes from departing or landing at their own discretion, without a senior person being able to overrule them (Rijpma, 2003: 39). When complexity becomes too tough for an individual to handle, however, an informal network of employees intervenes. Together, this network forms the organization's collective mind and is thus able to analyze the current problem from different perspectives before deciding on the actions to be taken. Another important characteristic of high reliability organizations is their serially connected "cooling" systems, which is a process designed to reduce stress and excitement and all the other points previously mentioned. Reverting to the example of the aircraft carrier deck, the crew member with discretion to prevent an aircraft from departing or landing, knows that many people are watching him and can intervene if failure should occur (Robert, Stout and Halpern, 1994). This secondary "cooling" system is combined with a rigorous redundancy policy to back up personnel failures

(La Porte and Consolini, 1991). These strategies are high reliability organizations' learning process in respect of technologies' complexity (Rochlin, La Porte, and Robert, 1987).

Besides extending high reliability theory from the original high reliability organizations to other ones (e.g., submarines, see Biely and Spender, 1995), it was later not only applied to an organizational level, but also to other levels of aggregation. Specifically, Morone and Woodhouse's (1986) macro sociological perspective on American society shows that high reliability can be applied to understand and explain social systems at a very aggregate level. According to these scholars, American society has learned to avoid catastrophes by conservative risk testing and acceptance, trial-and-error learning and high levels of protection. Morone and Woodhouse's study maintains that high reliability theory is not only applicable to those exotic and special organizations to which it originally applied, but that it can also act as a source of ideas for a deeper analysis of a more aggregate societal system and commercial entities. This extension is already indicated in the paper by Robert (1990: 160), who considers "international banking", as a high reliability organization.

The review of prior research has shown that high reliability refers to the main elements of the normal accident theory and develops it in the light of its critical issues. With regard to its basic attitude, high reliability theory is less pessimistic than normal accident theory: Failures and accidents in complex and tightly coupled systems are containable by means of good organizational design and good management, but in some places they are avoidable (La Porte and Rochlin, 1994; Whitney 2003; Weick and Sutcliffe, 2003). From the normal accident theory perspective, it is impossible to prevent all accidents; from the high reliability theory perspective, teams, organizations, and even society have the capability to prevent them. Instead of focusing on cutting the losses, high reliability focuses on damage prevention.

Which of the two conflicting theories is therefore the winner of the debate? In 1997, Rijpma concluded that the debate's half time score was a tie (Rijpma, 1997). Now, several years and studies later, one has to acknowledge that the debate is still ongoing and the question is still an open one. The value of the debate between normal accident theory and high reliability theory lies in the tension between the two opposing points of view. The theories should be seen as complementary, not competing perspectives (Bain, 1999: 129). The same organizations and failures have been concurrently examined by the proponents of normal accident theory and high reliability theory.[2] Instead of there being a clear winner, their research evidence is contradictory. The conclusion that can be drawn from the contradictory evidence is that, in the long run, production pressures and budget cuts make accidents increasingly probable. Consequently, a formerly high reliability organization is turned into an organization where, at the end of the day, accidents are inevitable (see, e.g., Heimann, 1997). This issue seems to be specifically important for the study at hand.

[2] See, e.g., Vaughan (1996), Heimann (1997), and Boin and Schulmann (2008), all examining NASA's Challenger disaster.

4. Disaster Incubation Theory

In 1997, the second edition of Turner's book "Man-made Disasters" (Turner and Pidgeon, 1997) was published and was pitched into the debate regarding normal accident theory versus high reliability theory. Turner's ideas have become known as the disaster incubation theory. This theory is based on Simon's (1957) "bounded rationality" framework, which allows organization to act by adoption simplifying assumptions about the environment. Like the normal accident theory, the disaster incubation theory is a theory of accidents and draws attention to the causes of disasters. However, instead of being a theory of technological necessitarianism, the disaster incubation theory has a more rationalistic, managerial perspective on disasters. As far back as 1976, Turner developed the thesis that the cause of disasters is failure of foresight (Turner, 1976). He presented a "sequence model of intelligence failure" (Turner, 1976: 378), which describes a disaster's development through various stages. Over a long incubation period, it may take many years, during which signals about impending danger are ignored or misunderstood before, in the crucial incubation stage, causal attributes cumulate and the latent danger materializes and becomes a disaster. The common features of incubating disasters are as follows (Turner, 1976: 388-391): During the disaster's first development stage there are initial beliefs and norms. In this stage, Turner observed violations of existing precautions in terms of failure to comply with them. Stage two, the incubation period, follows and is characterized by seven causal factors:

(1) Rigidities in perception and belief in organizational settings

Rijpma (2003: 40) describes this feature as the "beliefs that things won't go wrong." According to Turner (1971), all organizations develop within themselves an element of continuous culture, which not only causes effectiveness, but also the danger of a collective blindness to problems.

(2) Decoys

Organizations are not blind to all occurring problems. A contributing factor of disasters is that the action that is taken to solve well-structured problems might distract attention from less well-structured problems. Thus, dealing with a well-structured problem may comprise the danger that this action is a decoy to draw one's attention from a more uncomfortable problem.

(3) Organizational exclusivity

Turner identified disregarding complaints from individuals outside the organization as a further common feature in the incubation stage. Instead of taking the relevant risk seriously and ensuring that the concerns are unfounded, the organization regards such outsiders with contempt. This response results from the assumption of organizational exclusivity, i.e. the organization's belief that it knows the risks within the organization better than outsiders do.

(4) Information difficulties

Less well-structured problems, i.e. information in complex situations, might cause information handling difficulties. These difficulties cannot always be solved by better

communication, especially in a situation when events remain misunderstood or unnoticed. Communication and information difficulties can therefore lead to a disaster. One way to cope with information difficulties is to increase resources so that the problem is no longer ill-structured or is reduced to a manageable size (Meier, 1965). Another way is to pass (parts of) the problem to other organizations so that the task becomes an inter-organizational one (Hirsch, 1975).

(5) Strangers exacerbating the chance of risks
For Turner, the presence of public members, whom he called "strangers," within the organization is a contributing factor to disasters. The crucial factor is that they are often untrained or uninformed, and can provoke risks and activate a chain reaction if they do not act in the organization's interest.

(6) Failure to comply with discredited or out-of-date regulations
Failure to comply with existing regulations and an inadequate implementation of regulations fall into this category of causal factors. The lack of implementation can be attributed to difficulties in applying regulations to changed technical, social, or cultural conditions, or they have simply become out of date.

(7) Minimizing of emergent danger
In his analysis of disasters, Turner identified the failure to fully assess the dimension of certain risks. Risks are often underestimated and warning signs disregarded. The reaction of individuals when the full magnitude of the danger becomes obvious is particularly noteworthy. Turner states: "[T]he apparently straightforward act of strengthening precautions was not always the response; instead some individuals began to take action to shift the blame, while other sought to take control of the situation by wholly inappropriate and quasi-magical means." (Turner, 1976: 391)

After the incubation period, in the third stage, an event happens that triggers the onset of the disaster, which is stage four. In stage five, rescue and salvage actions are taken. Finally, in the stage of full cultural readjustment, new well-structured problems are defined and appropriate precautions and expectations are established (stage six). This sequence model shows that according to the disaster incubation theory, disasters are caused by organizations and individuals through sloppy organizational and managerial processes, but that organizations and individuals are also regarded as being able to intervene and stop the chain reaction.

5. Summary Discussion

5.1 Analysis of the Causal Factors in the Light of Normal Accident Theory

Although organizations were analyzed in the light of the three social theories described above, normal accident theory, high reliability, and disaster incubation theory can also be applied to other society systems, if they feature the specific characteristics underlying the particular theory, for example, interactive complexity and tight coupling in the normal accident theory. According to Luhmann's systems theory, a system is defined by

a boundary between itself and its environment; this boundary divides it from an infinitely complex exterior. The interior of the system is thus a zone of reduced complexity (Luhmann, 2008). This definition clarifies that global financial markets are also systems in terms of social theory. Financial markets consist of individuals, who meet each other to buy and sell financial securities, commodities and other fungible items of value, as well as financial intermediaries and regulatory authorities. Global financial markets are "man-made": They are a totally social phenomenon constituted by the interaction of multiple international players. In this light, global financial markets' main characteristics are analyzed regarding whether they meet normal accident theory's criteria and can therefore be applied to explain the crisis's causal factors as well as to derive implications.

The aim of financial markets is to reduce complexity. They make it easier for willing buyers and interested sellers of securities to find one another, reducing the transaction costs. It is also presumed that transaction prices reflect all the available information (efficient market hypothesis). Nevertheless, complexity exists and becomes greater as the number of market participants and their resultant options increase. More precisely, complexity emerges from the market participants' contingent interaction as it (complexity) only reveals itself ex-post and cannot be predicted rationally. Thus, every market participant is always exposed to an uncertainty that complexifies the moment of decision making for an individual market participant. This sort of complexity cannot be reduced by formalizing. Formal methods are replaced by interpreting, storytelling, creative intuition, and fantasizing. Given that complexity cannot be reduced, it is instead maintained, otherwise it will increase. However, is the complexity in financial markets an interactive one, as identified by Perrow in his normal accident theory? And is this complexity accompanied by tight coupling? Since interactive complexity leads to independent failures, the current crisis must be attributed to such failures. Tight coupling manifests itself in an uncontrollable rapid escalation of failures. The development of the crisis should therefore be analyzed in terms of interactive complexity and tight coupling.

To analyze what went wrong, one has to refer to the starting point of the crisis: The development in the US mortgage market (a subsystem of financial markets). After 2000, mortgage lenders relaxed their underwriting standards considerably, making mortgages widely available to people with low credit ratings (subprime mortgages). Income standards for mortgages were also relaxed, permitting buyers to purchase higher priced homes without additional income. Between 2002 and 2006, subprime mortgages rose from two percent to 30 percent of the total loans (Moore, 2008). Relaxed underwriting standards and relaxed income standards therefore led to an expanding demand for existing properties and increasing real estate prices by increasing the pool of individuals eligible for a loan. Furthermore, the lenders invented new ways of stimulating business and generating fees through "teasers" like below-market initial rate mortgages for an initial two-year period. Since the market value of existing homes grew more than the costs of borrowing, the floodgates to speculation were opened.

It was a rational decision to own more property than the buyer wanted to occupy and to treat the purchased home as an investment or second home. Buyers surmised that when the higher mortgage rate increased in two years' time, they would refinance the mortgage, taking advanced of the homes' higher prices. Banks developed a variety of new techniques to hive credit risk off to other investors, like pension funds and mutual fund. Structured investment vehicles allowed them to keep their own risk positions off their balance sheets. Banks then sold off their risky mortgages by repacking them into collateralized debt obligations. These securities channeled the thousands of toxic mortgages into a series of tranched bonds with risk. While bankers and rating agencies underestimated the inherent risk of such bonds, the securitization[3] of mortgage risk became en vogue. In retrospect, it is clear that sooner or later the bubble had to burst. The reactions of bank, institutions, and investors to the bursting bubble were a loss of confidence and herd behavior, which caused panic and brought the entire system to the point of collapse. One cannot but help favor Luhmann's suggestion: We should avoid excessive fear and excitement so as not to cause a further crisis (Luhmann, 2003: 110). Such self-energizing developments could only be interrupted by institutions and persons outside the system interfering – states and central banks.

The rapidness of the crisis development and the helplessness of control agencies, such as governments and regulatory authorities, are an indication of the tight coupling of the system elements. However, this sequence of events shows failures based on each other rather than independent failures. This leads to the conclusion that the two main characteristics of a hazardous system have not been fulfilled; normal accident theory cannot therefore be appropriately applied.

Nonetheless, Perrow's extension of normal accident theory to other than high technological systems draws one's attention to a crucial source of the crisis. Perrow argues that system elites have little interest in safety because they put profit first; their own risk exposure is small, while the risk for the society as a whole is substantial. This is observed in the current crisis. The source of the initial failure – relaxing underwriting standards and income standards for mortgages – lay in individuals' appetency to make profit. If mortgage bankers are regarded as such system elites, they are to blame for the crisis.

Or does Sagan describe the situation better? Are mortgage bankers merely the operators under pressure to make profits and exposed to the wrong short-term incentives? Are they now accused of making mistakes instead of the true underlying causes being addressed? If Sagan is correct, disasters seem to be inevitable due to more banal causal factors. In this case, the banal factor might lie in a cultural reason: The greed for prosperity is connected to the fixed idea of the ability to attain prosperity using financial markets as a vehicle. In other words, people's belief in the possibility to make

[3]Securitization is the process of pooling assets and issuing securities. The holder is entitled to a share of the cash flows from the asset pool; this is a form of risk diversification. While securitization itself does not affect the overall risk and returns of underlying assets, the risk and returns of the securities issued by the pool can be redistributed during the process of securitization (Wallace, 2008: 13).

profit was uncoupled from the real economy. This not only applies to mortgage bankers, but also to the buyers of houses, and society as a whole. To escape Sagan's pessimistic conclusion of organizations' inability to learn from disasters, one has to call for a new conservatism – a conservatism that is not only aimed at bankers' bonuses, but also at society as a whole. The attention of governments, researchers, and regulatory and supervisory authorities must focus on this crucial issue.

6.1 Analysis of the Causal Factors in the Light of Disaster Incubation Theory

Disaster incubation theory can also shed light on the causal factors of the financial crisis. A review of the crisis's development clarifies that failures are "organized". They have their origins in failures of management and intelligence processes that incubate the crisis.

Rigidities of perception and collective blindness can be observed in a variety of situations and can only be listed by means of examples. The institutions within the financial markets system might have exemplified rigidity of perception. The institutions and, thus, the system itself upheld the idea of continuous growth due to their belief that they could manage and handle that growth (belief in organization settings). This overestimation encountered a second issue, the fear of institutional overregulation that has its source in the strong belief that markets are self-adjusting.[4] This belief leads to the strategy of minimizing the government's role. The UBS, for example, reintegrate its own hedge fund, Dillon Read Capital Management (DRCM), in May 2007, which brought the cumulative subprime engagements to about 40 bn. USD. However, not many insiders or outsiders noticed the bank's ongoing change from a Swiss home bank to an internationally active investment bank. Insiders and outsiders only became aware of the high risks that this expansion had brought when the crisis broke out. A deeper analysis of the organizations' actions during the incubation stage would be necessary to detect decoys of defection than is possible in the study at hand. Rather than identifying decoys, the organization-destroying problems should be briefly addressed. The core problem that the mortgage banks had ignored was the obviously increasing default risk, while, for the investment banks, this was in the increasing risk inherent in the mortgage-backed securities or collateralized debt obligations. The high asset prices that did not reflect the true economic value of the assets reveal that these risks were ignored. One failure that led to the increasing default risk being ignored might lie in the inaccurate application of finance models like the Capital Asset Pricing Model (CAPM). Basic finance teaches us that the true economic value of an asset is the present value of its future cash flows, using a current market interest rate. This rate has to reflect the level of risk associated with the asset cash flows. In other words, the rate should include

[4] See de Bruijne and van Eeten (2007) for a similar point. They discuss how privatization, deregulation, and liberalization undergo critical infrastructures, such as banking and finance, and the governmental initiatives regarding critical infrastructures' protection. The key finding is that current critical infrastructure protection-efforts seem very vulnerable in the light of an institutionally fragmented environment.

a spread over the current risk-free rate, with the magnitude of this spread depending on the risk. Thus, the current value of a loan can be expressed by the following equation (Wallace, 2008: 10-11):

Current value of the loan = Future cash flows / [1 + Rf + spread]

where: Rf = the current rate of return for a risk-free asset

While numerous changes were made to the lending process, such as relaxing the underwriting and income standards, which increased the default risk significantly, the pricing of the mortgages at issue did not adequately reflect the increased risk. This was due to the inputs used in the fair value equation (see equation (1)), which were sometimes based on historical values, even though the factors that affected them were changing (see in detail Wallace, 2008: 11-14). It is obvious that it is much easier to refer to historical values than to current or future values that might cause ill-structured problems, such as individual estimations or information procurement problems. This failure shows similarities to the "cultural lag of precautions" that Turner attributes to stage six of the incubation period.

System exclusivity can also be regarded as one of the causes of this crisis, which led to prophets of the crisis being ignored. In this crisis, system exclusivity lay specifically in the large network of mortgage banks, investment banks, and rating agencies that all had the same interests, so that the number of potential outsiders with expert knowledge and insider information decreased. Handling difficulties with the increasing default risks were passed to other organization by means of a mass securitization of mortgages, so that the problem became an inter-organizational one. Credit Suisse's reaction, for example, shows that the emergent danger was systematically underestimated. While UBS first wrote down its assets, Credit Suisse predicted that no write-down was required. This was a unique blindness, as it had to announce write-downs to the amount of billions of dollars three days later.

According to this analysis, disaster incubation theory seems to be highly applicable to the current crisis, especially to illustrate the failures in the financial markets as a whole as well as the failures in individual organizations. Further research, especially on an organizational level, should analyze individual incubation stages to reveal more of the causal factors of failures than the study at hand can do.

7.1 Recommendation Theses

The application of normal accident theory and single incubation stages according to the disaster incubation theory reveals that the current crisis has been caused by organized failures rather than by unpreventable ones. This leads to the question: What lessons should be learned to avoid a future crisis? Recommendations should be derived from the crisis's causal factors, which were stressed in the previous sections. Furthermore, the features associated with high reliability organizations can act as guidelines to organize global financial markets. The study at hand derived three important recommendations, which are not, however, presented as the only ones.

(1) Pressures to make profit have to be reduced

The analysis of the crisis under the normal accident theory shows that an excessive profit pursuit, combined with the idea of achieving prosperity that was uncoupled from the real economy, was one source of the crisis. Thus, it is imperative to align performance more closely with long-term interests and financial stability. This will prevent brokers from selling mortgages without checking whether borrowers have the means to repay them. However, preventing excessive profit thinking should not stop with the managers and operators in global financial markets. In the light of global financial markets' unique potential for catastrophic consequences, we need a new disruptive culture in financial markets that will prioritize safety.

(2) The global financial markets have to be organized like high reliability organizations

The desire to avoid a second crisis of the same dimension as the present one has to be the main motivation for re-organizing a system – reorganizing in terms of a high reliability organization. That is, organizations need good design and management that allow disruptive intelligence at each personnel level. In addition to the emphasis on efficiencies there is "the need to challenge managerial mindsets and re-engage a pluralist metaperspective both at the level of strategic purpose and organizational configuration." (Smart, Tranfield, Deasley, Levene, Rowe, and Corley, 2003: 733) Furthermore, we have to readjust our supervisory systems to the financial markets' global character. Global institutions like the supervisory International Monetary Fund and World Bank can take a far more active supervisory role that is more adequate than isolated supervisory actions by single states. This global oversight might result in limited global market failures.

(3) Risk management within organizations must no longer only be a symbolic gesture

The third thesis addresses the risk management systems within banks and other organizations that build the financial system. Reassuring the public can be one function of risk management but should not have a leading role. Risk management's central role has to be to submit organizational processes' underlying assumptions, such as asset pricing in banks, to a reality check. Furthermore, risk management has to reveal failures of foresight. Finally, it has to be clear that risk management is more than a "technical" system. Risk management's responsibility for the functioning of the man-made systems "organizations" and "financial markets" is derived from humans. Consequently, risk management is a system of humans. And this carries the danger of humans as risk factors. Here, too, we need secondary risk management and "cooling" systems, which could be in the form of a divergence of analytical perspectives from the relevant organization members.

8.1 Limitations and Further Research

The study at hand should be regarded as a kick-off for further interdisciplinary research analyzing the current crisis's causal factors. Without considering the financial markets system, or the single organizations constituting the financial markets in detail, the study reveals that social risk theories can specifically provide a deeper insight into the causal

factors of the crisis. Where the underlying criteria of normal accident theory, high reliability theory, and disaster incubation theory are fulfilled, they can be applied on an aggregate as well as disaggregate system level to single investment banks, supervisory bodies or even the financial accounting system. From a financial accounting point of view, it would be especially interesting to see if the above social risk theories bring new arguments to the discussion about fair value's role in this crisis. Is fair value accounting a cause? Or is this a case of shooting the messenger? In the words of normal accident theory, is fair value a "system elite" or an "operator" that has to be blamed or is blamed instead of the true causes being revealed? Fair value accounting increases tight coupling in the accounting system as the tension between the measurement of assets and liabilities for accounting purposes and their market values becomes stronger. Furthermore, fair value accounting can activate a chain reaction in asset write downs, as the current crisis has shown. Therefore, the accounting system seems to meet normal accidents theory's criteria; consequently, analyzing the inherent failures in the accounting system by applying this theory seems to be a worthwhile endeavor.

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Environmental benefit, side effects and objective-oriented financing of agri-environmental measures: case study of Poland

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Abstract

In this paper we investigate how to allocate the available budget for agri-environmental measures to maximise environmental benefits and to minimise potential negative side effects resulting for farmers from the implementation of agri-environmental measures. According to the governmental and EU regulations farmers should be fully reimbursed with compensation payments for the implementation of agri-environmental measures and thus for their environmental services. However, research results from Poland show that negative side effects, such as income losses, were not totally compensated in Poland in the first years after the accession to the European Union. The investigation proves significant dependences between the environmental benefit, side effects resulting for farmers, and an objective-oriented budget allocation for agri-environmental measures in the Subcarpathia region studied.

Keywords: Agri-environmental Policy, Policy Evaluation and Design, Decision-making Support, Linear Programming

JEL classification : Q51, Q57, C61

1. Introduction

Agri-environmental programmes are obligatory political tools for the policy of rural areas in all EU member states; however, they are optional for farmers. According to the EU 1257/99 regulation (European Commission, 1999) which was in force till 2006, farmers were reimbursed for their environmental services and the implementation of agri-environmental measures by means of compensation payments. In these payments an additional premium was also included in order to inspire farmers to participate.[1]

[1] According to the new EU regulation 1698/05, which has been in force since 2007, the compensation payments cover solely implementation costs and income losses resulting from the implementation, and eventually transaction costs, while no simulation incentives are given (European Commission, 2005).

Several studies have been conducted on different political aspects, the importance and appropriate level of compensation payments for environmental services delivered by farmers with the implementation of agri-environmental measures. Most of these studies address the question of the cost-effectiveness of compensation payments (Drechsler et al., 2007; Link et al., 2006; Ulbrich et al., 2008). Drechsler et al. (2005) state however, that little experience is given with regard to this topic, as the estimation of cost-effectiveness of compensation payments requires integrating different ecological and economic aspects. With the aim to address these needs and to combine economic and ecological issues, different models have been developed (Hanley et al., 1998; Johst et al., 2002; O'Carroll, 1994: 72). Glebe (2006) states that the system to support agri-environmental measures based on the ratio of compensation payments and environmental benefits (as already common in the European Union) it is not as much cost-effective as a bid ranking system practised in the United States (see: Latacz-Lohmann and van der Hamsvoort, 1997; Moxey et al., 1999; Willis, 2002; Wu and Babcock, 1996). Wu and Boggess (1999) address the problem of pooling effects of environmental benefit (cumulative effects and interrelations among alternative environmental benefits) which can influence an efficient allocation of budgetary funds for environmental protection (compare also Hajkowicz et al. (2005) and Glebe (2007)).

From the perspective of different approaches to investigate compensation payments for agri-environmental measures, there arises the question of, how far and to what extent compensation payments can cover all realisation costs of agri-environmental programmes and what negative side effects can be expected. The aim of the paper is thus to analyse, in the context of objective-oriented budget allocations for agri-environmental measures in Poland, different relations between the environmental benefit expected by the implementation of the measures and the real effects (income losses resulting for farmers). This paper contributes to the previous research while investigating the question of relations between farmers' objectives and environmental objectives, based on an explorative case study in the region Subcarphatia in South-Eastern Poland.

The paper is structured as follows. The next chapter provides an overview of the development and structuring of agri-environmental programmes in Poland in the last years. In the following section, the case study region is characterised. Next, the research methodology is presented. Following, modelling results of an objective-oriented budget allocation for agri-environmental measures are discussed and scenarios for environmental benefits by different policies (reduction of negative side effects for farmers or else maximisation of environmental benefits) are analysed. Finally, conclusions and policy recommendations are drawn. The results of the study can help to detect negative effects resulting from the agri-environmental policy and to consider them in future development plans to use and implement European and national funds more effectively.

2. Agri-Environmental Measures in Poland

The realisation of agri-environmental programmes has been obligatory for the policy of rural areas in Poland since the accession to the European Union in May 2004. The main objective of agri-environmental programmes is to protect and improve the environment, the landscape and its features, the natural resources, the soil and genetic diversity (European Commission, 1999: 90). The support for agri-environmental activities is granted to farmers who pledged to meet all agri-environmental commitments (exceeding requirements of the "good farming practice") for at least five years. The support is granted annually and should be calculated by the proper national or regional administration offices on the basis of: income losses, additional costs resulting from the commitment given, and - till 2006 - the need to provide an incentive (stimulation premium). Environmental protection in agriculture, in the form provided by the European regulations, it is relatively new in Poland. Before the accession of Poland to the European Union, several measures were undertaken to protect natural resources in agriculture. The first measures were defined in 1990 with the National Environmental Policy"(Ministry of Environmental Protection, Natural Resources and Forestry, 1991). Additional agri-environmental measures were planned within the programme SAPARD (Special Accession Programme for Agriculture and Rural Development) for the period 2000-2006. However, due to political strategy changes and to missing legal rules, the planning and realisation of agri-environmental measures were abandoned under the SAPARD (MRiRW, 2002). The first successful agri-environmental measures were realised in 2000 and 2001 within the EU project Phare99 in the two regions of Poland: Subcarphatia (South-East of Poland) and Warmia-Masuria (North-East). For the first years of membership in the European Union (2004-2006) seven agri-environmental measures were proposed by the Polish Ministry of Agriculture and Development of Rural Areas and approved by the European Commission to be financed within the National Agri-Environmental Programme. The measures are 'Sustainable agriculture', 'Organic farming', 'Extensive meadow farming', 'Extensive pasture farming', 'Soil and water protection', 'Buffer zones', and 'Domestic farm animal species'. The National Agri-Environmental Programme is an integral part of the Plan for Development of Rural Areas and the available budget for agri-environmental measures amounted to 348.9 million € in 2004-2006. The National Agri-Environmental Programme is co-financed by the European Agricultural Guidance and Guarantee Fund (EAGGF) (80%) and by the Polish state budget (20%) (MRiRW, 2004a).

As the agri-environmental measures are new, little experience is given both with regard to financing and design of these measures and with regard to potential negative side effects, such as spillover effects or income losses, which can be generated while the implementation of the measures. There are also no studies known addressing the question how to design agri-environmental policy and how to handle these effects while planning budget allocations. These questions are discussed in this paper.

3. Case Study Region

The discussion in this paper is based on results of a case study conducted in the Subcarpathia region of South-Eastern Poland in 2005. The region was chosen due to its valuable natural resources and specific economic conditions. In the region, 80 nature reserved areas are registered and about 16 % of the region area is acknowledged as landscape parks. Additionally, about 45.5 % of the region area is included in 17 landscape protection areas (Sołtysiak et al., 2002: 21). Most areas in the region are involved in the Euro-region Carpathia (an association of Carpathian regions between five neighbour countries of the Central and Eastern European Countries: Poland, Ukraine, Romania, Hungary, and Slovakia) with the aim to efficiently and sustainably use natural resources in all associated countries. The necessity of an efficient use of natural resources is strengthened by the economic situation in the region which has the third highest number of agricultural farms in Poland (311.855) (Urząd Statystyczny w Rzeszowie, 2003: 20; Główny Urząd Statystyczny, 2003: 171). The employment share in agriculture amounts again to about 26-47 % (Podkarpacki Urząd Wojewódzki, 2004). Thus, the agricultural production has a great effect on the utilisation of natural resources. The average size of agricultural farms in the region amounts to 3.5 ha (Dmochowska, 2003) which is very little in comparison to large-sized farms in other countries of the European Union (17.5 ha on average) (Boschma et al., 2005). The named characteristics of natural and economic conditions in the region help us to emphasise the question of the importance of effective financing of agri-environmental programmes and the need to diminish potential side effects for farmers.

4. Methodology of The Case Study: Analytic Hierarchy Process And Linear Programming Approach

We study to what extent negative side effects of agri-environmental policy such as income losses resulting for farmers from the implementation of agri-environmental measures and spillover effects can influence budget allocations for agri-environmental measures and the environmental benefit. Spillover effects are defined as negative effects appearing in situations when farmers' incomes from compensation payments for the realisation of agri-environmental programmes exceed their realisation costs of these programmes. This means positive economic effects for farmers but no environmental improvement. In the opposite case (realisation costs > compensation payments), income losses for farmers are presumed as a subsequent effect which is potentially realistic due to the immeasurable character of the realisation costs (e.g. additional individual labour input of farmers and their families not calculated in compensation payments). In the past years spillover effects were not very relevant and, therefore, they have not been widely discussed either in political or scientific debates. However, the limited availability of the European funds requires undertaking a thorough revision and control of potential negative effects in the agri-environmental policy. This problem indicates also the question of relations between farmers' interests to secure productivity and to improve economic situation of their farms and political interests to improve environmental benefits by agri-environmental programmes. In this paper, we undertake this question

and concentrate our analysis on implications of negative side effects (spillover effects and income losses) on budget allocations for agri-environmental measures in Poland, after the accession to the European Union, based on results of a case study conducted in the Subcarpathia region in September 2005. As political decisions regarding agri-environmental policy in Poland are taken centrally by the Ministry of Agriculture and Development of Rural Areas in Warsaw, regional preferences in this term are not considered in political decision-making processes. In this paper, the importance and necessity to analyse such problems separately on the regional level are stressed, in order to improve objective-oriented priority setting in agri-environmental policy. Taking into account the named aspects, the methodological objective of the paper is to model and simulate financing strategies for agri-environmental measures with the aim to minimise income losses resulting for farmers from the implementation of agri-environmental measures and/ or to maximise environmental benefits (environmental quality). Additionally, preferences of different stakeholders can also widely influence decisions on financing of agri-environmental measures. Therefore, three stakeholder groups were interviewed in the Subcarpathia region and their estimations incorporated in the model:

a) 8 agricultural administration experts in the Marshal Agency [2] in Rzeszów in the Division for Agriculture and Rural Development responsible for administrative issues on rural development in the region.
b) 26 agri-environmental advisors from all counties in the region responsible for delivering of information and support for farmers in terms of environmental protection in agriculture.
c) 100 farmers chosen from all 21 counties in the region as a random sample. The choice was adapted to the requirement to include farmers participating in each form of agri-environmental measures.

Using the Analytic Hierarchy Process (AHP) according to Saaty (1990) the interviewed stakeholders estimated the importance of the seven agri-environmental measures. The estimation has been conducted in pairwise comparisons between all measures by means of the scale 1-9, where 1 = the compared measures have the same importance and 9 = the first compared measure is dominantly more important than the second measure. Following measures were pairwise compared: 'Sustainable agriculture', 'Organic farming', 'Extensive meadow farming', 'Extensive pasture farming', 'Soil and water protection', 'Buffer zones', and 'Domestic farm animal species'. The importance of the measures was estimated with regard to the three environmental objectives ('Protection of natural resources', 'Protection and conservation of biodiversity', and 'Conservation of cultural landscape') defined in the National Agri-environmental Programme 2004-2006. This estimation allowed to define ratio relations, recommended in cases where no reference criteria are known for environmental benefits. The estimated parameters were

[2] Marshal Agency is a governmental regional administration unit responsible for public affairs in the region.

normalised and priority vectors were estimated which reflect the assessed importance of the measures and can be expressed as the relation of environmental benefits (environmental quality) per one monetary unit (1 €) of the respective agri-environmental measures. These vectors were further incorporated in the Linear Programming approach (LP) according to Kirschke and Jechlitschka (2002). The vectors were used as objective coefficients (table 1, line 6-8) with the aim to investigate scenarios for an objective-oriented budget allocation for agri-environmental measures while basing on previous experience with policy modelling and design (Kirschke et al., 2004, 2007). For this reason an aggregated objective function was defined which reflects environmental benefit expected from the implementation of the agri-environmental measures. The objective function was defined as a sum of objective functions for each environmental objective: 'Protection of natural resources', 'Protection and conservation of biodiversity', and 'Conservation of cultural landscape' (formula 1).

$$(1) \qquad \max_{BA_1,\ldots,BA_n} Z = \alpha_1 \sum_{i=1}^{n} z_{1i}\ BA_i + \alpha_2 \sum_{i=1}^{n} z_{2i}\ BA_i + \alpha_3 \sum_{i=1}^{n} z_{3i}\ BA_i$$

with: Z – aggregated objective function,
$i = 1, \ldots, n$ – index for the agri-environmental measures,
$z_{1i,\ 2i,\ 3i}$ – constant objective coefficients (for the three objectives respectively) of one monetary unit of the measure i,
BA_i – budget expenses for the measure i,
α – weighting factor for the objectives,
and $\alpha_1 = \alpha_2 = \alpha_3 = 1$.

The objective function for each objective was defined as a sum product of the estimated objective coefficients and budget expenses for the respective agri-environmental measures. For each objective, objective weights of 1 were considered in the objective function, which denotes the same importance of the objectives in the basis scenario. Additionally, three constraints were defined and included in the LP model such as total available budget for agri-environmental measures (formula 2), restriction for income losses resulting for farmers from the implementation of agri-environmental measures (formula 3), and maximal possible farming area under agri-environmental programmes (formula 4). These constraints were defined in order to consider regional environmental and economic conditions in the Subcarpathia region as well as to define feasible solution space for the objective function.

$$(2) \quad BA_1 + BA_2 + BA_3 + BA_4 + BA_5 + BA_6 + BA_7 \leq 2\ 500\ 000$$

$$(3) \quad a_1 * BA_1 + a_2 * BA_2 + a_3 * BA_3 + a_4 * BA_4 + a_5 * BA_5 + a_6 * BA_6 + a_7 * BA_7 \leq 2\ 500\ 000$$

$$(4) \quad b_1 * BA_1 + b_2 * BA_2 + b_3 * BA_3 + b_4 * BA_4 + b_5 * BA_5 + b_6 * BA_6 + b_7 * BA_7 \geq 20\ 000$$

with:

$BA_{1\text{-}7}$ – budget expenses for the measures,
$a_{1\text{-}7}$ – coefficients for the income losses constraint,
$b_{1\text{-}7}$ – coefficients for the farming area constraint.

The budget constraint (formula 2) denotes that the sum of the budget expenses for all measures cannot exceed 2.5 million €. The restriction reflects the situation of budget scarcity and a budget cut of 20 % (3.1 million €) compared to the total available budget in the Subcarpathia region in 2005. We simulate the budget scarcity to analyse the objective-oriented budget allocation in terms of the future changes in the European policy which expects budget cuts for different political tools and activities.

The income losses constraint (formula 3) denotes that the sum product of the budget expenses (BA_{1-7}) and the coefficients for this constraint (a_{1-7}) may not exceed 2.5 million € which is equal to the budget restriction for the agri-environmental measures. The constraint coefficients were estimated as the index of the total costs resulting for farmers from the implementation of agri-environmental measures and the budget transfers to farmers (compensation payments). The total costs resulting for farmers from the implementation of agri-environmental measures were estimated as a product of direct costs and the farming area under the respective agri-environmental measures in the region Subcarpathia. The direct costs were estimated on the basis of calculations from the Ministry of Agriculture and Development of Rural Areas in Warsaw (MRiRW, 2004b). According to the Ministry, the following parameters were included for the calculation of direct costs:

– Farmers' income losses which would not appear in case of conventional production activities e.g. losses in harvest amount.
– Additional costs (e.g. additional labour force, additional protection activities – regular mowing, soil tests, preparation of fertilization balance, implementation of machines for protection activities, seed purchase, new feeding ratios for animals).
– Additional benefits (measured as savings from environmental activities such as reduction of fertilization costs, reduction in applied production factors, improvement of soil quality, and additional incomes from the product sale).

The farmers' income losses and additional costs were summed and minimised by additional benefits in order to avoid an offset of costs and benefits.

Additionally, the constraint of farming area was considered (formula 4). The left side of the constraint was defined as a sum product of the constraint coefficients (b_{1-7}) and budget expenses (BA_{1-7}) for the respective measures. The coefficients were calculated as a ratio of one monetary unit (here: 1,000 €) and the compensation payment rates for the respective measures in 2004-2006. The right side of the constraint was set to 20,000 ha and estimated with regard to the minimal farming area (19,000 ha) which guarantees the maximal environmental benefit in the defined LP approach. From an ecological point of view, the farming area under agri-environmental programmes should be enlarged to maximise the environmental benefit. Therefore, the restriction was set to 20,000 ha exceeding the minimal farming area to be supported to maximise the environmental benefit. Moreover, a non-negativity constraint was assumed in order to exclude negative budget allocations.

The coefficients for the model constraints as well as other variables in the basis scenario are presented in table 1.

Table 1: Coefficients for the agri-environmental measures and model variables in the basis situation for the region Subcarpathia

		Sustainable agriculture	Organic farming	Extensive meadow farming	Extensive pasture farming	Soil and water protection	Buffer zones	Domestic farm animal species	Sum	
1.										
2.	Current allocation	143,7	733,7	1435,9	142,8	571,3	1,1	56,3	3084,8	Current allocation (Thousand €)
3.	Optimal allocation - experts	48,3	79,8	1114,4	0,0	1142,6	2,2	112,7	2500,0	Upper bound for total budget (Thousand €)
4.	Optimal allocation - agri-environmental advisors	207,1	110,0	2182,9	0,0	0,0	0,0	0,0	2500,0	Upper bound for total budget (Thousand €)
5.	Optimal allocation - farmers	287,3	105,4	2107,3	0,0	0,0	0,0	0,0	2500,0	Upper bound for total budget (Thousand €)
6.	Objective coefficients - experts	**12,4**	**16,7**	**12,7**	**12,5**	**16,9**	**14,8**	**13,9**		Objective coefficients (aggregated)
7.	Objective coefficients - agri-environmental advisors	**15,2**	**22,8**	**21,1**	**18,6**	**7,8**	**6,3**	**8,2**		Objective coefficients (aggregated)
8.	Objective coefficients - farmers	**18,4**	**22,9**	**18,1**	**16,2**	**10,2**	**6,8**	**7,5**		Objective coefficients (aggregated)
9.	Upper bounds	287,3	1467,4	2871,7	285,6	1142,6	2,2	112,7	6169,6	Total upper bound for the measures (Thousand €)
10.	Lower bounds	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Total lower bound for the measures (Thousand €)
11.	Income loses	1,0	4,1	0,8	0,8	0,9	0,8	0,9	2500,0	Upper bound for income loses (Thousand €)
12.	Farming area	29,4	5,3	6,1	12,6	9,9	0,0	0,0	20000	Lower bound for the farming area (ha)

Source: Author's calculation

In line 2-5, current (2005) and the calculated optimal (objective-oriented) budget allocation are displayed followed by the objective coefficients (line 6-8), upper and lower bounds (line 9, 10), coefficients for income losses (line 11), and coefficients for farming area (line 12). On the right side, restrictions for the constraints are defined.

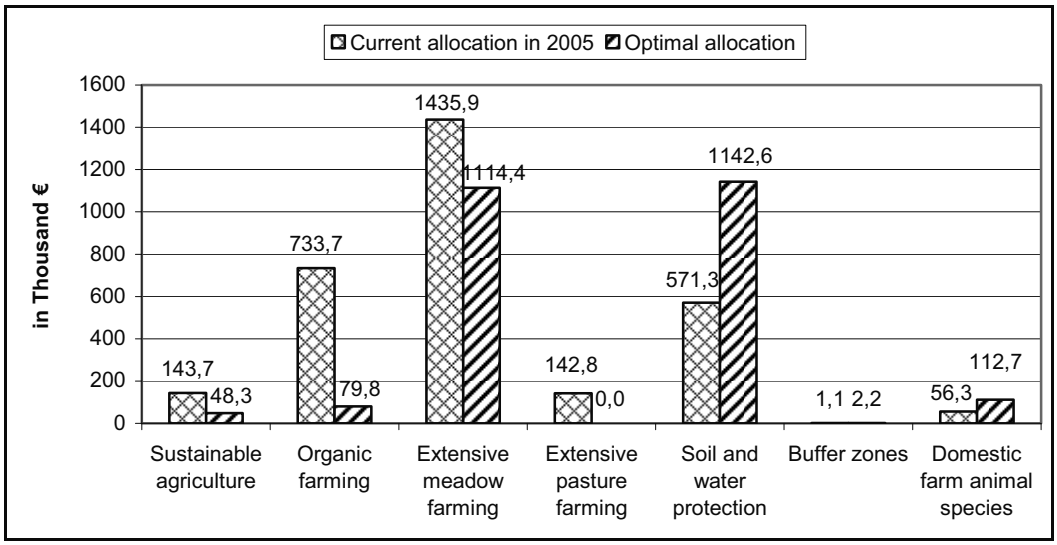
The current allocation in 2005 (line 2) was estimated on the basis of farmers' applications for agri-environmental measures in 2005. The upper budget bounds were defined as 200 % of the current allocation for agri-environmental measures which creates a realistic limitation of the possible solution space for the objective function. The lower budget bounds were set to 0 which indicates that no restrictions in terms of the minimal required financial support for agri-environmental measures were defined by national regulations. It can be explained by the fact that the participation in agri-environmental programmes is voluntary for farmers. Under the given restrictions the aggregated objective function (formula 1) was maximised and the optimal budget allocation was calculated in the basis scenario.

5. Financing Agri-Environmental Measures Subject to Environmental Benefit and income Losses Resulting for Farmers

The methodological analysis of this paper addresses the question of how to allocate the available budget for agri-environmental measures in order to maximise environmental benefits and/ or to minimise negative side effects (potential income losses) resulting for farmers from the implementation of these measures. The optimal (objective-oriented) budget allocation (figure 1) for the named situations was estimated for agricultural administration experts who are defined as political representatives of national decision-makers on a regional level. The optimal budget allocation is estimated for constant

compensation payments for the period 2004-2006 and for farmers participating in the Agri-environmental Programme in the region Subcarpathia in 2005.

Figure 1: Objective-oriented budget allocation for agri-environmental measures for the region Subcarpathia in the basis situation



Source: Author's calculation

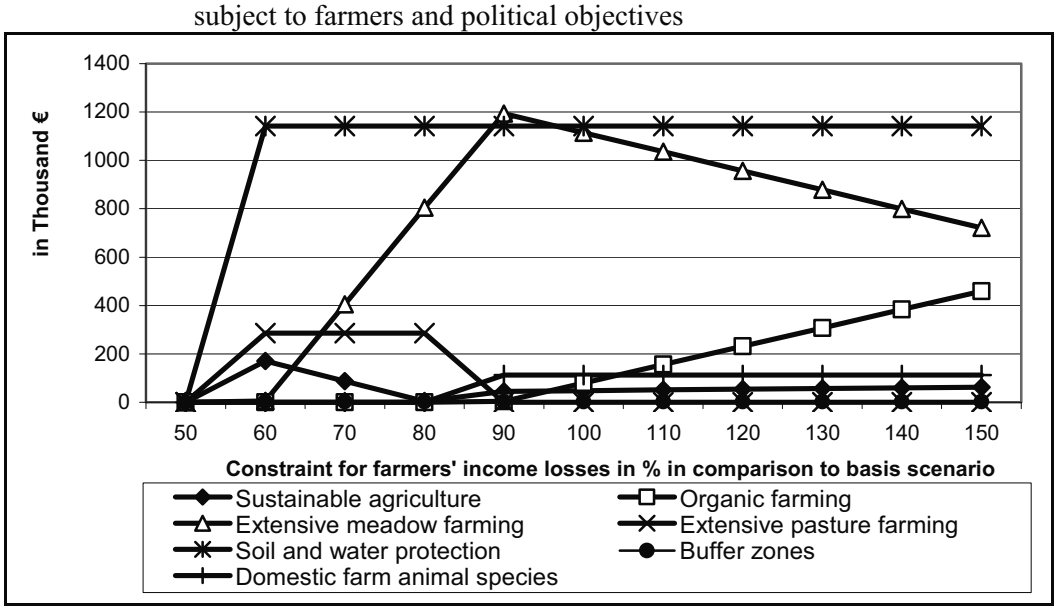
According to the objective-oriented budget allocation in the basis scenario, the measures 'Extensive meadow farming' and 'Soil and water protection' should be financed at the highest level of more than 1.1 million €. Other measures such as 'Domestic farm animal species', 'Organic farming', 'Sustainable agriculture', and 'Buffer zones' should be financed on a relatively low level between 48.3 thousand € and 112.7 thousand €, while the measure 'Extensive pasture farming' should not be supported. With regard to differences between the current and the optimal allocation, in order to maximise the environmental benefit reflected with the objective function, the budget should be extended for only three measures: 'Soil and water protection', 'Buffer zones', and 'Domestic farm animal species'. All other measures should be reduced.

The presented budget allocation shows basis scenario analyses. In order to prove the sensitivity of the integrated model variables, we analyse the question of how changes of different variables (and thus changes of economic and ecological conditions in the Subcarpathia region) would influence the objective-oriented budget allocation. For this reason, we parameterise the constraint of income losses and analyse how a differentiation of political objectives to maximise the environmental benefit with agri-environmental measures and farmers objectives to minimise potential negative effects such as income losses can influence an optimal budget allocation and financing of

agri-environmental measures in the region. At this point there arises the question of the willingness of farmers to implement agri-environmental measures if negative effects of their participation in the programmes can be expected. The potential negative effects resulting for farmers (which should be reimbursed with compensation payments) do not disturb the participation as they cannot be predicted and qualitatively measured. For example, the individual labour input of farmers and their families (much more exceeding the standard desk calculations made by the Ministry of Agriculture and Rural Development) can in many cases not be covered by compensation payments. Additionally, the estimation of the total benefit of agri-environmental measures is not possible due to missing data and intangible (immeasurable) character of these variables. As both variables are quantitatively immeasurable, we assume that the willingness of farmers to participate in agri-environmental programmes is not distorted by this fact.

In order to investigate the named relations, we simulate and calculate objective-oriented budget allocations with regard to the analysed questions of maximising the environmental benefit or minimising potential negative effects for farmers. For this reason, the right side of the constraint in the basis scenario (2.5 million €) was parameterised (weighted) between 50 % and 150 %. The weight of 100 % represents the basis scenario. Weighting the restriction between 100 % and 50 % means that we tend to minimise negative effects for farmers (minimisation of income losses), while weighing the restriction between 100 % and 150 % indicates that we tend to maximise the environmental benefit (apart from side effects for farmers) (figure 2).

Figure 2: Objective-oriented budget allocation for agri-environmental measures subject to farmers and political objectives



Source: Author's calculation

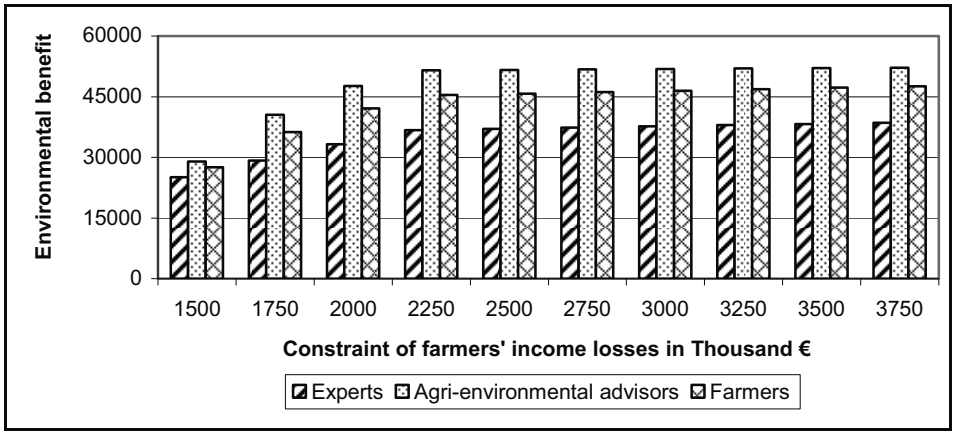
According to the results, the objective-oriented budget allocation in the basis scenario is very sensitive to changes of the analysed restrictions. Setting out from the basis point of 100 % we parameterise the restriction of income losses between 100 % and 150 % and thus simulate the situation of growing importance and maximisation of the environmental benefit. The results show that in such a case the financing of the measure 'Extensive meadow farming' should be reduced, while the measure 'Organic farming' should be simultaneously extended. Thus, a visible trade-off between these measures can be clearly stated. The parameterisation has no considerable effect on financing of other measurers such as: 'Soil and water protection', 'Buffer zones', and 'Domestic farm animal species' while the support for the measure 'Sustainable agriculture' is increasing only to a very limited extent. The measure 'Extensive pasture farming' is not supported.

The results prove that the political and farmers objectives to improve the environmental benefit and to protect farmers from potential negative effects are in a large contradiction to each other and with regard to an optimal budget allocation for the agri-environmental measures.

6. Environmental Benefit of Agri-Environmental Measures Subject to Income Losses of Farmers

The estimated changes of the budget allocation at different levels of income losses are directly correlated with the environmental benefit expressed with the objective function. We analyse the relations between these two variables for all interviewed stakeholder groups in order to emphasise divergences of the environmental benefit from different perspectives in the region. Taking into account opinions of different stakeholders we strive to consider more completely regional preferences and priorities with regard to environmental protection in agriculture in the Subcarpathia region. For this reason we analyse the objective function values by different restriction values of the constraint of income losses. Setting out from the basis restriction value of 100 % (2,500,000 €) the results show that a policy focused on minimising negative effects resulting for farmers (objective function values between 1,500,000 € and 2,500,000 €) leads to a gradual decrease of the environmental benefit reflected with the objectives 'Protection of natural resources', 'Protection and conservation of biodiversity', and 'Conservation of cultural landscape' (figure 3). This tendency is common for all stakeholder groups.

Figure 3: Environmental benefit of agri-environmental measures subject to income losses from the point of view of different stakeholders

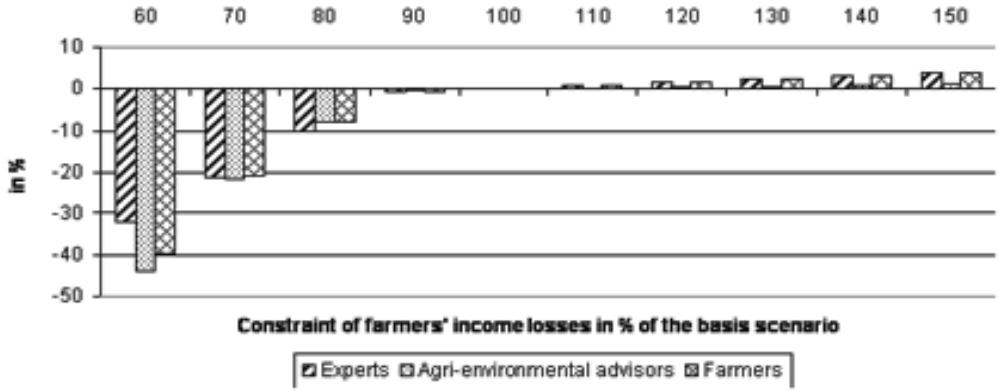


Source: Author's calculation

While minimising negative effects for farmers by each 10 % (starting from the point of 2,250,000 €) the environmental benefit should decrease by 10-13 % proportionally.

Another policy focused on maximising the environmental benefit, apart from negative effects resulting for farmers, would lead to a very slight increase of the environmental benefit. For both policies (maximising environmental benefit and minimising negative effects for farmers) the highest environmental benefit can be achieved according to the assessments given by agri-environmental advisors and farmers. In order to make statements about relative changes of the environmental benefit while realising the discussed policies, the objective function values were expressed in percentage compared to the basis scenario. The changes are presented in figure 4.

Figure 4: Changes of environmental benefit at different levels of the constraint of farmers' income losses



Source: Author's calculation

According to the results, the target to minimise negative effects for farmers by 20 % brings about a decrease of the environmental benefit by approximately 10 % from the point of view of all interviewed stakeholders. However, much more protective policy and minimising the negative effects (reducing income losses) by 40 % results in a decrease of the environmental benefit by 32 % from the point of view of experts, by 43 % from the point of view of the agri-environmental advisors, and by 40 % from the point of view of farmers. Thus, minimising negative effects resulting for farmers and thus protecting farmers' economic interests requires a strong limitation of environmental benefit expressed with the objectives 'Protection of natural resources', 'Protection and conservation of biodiversity', and 'Conservation of cultural landscape'. In contrast, a promoting policy for the environmental benefit (apart from negative effects for farmers) indeed helps to improve 'Protection of natural resources', 'Protection and conservation of biodiversity', and 'Conservation of cultural landscape', however, the increase of the environmental benefit is insignificant. The maximal value of the environmental benefit by the constraint level of farmers' income losses of 3.75 million € is higher by only 4 % (from the experts' and farmers' viewpoint) compared to the basis scenario and by only 1 % from the point of view of agri-environmental advisors.

7. Conclusions and Policy Recommendations

With the accession of Poland to the European Union new chances and development prospects for the Polish agri-environmental policy have been established. The membership in the European Union created new possibilities for protection of natural resources in the Polish agriculture as well as new challenges regarding an effective evaluation and financing of agri-environmental policies. In this paper, relations and dependencies between the environmental benefit of agri-environmental measures and potential negative effects for farmers are investigated and an optimal (objective-

oriented) budget allocation for agri-environmental measures is estimated. As agri-environmental measures are acknowledged as farmers' services for the environment and the society, the implementation of the measures is reimbursed from public funds (European and national funds) in order to cover all costs and to motivate farmers to participate. However, the results of the study in Poland proved that negative effects (such as income losses) result for farmers. Thus, a contradiction between farmers' objectives to secure their income and the political objectives of agri-environmental measures to improve the environmental benefit were found for Poland in the first membership years 2004-2006.

The results of the investigation prove significant dependencies between the level of negative effects for farmers and an objective-oriented budget allocation for agri-environmental measures in the region Subcarpathia studied. Depending on the strategy to minimise negative effects for farmers or promoting the environmental benefit, visible trade-offs between the agri-environmental measures were found. Minimising negative effects for farmers requires to reallocate the budget and reduce financing of 'Extensive meadow farming' and extend 'Extensive pasture farming' and 'Sustainable agriculture'. Again, maximising the environmental benefit (apart from negative effects for farmers) the budget should be shifted from the measure 'Extensive meadow farming' to 'Organic farming'.

The changes of the budget allocation for the agri-environmental measures are also reflected in the environmental benefit which is strongly dependent on the discussed strategies. Maximising the environmental benefit does not substantially contribute to an improvement of the objectives 'Protection of natural resources', 'Protection and conservation of biodiversity', and 'Conservation of cultural landscape'. The maximal increase of the environmental benefit of 4 % compared to the basis scenario is very slight and must be compensated by high losses of farmers' incomes of 50 %. Thus the strategy to accept high negative effects for farmers with the aim to maximise the environmental benefit is not recommendable from the economic and ecological point of view. Another strategy – minimising negative effects for farmers by 40 % would result in a decrease of the environmental benefit by similarly 40 % compared to the basis scenario. Thus, if farmers' objectives to protect their economic situation were considered, the essential objective of the agri-environmental policy to maximise the environmental benefit would be significantly limited. Therefore, in case of Poland where compensation payments do not fully cover farmers' expenses and inputs, political discussions are necessary to balance the relations of the discussed issues.

The results of this study can be useful for political stakeholders in Poland and other EU member states in applying scientific methods to evaluate and design agri-environmental policy, especially in an interactive decision-making process. This would help to deliberate possible difficulties in agri-environmental policies and to find out most suitable solutions both for the environment and for farmers.

The presented case study of Poland is an example showing how to use methodical approaches to support political decision-making processes while planning political programmes. The methodology can be also used for solving more or less difficult questions in planning, evaluation and budget allocations in other countries of the European Union and of the world. For this, case studies with representatives of ministries and political decision-makers are necessary. In order to wholly exploit the possibilities of the approach, it should be used in an interactive way with stakeholders and experts. The interactive implementation covers working seminars and plenary forums as well as elicitation of preferences reflected with priority vectors, upper bounds or other vectors and variables in the LP approach. An interactive working can be organised in a form of round tables and discussions realised e.g. by means of the Delphi method. Due to the short experience with agri-environmental policy in Poland, an interactive implementation of the model was not reasonable on this evaluation stage. This is however recommended for other case studies while transferring the results for research questions in other countries. Additionally, the availability of data should be taken into account while planning the methodology transfer, which is unavoidable to define and specify model restrictions and constraints. The transfer of the presented results and methodology for other EU member states would be helpful in extending the current existing evaluation of agri-environmental programmes in the European Union. Thus, it would be helpful in more effective allocation of the EU funds on the European level.

8. Limitations and Outlook

While discussing advantages of the presented approach, also limitations should be mentioned. One of them is the static character of the model which means that it can be applied for precisely defined current, past or future time periods thus providing a methodological basis for ex-post, mid-term, and ex-ante evaluations. However, while conducting an ex-ante evaluation, long-term changes in the agri-environmental policy (both changes of environmental resources and of budget availability) cannot be predicted for the future development and implementation of the programmes and thus, they cannot be easily considered as variables in the model. Therefore, an integration of other approaches such as indicators in the LP model is recommended for further research on the methodology. It would be also helpful to include dynamic aspects in long-term investigations.

Another limitation of the model is the difficulty in receiving quantitative and qualitative information necessary for the definition of constraints and model vectors which is disadvantageous for an easy implementation and for benefiting from the potentials of the model. Thereby, also further methodology development is in some way hindered. Further case studies and modelling of current policy issues in the new financing period 2007-2013 as well as an integration of other approaches in the LP model are the next steps to diminish the mentioned shortcomings and limitations.

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200 Jahre Darwin und 250 Jahre Theory of Moral Sentiments von Adam Smith

Zur Aktualität eines vergessenen Werkes

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Abstract

The author emphasizes that 2009 must be remembered not only for the 200 birthday of Charles Darwin, but as well as the 250-year anniversary of Adam Smith's "Theory of Moral Sentiments". Proceeding from the fact that Darwin as well as Robert Malthus refer to a classical economist, it is investigated whether the analogies between Evolution Theory and Economy are justified. In both fields, the competition between the selfishly functioning units plays an important/dominating role. Smith, indeed, stresses in his "Theory of Moral Sentiments" apart from the 'self-interest' principle, the meaning of the principle of 'Sympathy' as a second in importance one which, as the author indicates, forms a prerequisite for the successful co-operation and harmony that the "invisible hand" establishes. The one-sided meaning of the "Wealth of Nations" as a eulogy of the egoism, that is the only motive, has its cause in the political interest of the rising liberalism. Finally, it is investigated whether Smith's optimism for a free developing social harmony is justified nowadays, in relation to the rising centralization and globalization. The author arrives at a conclusion that an economic regulation according to the "Freiburger Schule" views, which will be accomplished by the state and it will correspond with the previous developments, it will be in the position to set measures to the consequences of ethic deficit.

Zusammenfassung

Der Autor betont, dass 2009 neben dem 200. Geburtstag von Charles Darwin als zweites Jubiläum an das Erscheinen der „Theory of Moral Sentiments" von Adam Smith vor 250 Jahren zu erinnern ist. Ausgehend davon, dass sich Darwin selbst mit Robert Malthus auf einen Klassiker der Ökonomen berief, wird der Frage nachgegangen inwieweit Analogien zwischen der Evolutionstheorie und der Ökonomik gerechtfertigt sind. Bei beiden Ansätzen kommt ja dem Wettbewerb zwischen egoistisch handelnden Wesen zentrale Bedeutung zu. Smith indessen hat in seiner „Theory of Moral Sentiments" das Prinzip der `Sympathy` als ein zweites mit dem `self-interest´ wirkendes Prinzip betont, welches, wie gezeigt wird, Voraussetzung für das erfolgreiche Zusammenwirken und damit die Harmonie ist, die die berühmte „invisible hand" herstellt. Die einseitige Deutung des „Wealth of Nations" als eine Lobrede auf den Egoismus als alleiniges Motiv hat ihre Ursache in den politischen Interessen des aufkommenden Liberalismus. Schließlich wird der Frage nachgegangen ob der Smith´sche Optimismus einer sich frei entwickelnden gesellschaftlichen Harmonie in Anbetracht zunehmender Zentralisierung und Globalisierung heute noch gerechtfertigt ist. Der Verfasser kommt zum Schluss, dass eine diesen Entwicklungen entsprechende staatlich durchgesetzte Wirtschaftordnung gemäß den Vorstellungen der „Freiburger Schule" die Auswirkungen sich verstärkender ethischer Defizite in Grenzen halten muss.

Keywords: Adam-Smith-Problem, Analogiemethode, Biologismus, Egoismus, Ethik, Evolutionstheorie, Neuroökonomie, Normbildung, Sozialdarwinismus, Spiegelnervenzellen, Sympathy

JEL classification: B0, B1, B4

1. Einleitung

Im Jahre 1809 wurde Charles Darwin geboren und so wird weltweit ein dieser Person gewidmetes Jubiläumsjahr begangen. Bei den vielen in diesem Zusammenhang angesprochenen, sehr grundsätzlichen Fragen bleibt ein Gesichtspunkt meist vergessen, nämlich: Was hat Darwins Denken mit den Wirtschaftswissenschaften zu tun. Dieser Frage soll im Folgenden unter Verweis auf ein kaum beachtetes zweites Jubiläum nachgegangen werden. Vor 250 Jahren erschien mit der „Theory of moral sentiments" eines der beiden zentralen Werke von Adam Smith, welches zu Unrecht bis heute weit weniger beachtet wurde als sein „Wealth of Nations". Eine Analogie zwischen diesem bekannteren Werk von Smith und dem von Darwin sah der russische Sozialtheoretiker Nikolai G. Chernyshevskii, der 1873 höhnte, Darwin lese sich, „als hätte Adam Smith einen Kurs in Zoologie geschrieben."[1] Den Bezug von Seiten er Biologie stellt aktueller auch Stephan Gould her.[2] Es geht allerdings im Folgenden nicht um eher technische Methodenfragen, die z.B. auch in der Gründung eines Ausschusses für Evolutorische Ökonomik im Verein für Socialpolitik Niederschlag gefunden haben[3], oder die Ansicht von Biologen, die betonen das die biologische Theorie der Evolution viel von der Ökonomik zu lernen habe[4], sondern um grundsätzliche Fragen des Menschenbildes, welches sich in Bezug zu Charles Darwin und Adam Smith entwickelt hat und unterschiedlich interpretiert wird.

[1] Todes, D.B.: Darwins malthusische Metapher und russische Evolutionsvorstellungen, in: Engels, E.-M. (Hrsg.) Die Rezeption der Evolutionstheorien im 19. Jahrhundert, Frankfurt 1995, S. 285.
[2] Gould, S.: The Panda´s Thumb, New York, 1980 S. 68.
[3] Zur Entwicklung vergleichbarer Ansätze vgl. Witt, U.: The Evolving Economy: Essays on the Evolutionary Approach to Economics, Cheltenham 2003.
[4] Vgl. z.B.: Mokyr, J.: Economics and the Biologists: A Review of Geerat J. Vermeij´s Nature: An Economic History, in: Journal of Economic Literature, Vol. XLIV, December 2996, S. 1007.

2. Darwins Botschaft und die Ökonomik

In der Einleitung zu seinem bahnbrechenden Werk schreibt Darwin "This is the doctrine of Malthus, applied to the whole animal and vegetable kingdoms."[5] Damit bezieht er sich auf einen Klassiker des ökonomischen Denkens, von dem er auch die Begriffe „natural selection"[6] und „struggle of life"[7] übernimmt. In Analogie zur Bevölkerungslehre von Malthus werden also der begrenzte Lebensraum und der Wettbewerb ums Überleben zum entscheidenden und letztlich einzigen Bestimmungsgrund der Entwicklung. Die Selektion bestimmt, welche durch Zufall und ohne Umwelteinfluss entstandenen Mutationen sich im Überlebenskampf in der gegebenen Umwelt durchsetzen und damit die Evolution bestimmen. Allein der Wettbewerb zwischen sich egoistisch verhaltenden Individuen entscheidet die Auslese und damit die Entwicklung. Es ist dabei wichtig, dass Darwin in einem weiteren Werk ja sogar charakterliche Eigenschaften vom Hang zu Verbrechen bis zu Streitsucht und Lasterhaftigkeit für erblich hielt[8].

Das Buch von Dawkins „The Selfish Gene"[9] ist in den siebziger Jahren des letzten Jahrhunderts auf breite Aufmerksamkeit gestoßen. Mit diesem Werk verlegte die von Dawkins inspirierte Soziobiologie den Kampf ums Überleben auf die Ebene der Gene und deutete die Lebewesen als von Genen gebaute Überlebensmaschinen. Die so neu verpackten und populär verbreiteten Ideen von Charles Darwin (1809–1882), die vor ihm schon der britische Philosoph Herbert Spencer (1820-1903) in seinem philosophisch-erkenntnistheoretischen Evolutionismus vertrat, führt „über die Irrwege des vergangenen Jahrhunderts bis zu neueren Vorstellungen eines genetischen Darwinismus"[10]. In den letzten Jahren kommt es nun zur Gegenbewegung: „Wir sind nicht primär auf Egoismus und Konkurrenz eingestellt, sondern auf Kooperation und Resonanz"[11]. Insbesondere die Bücher des Freiburger Medizinprofessors und Psychotherapeuten Joachim Bauer[12] erfahren in diesem Zusammenhang besondere Beachtung. Es wird damit in Biologie und Medizin eine Kontroverse geführt, die auch in der Nationalökonomie immer wieder aufflackert.

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[5] Darwin, C.: The Origin of Species by Means of Natural Selection or the Preservation of Favoured Races in the Struggle for Life. Edited by J. W. Burrow, London et al.: Penguin Books 1859/1968. S. 68.

[6] Vgl.: Voss, J.: Charles Darwin zur Einführung , Hamburg 2008, S. 113

[7] Vgl.: Voss, J.: Charles Darwin zur Einführung , Hamburg 2008, S. 114

[8] Darwin, C.: The Descent of Man, and Selection in Relation to Sex, London, 1871.

[9] Dawkins. R.: The Selfish Gene, Oxford University Press 1976.

[10] Bauer, J.: Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone, München 2006, S. 170.

[11] Ernst, H.: Ein großer Wurf! Psychologie Heute, zitiert nach dem Umschlagstext des Buches: Bauer, J: Prinzip Menschlichkeit, Warum wir von Natur aus kooperieren, Hamburg 2006.

[12] Vgl. Bauer, J.: Das Gedächtnis des Körpers. Wie Beziehungen und Lebensstile unsere Gene steuern, Hamburg 2002, Bauer, J.: Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone, München 2006 sowie vor allem: Bauer, J.: Das kooperative Gen, Abschied vom Darwinismus, Hamburg 2008.

Die Aussage Bauers, dass Darwins Ideen oft auf verhängnisvolle Weise besonders im deutschen Sprachraum in Biologie und Medizin aufgenommen wurden[13], gilt auch für die Wirtschaftswissenschaften[14]. Dabei spielten aber vor allem die Ideen Herbert Spencers, von dem Darwin ab der 5. Auflage 1869 den Begriff „survival oft he fittest" als Synonym für „natural selection" übernimmt[15], eine wichtige Rolle. Nach seiner Lehre folgen anorganische und organische Welt demselben Entwicklungsgesetz eines biologischen Evolutionismus. Die evolutionäre Entwicklung geschieht nach Spencer in einem individualistischen Überlebenskampf, der nicht gestört werden darf, weshalb jede Staatsintervention abzulehnen ist. Spencer „zog den Gedanken der natürlichen Zuchtwahl heran, um damit das Prinzip eines bedingungslosen ökonomischen Liberalismus mit all seinen Implikationen zu stützen, räumte jedoch ein, dass ethische Urteile den Konkurrenzkampf beeinflussen und insofern eine modifizierende Rolle spielen."[16] Man spricht in diesem Zusammenhang von Sozialdarwinismus. Dieser gipfelt letztlich in der Überzeugung, dass der kriegerische Kampf ums Dasein das beste Mittel zur Verbesserung der Menschheit sei.

Die entsprechende Entwicklung im deutschen Sprachraum, die nur sehr verkürzt angesprochen werden soll, wird auch als Biologismus[17] bezeichnet. Der Philosoph Heinrich Rickert prägte diesen Begriff mit Kritik an dieser „Modephilosophie", die glaube „die Biologie allein, als die Wissenschaft von der lebendigen Natur, sei dazu berufen, die Weltanschauungsprobleme zu lösen"[18]. Im englischen Sprachraum spricht man inhaltlich verständlicher von biologischem oder genetischem Determinismus. Der auf die Wirtschaft bezogene Biologismus im deutschsprachigen Raum hat mit Albert Eberhard F. Schäffle (1831-1903) eine zentrale Gestalt: "Die in den gesamten Kosmos eingebetteten Erscheinungen von Wirtschaft und Gesellschaft gehören in den Bereich biologischer Naturgesetze. Sie haben nur deshalb eine andere Form als die Gesetze des Tierlebens, weil zusätzlich sittliche Momente berücksichtigt werden müssen."[19] Im Unterschied zu Spencer und damit typisch für den deutschen Sprachraum ist sein Ansatz nicht rein individualistisch. Neben die individuelle Ausrichtung tritt nämlich auch die staatlich korporative Gewalt. Die soziale Entwicklung ist allerdings eine andauernde Evolution mit Daseinskampf und Auslese. Für Otto Ammon (1842-1910) ist die soziale Schichtung Folge eines naturgesetzlichen Selektionsprozesses. Der Biologismus ist allerdings nicht nur politisch rechts anzusiedeln: Ludwig Woltmann (1871-1907) schreibt "Die Darwinsche Theorie und der Sozialismus"[20] und betont, dass der Wettbewerb als Ausleseprinzip nur im Sozialismus vorteilhaft wirken kann, weil nur da die Startchancen letztlich gleich sind und keine künstliche Verhinderung der Selektion stattfindet. Auch Marx schreibt „Kasten und Zünfte entspringen aus demselben Naturgesetz, welches die Sonderung von Pflanzen und Tieren in Arten und Unterarten

[13] Vgl. Bauer, J: Prinzip Menschlichkeit, S. 107-108.
[14] Vgl. Brandt, K.: Geschichte der deutschen Volkswirtschaftslehre, Bd. 2, Freiburg 1993, S. 69.
[15] Voss, J.: Charles Darwin zur Einführung , Hamburg 2008, S. 115.
[16] Pribram, K.: Geschichte des ökonomischen Denkens, Bd. 1, Frankfurt 1998, S. 553.
[17] Vgl. hierzu Brandt, K.: Geschichte der deutschen Volkswirtschaftslehre, Bd. 2, S. 69 – 74.
[18] Rickert, H.: Lebenswerte und Kulturwerte, in: Logos 2, (1911/12) S. 131,
[19] Brandt, K.: Geschichte der deutschen Volkswirtschaftslehre, Bd. 2, S. 70.
[20] Woltmann, L.: Die Darwinsche Theorie und der Sozialismus, Düsseldorf 1899

regelt“[21] und sieht auch die Entwicklung der Technik in Analogie zu Darwins Theorie,[22] überträgt allerdings diese nicht auf die gesellschaftliche Entwicklung insgesamt.

Wie Bauer in Bezug auf Medizin und Biologie feststellt, so ist auch für die Wirtschaftswissenschaften darauf hinzuweisen, dass die besonders ausgeprägte Rezeption von Spencer und Darwin im Deutschen Reich in der ersten Hälfte des 20. Jahrhunderts verhängnisvolle Auswirkungen auf die Geisteshaltung hatte. Die Übertragung von Wettbewerbs- und Selektionsüberlegungen von der individuellen auf die kollektive bzw. nationale Ebene wirkte auch über das für das reichsdeutsche typische ökonomische Denken der älteren und jüngeren historischen Schule bis in die politischen Entwicklungen zum Nationalsozialismus.

Was nun jedoch die individuelle Ebene angeht, so erscheint die Frage zentral ob der wirtschaftliche Wettbewerb ausschließlich die Entwicklung bestimmt und letztlich dazu führt, dass moralische Standards minimiert werden, weil sie einen Wettbewerbsnachteil darstellen. Für die zukünftige Entwicklung marktwirtschaftlicher Systeme kommt dieser Frage ganz entscheidende Bedeutung zu.

3. Das „Adam-Smith-Problem“

Bereits Gustav Schmoller (1838-1917), die zentrale Gestalt der jüngeren deutschen historischen Schule, betont, Adam Smith lobend, lediglich die verhängnisvolle Richtung, die durch ihn die Wirtschaftswissenschaften genommen hätten. "Ein so feiner Psychologe und Ethiker wie Adam Smith, der im übrigen ein Gegner dieser materialistischen Theorien war, brauchte nun nur in seinen volkswirtschaftlichen Erörterungen von der natürlichen Neigung jedes Menschen, sein eigenes Interesse zu verfolgen, zu sprechen und optimistisch die guten durchschnittlichen Folgen dieser Neigung zu rühmen, und ein Geschlecht von Epigonen ... kamen nun zu einer allgemeinen Theorie, die dahin lautete, daß der Egoismus, der Eigennutz, ... die ausschließliche Grundlage der Volkswirtschaft seien, daß wenigstens in unserer Wissenschaft nur die Folgen dieses Triebes zu untersuchen seien."[23]

Die einseitige Deutung der Ideen von Smith ist wohl durch die politischen Umstände in der Zeit ihres Erscheinens zu verstehen. Der „Wealth“ „schien die gesellschafts- und ordnungspolitischen Vorstellungen des Liberalismus zu bestätigen.“[24] Die von Smith gegen das Gesellschaftsbild von Thomas Hobbes (1588-1679) im Leviathan (1651), nach dem im Naturzustand ein Krieg aller gegen alle (bellum omnium

[21] Marx, K.: Das Kapital, 1.Band, MEW, Bd. 23, Berlin 1979, S. 360.
[22] Vgl. Marx, K.: Das Kapital, 1.Band, MEW, Bd. 23, Berlin 1979, Fußnoten S. 361-363 und S. 392-393.
[23] Schmoller, G.: Grundriß der Allgemeinen Volkswirtschaftslehre, Erster Teil, 3. Aufl., Leipzig 1908, S. 32.
[24] Fricke, C. und Schütt, H.-P.: Einleitung: Adam Smith – ein Klassiker, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S.1.

contra omnes) nur durch die ordnende Macht des Staates zu bändigen bleibt[25], gerichtete Sicht entsprach dem optimistischen Gesellschaftsbild des Liberalismus[26]. Auch die Beurteilung des freiheitlichen Marktsystems durch Bernard de Mandeville (1670-1733) in seiner „Bienenfabel“ (1705, 1715) als moralisch verwerflich, erschien vor dem Hintergrund der Botschaft des Wealth als Zerrbild. Nach der „Bienenfabel“ sind es nämlich nicht die Tugenden, „welche die Zivilisation bewegen, sondern die Laster. Aus den Untugenden, dem Streben nach Bequemlichkeit, nach Vergnügen und Luxus, geht letzten Endes gesellschaftliche Wohlfahrt hervor."[27] Es ist daher kein Wunder, dass Mandeville für die sozialistische Deutung des Kapitalismus eine wichtige Rolle gespielt hat und auch sich nicht als sozialistisch verstehende Intellektuelle die Entwicklung der Marktwirtschaft mit entsprechenden Einstellungen begleiten.

Die Lehre des „Wohlstand der Nationen“ wurde zur Zeit seines Erscheinens von der liberalen Gesellschaft sicherlich als wohltuend empfunden. Die „Entschiedenheit gegen den Zynismus eines Hobbes oder Mandeville“[28], dessen Fabel Adam Smith ausdrücklich abgelehnt hat[29], waren der Aufnahme der Smithschen Ideen und eben besonders des „Wealth“ in der damaligen Phase der gesellschaftlichen Entwicklung sicherlich außerordentlich förderlich. Das von Interessen geleitete Herauslesen einer Lehre vom „Postulat des Selbstinteresses als ethischer Verpflichtung“[30] aus dem „Wealth“ hat zu einer tendenziellen Deutung geführt. In dieser Tradition von Marx und Engels[31] bleiben politisch links stehende Wirtschaftswissenschaftler, die oft die Ideen von Smith in engem Zusammenhang mit denen von Mandeville sehen[32] oder gar mit denen von Hobbes und Mandeville in einen Topf werfen[33]. Sie sehen dabei Smith weiterhin ausschließlich als einen Theoretiker "der rein egoistischen Beweggründe des

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[25] vgl. z.B.: Pribram, K.: Geschichte des ökonomischen Denkens, 1.Band, S. 131 und Andree, G. J.: Zur Natürlichkeit der Moralphilosophie Adam Smiths, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 353.

[26] Vgl. Fricke, C.: Genesis und Geltung moralischer Normen, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 37-38.

[27] Brandt, K. : Geschichte der deutschen Volkswirtschaftslehre, Band 1: Von der Scholastik bis zur klassischen Nationalökonomie, Freiburg 1992, S. 132.

[28] Solomon, R. C.: Sympathie für Adam Smith: Einige aktuelle philosophische und psychologische Überlegungen, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 258.

[29] vgl. z.B.: Smith, A.: The Theory of Moral Sentiments (Liberty Classics), Oxford 1976, S. 308.

[30] Briefs, G.: Untersuchungen zur klassischen Nationalökonomie, Mit besonderer Berücksichtigung des Problems der Durchschnittsprofitrate, Jena 1915, S. 251.

[31] vgl. Griswold, C. L.: Fair play, Übelnehmen und der Sinn für Gerechtigkeit: Kritische Überlegungen zu Adam Smith, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 129.

[32] Rothschild verwendet die Formulierung "Adam Smith (Mandeville folgend)". Rothschild, K.W.: Theorie und Ethik in der Entwicklung ökonomischer Lehrmeinungen, in: Bievert, B. und Held, M (Hrsg.): Ökonomische Theorie und Ethik, Frankfurt 1987, S. 14 .

[33] Vgl. Hunt, E.K. und Sherman, H.J.: Volkswirtschaftslehre, Einführung aus traditioneller und kritischer Sicht, Band 1: Mikroökonomie, Frankfurt/New York 1993, S. 40.

Menschen"[34]. Entsprechend ist eine oft zu beobachtende Einstellung, dass Handlungen, die im Verdacht stehen mit dem Ziel eines eigenen Vorteils oder gar Gewinns in Zusammenhang zu stehen, von Menschen a priori negativ eingestuft werden. Adorno äußert im Hinblick auf Erfahrungen in den USA: „Ein Mensch, der unter äußerem Zwang, ja durch sein egoistisches Interesse zur Freundlichkeit gebracht wird, gelangt am Ende eher zu einer gewissen Humanität in seinem Verhältnis zu anderen Menschen als jemand, der nur, um sich selbst identisch zu sein - als ob diese Identität immer wünschbar wäre - ein bösartiges, vermuffeltes Gesicht macht und einem von vornherein bedeutet, man sei für ihn eigentlich nicht vorhanden und habe in seine Innerlichkeit, die vielleicht gar nicht existiert, nicht hineinzureden .."[35]

Auch Mitglieder der älteren historischen Schule deuteten den „Wohlstand der Nationen" als eine Lobrede auf egoistisches Verhalten und führten eine Diskussion, die unter der Bezeichnung „Adam-Smith-Problem" geführt wurde und auf der Ansicht beruht, das Gesamtwerk von Smith sei durch einen schwerwiegenden Widerspruch gekennzeichnet. Es waren vor allem deutsche Vertreter der älteren historischen Schule[36] unter anderen Karl Knies[37] (1821-1898), die zwischen dem Inhalt der beiden Werke "The Theory of Moral Sentiments" und "An Inquiry into the Nature and Causes of the Wealth of Nations" einen grundlegenden Widerspruch sahen. Die Sympathie, unter der Smith die Wahrnehmung versteht, "dass ein vorgestelltes Gefühl in uns selbst mit dem an einem anderen Menschen beobachteten übereinstimmt"[38], begründe das moralische Urteil, aus welchem in der „Theory of Moral Sentiments" Handlungen erklärt werden. Im Wohlstand der Nationen jedoch erfolge, wie Bruno Hildebrand (1812-1878) betont, die "Erhebung des individuellen Vorteils zum obersten Prinzip der ökonomischen Wissenschaft".[39] Man versuchte diesen vermeintlichen Widerspruch darauf zurückzuführen, dass Smith seine Ansichten nach einer Frankreichreise, bei welcher er Kontakte mit den Physiokraten, geändert habe.

Dies steht allerdings in einem Widerspruch zur Tatsache, dass Smith die 1790 erschienene 2. Auflage der Theorie der ethischen Gefühle ab 1788 selbst überarbeitete, und es in dieser Hinsicht nicht zu wesentlichen Änderungen kam. So verweist Viner, selbst ein Verfechter von Widersprüchlichkeiten zwischen beiden angesprochenen

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[34] Hunt, E.K. und Sherman, H.J.: Volkswirtschaftslehre, Einführung aus traditioneller und kritischer Sicht, Band 1: Mikroökonomie, Frankfurt/New York 1993, S. 40.

[35] Adorno, T.W.: „Wissenschaftliche Erfahrungen in Amerika" 1969, zitiert nach Akademische Monatsblätter 4/95/ S. 22

[36] Vgl. Hildebrand, B.: Die Nationalökonomie der Gegenwart und Zukunft und andere gesammelte Schriften, Jena 1848, S. 21 - 27; Brentano, L.: Der wirtschaftende Mensch in der Geschichte, Leipzig 1923, Kap 1.

[37] Vgl. Knies, K.: Die politische Ökonomie vom geschichtlichen Standpunkt, 2. Auflage Leipzig 1930, S. 223 – 253.

[38] Raphael, D.D.: Adam Smith, Frankfurt/Main; New York 1991, S. 100.

[39] Hildebrand, B.: Die Nationalökonomie der Gegenwart und Zukunft und andere gesammelte Schriften, Jena 1848, S. 31.

Werken[40], darauf, dass das Fragment einer Vorlesung aus dem Jahre 1749, also 10 Jahre vor dem Erscheinen von "The Theory of Moral Sentiments", bereits "den Inhalt seiner voll entwickelten Doktrin enthält, wie sie im Wealth of Nations zu finden ist."[41]

Dass das Menschenbild von Smith sich nicht als rein individualistisch verstehen lässt, kommt auch darin zum Ausdruck, dass er in beiden hier angesprochenen großen Werken laufend Bezug auf Aristoteles und Thomas von Aquin nimmt. Deren Vorstellungen vom Menschen als zoon polition (Aristoteles) und Thomas von Aquin (ens sociale) wurden Smith von seinem Lehrer Hutchison nahegebracht und prägten seine eigenen Vorstellungen.[42]

Die Frage, ob die langfristige wirtschaftliche Entwicklung ausschließlich durch einen wettbewerblichen Selektionsmechanismus zwischen egoistischen Individuen bestimmt ist und es auf diese Weise zunehmend zur Abnahme moralisch-ethischer Standards kommt, weil diese den individuellen Erfolg hindern, scheint in Anbetracht jüngster Entwicklungen der Finanzkrise und ihrer Folgen von besonderer Aktualität zu sein. Dieser wichtigen Frage kann auch unter Bezug auf die Werke von Adam Smith nachgegangen werden, der in der wissenschaftlichen und öffentlichen Diskussion meist zu Unrecht unter ausschließlicher Beziehung auf die grundlegenden Gedanken seines Werks „Wohlstand der Nationen“ als Verfechter eines radikalen Konkurrenzdenkens verstanden wird. Dies zumal neuere medizinische Untersuchungen die Smithschen Überzeugungen eines auch durch Sympathy gesteuerten Verhaltens bestätigen.

Es geht im Folgenden nicht darum die Bedeutung egoistischen Verhaltens im biologischen oder wirtschaftlichen Wettbewerb zu verneinen, sondern darum, der radikalen Einseitigkeit dieses Menschenbildes zu widersprechen. Dieses eigentliche Problem von im Menschen widerstreitenden Anlagen kann bis in die talmudische Literatur zurückverfolgt werden.[43]

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[40] Die Auseinandersetzung Viners, bei der die 2. Auflage der Theory of Moral Sentiments mit dem Wealth verglichen wird, ist soweit den Ansichten Viners zuzustimmen ist, die er übrigens später selbst relativiert hat, im Zusammenhang mit den weiteren Ausführungen ohne Bedeutung. Vgl. z.B. Raphael, D.D.: Adam Smith, Frankfurt/Main; New York 1991, S. 105 – 107.

[41] Vgl. Viner, J.: Adam Smith and Laissez-Faire, in: Journal of Political Economy, Bd. 35, 1927 zitiert nach der Übersetzung in: Recktenwald H.C. (Hrsg.): Geschichte der Politischen Ökonomie, Stuttgart 1971, S. 76.

[42] Vgl.: Recktenwald, H. C.: Adam Smith (1723 – 1790), in: Starbatty, J. (Hrsg.): Klassiker des ökonomischen Denkens, Bd. 1, München 1989, S. 138.

[43] Vgl.: Ohrenstein, R.A. and Gordon, B.: Economic Analysis in Talmudic Literature, Leiden, Now York, Köln 1992 S. XIII und S. 35 - 45

4. Selbstinteresse und Sympathy als zwei Seiten einer Medaille

Unter Sympathy versteht Smith die Wahrnehmung, dass „ein vorgestelltes Gefühl in uns selbst mit dem an einem anderen Menschen beobachteten übereinstimmt"[44]. Wenn man nun die viel zitierte Textstelle aus dem „Wealth": „Nicht vom Wohlwollen des Metzgers, Brauers und Bäckers erwarten wir das, was wir zum Essen brauchen, sondern davon, daß sie ihre eigenen Interessen wahrnehmen"[45] betrachtet, wird offenbar, dass die beiden steuernden Motive der beiden Werke sich geradezu bedingen. Sympathy, die bei Smith insbesondere das Bewusstwerden gemeinsamer Gefühle und Einschätzungen verschiedener Individuen darstellt, ist ja geradezu die Voraussetzung dafür, dass Menschen im Sinne anderer tätig werden können und so durch Beachtung von deren Interessen zum eigenen Erfolg zu kommen.

Diese Sympathie, die sich aus einem Mitempfinden im menschlichen Zusammenleben entwickelt, stellt im Zusammenwirken mit dem Wettbewerb also eine Voraussetzung für den Abstimmungsprozess der „invisible hand" dar. Die Frage in der Diskussion um das „Adam Smith Problem" um einen Widerspruch in seinem Denken, Fairness oder Eigennutz, Kooperation oder Wettbewerb, ist unsinnig, beide funktionieren nur gemeinsam.

Eigeninteresse und Sympathie sind nach dem Verständnis von Smith dem Menschen angeboren[46]. Beide zusammen sind Grundlage für die Abstimmung menschlichen Verhaltens in einer Gesellschaft. Die zwei wichtigsten hier angesprochenen Werke von Smith sind ähnlich aufgebaut[47]. Die Theorie der ethischen Gefühle beginnt Smith mit dem Kapitel "Of Sympathy" und betont damit eine natürliche Anlage, die gesellschaftliche Abstimmung möglich macht, aus dem ursprünglichen Verlangen den Mitmenschen zu gefallen und einer ursprünglichen Abneigung ihnen wehe zu tun, was ja auch bereits ein wettbewerbliches Element enthält. "Nature when she formed man for society, endowed him with an original desire to please, and an original aversion to offend his brethren"[48]. Den Wealth beginnt er mit "Of the Division of Labour" und damit einer Ursache individueller Abhängigkeiten, die gesellschaftliche Abstimmung erfordert. Dieser Abstimmungsmechanismus ist die unsichtbare Hand, "die erreicht, daß das Selbstinteresse, ohne es selbst zu wissen, das Allgemeinwohl am besten versorgt."[49]

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[44] Raphael, D.D.: Adam Smith, Frankfurt/Main; New York 1991, S. 100.
[45] Smith, A.: Der Wohlstand der Nationen, DTV-Klassik, 6. Aufl., München 1993, S. 17
[46] Vgl. Recktenwald, H.C.: Adam Smith (1723 - 1790) in: Starbatty, J.: Klassiker des ökonomischen Denkens, Bd. 1, München, 1989, S. 140.
[47] Vgl. Recktenwald, H.C.: Adam Smith (1723 - 1790) in: Starbatty, J.: Klassiker des ökonomischen Denkens, Bd. 1, München, 1989, S. 144.
[48] Smith, A.: The Theory of Moral Sentiments, Edited by Raphael, D.D. and Macfie, A.L. Indianapolis 1982, S. 116.
[49] Salin, E.: Geschichte der Volkswirtschaftslehre, 4. Aufl., Bern Tübingen 1951, S. 83.

Da es im Wettbewerb nicht nur um wirtschaftlichen Erfolg, sondern auch um gesellschaftliches Ansehen geht, kann sogar eine Analogie zwischen wirtschaftlichem und moralischem Markt[50] gesehen werden, der nach Smith zu gesellschaftlicher Harmonie beiträgt. Relativierend ist dabei aber hervorzuheben, dass Kooperation im wirtschaftlichen Geschehen eben oft, nicht wie dieses Wort meist verstanden wird, in unmittelbarem menschlichem Kontakt, sondern häufig anonym über den Markt erfolgt, was von Hayek mit dem Konzept „Wettbewerb als Entdeckungsverfahren" und der Betonung des Preismechanismus als effizientem Informationssystem einer Marktwirtschaft in beeindruckender Klarheit dargestellt hat. Smith hat in der Wirtschaft seiner Zeit wohl nicht das Ausmaß der Anonymisierung gesehen, welches heute durch Zentralisation der Unternehmen und Internationalisierung der Märkte entstanden ist und verständlicherweise heute von vielen Menschen als Bedrohung empfunden wird.

Dass die Fähigkeit zur Sympathie angeboren ist, wird durch neuere experimentelle Ergebnisse bestätigt. So ist es interessant, dass Experimente mit Menschenaffen und Kindern zum Ergebnis führten: im „Gegensatz zu anderen Primaten geben und teilen wir Menschen auch außerhalb der Familie, selbst wenn das Teilen mit Kosten verbunden ist, können aber auch zornig werden, wenn sich jemand nicht dazu verpflichtet fühlt."[51] In der Evolution kann sich diese Eigenschaft aus Anpassungen entwickelt haben, „die sich auf die Fähigkeit von Menschen beziehen, ihr Sozialverhalten aufeinander abzustimmen – sich gegenseitig als intentionale Wesen zu verstehen - …ihr eigenes Verhalten zu reflektieren".[52] Dieses Verhalten gegenseitigen Helfens kann sich in einem Prozess der Sozialgruppenselektion[53] als vorteilhaft erwiesen und durchgesetzt haben. Entsprechend versucht die evolutionäre Ethik den dem Menschen typischen „Altruismus" evolutionsbiologisch zu erklären. Der Begriff Altruismus, der auch in Bezug auf Tiere diskutiert wird[54], setzt indessen voraus, dass es sich um frei gewählte Entscheidungen handelt, die auch zum eigenen Nachteil sein können. „Es zeigt sich bei vielen Soziobiologen die mangelnde Kenntnis der ethischen Traditionen auch darin, dass sie ethisches Verhalten mit Altruismus gleichsetzen."[55]

Es ist ferner darauf hinzuweisen, dass der Schritt zur Gruppenselektion beim Menschen indessen wegen externer Effekte bzw. wegen des Kollektivgutcharakters von Gruppenregeln nicht so einfach gelingt. Die für die Gruppe vorteilhaften Regeln können evolutorisch instabil sein, wenn normabweichendes Verhalten für das einzelne Individuum als vorteilhaft erscheint. Entsprechend sind Theorien der Gruppenselektion,

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[50] Vgl.: Otteson, J. R.: Adam Smith und die Objektivität moralischer Urteile: Ein Mittelweg, in: in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 26.

[51] Gigerenzer, G.: Bauchentscheidungen, Die Intelligenz des Unbewussten und die Macht der Intuition, 2. Aufl:, München 2007, S. 77-78, Zitat S. 78.

[52] Tomasello, M.: Die kulturelle Entwicklung des menschlichen Denkens, Frankfurt 2002, S. 229.

[53] Mayr, E.: Konzepte der BiologieStuttgart 2005, S. 157.

[54] vgl. z.B. Krebs, J.R./Davies, N.B. (1993): An Introductions to Behavioural Ecology, 3. Aufl. London 1993.

[55] Knapp, A.: Soziobiologie und Moraltheologie. Kritik der ethischen Folgerungen moderner Biologie, Weinheim 1989, S.255.

ohne Sanktionsmechanismen in der Gruppe und damit „bewußte Regelgestaltung“[56] unvollständig.

Ferner bleibt zu bedenken, dass die Gruppenselektion zu einer kulturellen Evolution führt, die dem Darwinschen Verbreitungsmuster widerspricht. Die kulturelle Evolution führt nämlich fast durchgehend dazu, dass die Fortpflanzungsraten gesenkt werden[57], ja im Extremfall die besonders erfolgreichen sozialen Gruppen sogar aussterben können. Sich also besonders entwickelte Gruppen nicht stärker verbreiten als andere. Dass solche Gesichtspunkte nicht irrelevant sind zeigt sich ja den Entwicklungen des Altersaufbaus und den damit verbundenen Schwierigkeiten der Altersversorgungssysteme in entwickelten Volkswirtschaften. Es wird somit deutlich, dass zwischen biologischer und kultureller Entwicklung dermaßen entscheidende Unterschiede bestehen[58], dass die Übertragung der Erklärungs- und Vorhersagemethoden im Analogieschluss von der Biologie auf die gesellschaftliche kulturelle Entwicklung enge Grenzen gesetzt sind.

Für die kulturelle Evolution kommt dem Lernen und der bewussten Gestaltung der Entwicklung eben entscheidende Bedeutung zu. Auf diese Weise können erfolgreiche Verhaltensweise auch von einer Gruppe, die diese selbst entwickelt hat, auf eine andere übertragen werden.

Wichtig ist das Lernen aber insbesondere für die individuelle Entwicklung. „Heute weiß man, daß mütterliche Zuwendung in der frühen Kindheit einen Einfluß darauf hat, wie stark ein Organismus lebenslang auf stressreiche Erlebnisse reagiert.“[59] Bei den Versuchen, die zur Entdeckung der Spiegelnervenzellen führten, kann man folglich nicht ausschließlich auf angeborenes Verhalten schließen. Zwar muss eine entsprechende Veranlagung des Menschen bestehen, da die Versuche jedoch meist mit erwachsenen Personen durchgeführt wurden, können diese Verhaltensweisen auch Folge eines Lernprozesses sein.

Der Nachweis der Spiegelnervenzellen[60], der die zentrale Idee der Sympathy von Smith, nämlich die Fähigkeit des Menschen, sich in andere Hineinzudenken und Mitgefühl zu entwickeln, medizinisch-physisch[61] bestätigt, muss also im gesellschaftlichen Zusammenhang gesehen werden.

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[56] Vgl. Vanberg, V.: Kulturelle Evolution und die Gestaltung von Regeln, Tübingen 1994, S. 39.

[57] Vgl. Harris, M.: Menschen, Wie wir wurden, was wir sind, Stuttgart 1992, S. 125 - 125.

[58] Vgl. Harris, M.: Menschen, Wie wir wurden, was wir sind, Stuttgart 1992, S. 477.

[59] Tegethoff, M.: Lebenserfahrung im Genom; Schicksal Kindheit: Wie Mutters Pflege die Erbinformationen ändert, in: Frankfurter Allgemeine Zeitung, Nr. 261, vom 10.11.2005, S. 40

[60] Vgl. Bauer, J.: Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone, München 2006.

[61] Vgl. Bauer, J.: Das Gedächtnis des Körpers, S. 68 und S. 73.

Die Lehre in der Theorie der ethischen Gefühle kann als „eine Spiegel-Theorie der moralischen Sozialisation“ verstanden werden[62]. Der Bezug zum Untertitel von Bauers Buch „Intuitive Kommunikation und das Geheimnis der Spiegelneurone“[63] erscheint somit unmittelbar einleuchtend. Schmerzerfahrungen anderer lassen sich physisch in den Gehirnen von Beobachtern nachweisen[64]. Die Überschriften in Bauers Buch „Stimmungen, Gefühle und Körperhaltungen: Vorsicht, Ansteckungsgefahr!“[65] oder “Das Geheimnis der sympathischen Ausstrahlung“[66] kann man geradezu als eine Neufassung der Gedanken von Smith verstehen. Wenn von Bauer formuliert wird, man könne „Spiegelung und Resonanz als das Gravitationsgesetz lebender Systeme“[67] bezeichnen, erscheint die Verwandtschaft mit den Ideen von Smith, dem Newton als wissenschaftliches Vorbild galt[68], geradezu verblüffend.

Zahlreiche Formulierungen von Smith können als Deutungen von Spiegelungen verstanden werden. „In manchen Fällen mag es den Anschein haben, dass Sympathie aus dem bloßen Anblick einer bestimmten Gemütsbewegung an einer anderen Person entstehe. In manchen Fällen mag es geradezu scheinen, dass die Affekte sich von einem Menschen auf einen anderen übertragen, und zwar bevor dieses noch irgendwelche Kenntnis davon hat, was es war, das in der zunächst betroffenen Person jene Affekte auslöste.“[69]

Den Prozess der individuellen und zugleich sozialen Normbildung erklärt Smith mit der Einführung des unbeteiligten Zuschauers (impartial spectator) als eines zweiten Ichs. Er zeigt wie Individuen ihre eigenen Handlungen im Hinblick auf die Gesellschaft beurteilen. Der unbeteiligte Zuschauer bildet sich als Ergebnis eines interaktiven Prozesses in welchem Personen in verschiedenen Rollen auftreten.[70] Zum einen als handelnde Akteure, zum anderen als von diesen Handlungen betroffene und schließlich als unbeteiligte Zuschauer des Geschehens. "When I endeavour to examine my own

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[62] Ballestrem, Graf K.: David Hume und Adam Smith, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 337).

[63] Bauer, J.: Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone, München 2006.

[64] Vgl. Bauer, J.: Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone, München 2006, S. 157-160.

[65] Bauer, J.: Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone, München 2006, S. 11.

[66] Bauer, J. : Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone, München 2006, S.48.

[67] Bauer, J.: Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone, München 2006, S. 173.

[68] vgl. Andree, G. J.: Die Natürlichkeit der Moralphilosophie Adam Smiths, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 349.

[69] Smith, A.: Theorie der ethischen Gefühle, Übersetzung von Eckstein, Walter 1926, Nachdruck Hamburg 1994, S. 5

[70] Vgl. Fricke, C.: Genesis und Geltung moralischer Normen, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 40-41.

conduct, ... , I divide myself, as it were, into two persons; and that other I, the examiner and judge, represent a different character from that other I".[71]

So entsteht der „Gerichtshof in unserer Brust der höchste Schiedsrichter über alle unsere Handlungen."[72] Eine wichtige Vorrausetzung in diesem Prozess besteht darin, dass die Beteiligten „von Anfang an als Personen interagieren, die bereit sind, einander als Gleiche zu respektieren"[73] und eine moralische Erziehung gewährleistet, dass in gegenseitigem Respekt niemand von der Kooperation ausgeschlossen wird.[74] Smith liefert auf diese Weise eine Erklärung, die Kant schuldig geblieben ist, „die Erklärung nämlich, wie Einstellungen, die Kant voraussetzt, im Verlauf einer moralischen Erziehung gebildet werden."[75] Diese Position lässt zwar „das Gespenst des Relativismus aufstehen"[76], die Existenz der moralischen Standards ist jedoch „wie auch ihr Wesen eine objektiv festzustellende Tatsache."[77] Da die Ausbildung der Einstellungen eben einem gesellschaftlichen Lernprozess unterliegt, lässt sich verstehen, dass verschiedene Gesellschaften „unterschiedliche, ja unvereinbare moralische Standards entwickeln"[78].

Raphael stellt bezüglich dieser gedanklichen Konstruktion des impartial spectator Bezüge zur Freudschen Theorie des Über-Ich her[79], betont jedoch zwei Unterschiede, die gerade typisch für das sind, auf was es Smith ankam. Zum einen erfolgt diese Herausbildung des zweiten Ichs nicht im Hinblick auf die Eltern, sondern in Bezug auf den allgemeinen gesellschaftlichen Normbildungsprozess und zum anderen treten bei Smith die positiven Anreize stärker in den Vordergrund als die Frustrationen. Allerdings spielt bei ihm auch das Vergeltungsgefühl (resentment) eine wichtige Rolle.

Was nun die Bedeutung Lernens und wie dieses geschieht bei Adam Smith angeht, so wird auch dies durch neueste Forschungen bestätigt. „Neurologisch gesehen ist beim `Lernen am Modell` zwischenmenschliche Beziehung zwischen Lehrendem und Lernendem von überragender Bedeutung. Die Spiegelneuronen eines Beobachters

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[71] Smith, A.: The Theory of Moral Sentiments, Edited by Raphael, D.D. and .Macfie, A.L. Indianapolis 1982, S. 113.

[72] Smith, A.: Theorie der ethischen Gefühle, Übersetzung von Eckstein, Walter 1926 , Nachdruck Hamburg 1994,S. 297.

[73] Fricke, C.: Genesis und Geltung moralischer Normen, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 59.

[74] Vgl. Fricke, C.: Genesis und Geltung moralischer Normen, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 63.

[75] Fleischacker, S.: Smith und der Kulturrelativismus, in: Fricke, C. und S., Hans-Peter (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 124.

[76] Fleischacker, S.: Smith und der Kulturrelativismus, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 125.

[77] Otteson, J. R.: Adam Smith und die Objektivität moralischer Urteile: Ein Mittelweg, in: in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S 20.

[78] Fleischacker, S.: Smith und der Kulturrelativismus, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 122.

[79] Vgl. Raphael, D.D.: Adam Smith, Frankfurt/Main; New York 1991, S. 54.

verweigern, wie Experimente zeigen, jede Aktivität, wenn die beobachtete Handlung nicht von einem lebenden Individuum ausgeführt wird, sondern von einem Instrument“.[80]

Entsprechend den Vorstellungen von Smith betont Viktor Vanberg mit Bezug auf Max Weber, dass wechselseitige Abhängigkeit von Akteuren in einer dezentralen Tauschwirtschaft ein „eigeninteressiertes Motiv zur Rücksichtnahme auf die Interessen anderer schafft und damit auf soziale Befriedung hinwirkt.“[81] Entscheidend wird dabei „das Gesetz des Wiedersehens. Die Beteiligten müssen einander immer wieder in die Augen blicken können.“[82] Vertrauensbestätigung führt zum Aufbau von Vertrauenswürdigkeit, und solch konformes Verhalten kann opportun sein. Dieser Aufbau von `Sozialkapital´ kann natürlich auch als Ausdruck von Eigeninteresse aufgefasst werden.[83] Die Frage also, ob Vertrauen letztlich aus eigennützigem Streben entstehe[84], also „kaltherziges Kalkül“ sei[85], oder aber eigentlich moralische Qualität habe[86], erscheint in diesem Zusammenhang nicht als wesentlich.

Wichtig bleibt aber, dass die Rolle des Vertrauens für die dezentrale Koordination[87] eine beschränkte Anonymität voraussetzt. Die Chance für eine „vertrauende Kaufhandlung“[88] spielt eine wesentliche Rolle in der Informationsverarbeitung und damit für die Komplexitätsreduktion in einem marktwirtschaftlichen System. Ein Nichtraucher, der eine teure Zigarre als Geschenk erwerben will, kann deren Preis als Indiz für Qualität nur dann ansehen, wenn er davon ausgehen kann, dass diese Zigarre zu diesem Preis auch von Kennern gekauft wird und der Verkäufer das

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[80] Bauer, J.: Warum ich fühle, was du fühlst. Intuitive Kommunikation und das Geheimnis der Spiegelneurone, München 2006, S. 122-123.
[81] Vanberg, V. : Markt und Organisation, Tübingen 1982, S. 132.
[82] Luhmann, N.: Vertrauen, Ein Mechanismus der Reduktion sozialer Komplexität, 2. erweiterte Auflage, Stuttgart 1973, S. 39.
[83] vgl. Junge, K.: Vertrauen und die Grundlagen der Sozialtheorie – Ein Kommentar zu James S. Coleman, in: Müller, H.-P. / Schmid, M. (Hrsg.): Norm, Herrschaft und Vertrauen, Beiträge zu James S. Colemans Grundlagen der Sozialtheorie, Wiesbaden 1998, S. 45.
[84] vgl. z.B.: Williamson, O.E. (1993): Calculativeness, Trust, and Economic Organization, in: The Journal of Law and Economics, Vol. XXXVI (1), April 1993, S. 453 – 486.
[85] Junge, K. (1998): Vertrauen und die Grundlagen der Sozialtheorie – Ein Kommentar zu James S. Coleman, in: Müller, H.-P. / Schmid, M. (Hrsg.): Norm, Herrschaft und Vertrauen, Beiträge zu James S. Colemans Grundlagen der Sozialtheorie, Wiesbaden, S. 26 – 27.
[86] vgl.: Karpik, L. (1998): La Confiance: réalité ou illusion ? Examen critique d´une thèse de Williamson, Revue économique, Vol. 49, 1998, S. 1043 – 1056.
[87] Vgl. Blümle, G. und Schoser, C.: Vertrauen als volkswirtschaftliche Rahmenbedingung und Determinante des Marktverhaltens: Ein deutsch-französischer Vergleich, in: Thomas Würtenberger, T., Tscheulin, D.K., Usunier, J.C., Jeannerod, D. und Davoine, E. (Hrsg.): Wahrnehmungs- und Betätigungsformen des Vertrauens im deutsch-französischen Vergleich, Studien des Frankreich-Zentrums der Albert-Ludwigs-Universität Freiburg, Bd. 10, Berlin 2002, S. 263-282.
[88] Schmölders, G. (1984): Verhaltensforschung im Wirtschaftsleben, Theorie und Wirklichkeit, München, S. 67.

Vertrauen des Käufers in die Nutzung dieser Information nicht durch unlauteres Verhalten zum Betrug benutzt. Diese mittelbare Nutzung von Sachverstand erhält mit zunehmender Kompliziertheit der Konsumgüter, insbesondere der dauerhaften, bei welchen sich die Kaufhandlungen weniger häufig wiederholen, zunehmende Bedeutung. Auch die mit wachsendem Lebensstandard wachsende Differenziertheit des Geschmacks und damit der Produkte führt dazu, dass Konsumakte sozial abhängig erfolgen und Vertrauen in das Urteil anderer Personen voraussetzen. Dass die Voraussetzung der beschränkten Anonymität vielen Menschen nicht als ausreichend gewährleistet erscheint, äußert sich in den laufenden Diskussionen nach Forderungen von Kennzeichnungspflicht, staatlicher Kontrolle der Güter und unabhängigen Testeinrichtungen. Es stellt sich damit die Frage, welche Folgerungen, die sich aus der tatsächlichen wirtschaftlichen Entwicklung seit Adam Smith´s Zeiten ergeben, zu ziehen sind.

5. Die Grenzen der Smith´schen Harmonievorstellungen

Es ist somit zum einen offensichtlich, dass die Deutung menschlichen Verhaltens als egoistisch und rational in der Ökonomik ebenso wie die entsprechend beschränkte Interpretation der Lehre von Smith nur eine einseitige Sicht darstellt. Zum andern bleibt festzuhalten, dass Analogieschlüsse von den Gesetzmäßigkeiten der biologischen Evolution auf das wirtschaftliche Geschehen und dessen Entwicklung sehr begrenzte Aussagekraft haben.

Es stellt sich nun aber abschließend in Bezug auf die optimistischen Harmonievorstellungen von Adam Smith die Frage, in wieweit das wirtschaftliche Geschehen in unseren Tagen den von Smith formulierten ethischen Grundsätzen entspricht. Wie nach diesem Verständnis aus der Analogie zwischen moralischem und wirtschaftlichem Markt[89] tatsächlich gesellschaftliche Harmonie zu erwarten ist. Die bereits oben angesprochene Bedeutung der Nähe, das „Prinzip der Vertrautheit“[90], erhält in diesem Zusammenhang entscheidende Bedeutung. Es „ist die Anteilnahme, die wir Personen entgegenbringen, direkt proportional dazu, wie gut wir sie kennen.“[91]

Damit kommt jedoch gerade im Hinblick für die Bedeutung dieser Gedanken in der heutigen Welt der Nähe menschlicher Begegnungen entscheidende Bedeutung zu. „In allen sozialen Bereichen muss Nähe als Grundbedingung von Menschlichkeit bewahrt bleiben“[92], betont Horst Eberhard Richter und bringt in einer weiteren Formulierung, offensichtlich ohne sich darüber bewusst zu werden, seine Nähe zu den Ideen von Smith

[89] Vgl.: Otteson, J. R.: Adam Smith und die Objektivität moralischer Urteile: Ein Mittelweg, in: in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 26.
[90] Fleischacker, S.: Smith und der Kulturrelativismus, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 116.
[91] Fleischacker, S.: Smith und der Kulturrelativismus, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 116.
[92] Richter, H.-E.: Die Krise der Männlichkeit in der unerwachsenen Gesellschaft, Gießen 2006, S. 85.

zum Ausdruck:, Das spontane Gefühl des Helfenmüssens ist die eigentliche moralische Triebfeder des Menschen. Aber diese mysteriöse innere Verbundenheit setzt Nähe voraus, eine Berührung, die über einen Blick, die Stimme, ein Bild oder auch einen Film hergestellt wird."[93]

Wenn also die „Theorie der ethischen Gefühle" als „Gebrauchsanweisung für ein gesellschaftkonformes Leben"[94] so zu sozialer Harmonie führen soll, dann müssten die zunehmende Zentralisierung und Anonymisierung der Gesellschaft wegen abnehmender Nähe von einer entsprechenden Stärkung eines ethischen Konsenses begleitet werden. Zum einen ist in diesem Zusammenhang die große Bedeutung, die Smith „der moralischen Erziehung zu gegenseitigem Respekt, zu Kooperation"[95] beimisst, zu betonen. Zum andern aber vor allem auf die große Bedeutung der Selbstbeherrschung hinzuweisen, deren entscheidende Rolle Smith in der „Theorie der ethischen Gefühle" hervorhebt[96, 97].

In einer Gesellschaft, in welcher Selbstbeherrschung als ein antiquierter Wert scheint und Egoismus als Selbstverwirklichung begrifflich geschönt in einer weitgehend anonymisierten und individualisierten Gesellschaft zunehmend Bedeutung gewinnt, erhält der vielzitierte Satz von Ernst-Wolfgang Böckenförde, „der säkulare Staat zehre von normativen Voraussetzungen, die er selbst nicht garantieren könne"[98] bedrohliche Bedeutung. Bereits Wilhelm Röpke betonte entsprechend, dass „die Konkurrenzwirtschaft ein Moralzehrer ist und daher Moralreserven außerhalb der Marktwirtschaft voraussetzt."[99]

Damit erhält aber die Wirtschaftspolitik und damit staatliches Handeln eine stärkere Bedeutung als bei Adam Smith. In dieser Hinsicht hat Smith allerdings bereits gewarnt und darauf verwiesen, dass der Einfluss der Lobbyisten als eine „Verschwörung gegen die Öffentlichkeit"[100] und die Legislative erschien ihm als dominiert von der

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[93] Richter, H.-E.: Die Krise der Männlichkeit in der unerwachsenen Gesellschaft, Gießen 2006, S. 120.

[94] Andree, G. J.: Zur Natürlichkeit der Moralphilosophie Adam Smiths, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 368.

[95] Vgl. Fricke, C.: Genesis und Geltung moralischer Normen, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 63.

[96] Abramson, K.: Tugendideale in Smiths Theorie der ethischen Gefühle, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 216ff.

[97] Smith schreibt: "Selbstbeherrschung ist nicht nur selbst eine große Tugend, sondern von ihr scheinen auch alle anderen Tugenden ihren Glanz in erster Linie zu empfangen." Smith, A.: Theorie der ethischen Gefühle, Übersetzung von Eckstein, Walter 1926, Nachdruck Hamburg 1991, S. 407

[98] Zitiert nach: Angenendt, A.: Toleranz und Gewalt, Das Christentum zwischen Bibel und Schwert, Münster 2007, S. 579

[99] Zitiert nach: Kromka, F.: Markt und Moral, Neuentdeckung der Gründerväter, Grevenbroich 2008, S. 30.

[100] Smith, A.: Theorie der ethischen Gefühle, Übersetzung von Eckstein, Walter 1926, Nachdruck Hamburg 1994, S. 149.

„lauten Aufdringlichkeit parteilicher Interessenvertreter“[101], die den gesamten öffentlichen Raum dominiert.[102] Auf diese Weise entsteht eine Neigung zu zunehmendem Interventionismus. Dieser gefährdet die von Walter Eucken eingeforderte Konstanz der Wirtschaftspolitik. Diese sichert letztlich die in einer komplizierter werden Welt wichtige Berechenbarkeit, Beständigkeit und Zuverlässigkeit der Wirtschaftspolitik, die ja eine „Atmosphäre des Vertrauen“ schaffen[103] soll und auf diese Weise langfristige Planungen und unternehmerische Initiative fördert. Es besteht solchermaßen die Gefahr, dass in einem Wust kurzfristig angelegter Interventionen nicht nur die Unternehmer und Wähler, sondern auch die Politiker selbst den Durchblick verlieren und diesen der Mut zu einem grundsätzlichen Umdenken fehlt. Dieses Umdenken und die Hinwendung zu grundsätzlichen Fragen der Wirtschaftsordnung scheinen indessen besonders notwendig.

Es fragt sich, ob die Hoffnungen von Walter Eucken: „Nicht selten sind es Notlagen, die solche grundsätzliche Wendungen möglich machen“[104] berechtigt bleiben, denn der andauernde Vergleich mit anderen Ländern der EU, in denen es auf dem jeweils gewählten Feld noch „schlimmer“ ist, eignet sich hervorragend, die Wähler zu besänftigen, um im alten Trott fortfahren zu können. Dies ist dann auch eine Art von Harmonie, aber nicht die, die nach Adam Smith zum „Wohlstand der Nationen“ führt. Zwar wird in Anbetracht der Ereignisse, die zur aktuellen Finanz- und Wirtschaftskrise geführt haben, weltweit nach einem neuen Ordnungsrahmen gerufen, aber die Ansätze der Freiburger Schule der Ordnungspolitik haben über den Deutschen Sprachraum hinaus kaum Beachtung gefunden. Die zwei Gruppen von Prinzipien: die konstituierenden, die zur Herstellung der Ordnung führen, und die regulierenden, die die Funktionsfähigkeit aufrecht erhalten sollen, sind kaum bekannt. Schon alleine die Verwirklichung und Verinnerlichung eines der Grundsätze Euckens, nämlich die zentrale Rolle der Haftung für das eigene Handeln, hätte einen wesentlichen Beitrag zur Vermeidung dieser Entwicklung leisten können. Es bleibt die Frage, ob nach der Bewältigung der derzeitigen Krise wieder zur Überzeugung übergegangen wird, dass die kapitalistische Wirtschaft im Sinne der Hayek´schen „Spontanen Ordnung“ von selbst die beste Ordnung findet, oder ob aber im Sinne von Adam Smith eine Ordnung gesetzt wird, die die notwendigen ethischen Grundsätze sichert und ihnen zur Wirkung verhilft. „Die deutschen Ordoliberalen der Freiburger Schule können sich mit größerem Recht auf Adam Smith berufen als die Marktliberalen“ betont der Dogmenhistoriker Razeen Saly von der London School of Economics[105].

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[101] Smith, A.: Theorie der ethischen Gefühle, Übersetzung von Eckstein, Walter 1926, Nachdruck Hamburg 1994, S. 150.

[102] Vgl. auch: Griswold, C. L.: Fair play, Übelnehmen und der Sinn für Gerechtigkeit: Kritische Überlegungen zu Adam Smith, in: Fricke, C. und Schütt, H.-P. (Hrsg.): Adam Smith als Moralphilosoph, Berlin 2005, S. 149-151.

[103] Eucken, W.: Grundsätze der Wirtschaftspolitik, Tübingen, 6. Aufl. 1990, S. 288.

[104] Eucken, W.: Grundsätze der Wirtschaftspolitik, Tübingen, 6. Aufl. 1990, S. 219.

[105] Zitiert nach Fischermann, T.: Die Bibel der Liberalen, Adam Smith: Der Wohlstand der Nationen, in: Herz, Wilfried (Hrsg): ZEIT-Bibliothek der Ökonomie, Die Hauptwerke der wichtigsten Ökonomen, Stuttgart 2000, S. 4-5.

Hinter dem Smithschen Optimismus, dass die natürlichen ethischen Anlagen des Menschen gesellschaftliche Harmonie sichern, bleibt ein Fragezeichen. Radikaler formuliert Hans Ruh: „Die Zukunft ist ethisch – oder gar nicht.“[106]

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[106] Ruh, H.: Die Zukunft ist ethisch – oder gar nicht. Vortragsthema in: Studium generale im Fernsehen, SWR-Fernsehen, Sendung vom 17.2.2008.

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