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Christoph Deutschmann

Capitalist Dynamics – A Sociological Analysis

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Internet:
www.kolleg-postwachstum.de

Redaktion: Dr. Hanno Pahl,
hanno.pahl@uni-jena.de

Lektorat/Layout: Katharina Osthoff (M.A.),
mail@textarbeit-osthoff.de

Die DFG-KollegforscherInnengruppe „Landnahme, Beschleunigung, Aktivierung. Dynamik und (De-) Stabilisierung moderner Wachstumsgesellschaften“ – kurz: „Kolleg Postwachstumsgesellschaften“ – setzt an der soziologischen Diagnose multipler gesellschaftlicher Umbruchs- und Krisenphänomene an, die in ihrer Gesamtheit das überkommene Wachstumsregime moderner Gesellschaften in Frage stellen. Die strukturellen Dynamisierungsimperative der kapitalistischen Moderne stehen heute selbst zur Disposition: Die Steigerungslogik fortwährender Landnahmen, Beschleunigungen und Aktivierungen bringt weltweit historisch neuartige Gefährdungen der ökonomischen, ökologischen und sozialen Reproduktion hervor. Einen Gegenstand in Veränderung – die moderne Wachstumsgesellschaft – vor Augen, zielt das Kolleg auf die Entwicklung von wissenschaftlichen Arbeitsweisen und auf eine Praxis des kritischen Dialogs, mittels derer der übliche Rahmen hochgradig individualisierter oder aber projektförmig beschränkter Forschung überschritten werden kann. Fellows aus dem In- und Ausland suchen gemeinsam mit der Jenaer Kollegsgruppe nach einem Verständnis gegenwärtiger Transformationsprozesse, um soziologische Expertise in jene gesellschaftliche Frage einzubringen, die nicht nur die europäische Öffentlichkeit in den nächsten Jahren bewegen wird: Lassen sich moderne Gesellschaften auch anders stabilisieren als über wirtschaftliches Wachstum?

Christoph Deutschmann

Capitalist Dynamics – A Sociological Analysis

Abstract

Starting from a critique of conventional modernization theories, the paper outlines an alternative sociological approach of capitalist dynamics. Theoretical reference points are selected approaches of evolutionary economics, pragmatist theories of action and the multilevel model of sociological explanation. The paper outlines a multilevel approach of capitalist dynamics, focussing on the interaction between class structures, individual creativity and the communication of innovative paradigms.

Zusammenfassung

Der Text entwickelt ausgehend von einer Kritik an konventionellen Modernisierungstheorien einen alternativen soziologischen Zugriff auf das Problem kapitalistischer Dynamiken. Als theoretische Referenzen fungieren ausgewählte Ansätze aus den Feldern der evolutionstheoretischen Ökonomik, der pragmatistischen Handlungstheorien sowie von Mehrebenen-Modellen soziologischer Erklärung. Das Papier entfaltet einen Mehrebenen-Ansatz kapitalistischer Dynamiken, der auf die Interaktion zwischen Klassenstrukturen, individueller Kreativität und der Kommunikation innovativer Paradigmen abstellt.

Address of the author

Christoph Deutschmann
University of Tuebingen
Department of Sociology
Wilhelmstrasse 36
D-72074 Tuebingen
E-mail: christoph.deutschmann@uni-tuebingen.de

1. Introduction

The issue of this paper[1] is capitalist growth. It is not intended here to take up the well established economic analyzes of growth, from the Solow and Harrod Domar models to contemporary theories of „endogenous" growth (for critical comments e.g. Heinsohn and Steiger 1996: 352 f., Thielemann 2010: 357 f.), or on the growth impact of fiscal or monetary policies. The question I want to raise is rather what sociology can contribute to explain the phenomenon of capitalist dynamics. At present the answer seems to be: not much. There are some promising approaches in contemporary economic sociology, however the majority of the discipline does not seem to be very interested in the problems of economic development. This had not always been the case. Important contributions came from the sociological theories of „modernization" going back to the theories of Weber and Parsons. Authors like Smelser, Lipset, Bendix, Dahrendorf, Lenski clarified and elaborated the approach, later further important analyzes came from Giddens, Beck and Luhmann. The key thesis of all authors is that economic development has to be conceived as a part of a more encompassing social dynamics – the dynamics of modernization.

The idea that economic dynamics is not a purely „economic" phenomenon but is something that involves almost all subsystems of society, including not only politics and law but also science, education and culture, appears promising and fruitful. However, from a contemporary perspective the assumptions of modernization theory need a closer inspection. The core concepts of modernization theory are – as it is well known – „functional differentiation" on the one hand, „rationalization" on the other. From a structural viewpoint, modernization is characterized by the development of functionally specified social subsystems and their specific logic („functional differentiation"). This allows, in turn, a higher level of efficiency in the attainment of systemic goals („rationalization"). From a normative viewpoint, modernization implies the institutionalization of universalistic values, such as the principles of achievement and social equality of chances. With the progressive implementation of these values in real social life, corresponding individual aspirations emerge; as a consequence the fixed status hierarchies of traditional societies are put under pressure. Individual mobility processes develop which promote economic growth and social dynamics (for an overview Smelser/Lipset 1966).

Modernization theory – in other words – culminates in the assumption of a positive correlation between social mobility and economic growth: The higher the net amount of upward social mobility, the higher economic growth will be. This approach stimulated a series of sociological and socio-historic research in the 1950s and 60s which resulted in a large variety of empirical findings on the patterns of social mobility in advanced industrial societies (Lipset/Zetterberg 1959, Smelser/Lipset 1966, Bendix/Howton 1978, Kaelble 1983). However, with regard to the relationship between mobility and economic growth they did not lead to clear results and left open many questions: What precise kind of mobility was deemed to be relevant: Structural or individual mobility, intra- or intergenerational mobility? Was mobility

[1] Paper presented to the Annual Conference of the "Ausschuss für Evolutorische Ökonomik im Verein für Sozialpolitik", Linz/Austria, July 2010; translated and revised version 2011.

assumed to cause growth or vice versa? Due not only to lacking data but also conceptual deficits, the attempts to verify to modernization theoretic approach were not overly successful and did not lead to clear results (Goldthorpe 1985). As Breen notes in a more recent paper: „We also find that the relationship between economic growth and the amount of social mobility is largely indeterminate“ (Breen 2001: 429). In addition to these empirical criticisms, theoretical objections against the modernization theoretical approach gained ground. Ulrich Beck, Anthony Giddens and Scott Lash delevoped their well known concept of „reflexive modernization“ (Beck/Giddens/Lash 1994) which questioned the assumption of a linear association between modernization and economic growth and focussed the risks and unintended side effects of growth.

However, what Beck, Giddens and Lash had in mind was not really a critique of the original approach of modernization theory, as they confined their analysis to the so called “second modernity” of the immediate present. For the “first” modernity, by contrast, the validity of the original approach was explicitly confirmed. My point in this paper is that this does not suffice. The theoretical critique of modernization theory has to go one step further and to examine the conceptual foundations in order to come to a more satisfactory theory of economic growth. In this paper I will present ideas for a new approach and proceed in two steps: First I discuss briefly the conceptual problems, second I outline a multilevel model for a sociological explanation of economic innovation and growth. As I will show very briefly in the concluding discussion, this model can be applied also to the present growth crisis in the advanced industrial economies.

2. Theoretical reorientations

My disagreement with the analysis of growth in modernization theory is related to two points: First the lack of historic specification, second the basic understanding of economic dynamics itself. In the view of Parsons and other authors following him, modernization is a social process that started in Western Europe at the late medieval age and was promoted by a series of cultural, political and economic revolutions developing since the 15th century and stretching historically over a period of more than four centuries (Parsons 1971). The industrial revolution of the late 18th and early 19th century itself was only the culmination point of long term economic transformations which began with the development of distant trade and led to a continuous expansion of markets. From this viewpoint, one should have expected a gradual acceleration of economic growth during the entire period of modernization. The actual course of growth, however, was different, as we know today from the often cited studies of Angus Maddison (Maddison 2001). Although there was indeed a slightly increasing trend of economic output in Western Europe since the 16th century, the growth curve showed an abrupt rise only in the early 19th century. Parson’s concept of “industrial revolution” appears insufficient to explain this sudden shift of society from a more or less static to a dynamic mode of reproduction. Of course, the industrial revolution has much to do with the “take-off” of economic growth, however, what precisely were the social transformations lying behind it? At this point, Polanyi’s (1977) theory of the “Great transformation” and Marx’

concept of "capital", both focussing on the "disembedding" of the market system and its expansion from products and services to the factors of production themselves (land and labor) since the late 18th century, appear more adequate. With Polanyi and Marx I understand growth not only as an economic phenomenon, but as a process which is based just on that "disembedding" process of the overall society. Society had been transformed into a mere "annex" of the economic system, as Polanyi (1977: 111) had put it; hence I will speak not of "economic" but of "capitalist growth".

Beyond this point, the modernization theoretical understanding of the basic mechanisms of capitalist growth appears deficient. It had been Max Weber who had introduced "rationalization" as a key concept to analyze the logic of capitalist dynamics. Accordingly, capitalist development is being understood as a process that enhances the means-ends rationality of the economic system, producing an ever increasing output with constant or even decreasing means. The crucial point in the capitalist process, however, are not simply quantitative increases of productivity, but innovations, as Schumpeter had emphasized. What is characteristic is the continuous generation of new technologies, products and corresponding wants, not only a higher quantity of goods. Creativity always goes parallel with "destruction", as new products tend to replace old ones, thus forcing the suppliers of old products to innovate in turn. Nevertheless, capitalist growth is not a zero sum game, but a process where the aggregate sum of values increases due to the development of new wants and products. The generation and marketing of innovations is not something that can be calculated "rationally" in advance. Innovative projects develop under conditions of uncertainty and require processes of search and learning that cannot be governed by rational planning (Lester and Piore 2004, Stark 2009).

Thus, a theoretical reorientation appears desirable, and this paper will present some suggestions for it. If one looks for innovative conceptualizations of economic growth, a promising field surely is "evolutionary economics". Some of the evolutionary approaches concentrate on the identification of general mechanisms of economic evolution, drawing often strongly on Darwinist models of "natural selection" (Nelson/Winter 1982, Dosi/Nelson 2001, for an overview Witt 2008). I do not think that these approaches are the most interesting ones, since they meet the same objection of lacking historical specification like sociological modernization theories, as pointed to above. A further point of critique is related to their susceptibility to naturalistic analogies. Evolutionary theorists often seem to show little understanding of the intentional, symbolically based nature of human action. In contrast to biologically fixed non-human organisms, the identities of economic actors like of any social systems are determined not naturally but symbolically. Human actors can take the perspectives of each other, and adapt their mutual perceptions and actions accordingly; adaptation – in other words – does not only occur on an objective but also on a symbolic level. At least from a sociological viewpoint the more promising evolutionary studies are those who focus on the role of communication in innovative processes, in particular on the function of innovative "visions", "paradigms" and their performative effects, and on the path dependency of innovation (e.g. Dosi 1988, Dierkes et al. 1996, Garud/Karnoe 2001, Schreyögg/Sydow/Koch 2003, Sturken et al. 2004, Meyer/Schubert 2007). Not less important are historically embedded

typifications of capitalist development and industrial revolutions such as those of Freeman and Louca (2001).

With regard to the conceptual basis of modernization theories a key point seems to be the clarification of the differences between rational (including "boundedly rational") and innovative action. A helpful starting point here is the pragmatist philosophy of action by John Dewey and George Herbert Mead which has been rediscovered and elaborated by Hans Joas (1996) and Jens Beckert (2002, 2003). The action theories of Pierre Bourdieu and Anthony Giddens, being so prominent in the contemporary sociological discussion, actually show a high affinity with the ideas of pragmatism. In comparison with rational choice based theories of action, these approaches appear to be more close to reality and are better able to take account of the complexity of real decision making processes. A characteristic of pragmatist theories is that they do not take the aims and situational perceptions of the actors simply as "given"; rather, the formation of aims and perceptions is considered as a part of the action process itself. Creativity develops in practical conflict situations where the actor experiences him/herself to be exposed to contradictory expectations or requirements. Action routines are blocked; as a consequence the actor has to reorient himself. He develops new definitions of the situation and tests them in practice, thereby changing the existential characteristics of the situation itself. The process of experimentation may go on as long as a new stable constellation emerges which finally allows "rational" action. Thus, concepts of rational choice are applicable only to the terminal phases of the action process where stable definitions of the situation have already evolved, not to the experimental process of defining situations and forming goals itself.

When applying this approach to the field of economic action, two classic authors immediately enter into the view: Frank Knight and Joseph A. Schumpeter. As Knight had emphasized, economic action develops under conditions of uncertainty which preclude the application of rational rules of calculation. Accordingly, profit is not the outcome of rational calculation but of successful management of uncertainty by the entrepreneur (see also Beckert 1997, 2003, Brouwer 2002, Dequech 2003). Economic growth depends on innovations; innovations in turn are generated by entrepreneurial individuals, as the point of Schumpeter's classic analysis had been. If the entrepreneur successfully promotes an innovation at the market, he establishes a temporary monopoly which lays the ground for the profitability of his capital. If we follow this argument, capital profit is to be interpreted as premium not for the rationality, but for the creativity of the entrepreneur, i.e. for his capability to develop and promote "new combinations", such as new products, technologies, organizational or logistic solutions, factor and consumer markets. As Schumpeter had emphasized in his empirical studies too (Schumpeter 2008: 110), innovations are the motor of growth and a key source of profits. As the competitors do not sleep, the entrepreneur cannot afford to content himself with his achievements. In order to secure a continuous flow of profits, the innovative activity must be continued too. The firm and the economy as a whole can grow only if the innovative process becomes permanent.

3. A multilevel analysis of capitalist dynamics

How can economic innovation be explained sociologically? Schumpeter's explanation starts at the micro level of entrepreneurial action. For Schumpeter, innovative action is something genuinely individual which is bound to the personal leadership of the entrepreneur. From the pragmatist perspective proposed here, Schumpeter's emphasis on the individual nature of creativity appears plausible, since it were just pragmatist authors (Dewey and Mead) who had shown convincingly why only individuals can be genuinely creative: Only individuals, not collectivities "have" a body and thus are present in the natural and the symbolic world at the same time. It is only due to their role as an "interface" between the natural and the symbolic world that individuals can have genuine experiences and face conflicting experiences which are the basis of creative action (Dewey 1958: 212 f.).

However, a problematic aspect of Schumpeter's position is his inclination to overemphasize the leadership role of the individual entrepreneur, as many critics have noted. Successful innovations are always social processes which do not depend only on the "big" invention of the entrepreneurial pioneer, but also on thousands of "small" ideas of employees, experts, customers, suppliers and financiers. Communicating innovative projects via adequate channels is important for their success, and to some degree even more important than doing them (Dopfer 2006). In order to clarify the motivational origins of entrepreneurial action, the socio-economic structures giving rise to entrepreneurial individuals, and the aggregate social consequences of their activities, Schumpeter's focus on the micro level of social analysis is not sufficient. Valid sociological explanations according to the well known approaches of Coleman, Lindenberg and Esser are always multilevel explanations which systematically take account of the context dependence of individual action and the recursive relationship between actions and structures (Esser 1993, 1999). A multilevel explanation consists at least of three analytical steps: First, a reconstruction of the structural and situational conditions of action and of the interpretation of the situation by the actors themselves ("logic of the situation" according to Esser); second, a theoretically based explanation of the actual choices made by the actors ("logic of selection"); third, an analysis of the newly constituted collective situation due to the aggregate effects of individual actions ("logic of aggregation"). In our case we do not have to deal with the constellation which Esser calls "functional" reproduction (reproduction at the same level), but with "evolutionary" reproduction which changes the original structural conditions of the system due to internally generated transformations. In the subsequent sections I will follow this conception and apply it to the issue of capitalist dynamics – however without sharing the rational choice bias inherent in the positions of Coleman, Lindenberg and also Esser.

3.1 Logic of the situation

The first task is the reconstruction of the structural social conditions underlying the emergence of modern capitalist entrepreneurship. This reconstruction, in turn, has to proceed in two steps: First, the analysis of structural conditions from the viewpoint of a third, scientific observer (3.1.1), second, the

analysis of the situation as it is perceived by the actors themselves, the subjective "framing" of the structural situation (3.1.2).

3.1.1 Macro-conditions viewed from an observer perspective

Capitalism as well as entrepreneurship are historical terms which need to be located in historical time. There is a vast historical and sociological literature about the "nature" and historical origins of capitalism which has developed from the classic contributions of Marx, Weber and Sombart, and the more recent analyzes of authors like Polanyi, Dobb, Braudel, Wallerstein. It is impossible here to recapitulate this literature here in detail (for an actual overview Swedberg 2003, Osterhammel 2009: 950 f.). With regard to the structural characteristics of capitalism, the following three points are largely accepted throughout the literature: *First*, modern capitalism is based on an extension of markets beyond the realm of trade, consumer goods and services to the factors of production themselves, labor, land and other means of production. This extension started to develop at a large scale with the liberation of peasants and the deregulation of agrarian and urban markets in Europe since the late 18th century ("Great transformation" according to Polanyi). *Second*, core elements of capitalism are the institution of free labor on the one hand, the profit oriented, entrepreneurially managed firm on the other one. Differently from pre-modern forms of dependent labor like slavery, serfdom or forced labor (which nevertheless continued to exist during the 19th and even the 20th century), employees in capitalism enjoy the legal status of formally free owners of their own labor power. Employees are hired and employed by firms and corporations who combine and organize work with the aim of profit. *Third*, capitalism is based on the universal extension and legal guarantee of private property rights by the state which had been a genuine political project.

As Marx and Polanyi had emphasized, capitalism is a "commodified" society which "disembeds" land and labor from their entrenchment in traditional social orders. It creates an universal market for goods and services as well as for capital and labor and subjects the entire process of social reproduction to the money nexus. By the same token it divides society into two classes of proprietors, one of them owning capital in its diverse (material and financial) forms, the other one only their labor power. In his theory of "primitive accumulation", Marx showed that the separation of laborers from land started already in the 16th century. Nevertheless, the institution of free markets for labor and land was severely restricted by the absolutist regimes; hence these markets could develop at a large scale only since the early 19th century, as Polanyi had made clear. As we shall see, Polanyi's theory of the "Great transformation" delivers the key for giving an answer to the question left open in Parsons' system theoretic model: Why did the capitalist "take off" start just at the begin of the 19th century and not earlier? To show this, a closer examination is needed about how the expansion of the money nexus due to the "Great transformation" and the corresponding polarization of society into the classes of capital and labor provided the structural basis of capitalist dynamics. Four points are to be considered here:

First, it makes a crucial difference for any economic system whether money can buy only finished goods or services (the latter having to be determined contractually) or the open potential of labor itself. Labor is

neither an ordinary "factor of production" nor a machine with determinable input-output-relations. Rather it is a potential endowed with "creative" capacities, "creative" in the sense of the above mentioned pragmatist theories of action. Only human individuals, not machines and even not computers are capable of producing something new. These creative capacities are multiplied, if labor is employed in an organized way as it is the case in capitalist enterprises. That capitalism indeed successfully mobilized these capacities is amply demonstrated by the repeated "industrial revolutions" (Freeman and Louca 2001). These revolutions transformed the economy and the entire society in a way that never could have been predicted by any contemporary observer and meant a historically unprecedented amount of human intervention into the natural environment. Hence the question can only be how and due to what conditions such a mobilization of the creative powers of labor could be possible. A first, obvious condition was the strong population growth since the 19th century and, correspondingly, the existence of large masses of juvenile poor seeking to improve their life chances. Not by chance the growth explosion of capitalism was a population explosion too. Nevertheless, it is obvious too that the latter cannot sufficiently explain the former, since the population explosion could also have led to a generalization and perpetuation of poverty. A convincing explanation of the industrial revolutions themselves is impossible without considering the innovative role of entrepreneurs which in turn would have been unthinkable – to emphasize this point again – without the cooperation of his employees and of the wider social environment which could develop in spite of and beyond the antagonism of classes; I soon will go deeper into this point below. The industrial revolutions of capitalism cannot be explained sufficiently by any objective "economic laws". They could not have developed without the personal commitment of millions of actors (entrepreneurs, inventors, professional experts, employees), inventing and implementing new products, technologies, logistics and organizational concepts. It is one of the main deficiencies of Marxian theory (as well as of neoclassic one) that it ignores almost completely the creativity of work and the role of entrepreneurs in its mobilization. For Marx, who this point does not differ not much from neoclassic theory, capital seems to operate in a quasi-automatic manner according to objective "laws" of value (Blaug 1986).

Second, the institution of a private property claim on the creative capacities of labor meant a spectacular enlargement of the options connected with money and a corresponding appreciation of money itself. Money now could buy no longer only what actually *had been produced* but also what *could be produced* via the organized employment of labor. In a capitalist system, the counterpart of money at the market is not a finite quantity of goods and services, but the vast potential of human creativity. Under such conditions money becomes the key to appropriate absolute, real and imaginary wealth (Deutschmann 2001). As an "absolute means" (Simmel) it carries the utopia of private command over the combined capacities of society which, however, can neither be observed nor appropriated as a totality. Hence a definite redemption of the property claim associated with money is impossible. The claim can be redeemed only dynamically, via a continuous process of investing into the creative potentials of labor and exploiting it. Hence, money too must "grow" and take the dynamic form as capital, as described by Marx. Due to the command it exerts on labor and other conditions of reproduction, is no longer only a harmless "medium of exchange" but capital, being determined to grow and accumulate. Thus, the

accumulation imperative neither goes simply back to an individual "profit motive", as Parsons contended, nor to the often cited "protestant ethic", although the role of individual motives should not be denied (see below). Rather, it has a structural foundation in the capital form of money itself.

Third, the two structural conditions explicated above – the mobilization of the creative potentials of labor and the transformation of money into capital – are contingent not only on each other but also on a third condition, that is *credit*. Capital is invested into labor and means of production with the aim of generating a product that contains a surplus value and realizing the latter at the market (according to Marx' well known formula M-P-C'-M'). However, how can the surplus value actually be realized? In a closed capitalist system – Rosa Luxemburg (1975) had been the first to clearly recognize this problem – this would be impossible, since the demand which capitalists presuppose when selling their production with a profit can come only from their own cost payments which, however, are too low by definition. Thus, to make accumulation working a permanent inflow of additional demand is required whose only possible form is "additional" credit – credit that is not financed by the mere transfer of savings but newly created in the banking system. Schumpeter too had made this point when emphasizing the importance of additional credit for financing innovative investments (see also Binswanger 1996). The growth imperative therefore is equal with an imperative of debt: Capitalists can realize profits only if others incur debts. Thus, credit is the necessary counterpart of entrepreneurship. Without the inflow of debt financed additional demand capital will not grow but devaluate. The system as a whole cannot move at the same level but has the choice only between growth or recession.

Fourth, from a sociological viewpoint the growth potential of a capitalist society can be largely attributed to her potential to generate individual "entrepreneurship" in the widest sense, meaning a habitual orientation to innovation and investing into it. For successful growth, such orientations need to develop in larger strata of society, including at least parts of the working classes. How can the structural conditions to generate them be circumscribed more precisely? Here I come back to the capitalist polarization of classes and her particular historic characteristics. With capital as the positive and labor as the negative pole of wealth a specific field of social tensions is created which, as I will argue subsequently, constitutes a further structural condition of capitalist dynamics. On the one hand, the class antagonism, opening an infinite variety of material and social options to the owners of capital, while assigning the burden to redeem these options to the owners of labor power, appears insurmountable. On the other hand, capitalism differs from earlier class societies, as individual affiliation to classes is not determined by social origin or ascription but is formally open. Individual rise from the working to the propertied classes is basically possible, if not within the individual life course, then between generations. Such careers do not occur only within national boundaries but also can follow transnational paths. Capitalism constitutes a historically new chance of upward social mobility: 'entrepreneurial' rise, based not on vested privileges, educational certificates or bureaucratic rules, but on hard work and individual success at the market. The entrepreneur "achieves" just not by conformity with the institutionalized rules and criteria of performance, as modernization theory pretends, but by innovative activities which change the given economic routines and market structures.

At this point, we still have to deal with the mere possibility of such a rise which – as a rule – is small for individuals coming from the working classes. It is not only the uneven distribution of financial and material resources between classes which make it extremely difficult for the unpropertied to cross the class dichotomy. Due to the political and cultural dominance of the propertied classes and their hegemony over the educational and occupational systems, the distribution of social, cultural and symbolic capital is uneven too and poses additional obstacles to social risers. Nevertheless, a certain degree of "openness", leaving chances for entrepreneurial advance, is constitutive for capitalist societies. Although being small as a rule, it varies over time and depending on cultural, national and local traditions. An important variable are – for example – national welfare regimes which in some cases may hardly secure the mere survival of the poor, in other cases may extensively protect the property rights of workers and encourage them to invest into their qualifications, and to improve their market position. The state or municipal authorities may actively encourage entrepreneurial initiative via national or regional "systems of innovation" (Lundvall 1992) or not. A third key variable are educational and occupational systems and their relative openness to individuals coming from non privileged origins. The individual availability of network support by families, neighborhoods and ethnic communities (Portes and Zhou 1992, Waldinger et al. 2000, Aldrich 2004, Corsino and Soto 2005, Mizrachi 2005) is a fourth important factor.

Thus, from an observer viewpoint the structural constellation in capitalist societies shows the characteristics of a "double bind": While the distribution of economic, social and cultural capital is polarized and strongly uneven at the collective level, the class structure appears open at the individual one – at least to a minimal degree. From a sociological viewpoint, this simultaneity of collective inequality and individual openness bears the potential to generate strong individual motives for social advance – in so far the modernization theories surely are correct. However, just because of the contradictory character of the constellation all depends on how the actual chances for such an advance are *perceived* by the individuals. Here we come to the second step in the scheme of sociological explanation, the subjective "framing" of the situation.

3.1.2 Structural conditions viewed from an actor perspective

The structural action conditions, as being analyzed by the scientific observer, certainly will not be completely different from the perception of the same situation by the actors themselves. Nevertheless, the second one cannot be expected to be a one to one copy of the first. As Esser (1999) emphasizes, the analysis of the structural conditions must be clearly distinguished from the analysis of the actor's subjective framing of the same conditions; the latter requiring a separate step of inquiry. Observations are always selective, and the selectivity of the scientific observer will always be different from that of the life world actor. The scientific observer in turn will have to take this difference into account when analyzing the actor's framings in a reflexive perspective (Schütz 1971: 6 f.). As Schütz argues, a main difference between scientific and everyday knowledge lies in the fact that the latter is much closer to the

consistency imperatives of practical action and therefore shows much less tolerance for contradictions and ambiguities. Much less than the scientific observer can the lifeworld actor "afford" to reflect the contradictory aspects of his situation; he feels under stronger pressure to homogenize his views and to disregard all perceptions not fitting into the frame chosen.

Obviously, all these points are highly relevant to our problem of structural conditions of actions in capitalism. Since these conditions, as we have seen, are of a contradictory and double-bind character, it cannot be expected that they will reflect themselves one to one in the practical consciousness of actors, be them capitalists, entrepreneurs, managers or employees. Rather, the subjective frames of actors will show a trend towards selective homogenization of their situation, depending on their relative position in the social class structure. This applies to both sides of the class dichotomy, capital and labor. Moreover, since the class dichotomy itself is internally stratified according to various, educational, occupational, ethnical, gender etc. lines, we again have to expect corresponding differences of subjective frames.

It cannot be our task here to enter into the footsteps of the classic marxist and sociological theories of knowledge and to develop a comprehensive social typology of "knowledge forms". Our problem is how the mobilization of labor and entrepreneurial initiative underlying the industrial revolutions of capitalism can be explained sociologically. In the light of our preceding analysis this problem can now be reformulated in a more precise way as follows: Under what conditions can the structural "double-bind" character of capitalist class relations reflect itself in "entrepreneurial" frames of individual action? We will concentrate – in other words – on the problem how and at which points the structural inconsistencies of capitalist class society will reflect themselves in "entrepreneurial" patterns of individual orientation. This is not to deny that entrepreneurial orientations are influenced also by a variety of other social and cultural (including religious) context conditions. The orientation of individual life on the goal of financial success – for example - is by no means an "automatic" outcome of the capital form of money but goes back to particular cultural and religious transformations in the European new age; the same applies to "universalistic" rules of conduct in the transactions with suppliers and customers, as the vast discussion on the "spirit of capitalism" initiated by Weber Sombart and Tawney has shown. The emergence of capitalist entrepreneurship and the mobilization of free labor would have been unthinkable without the previous religious and moral transformations in the 17th and 18th century giving rise to a "disciplinary" society (Taylor 2007: 90 f.). We will, however, not go deeper into these issues here which already have been treated extensively in the modernization literature.

Robert K. Merton's classic analysis of "anomie" (Merton 1965) can bring us some steps further in clarifying the link between social structure and entrepreneurship. According to Merton's well known argument, individuals find themselves in anomic situations, if they have no or insufficient access to legitimate means to attain institutionalized social goals. If they nevertheless share and accept these goals, they have no choice but to opt for illegitimate means or at least to act at the verge of law. As it is well known, Merton titles this type of orientation "innovation". Merton's analysis is concentrated on deviant behavior in a juridical sense, however, the pattern described by him can easily be extended also to "deviant" behavior in the economic sense: "entrepreneurship" as discussed above. Just as Merton's innovative

actor cannot success without breaking or creatively reinterpreting the law, the entrepreneur cannot advance and achieve his aim of profit without disrupting or creatively rearranging the given economic routines of production and demand.

The dominant social goal in capitalist societies is, as Merton himself noted, financial wealth. At which layers of the capitalist class structure is the conflict between this goal and the accessible legitimate means most likely to be experienced? Surely not on the level of the top rich, the elites and the upper middle classes, where neither the goal nor the access to means appears problematic; thus, "conformity" in Merton's sense is the most likely pattern here. Innovation as a pattern of economic action is equally unlikely at the bottom of the class dichotomy, on the level of the socially marginalized and the lower strata of the working class. Although the double bind character of capitalist class relations is being experienced here, defense (in more or less solidaric forms), resignation, or – at the other hand – insurgency tend to be the dominant patterns of orientation which correspond to Merton's types of ritualism, retreatism or rebellion. Except criminal careers, there appears to be no realistic option to solve the conflict between the social goal of wealth and accessible means individually; the remaining alternatives being only the above mentioned ones. The pattern of economic innovation is most likely to occur on positions "in-between" the classes, at the lower middle layers of society including the petty bourgeois middle classes and even skilled white and blue collar workers. On these positions, the inconsistency between goals and accessible means still is being felt. At the same time, due to better individual resources and cultural competencies the confidence to overcome the double bind by personal effort tends to be higher. This conforms with the empirical observation that entrepreneurs – as a rule – do not come from the lowest classes. Besides self-recruitment (which however raises the question where the parents did come from), entrepreneurs often have a petty bourgeois origin, as Sombart noted already for his time (Sombart 1955: 19 f., Bendix and Howton 1978, Kaelble 1978, Berghoff 2004). Moreover, the entrepreneur is not necessarily a self employed person. He can be also an "intrapreneur", building his career on innovative performances in his job as an employee and advancing in internal, vocational or project labor markets (Kanter 2000, Marsden 1999, Voß and Pongratz 1998). Even employees who have abandoned the goal of upward mobility for themselves may pin their hopes on the success of their children. The 'embourgeoisement' of the working class, manifesting itself in the quest for individual advancement, had been a key theme of industrial sociology after the second world war (e.d. Goldthorpe et al. 1968, Mooser 1983).

Our analysis so far has pointed to the importance of the lower middle layers of society for the generation of entrepreneurial views. As Schumpeter already had emphasized, entrepreneurs are not a class, but are motivated largely by the prospect of social rise (Schumpeter 2008: 112). Inequality of wealth thus is an essential precondition for entrepreneurship, since without structural inequality there could be no individual motive for social rise. Indeed, the link between entrepreneurship and inequality is empirically confirmed by the findings of Lippmann et al. (2005). Based on the internationally comparative data of the "Global Entrepreneurship Monitor" (GEM), the authors found a statistically significant linear positive correlation between the degree of (national) wealth inequality and the amount of early stage entre-

preneurship (in terms of the share of economically active persons engaged in founding or managing start up firms). However, important qualifications have to be made here, since the concrete conditions of entrepreneurship are very different. An elementary qualification made in the original GEM survey itself (for the most recent issue see Kelley et al. 2010) is the distinction between "necessity based" and "opportunity based" entrepreneurship. While in the first case the motive to start a business lies in the sheer absence of other bases of subsistence, the main motive in the second case is the quest to exploit unexplored individual chances. As Lippmann et al. have pointed out, the linear positive correlation between wealth inequality and entrepreneurship applies only to necessity based entrepreneurship. With rising wealth inequality, like on low levels of economic development, the share of the economically active population depending on self employment as a basis of subsistence tends to increase or to be high. Contrarily, the correlation between wealth inequality and opportunity based entrepreneurship does not show a linear, but a curvilinear pattern: With rising wealth inequality, opportunity based entrepreneurship first tends to rise too and reaches its maximum at a medium level of inequality. However, with further rising inequality, opportunity based entrepreneurship tends to decline (Lippmann et al. 2005: 11 f.). Again this can be interpreted as a confirmation for the importance of intermediate social layers for generating "genuine", opportunity oriented entrepreneurship: A strongly polarized social distribution of wealth creates adverse conditions for innovative entrepreneurs, as is the case on low levels of economic development. In both cases "entrepreneurship" tends to reduce itself to an option for individual material subsistence; however, entrepreneurship as an option for social advance via the exploration of innovative opportunities is being discouraged.

3.2 Logic of selection

As I have emphasized, the social framing of capitalist entrepreneurship varies considerably between regions, sectors, nations and cultures. The common characteristic, however, is the internal inconsistency of the frame. The entrepreneur faces himself with a world full of promises and positive challenges, which however never offers a "guaranteed" way to success. Uncertainty thus is a key characteristic, and it is a characteristic not only of the situation of the entrepreneur, but also of that of the capital owner making investment decisions. Both are different, but intertwined, as the entrepreneur always needs an advance of capital or credit to finance his projects. Whereas the entrepreneur must have visions and plans for his project, the capital owner has to assess the chances of his capital to flow back with profit; to do this he needs knowledge on the project and on the person of the borrower. In both cases decisions are made under conditions of uncertainty. They never can be based on an accurate prediction of the future but always contain an element of "fiction" (Beckert 2011), and they require a minimum of interpersonal trust.

How do economic actors actually respond to conditions of uncertainty, as they are prevailing at capitalist markets? As I have noted already above, rational choice based theories of action cannot be of great help to clarify the logic of entrepreneurial action. Individual rationality of action not only presupposes the

actor being fully aware over his own preferences, but also a situation, where the outcomes of potential actions are basically known and open to evaluation. Uncertainty, however, is just defined by the absence of these premises. The actor himself is deeply involved into the perplexing, contradictory nature of the situation. He first has to disentangle himself from the context and to develop a consistent perception of the situation and an adequate strategy. Rational choice based concepts appear to narrow to understand and conceptualize such processes; instead, pragmatist interpretations appear more promising (Beckert 2003, Lester and Piore 2004, Stark 2009, Deutschmann 2009, 2011). As noted above, this does not mean that rational choice based theories are useless. However, they can by fruitfully applied only to the final phase of the action process where a stable constellation of situational perceptions and goals already has been achieved. The problem, however, lies in the preceding experimental process of determining the situation and fixing goals and strategies.

Entrepreneurs need to act "creatively", not only "adaptively", wrote Schumpeter (1991:411) – but what does that mean? It would be self contradictory searching to discover something like a general "logic" of creative action – here our approach differs from Esser's position. All what can be said is that the entrepreneur first of all strives to build his "niche" (White 2005), a unique profile of competencies which gives him an at least temporary "monopoly". It is often been said that entrepreneurs rise and grow through competition. However, this is only half way true, since what the entrepreneur will strive for first, is not competition, but a niche which gives him an individual position at the market and allows him to enter into the competitive process at all. Competition would be impossible, if it would be "perfect" and make everybody to sell the same things. It can arise only due to the fact that every product offered at a market shows certain unique properties giving its seller a potential edge (Thielemann 2010: 167). Not only the product, but also the underlying skills and organizational capabilities of the producing firm need to be "unique" in a certain sense (Teece, Pisano, Shuen 1997, Teece 2009). The reality at markets is always characterized by a mixture between monopoly and competition, "monopolistic competition" according to Chamberlin (1956). Only in very exceptional cases something similar to "pure" monopoly or "perfect" competition can be observed.

While it might be possible to manage a *given* set of niches in a rational way, the emergence of a *new* niche creates a situation that cannot be anticipated completely by any of the participants. Niches are, as White had shown, relational phenomena, as the position of every actor in a given market depends on his relations to all other market positions. Hence, the building of a new niche changes the entire set of relations between the participants, thus invalidating the very basis of ex ante calculations. The niche or monopoly, the entrepreneur is struggling for, might not necessarily come from economic innovation, but also from social innovation in the Mertonian sense, such as exploiting personal contacts and network "holes" (Burt 2000), or inconsistencies of institutional regulation (Streeck 2011). In his analysis of the careers of the very rich of his time, C. Wright Mills concluded that these careers could be characterized neither as bureaucratic nor as entrepreneurial; rather the key of success had been the accumulation of personal advantages (Mills 1957: 114). Nevertheless, the promotion of new economic combinations in

the aforementioned wide sense is a key option for the economic actor to build an at least temporary monopoly which allows him to enter into the competitive process.

How such niche building processes are actually working has been shown by Lester and Piore (2004) and Stark (2009) in illuminating case studies (see also Ruef 2005). As the authors argue, innovation does not fit into the conventional "analytical" approach of management, presupposing a given problem definition and allowing a rationally ordered sequence of problem solution steps. Rather it is an activity directed to finding solutions for problems which are still unknown. Consumer wants, for example, are not been treated simply as given, but develop in a process of "joint discovery" between supplier and customer (Lester and Piore 2004: 78). As the suppliers are not faced with a clear cut "task" but with contradictory expectations – such as the web site designers in one of Stark's case studies who had to serve the wants of their customers and to reinterpret them at the same time – the have to move permanently between contradictory criteria of relevance. The search of the unknown is based on an "interpretive" interpretation of diverse fields of knowledge; "interpretation", not "analysis" is the dominant mode of proceeding. Entrepreneurship is "the ability to keep multiple evaluative principles in play and to exploit the resulting frictions of their interplay" (Stark 2009: 15).

In the first stages of the innovative process, risks are incalculable, as are potential profits. If the niche building is successful and the new product gets established at the market, the risks may become calculable and decline – but profits too, as competition will increase. In the final phase of the product cycle, the product may have reached its highest level of sophistication; likewise competition may have become largely transparent and markets almost "perfect" and rationally calculable. The profits, however, might well have disappeared (see also Deutschmann 2008: 72 f.).

3.3 Logic of aggregation

Innovation, as I have argued with Dewey, is a genuinely individual capacity. It is only the human individual who can be "creative", i.e. initiate the deliberate break with technical and social routines in order to do something new. However, if innovation would exhaust itself in idiosyncratic actions of individuals, it would indeed end up in collective anomie, as Merton contended. For, the price of the innovator creating certainty for himself by building his niche is generating uncertainty for others. This dilemma can be overcome only if innovation becomes communicated and institutionalized in a dynamic way (Deutschmann 2008: 72 f.). Actually, successful innovation is always a social process which, although starting with individual action, develops at the material as well as the symbolic level of action (Dopfer 2006). Entrepreneurs need to communicate their projects (Kanter 2000) and develop "social skill" (Fligstein 2001) to find financiers, partners and customers. And not all entrepreneurs are genuine innovators, many like to jump on running trains or to swim in a convoi. As the vast research literature on innovation has shown, the diffusion of innovations is communicatively framed in a multiple, spatial, social and temporal way. These frames reduce the inherent uncertainty of entrepreneurial and investment decisions to a degree that makes coordinated action possible. Here we have to deal only with those communicative frames

arising newly in the innovative process itself, not with the preexisting ones which had been dealt with already in section 3.1.

Innovations always start with process or product inventions; the invention, however, does not transform itself into successful new products and technologies that find resonance at the markets and enter into the daily routines of customers. At its initial stages, the path of an innovation, i.e. the elaboration of the original invention and the uses and applications of new products coming from it, are largely unpredictable (Nye 2004). How the path actually develops, depends on conditions emerging in the process itself, in particular the communication of the invention, the mobilization of relevant actors in diverse social arenas and the cooperative networks between these actors. In order to conceptualize the communication of innovations, the concepts of "technological paradigm" (Dosi 1982, 1988, Choi 1993, Bijker 1995, Peine 2006) and of "vision" (Dierkes et al. 1996, Rammert 2000, Sturken et al. 2004, Nye 2004) have found broad acceptance in the literature. With the concept of "paradigm" the authors join the tradition of the well known historical work of Thomas Kuhn, suggesting that the development patterns of science described by Kuhn can be identified in the development of economic innovations too. "Paradigms" are symbolic framings of innovations which are composed of two elements: First an invention that represents a prototypical solution of a technical or logistic problem and bears the potential for further improvement; second a set of heuristics – 'Where do we go from there?', 'Where should we research?', 'On what sort of knowledge should we draw?' (Dosi 1988: 224). Paradigms are projections, which link the present with the future, give a direction to the search for the new, enable and motivate cooperation between producers in heterogenous fields, thus securing the "social embedding" (Halfmann 1997) of the innovative process.

To make the innovation a success, however, cooperation between the producers of the innovation alone is not sufficient. In order to "valorize" the innovation (Canzler/Marz 2011) and to secure its acceptance at the market, communication with potential users and customers is vital too. The symbolic frame of the latter is being circumscribed by the concept of "visions". "Visions" are narratives emerging in the early stages of the innovative process. They depict an imaginary future of the new technology and new life worlds associated with it (such as the "information society" round the internet), presenting these future worlds as desirable or inevitable. These projections do not have the status of objective predictions but live on their performative effects and thus have the character of "myths" (Deutschmann 2008). "As public relations people are well aware, when investors and consumers believe such stories, they can become self fulfilling" (Nye 2004: 160). As visions start to circulate and interact with paradigms, they can generate paths of innovation (Garud/Karnoe 2001) and give rise to a self reinforcing dynamics. Hence, the economic values created in that dynamics ultimately rest on "imaginary" or "fictitious" premises (Beckert 2011; see also the earlier philosophical approach of Castoriadis 1984).

To safeguard the continuity of the innovative dynamics, the ever new creation of visions and myths is required. No single vision can represent the entire potential of human work; thus visions have the tendency to exhaust themselves in the process of their implementation, thus giving room for the emergence of new ones. In the literature, several attempts have been made to identify analytically distinct

phases in the innovative process between emergence and exhaustion (Anderson/Tushman (1990), Tolbert/Zucker (1996), Beckert (1999), Rammert (2000), Freeman/Louca (2001), Schreyögg et al. (2003), Meyer/Schubert (2007). Summing up these phase models, four stylized phases can be distinguished: *First*, the phase of path creation (Windeler 2003, Garud/Karnoe 2001) where the basic discoveries are made and corresponding new visions and paradigms are developed. Visions and utopias, giving "meaning" to the invention and showing ways to unfold its potentials, play a crucial role in this phase. The personal creativity of inventors and entrepreneurs is equally important, as is their ability to win the cooperation of relevant other actors. The risks of the project are high in this phase, the potential gains, however, too (at least in the medium term). If the pioneers are successful to win a critical mass of partners and followers and to motivate them to invest into the paradigm, the second phase of path continuation begins. This phase is dominated by the self reinforcing effects of the given paradigm. Joining the train promises gains, and the more actors join and invest, the more a snowball effect of further gains develops. What first appeared as a risky speculation can now become a realistic project, due to the cumulated investments of the participants in the game. More and more applications of the basic invention are developed (for the case of electricity see Nye 2004). The third phase is that of institutionalization, in which the paradigm advances to a general technological standard. The technology or the product is now widely diffused and has reached a high degree of refinement and reliability; at the same time, however, it has largely lost its innovative aura. Further improvements are largely confined to cosmetic refinements; the market has become largely transparent and calculable, but the profit chances dwindle. The fourth and final phase is that of lock in, where the potential of the original invention reaches its exhaustion; any further development seems to be blocked, and market competition becomes ruinous. This is the phase of crisis and termination which however bears the potential of generating a new path. What appears as a dead end for the majority of actors can be perceived by minorities as a chance to come up with new ideas. Thus, the possibility of a new cycle arises.

Innovations develop in all fields of economic activity, stretching from technology, production, organization to consumption. They differ considerably in their scope and reach: Freeman/Perez (1988) distinguish between "incremental innovations", "radical innovations", "changes of the technology system" and "changes in the techno-economic paradigm". Whereas incremental innovations are of only local or firm specific importance, radical innovations and changes in the technology system give rise to structural changes of industries and economic sectors. Changes in the techno-economic paradigm are governed by so called "meta-paradigms" which tend to transform the structure of the entire economy. Not only the economy in a narrow sense is involved in such large transformations, but also the larger frame of social institutions, including industrial relations, education, science, politics and law; moreover they are associated with thorough changes of the culture or "spirit" of capitalism (in the sense of Boltanski/Chiapello 1999). Drawing largely on Kontratieff's theory of "long waves", Freeman and Louca (2001) identify five such "meta-paradigms" and corresponding ages in the history of capitalism: The age of Cotton, Iron, and Water Power, starting with the British industrial revolution in the late 18th century (1), the age of iron railways, steam power and mechanization (2), the age of steel, heavy engineering and electrification (3),

the age of oil, automobiles, motorization and mass production (4), and the contemporary age of information and communication technology (5).

As emphasized above, the success of innovative paradigms can never be calculated in advance, but depends on conditions emerging in the process itself, generated by the communication of visions and paradigms. Such emergent conditions do not only include the cooperation of producers and consumers, but also support from the financial side. As entrepreneurs need to finance their projects, new visions and paradigms cannot be successful without a positive response at the financial markets. In section 3.1 I already have emphasized the importance of credit for capital accumulation. To be continued, capitalist dynamics requires a permanent inflow of additional credit financed demand which is nourished by the profit prospects of innovation. Without such an inflow, the system will not only stagnate, but go down. Like a bicycle, the capitalist economy can only move forward or fall over. The upshot is that capitalist growth depends on an emergent coincidence between the "real" innovative process, and a complementary expansion of credit, which is mediated by the circulation of new economic myths. The response which the latter find at the markets, will ultimately "ratify" the original investment decisions and make the economy grow (or not); failure can be due to conditions on the financial was well as on the "real" side.

4. Discussion

The approach I have developed so far can be summarized in the following statements: *First,* capitalist dynamics goes back to the performative or self fulfilling effects of innovative economic myths. *Second,* the generation of these myths themselves is to be explained largely by the struggle of entrepreneurs to build up niches or monopoly positions at markets. *Third,* the quest of entrepreneurs for market success and social advance in turn is structurally based in the double-bind nature of capitalist class relations: The class dichotomy is collectively closed and individually open at the same time. *Fourth,* the social perception of the double bind nature of capitalist class relations tends to be most accentuated in the lower middle classes, at social positions located "in-between" the dichotomy of capital and labor. By working hard and running debts for their social rise, entrepreneurs secure the profitability of the capital of the wealthy classes and make the economy grow as a whole.

The ideal constellation for a capitalist system to flourish thus would be a dichotomous, but socially not closed distribution of wealth on the one hand, a growing population with large numbers of juvenile and poor, but socially ambitious petty bourgeois individuals on the other. Such conditions indeed have occurred repeatedly in the history of modern capitalism, such as during the industrial revolution in Britain, in the U.S. with its ever new waves of immigration during the 19th and early 20th century, in the West German "economic miracle" after the second World War, at present perhaps in China, India and Brazil. Nevertheless it would be naive to suggest that there is something like a "built-in" equilibrium mechanism in capitalist growth. The ideal constellation depicted above is rather precarious and difficult to maintain. "Deviations" are always possible, and, as I want to show briefly in this final section, they can run basically into two directions: To little or to much upward mobility.

A low level of upward mobility will dampen entrepreneurial energies in the lower middle classes and thus have a negative impact on economic growth. Such a constellation can go back to two main reasons: An aging and decreasing population, or a blockade of upward mobility channels due to political corruption or ethnical, religious or class discrimination. In the first case the social reservoir of potential entrepreneurs will decrease due to the relative decline of the juvenile cohorts with their high potential of entrepreneurial activity (Kelley et al. 2011: 32). In the second case, the growth potential will be hampered in a twofold way: On the one hand, potential entrepreneurial risers in the lower classes will be discouraged, on the other hand, the privileged will be protected against competition and thus have even less incentives to engage in economic innovation.

On the other hand, *not too many* people should be successful in moving upwards. This would mean a collective upward shift of the social structure and an expansion of higher middle classes, as it actually happened in the mature economies of Western Europe, North America and Japan in the last decades of the 20th century. As a consequence, the structural tension in the middle layers will diminish and individual entrepreneurial motivation decline. The financial "rentier" will progressively become dominant over the "entrepreneur". Financial assets are always based on debts as their necessary counterpart. With growing upper middle classes the relative share of rent seeking owners of private assets rises, at the same time the share of potential debtors, coming from the lower classes and still being eager to advance, is likely to decline. The intergenerational transmission of fortunes and educational privileges further exacerbates this effect, as it tends to close the channels of upward mobility. The descendants of the successful may still be career oriented, but they do no longer have a stringent motive for taking the personal risks of an *entrepreneurial career.* At the same time, the individuals in the lower middle classes feel blocked and discouraged to engage in entrepreneurial projects. Indeed, as the above mentioned Global Entrepreneurship Monitor (GEM) surveys have shown, the level of early stage entrepreneurial activity as well as the social attractiveness of the entrepreneurial role is much lower on average in mature capitalist economies than in emerging economies. As the authors of the report conclude: "In the wealthier economies, with relatively good infrastructure, ecducation and other basic and efficiency factors, shaping attitudes may be more critical because entrepreneurs are more likely to enter this role because of choice. At the same time, with status rated higher than perceptions about entrepreneurship as a career, it appears that people in these economies may admire entrepreneurs more than they want to become one" (Kelley et al. 2011: 21).

Thus, a mismatch emerges between the growing volume of financial assets on the one hand and declining real investment opportunities on the other. The financial industry may try to fill this gap by constructing "creative" products like derivates, securitized credits and other fictive investment opportunities – a solution which obviously is not a remedy for the underlying disequilibrium and can work only temporarily. As I have argued elsewhere (Deutschmann 2010, 2011a), the latter scenario could be applied to the situation which developed in the advanced capitalist economies (North America, Western Europe and Japan) in the second half of the 20th century and may help to explain the actual crisis. Thus, the key problem of capitalism may lie just in his own success.

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