A sociology of profit

Economic Sociology and the Profit Puzzle in Economics

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"Money is a barren thing, and produces nothing, but by Compact transfers that Profit that was the Reward of one Man's Labour into another Man's Pocket"

John Locke

1. Introduction

Most economic sociologists see mainstream economic textbooks as their primary competitor in explaining economic phenomena – even though this challenge has only very rarely been noticed or taken up by economists. Sociologists have focused on the explanatory deficits of equilibrium models of perfect market competition and individual rationality for the explanation of economic practices and interaction in real markets. Due to their primary focus on the *stability* of markets as social orders, economic sociologists have shown much less interest in the *dynamics* and *processes* of capital accumulation – a topic recently revived by Piketty's seminal work on the distribution of economic value in contemporary market economies. For economic sociologists the question is: how do social structures contribute to the reproduction, redistribution and accumulation of capital and economic wealth? By turning to the simple but yet unsolved question *how* the emergence and distribution of profits in markets can be explained I want to point to the fundamental *conceptual* contribution economic sociology has to give to economic theory as well as to the analysis of capitalism - beyond the purely empirical observation that economic interaction is always and everywhere influenced by social aspects. I will argue that only by including the social and/or communicative aspects of economic interaction it will be possible to understand how profits emerge and how they are distributed in markets. Social structures of markets can help to understand why diffuse profit opportunities are always and in

every market systematically open to single actors. The ubiquity of profits has provided a constant puzzle to mainstream economists who have claimed a constant rate of profit for all firms that under competitive conditions will eventually approach zero. As of today there is no coherent and convincing theoretical answer to the question how the emergence of profits as a special form of economic income can be explained - especially if those profits (1) can be reached under competitive conditions, (2) remain stable in the long-run, (3) exceed aggregate interest rates, (4) show stable differences in their distribution over sectors and different firms, and (5) can be temporarily negative as well. The implicit assumption of zero profits stands in remarkable contrast to the vast literature on the origins of firm and sector profitability in management theory. Firm- and sector-level empirical research substantiates the assumption that there may be structural aspects that allow for stable long-term individual value creation, which justifies the treatment of profit as a special form of income beyond wages, rents and interest.

Instead of conceptually or empirically outlining a 'sociology of profit' I will demonstrate that the need for a sociological perspective on profit has already been spelled out by classical and heterodox economists themselves, wherever they have tried to solve the profit puzzle. In other words, the plausibility of a relevant sociological contribution to profit theory will be illustrated by showing that most economists who wanted to further develop profit theory at important points in their argument faced sociological questions.

The question why prices do not fall into wages and rents (or interest) alone but also contains an element of profit – which is the primary reason for an entrepreneur to organize the whole process - has been at the center of classical

political economy. The works of Adam Smith, David Ricardo, Jean-Baptiste Say, Karl Marx, Joseph Schumpeter or Eugen Böhm-Bawerk were primarily concerned with explaining the creation, distribution and accumulation of value in societies as a whole, the origins of the 'wealth of nations'. Even when under the influence of the Austrian marginalism economic theory took off towards equilibrium models in the Jevonian and Walrasian revolution, this did *not* mean that the analysis of social, historical or institutional aspects of capitalism vanished completely from economics. In the heterodox camp – as it is called today – economists such as Chamberlin, Robinson, Triffin, Knight or Sraffa have put continuous effort in a renewed theory of economic distribution. However, the profit problem vanished from economic textbooks leaving behind a growing contradiction between the theory of the firm as a profit maximizer and the equilibrium model of competition in which no profits are possible (Naples, Aslanbegui 1996). By re-vising the existing perspectives in economic profit theory I will show that all of them have from different sides revealed that the existence of a diffuse but yet stable pattern of profits cannot be explained without taking into account the social aspects of valuation, organization, coordination and market power. Some of these authors ignored their own insights in their following work, some acknowledged them and developed argumentative workarounds, others even explicitly stopped at that point with the argument that they do not want to leave the framework of methodological individualism. By continuing their line of thought with the help of recent insights in the field of of market sociology I will argue that it would be in perfect accordance with most parts of profit theory to understand profit as a *social rent*, a capacity to organize favorable streams of payment that individuals or firms are endowed with because of their social position in markets.

It would be one-eyed to only accuse economists of stopping their thoughts for disciplinary reasons. By turning towards the profit a research field is entered that used to be very much outside of the economic sociologists' focus. Instead, the profit motive is often perceived as a permanent threat to social order, an element of self-interested agency that distorts the stable reproduction of economic orders. Profit seeking is the main source of defection within social relations in markets that can never be fully suspended by the institutional and social embeddedness. As Granovetter has stressed, all forms of trust or organization remain precarious in a profit-oriented economy (Granovetter 1985). In this perspective the accumulation logic of capitalism is a threat to the social integration of the economy. Profit in this sense is the foremost anti-social category, the 'spirit who denies' cooperation and solidarity. It is remarkable that this argument eventually drives out profit as an explanatory problem from the sociological agenda in a way that is surprisingly similar to how mainstream economists lost interest in profit. Instead, sociologists often claim other action orientations as equally important. Their market sociology 'replaces profit-maximizing actors with people who are trying to promote the survival of their firm' (Fligstein 2001, p. 17) or even argue that rationality and efficiency in organizations have a symbolic ritual meaning rather than providing an incentive (Meyer, Rowan 1991). While such perspectives might be perfectly right in claiming that social action in firms does not follow rational principles I will argue that this does not mean that these activities are irrelevant for the profit a firm can raise. Instead, they provide an important element for a theoretical explanation of profit. I will describe profit as a stream of payment to a company and/or its to its owners that is not *impeded* by institutions, social networks and reciprocal interaction but *inherently depend*s those factors.

In the following sections four different economic perspectives will be presented that treat profit as (1) labor surplus value, (2) capital income, (3) a premium on risk or entrepreneurship and (4) as a market power rent. It will be shown that each of these perspectives faced specific conceptual problems in coherently explaining profits. These problems concern (1) the transformation of value into prices, (2) the aggregation of (unpriced) capital, (3) the incalculability of risk and (4) the strategic contingency of market competition. I will argue that all four problems point to the role of social dynamics of interaction in firms and markets. In the conclusion emphasis will be put on capitalism as being dependent on the existence of non-market structures. Therefore, capitalist *landnahme* does not only consists of an expansion of the profit motive into new sectors but also of a growing 'exploitation' of ever emerging social structures in all markets.

2. The History of Economic Thought on Profit

Philosophers before Adam Smith had rarely touched the issue of profit. David Hume stressed the difference and dependence between profit and interest, Dudley North described profit as a "rent for stock". While for Smith the price of all goods resolves itself in wages, rent and profit (Smith, Skinner 1999, p. 153), he did not discuss the topic in depth.

> "The profits of stock, it may perhaps be thought, are only a different name for the wages of a particular sort of labour, the labour of inspection and direction. They are, however, altogether different, are regulated by quite different principles, and bear no proportion to the quantity, the hardship, or the ingenuity of this supposed labour of inspection and direction. They are regulated altogether by the value of the stock employed" (Smith, Skinner 1999, p. 151)

Although he founded in his theory labor was the sole unit to *measure* economic value Smith was very skeptical about a production-cost theory of value (Henry).

He warned against treating profit a subtype of wages or as income derived from labor and repeatedly described it as an original source of revenue *apart* from labor. Smith hinted towards some other possible lines of conceptualization for the economic sources of profit. For him, the 'value of stock' is an independent source of value. It stems from the application of capital in the production process. In addition to that Smith stresses two other aspects as well: First, he claims that the value of the stock does not merge into the sum of money lent as capital, profit will always *exceed* interest which covers the risk-related component of profit only (Smith, Skinner 1999, p. 200). Second, profits do not stem from the production process alone, but also from the market distribution of goods, especially if market power is distorted. In book III Smith describes profit seeking as potentially dangerous to the common wealth. In another famous quote he calls monopoly profits 'an absurd-tax upon the rest of their fellow-citizens' (Smith, Skinner 1999, p. 358) and argues that businessmen in their profit seeking have 'generally an interest to deceive and even to oppress the public'. Thus, four perspectives on profit theory that were bound to shape the economic discussion about profits in the following two hundred years were mentioned, even though not equally held plausible, by the Grandfather of economics:

(1) Profit as surplus labor value

(2) Profit as income on capital

(3) Profit as a risk premium

(4) Profit as a reward for market power

Classical political economists that followed Smith's distributional questions later took these different perspectives and tried to integrate some of them into their general frameworks. The next sections will not be organized as a chronological

history of economic thought, but will be ordered along the four typified explanatory approaches to profit and their conceptual problems.

2.1. Profit as Surplus Value

The first encompassing and influential explanation of profit after Smith was provided by David Ricardo. The basic model of industrial profit was his corn model. At a certain stage of technological development the surplus product of corn cultivation is a fixed ratio. It describes the difference between the corn harvest and the cost of corn, which primarily consists of the payment for the labor necessary to produce it. Living in a world in which agriculture still was very important, for Ricardo the rate of agricultural surplus defined the necessary rate of profit for manufacturing because if industrial profit rates fell under the agricultural surplus rate capital would be transferred to agriculture and invoke a cultivation of less fertile land, according to his marginalist model to describe the dynamics of agricultural surplus values. When turning to the question of profit in manufacturing, Ricardo 'was substituting labour for corn as the quantity in terms of which product, wages and surplus were alike expressed.' (Dobb 1973, p. 74). Industrial profits are the difference between the value substantiated in the product at its relative price to all products which depends on the labor necessary (at a given stage of technological development in a society) to produce it. The necessary amount of corn for reproduction of the worker and his family defined the objective labor unit cost. The corn model provided the model for calculating values and prices. While Ricardo acknowledged the basic conflict of interest between labor and capital, his assumption of the iron wage law led him to argue that profit was exclusively dependent on technological progress and productivity in manufacturing, as much as in agriculture, with no institutional or cultural

influences. The iron law of wages was the basic assumption that opened up the labor surplus that could eventually be turned into profit.

Karl Marx built on Ricardo's labor theory of value, but with the striking difference that he described labor itself as a commodity with a historically and culturally defined exchange value different from its use value within the production. With this changed perspective the institutional structures of labor markets and contracts became crucial influences on the labor surplus extractable. Profit became the result of market power of the capitalist class secured by the institutions of property and free exchange. Profit was rooted in labor surplus defined as the difference between wages (the historical-social minimum of reproduction that reflected labor market power) and the exchange value of the commodities produced. However, Marx drew an important conceptual difference between labor surplus and profit: The surplus rate defines how much surplus value is raised from a certain amount of labor cost. Although - as the labor theory of value claimed - labor is the only source of value for the capitalist the most relevant rate of return for him is not the surplus value in reference to labor cost alone but in reference to his total cost of production, including his outlays for long-term and short-term capital (Marx 1909, p. 63). Therefore even if all employers raised the same rate of surplus from their workers, the different amounts of capital applied to different production processes lead to very different individual rates of profit (which also tend to fall with a growing importance of capital to industrial production).

Marx was aware that even though surplus value is substantially created in the work process it has to be *realized* in the market distribution of commodities. Within market competition differing individual rates of profit provide incentives

for capital flows into the more profitable sectors and out of less profitable, which according to Marx and in contrast to classical surplus theorists, cannot simply be assumed to converge into an equilibrium, since ‘productive powers’ which describes the materiality and organization of production are permanently changing. For him the never-ending chase of the most profitable investment was the main reason for the instability and crisis dynamics of capitalism. However, the concrete and dynamic course of competition and business cycles is transcended by objective social rate of profit that defines the focal point for all capitalists, which also provides the basis for their price setting. Therefore the (relative) prices of goods will be calculated by the production cost for labor and capital (which is essentially past crystallized labor itself) plus a *social* rate of profit that as an objective social fact applies to every capitalist a sum of profit in relation to the share of total capital in a society he possesses (variable and fixed capital). Still, the sum of all profits always equals the overall sum of labor surplus value and is therefore created within the production process.

Up to this point profit in the labor theory of value depends on the technological and institutional capacity to extract labor surplus and a lack of bargaining power on the side of the workers. The production sphere is the prime mover of value and profits. The *transformation* of production cost and labor surplus value into market prices, however, is a conceptual problem with heavy implications for any objective value theory of profit.

The transformation of labor value into a system of relative prices

While in the labor theory of value according to Marx and Ricardo the sole source of value for the profits gained is labor, the surplus value is realized only after the

produced commodity is sold on the market. This raises the question if the two perspectives on profit, namely (1) surplus value as the difference between labor cost and product value (production side) and (2) profit as a collectively set sum added on total production cost (market side) will always necessarily converge. The crucial element in this question is how labor values transform into a system of relative market prices. Why is this a problem? For example, if we assume that two producers apply the same number of workers but different amounts of capital, their total production cost are different and therefore they sell their product at different prices. These two prices stand in the relation that reflects the different capital endowment between the two processes. If we now assume an increase in wages the labor cost will equally rise for both producers. However, as the capital differences remain constant and the (constant) profit rate is calculated on the total production cost, the two resulting prices will now have a different proportion than before the wage increase (Böhm-Bawerk et al. 1949, pp. 54f.). This means that price *relations* have changed although the amount of labor applied to the production (as well as its payment and its productivity) has remained constant[1].

A second problematic dimension of the transformation from values into prices concerns the exchange value of labor in the Marxian perspective. If labor is perceived as always compensated on the basis of subsistence only and as solely dependent on the corn price (as is the case in the Ricardian perspective) labor provides an objectives standard for value *beyond* the system of relative prices or exchange values. However, if labor is itself seen as a commodity, its price is

[1] Ricardo tried to solve this problem by re-defining capital as past labor. However, the different durability of capital goods remains a problem for any theory that wants to marry production cost approach and surplus theory.

determined by the price of the goods necessary to reproduce it. But this means that there is an element of profit already entangled within the price for labor as well (Marx 1909, pp. 188f.).

Marx myself has countered these arguments by pointing to the permanent oscillation of all prices around their real values. Different rates of capital tend to equal out and although prices will never actually hit their value, they *oscillate* around their labor-defined value, they are the "never ascertainable average of ceaseless fluctuations" (Marx 1909, p. 190). However, in Marx' model the sum of profit always equals the sum of the labor surplus and the social rate of profit is built as an average of all individual rates of profit [2].

Marx' transformation problem has been discussed harshly in Marxist political economy. From a sociological perspective we can reformulate the problem as follows: Marx encountered a problem of *micro-macro relations* consisting of a problematic encounter of surplus generation in the *individual* production process and profit as a *socially* set rate. As Bortkiewicz has shown, if the problem of prices on all production factors (including labor) is taken serious the overall value produced in an economy it is not in all cases (which means under all possible

[2] It is important at this point to mark the difference between the Marxian philosophy and classical political economists and surplus theoreticians. For Marx the category of "value" was constituted in a historical, dialectical process which points to the role of social relations and power for the emergence of a quantitatively structured economy. "Value" and "money" in economic thought both are expressions of an already-constituted ill-leading naturalization of the commodity as a social construction. Therefore, it may be a misunderstanding to criticize Marx for mathematical inadequacy when he is developing a historically grown construction that has now practical consequences but is far from being stable and consistent but fundamentally crisis prone.

secotral distribution patterns of capital) necessarily distributed in an appropriate way to secure the reproduction of all capital forms. In short, if all different prices are built as total production cost plus a profit rate, and this is true for the price of labor as well as all other products then the value distribution between different sectors can be systematically - and not only temporarily as Marx seem to suggest – distorted.

Already Smith and Ricardo themselves had pointed to the possibility that production cost view and surplus view might be inconsistent. Ricardo's proposal to treat capital as past labor ended in the problem of different durability of capital goods that distorts present prices away from their present labor value and thereby hit the aspect of time in the production process (Backhaus 2012, p. 337). Marx' solution – to a problem that was Ricardo's just as much as his own - provoked Boehm-Bawerk to declare a fatal inconsistency in the Marxian theory that led to the breakdown of his impressive "house of cards" (Böhm-Bawerk et al. 1949, p. 118).

Within the surplus theory approach to profits the discussion has centered on the mathematical solution to the transformation problem. Many authors have argued that in order to uphold the production cost approach to price derived from labor surplus in a world where labor itself has a market price a standardized 'exchange rate' between labor cost and price is needed. Bortkiewicz re-formulated the problem as a system of mathematical equations in which *all* production prices have a profit mark-up. He has proven that this system of equations is solvable for all original capital structures *if* one of the products functions as a *numeraire* for the others. In the 1960s Piero Sraffa approached the problem very similarly but re-formulated it: It is not possible to analyze the distribution of revenue between

wages and profits *unless* the rate of profit is set in advance thereby defining the price mark-up on production cost from the very beginning. The reason for this is the unclear price effect of changes of the wage resp. the profit rate (which he expanded also towards capital by stressing the ambivalent impact of production cost increases on the production technique). However, he showed that it is always mathematically possible to construct a standard commodity for which a labor cost increase (or a profit rate decline) is exactly offset by capital cost decrease and vice versa (Sraffa 1960). This standard value is constructed without reference to price and distribution but from the *physical* proportions of commodities only calculating *how much* of all commodities is needed to produce all others. He then has shown that if the invariant price of this commodity is taken as a *numeraire* it is possible to derive a system of relative prices from the quantitative relation of production factors (Baldone 2006). With this model Sraffa presented a coherent objective, production-based value theory that builds on Ricardo and Marx, while at the same time he changes from labor being the only source of value (and profit). Instead, he roots profit in the *physical structure of production* without monetary relations. Still, however, in Sraffa's model the rate of profit is exogeneous.

Sociological implications

While the above economists were mainly concerned with the logical and mathematical proof of the consistency of a labor theory of value their solutions have important sociological implications. From an empirical point of view the distribution of profits among different sectors and/or firms can only be explained from the cost structure of the production process if the system of relative prices is *actually and empirically* coherent with a standardized rate of transformation from

the values employed in the production to the market prices of the goods produced. All different perspectives in surplus value theory more or less explicitly have to assume that the system of relative prices is structured with a core unit that is coherent to production relations. Either labor is always paid as subsistence (Ricardo), the system of relative prices of all commodities oscillating around their production cost, and eventually, labor unit cost (Marx), or the price of at least one commodity as being fixed for all production techniques, an a priori 'gold standard' (Bortkiewicz) or as a mathematically constructed standard commodity produced at average quantitative proportions of production factors (Sraffa). If we want to understand how profits are actually distributed in markets then the assumption that this depends on labor or production cost holds true only to the degree that the prices in and between different markets actually approach this objective pattern that can be related the production side. But can we assume that social processes of valuation in markets will at least in the long-run and on the aggregate level even out towards a social rate of profit that reflects production patterns? Otherwise there is no reason to believe that any production-side-defined standard will have enough empirical relevance for explaining where profits arise and where losses occur. Note that competition won't help here because the distortion arises from differing capital structures not only between firms in one market (that could be believed to be equaled out in competition) but from differing capital structures between *sectors* of the economy. Moreover, the transformation problem even occurs if a *constant* aggregate rate of profit is assumed as a price surcharge for all capitalists alike. Instead, by turning to the problem of profit realization in markets Marx and others point to the need of a mechanism on the *demand* side of goods market that ensures the coherence of

relative prices with their relative production value (with the capital and labor needed to produce them).

Sociologists concerned with the valuation of goods in markets from the consumer side have shown empirically that prices are subject to social interaction dynamics and the influence of institutions, networks and cultural perceptions (Beckert, Aspers; Stark). Not only prices for pieces of art, football players or stock shares valuation are communicative constructions but also prices for classical consumption goods such as cars or food and finally for labor, are influenced by implicit value rankings shaped by status orders (Aspers 2009). If their insights are taken seriously one of the most important explanatory factor for profit will be the social structure of valuation on markets, *including* capital and labor markets. Depending on its social position within the networks and status rankings that define value in those markets a firm will gain more or less profits. While economists concerned with profit from a labor value perspective have faced and explicitly taken on this explanatory problem, they have avoided to work further on these sociological implications of the valuation problem. Instead they contented themselves with either (a) formally proving the possibility of such a system of relative prices or (b) claiming the transformation of labor values into prices as a tendency rather than an empirically possible situation. From a Marxian perspective the social pattern of valuation will create a permanent source for price distortions and crisis. Both workarounds to the valuation problem eventually have not much to contribute to an explanation of actual profit distribution in real existing markets without tackling the problem of valuation and its sociological interactive dimensions.

2.2. Profit as capital income

Smith's remark that profit may stem from the "value of the stock employed" provides the anchor for a second perspective on the origins of profit. Could not profit be the payment for the service of *capital* to the production process, as much as wage is the payment for the service provided by the worker? Is it income paid in accordance to capital productivity? The ancestor of this perspective is Jean-Baptiste Say. Producers employ three forms of productive capital: (1) tools and machinery, (2) subsistence means for the workers and (3) raw materials (Say 1834, p. 75). In harsh contrast to the Ricardian tradition Say did not perceive higher productivity due to the use of machines as an intensification of value extraction from labor but as the addition of a value that capital produces. The ultimate source of this value is not human labor, but the ability of a certain techniques to make nature work in a specific way.

> 'The steam engine is but a complicated method of taking advantage of the alternation of the elasticity of water reduced to vapour, and of the weight if the atmosphere. So that, in point of fact, a steam engine employs more productive agency, than the agency of the capital embarked in it; for that machine is an expedient for forcing into the service of man a variety of natural agents, whose gratuitous aid may perhaps infinitely exceed in value the interest of the capital invested in the machine.' (90)

At the heart of capital productivity stands the use of "natural agents". Neither the value of the material used to build a machine nor the labor of a technician flowing into the creation of a machine provides the equivalent of the value a machine adds to every commodity it helps to produce. This also means that the value generated by the use of capital far exceeds the cost for buying it. This could be called a capital surplus theory of profit, in which profit is value extracted from nature.

In his distributional theory Say argues that this revenue is shared between different forms of 'profit' – a 'profit of land', a 'profit of labor', and a 'profit of

capital' as an autonomous amount of value added by the tools, machinery, money and material to the final product, a 'rent paid for the utility and the use of capital' (351). Interest, in this sense, is not a fee on money lent - that should be damned as usury committed by rich people (348) - but the remuneration for providing an important production factor whose employment is beneficial for the society as a whole. A premium paid on the providing of a trigger for additional value squeezed out of nature.

> 'Henceforward, it will be reckoned no more avaricious or immoral to take interest, than to receive rent for land or wages for labour." (347)

The historically improving productive capacity of machines and tools justify growing interest rates with a growing industrialization and 'more numerous and lucrative employments of capital' (352). In a Ricardian notion Say acknowledged that depending on the historical context the risk rent may eat up all capital profit leading to a stagnation of economic development. However, under normal circumstances interest will only define a small proportion of overall capital profit.

Say is a classical political economist because he looks for the source of value in the production process and defines profit as a form of income separate from wages, rent and interest. However, Say has paved a way for today's marginalist economics by putting the service capital provides to the economy on an equal footing with labor and land, making it a substantial, original source of value. In the "marginal revolution" three authors from different countries, William Jevons, Leon Walras and Carl Menger helped to give birth to the equilibrium model that shapes mainstram economics until today (Dobb 1973, p. 167). The equilibrium model took up Say's arguments about capital productivity but integrated his production-side understanding of profit as a special form of income into the new

subjective value approach that develops all values and prices from the distribution side. The value of any good is defined by its market price (given in Walras' hypothetical auctioneer model) with all producers allocating towards the equilibrium price by adjusting their production output up to the point at which all factors are paid in accordance with their productivity. Prices are set simultaneously in all markets, with the prices for services (including capital) eventually being determined in the product markets. For every unit of capital there is a certain payment derivable which under fully competitive conditions will induce a fix price on the capital market. It will exactly cover the cost for the marginal unit of capital, which is its contribution to the price of the product (Clark 1908, pp. XII.27). In this model, however, Says *distinction* between capital borrowing and capital employment vanishes, because capital income under full competition will equal capital price which is interest.

While the marginal revolution drove distributive concerns out of the center of economics for the benefit of efficiency problems, it merely created the 'illusion of distribution being integrated' (Dobb 1973, p. 175). It is important to notice that the equilibrium model is reliant on two distributive assumptions, (1) that on the side of production a certain stock of production factors is treated as given and only its pricing is subject to explanation. Moreover, (2) in any rational preference order the value of goods is ranked against all others *in regard to* a fixed amount of money income. Therefore, the price structure in markets will be heavily influenced by the distributive pattern of income (Dobb 1973, pp. 180f.). It is exactly this separation between the physical distribution of capital and its pricing that is subject to a conceptual critique of the capital income approach to profits.

Again, I will show that this critique points eventually to importance of social structures.

Capital and the Problems of its Aggregation

Independently of its adherence to objective or subjective value theory there is a major problem for any capital income profit theory: If capital is a production factor like labor or land how can its contribution be adequately measured as to make it possible to derive profits from a quantitatively defined capital stock? What does it mean to employ "more capital" in parallel to the obvious cases of 'more labor' or 'more land'? The straightforward answer would be to aggregate capital by the sum of its value, its price. But this solution is logically incoherent with the assumption that the capital price (and a possible profit mark-up) *depends* on capital productivity. An accounting unit of capital beyond its price is needed, in the sense of small units of "all-purpose machines". In its construction the economist "must decide how, for example, to add screwdrivers to wheelbarrows to conveyor belts to blast furnaces" (Hunt, Lautzenheiser 2011, p. 308). Clark called it an "abstract quantum of productive wealth" (Clark 1908 :IX.6). Some authors in defense of capital income theory have used metaphors such as "putty", "jelly", "leets and "meccano sets" for capital. However, Bronfenbrenner calls this idea of a 'normal profit' as remuneration for capital use the 'naïve theory of profit' (Bronfenbrenner 1960, p. 302).

In a fundamental critique Sraffa has shown that the measurement of an amount of capital is not only a problem of rational scaling but also concerns the possible direction of its change. He pointed to the phenomenon of "re-switching": If salaries rise to a certain point a more capital-intensive technique will be more

efficient and therefore employed by a firm (more capital). However, if we assume different degrees of elasticity towards factor price changes for the cost curves of different production techniques (that means equal cost lines for different factor costs will not be straight but convex or concave, see Lautzenheiser: S. 442ff.), it is possible that if wages continue to rise it may be more efficient to switch *back* to the original production technique (less capital). With this model Sraffa has proven wrong the assumption of a formally straight marginal productivity of capital across all production processes and techniques. There is no reason to believe that diffuse patterns of capital and labor employment in complex production process will be describable by *quantitative* measures of capital amount and productivity.

Sraffas argument mirrors earlier attempts to conceptualize capital the most important of which has been Eugen Boehm-Bawerk's. He ridiculed the argument of an independent productive capacity of capital and claimed that while labor and land were *independent* productive factors capital is productive *within* a process of production only (Böhm-Bawerk, Smart 1891, p. 96). This emphasis on the labour context is why Schumpeter later called him the 'bourgeois Marx' (Schumpeter et al. 1997, p. 846). Böhm-Bawerk argued that capital becomes an important production factor only through the aspect of time, production needs to be conceived as a process.

> Goods of remoter rank, although, materially, present commodities, are, economically *future* commodities. As present commodities they are incapable of satisfying human want; they require first to be changed into consumption goods; and since this process, naturally, takes time, they can only render their services to the wants of a future period (Böhm-Bawerk, Smart 1891, pp. 299f.)

The value of capital is 'measured by the average period which lies between the successive expenditure in labour and uses of land and the obtaining of the final

good' (Böhm-Bawerk, Smart 1891, p. 90). The value of the capital employed depends on the actual time span necessary for the 'roundabout process' (Böhm-Bawerk, Smart 1891, p. 92). Böhm-Bawerk does not give capital a substantive physical meaning, but it has a 'symptomatic' function only, it signals a 'profitable roundabout production', understood as labor and material applied over time. Profitability depends on the time passing, a longer production time can be used as a proxy for a higher capital intensity. Marginal economic can still be applied to the concept, because Böhm-Bawerk assumed that from the present perspective goods will be value the lower the later they occur in the future. With this tool capital can be measured as labor over time: Every day of labor will add to the product at a decreasing rate. Moreover, a day of labor today is worth as much as ten days in ten years from now, every cost or revenue has to be calculated with a discount rate. With this framework Böhm-Bawerk could include the heterogeneity of factors influencing the value of the capital employed and the historical openness of production techniques.

> Of course in such cases no definite figure can be named, either for the point from which the productiveness of further extensions of the process begins to decrease, or, speaking generally, for the amount of surplus result connected with any definite length of process. These data vary according to the technical circumstances of each branch of production, and at each stage of productive skill (Böhm-Bawerk, Smart 1891, pp. 85f.)

It is important to notice that in Böhm-Bawerk's conception it is not enough to know how *much* labor (or land) is used over a whole time period, but it is crucial to know how the concrete usage of a production factor (and the intermediate goods produced by it) is distributed over time.

Sociological implications

From a sociologists point of view his remarks on 'technical circumstances' and 'productive skill' point to the importance of *organization* of the production process. It is the processual pattern of the production that defines the value of the stock employed. If we do not ascribe an independent productive capacity to "units of capital" any profit calculation of profit is indexed not only by the technical, but also by the social conditions of production. The distribution of labor over the different steps and periods of production may be altered by processes of learning and the managerial and informal interaction patterns of labor processes, e.g. as hierarchical or team cooperation. Changes in the management perspectives, described in economic sociology for example as a change in the "conceptions of control" (Fligstein 2001) will cause re-structuring of firm organization and production processes. If this is related to Böhm-Bawerk's processual meaning of capital, a change of work organization does not only lead to different cost structure for labor but also causes a re-valuation of capital. Capital cost becomes subject to the overall 'fit' between the social organization of workflows and the available machinery and tools. Production cost then can only be calculated if a certain organization structure is assumed as temporarily fixed and given. Thus, if profit is perceived as capital income it is to a large degree defined by the social organization of the production. Therefore, firms will only know their capital cost in relation to a given setting and always have the possibility of changing the social context which then will alter profit distribution beyond any mathematically coherent calculation of a firm's capital goods.

Organizational sociologists have a long tradition of analyzing firm structures and organizational forms of productive labor from a sociological point of view. They have shown that the inner structure of firms – which from a profit theory

perspective also means the inner structure of capital and its profitability – is subject to a variety of normative and cognitive orientations such as learning, isomorphism (DiMaggio, Powell 1991) as well as to the institutional context of markets as fields for power struggles (Fligstein 1996; Bourdieu 2005).

Many of these sociologists implicitly built on a dichotomy of profit seeking on the owner-side and group interaction and organization patterns within a firm on the other that block profitability. However, such a perspective implicitly assumes that profit can only be raised from an increase on the commodity-form of labor. However, the perspective taken here from classical heterodox capital concepts shows that the social organization of the production process influences profit in another, deeper sense. Profit depends on the productive capacity of the capital stock employed but this capacity is a question of an appropriate social organization of the production. There is not only no empirical but also no conceptual reason to believe that a maximum of market and competition logics within a firm may actually raise profits. Neo-institutionalist models in economics have argued that the inner structure of firms depends on the transaction cost of market contracts that may make it more efficient to switch or stick to hierarchical organizations (Williamson 1990). However, from the perspective of profit theory it may be necessary to turn around the transaction cost framework and cut it off from its inherent functionalism: Social structures of firm organization that arise from historical, institutional and/or communicative reasons *define* capital cost structures and profit opportunities within the production process. Capital has an inherent social structure (Zukin, DiMaggio 1990) and profit – understood as capital income - depends to a large degree on non-economic social interaction, a premium on appropriate social organization. While Boehm-Bawerk deserves

credit for discovering the social dimensions of capital value there are many reasons to doubt if all aspects of work organization will be subsumable under the quantitative concept of time. For example, if the communication within a firm is intensified by, say by its ethnographic coherence which create shared work habits, this may raise profit without raising labor cost by reducing misunderstandings. However, production time may be shorter because less errors occur or longer because the ethnographic homogeneity will create more chances for non-productive social interaction. Sraffas re-switching problem that concerns ambivalences of capital cost changes may also occur in regard to changes of the time horizon of production. Again, we see a problematic workaround for avoiding the social dimensions of profit mechanisms.

2.3. Profit as remuneration for entrepreneurial capacity and risk-bearing

Much stronger than their Anglo-Saxon colleagues German and Austrian classical economists have been concerned with a concept of profit as a remuneration for a special entrepreneurial capacity or achievement (Obrinsky 1983, pp. 52ff.), in clear contrast to Smith's warning against this perspective. Heinrich von Thuenen described profit as a premium for facing the existential threat of firm failure that rests primarily with the owner, giving him 'sleepless nights' (Dempsey, Schmidt 1960, p. 248). He differentiated between entrepreneurial wage, which is the salary of a manager for the direction of the production process (and could also be done by a hired employee) and the industrial reward (Industriebelohnung) which is a remuneration for his 'greater mental effort" and "industry" on the side of the entrepreneur – which is more of a justification for profit than of an explanation for its emergence. For Wilhelm Roscher, profit is the remuneration for the bearing of 'care and responsibility' and a special capacity to inspire workers and give

confidence to financiers (Roscher et al. 1878, pp. II.148). Nearly all profit theories concerned with profit as a remuneration of the entrepreneur mention the aspect of a *risk*. The entrepreneur bears the risk of losing his existence, while workers, financiers or landlords only face the risk of having to find new contract partners. The entrepreneur is in a constant existential threat that sets free all his creativity and energy. Niklaas Pierson describes the bearing of actuarial risk as primary entrepreneurial service to society.

> "[…] everything which lessens the risk incurred by entrepreneurs will tend to diminish the total profits accrue to them." (Pierson 1926, p. 240)

Any risk theory of profit is tempted to equal profit and interest. If all profits signal risk bearing the aggregate rate of interest may be understood as a measure of all economic risks in a society, a 'natural' rate of interest on every piece of capital based on the risk of its usage. Under the condition of a fixed market price for capital the entrepreneur does not have to pay out the complete return on his investment to the capital lender but only its 'price' that is based on the social average rate of risk. A lender receives an interest payment because he surrenders the ownership of his capital to an entrepreneur who has the capacity to create higher profits than the original owner. Profit may arise if the risk of a single entrepreneur is higher than the average risk. This has also been taken up by the Keynesian macro-economic perspective: Abstinence from consumption creates savings that makes investment possible, interest is a reward for not withholding money from risky investments that contribute to the creation of economic value. However, Keynes in his positive statement about usury laws claimed that it was necessary to "keep separate what the classical theory has inextricably confused together, namely the rate of interest and the marginal efficiency of capital" (Keynes 1973, p. 352). However, the market rate of interest, as Keynes argued,

depended on *estimated* risks towards the uncertain future and cannot derived from actual, 'real' economic risks in the field of production [3].

With this conceptualization Keynes pointed to a major problem of any risk theory of profit, which is the *uncertainty* of the economic process for the producers planning a production period, which renders *actual risks* as a measurable economic root of profit doubtful.

The problem time and the limited calculability of risk

Similar to the above discussion on capital, Keynes points to the crucial aspect of time in economic theory. Already Say had pointed to the time lag between the payment of production factors and the realization of the produced value on the market that creates a certain risk:

> "It has been observed, that it is by no means necessary for a product to be perfected for use, before the majority of its concerning producers can have been reimbursed that portion of value they have contributed to its

[3] For the macro-economic perspective that Keynes developed profit was not an important topic. His focus lay on the question why a gap between investment and savings could occur on the macroeconomic level, pointing to a lack of adjustment on and between different factor and goods markets. The national income mattered only in regard to its application between consumption and investment. Profit, as Keynes claimed, in the sense of a growing wealth of the upper class would only be macroeconomically relevant if its use diverges from the average pattern. Excessive consumption out of the growing wealth of the rich would be transferred to other producers only as a surplus, savings remained savings. If all receiving producers stuck to this over-consumption this would mean a reduction of capital investment and eventually a miss of growth chances or even the cause of a crisis. However, it is not the distribution per se that stands in the center of Keynes interest but the *use* of the national income and its governability by macroeconomic policies. However,

> completion; in a great many cases, these producers have even consumed their equivalent long before the product has arrived at perfection" (320)

Part of the entrepreneurial risk is defined by the possibility that the production process may not turn out the way it was planned. Moreover, market conditions may have changed when the final product arrives.

> "This theory asserts that the profit of an undertaking , or the residue of the product after the claims of land, capital and labour[…] are satisfied, is no the reward of management or co-ordination, but of the risks and responsibilities that the undertaker […] subjects himself to."(Hawley 1907, p. 106)

For Hawley, entrepreneurship is the 'predominant productive factor' (102) because all other factor incomes (wages, rent and interest) are derived from it. The entrepreneur is serving the community by fulfilling a social need, by taking on responsibility for providing for the uncertain future in an 'act of volition' (112).

> The point essential to my argument is this – that the remuneration of enterprisers depends, both primarily and ultimately, upon their relation to the community as a whole, while the remuneration of landlords, capitalists [money lenders], and labourers depends primarily upon their relations to enterprise. (Hawley 1907, p. 96)

In his risk theory Frederick Hawley eventually pointed to the problem of uncertainty in the Keynesian sense (Obrinsky 1983: pp. 63). He describes profit as an 'undetermined residue' (107). However, this necessarily, falls together with the *actual* ownership of capital. If capital is borrowed to a new entrepreneur, the capital owner (capitalist in Hawley's terms) parts from the entrepreneur and receives a rent on his capital. Still, he loses direct access to the profit reward that may be higher (or lower) than the rate of interest that has to be paid on the basis of time passing only.

For a theory of economic distribution that puts risk at the center of the explanation of profits the crucial question is to which degree this relation can be measured and calculated. Can we assume that the profit paid out at the end of the economic

period will be proportionate to any *objective* risk of failure, will the profit rate equal the rate of economic risk - either individually or on average for one market or even the whole economy? Two authors from very different philosophical corners have put serious doubt on the calculability of entrepreneurial success on the basis of risk: Frank Knight and Joseph Schumpeter.

Knight criticizes Hawley for assuming *in principal* the possibility of a complete insurance of economic risks (Knight 2002, pp. 43f.). Hawley argued that it is possible to partially transfer the entrepreneurial function of risk bearing to an insurer. However this would not be possible for an entrepreneur without 'wholly abdicating his special function in production' (Hawley 1907, p. 111) It is not possible to insure against all aspects of 'the value of his property fluctuating' without selling off his capital entirely.

Knight acknowledged Hawley's allusion to the limits of the insurability of risks. However, for Knight the reason for this did not lie in an inevitable connection between property and profit but in the nature of economic risk. The economic process has an inevitable time structure: Although economic gains will be realized in the market, with product revenue as the primary income that eventually covers all factor cost, these factor cost will be paid on the basis of contracts that are closed *in advance* at the beginning of the process. Due to the dependence of the single production and distribution process on a high number of contextual factors the future is not only *unknown* but also *incalculable* in regard to probability. Entrepreneurial action cannot be understood as a form of gambling as many risk theories suggest (Knight 2002, p. 46) because probabilities in a game of cards or dice are known. Instead, economic profit stems from *incalculable risks.* It 'arises out of the inherent, absolute unpredictability of things, out of the sheer brute fact

that the results of human activity cannot be anticipated and then only in so far as even a probability calculation in regard to them is impossible and meaningless. [...]'(Knight 2002, p. 311). Human activity involves multiple coordination problems the possible solutions to which cannot be forecast by subjecting it to stochastic and the law of large numbers.

> The liability of opinion or estimate to error must be radically distinguished from probability or chance of either type, for there is no possibility of forming in any way groups of instances of sufficient homogeneity to make possible a quantitative determination of true probability. [...] an uncertainty which can by any method be reduced to an objective, quantitatively determinate probability, can be reduced to complete certainty by grouping cases. (Knight 2002, p. 231)

Profit can only emerge from uncertainty: as soon as a risk calculation is possible there will be economic pressure to incorporate such potential gains into the advance payments of production factors and insurance contracts.

For the successful entrepreneur the important aspect that explains his profit is his 'judgment' of economic processes, a capacity to estimate the action of other economic actors in the relevant field and to organize (and instantaneously re-organize) the production process in a way that guarantees value realization and a surplus in the end.

> 'The ability to judge men in relation to the problems they are to deal with, and the power to "inspire" them to efficiency in judging other men and things, are the essential characteristics of the executive. (Knight 2002, p. 311)

With this conceptual turn towards the prudence of the entrepreneur, which to a certain degree is a re-discovery of the German-Austrian tradition, Knight's argument has similarities to another very influential and much more radical profit theory that was formulated by Joseph Schumpeter.

For Schumpeter, profit is the reward for a special entrepreneurial capacity to "carry out new combinations" (Schumpeter 2012, p. 132) of production factors. Growth is much more a qualitative than a quantitative phenomenon. He sees the entrepreneurial function as a "third original productive factor" (143). Profits are raised from successful manipulation and *dynamic change* of cost (new technologies) and revenue curves (new products) that are assumed to be stationary in equilibrium economics. Moreover, Schumpeter argued that these entrepreneurial profits were *temporary* phenomena only. The original advance of the innovative entrepreneur that has developed a new technological procedure with lower cost (or a higher price for its improved attractiveness) will soon be incorporated by wage or price changes when other producers follow the new strategy[4].

However, here we see a strong difference between both economists who derived profit from facing uncertainty, from an audacity to dare to produce into an open future. While for Schumpeter permanent profits are possible only if the entrepreneur is able to repeatedly invoke new combinations, which primarily depends on his entrepreneurial genius and creativity that is non-economic in substance, for Knight there is the possibility for entrepreneurs to *learn* how to

[4] The entrepreneur may be able to close off his innovation from others. But in this case, Schumpeter argues that the continuous gain after the innovation is rather a monopoly rent than profit (152).

judge uncertain processes and gain experience that could stabilize their profit basis (Knight 2002, pp. 282f.)[5].

The problem of uncertainty in the Knightian perspective as well as the 'deviant behavior' of the Schumpeterian entrepreneur both exceed the limits of formal, mathematical economic theory and call into question the possibility of an integrated theory of profits in which profits are a form of income that can be derived from any measurable service to the birth and fate of products. However, in spite of their critical stance towards a formal-mathematical framework of economic theory they both stick to the individual actor alone and his special capacity to understand the source of profits. In contrast, economic sociologists have pointed to the social dimension of uncertainty-bearing that again suggests that profit may be shaped by the social context of production and market interaction.

Sociological Implications

[5] Knight mentions some typical entrepreneurial strategies to cope with the responsibility for uncertain production planning in the market system Knight 2002, pp. 244ff.: (1) Specialization is a possible way of coping with uncertainty, by concentrating all his energy and competence in some special markets, products or industries the entrepreneur will gain a better estimation of likely developments. (2) The entrepreneur can build organizations and association that allow for the diffusion of potential losses. (3) Hedging is another market strategy against uncertainties. By investing into different markets that will probably not all at the same time deviate from their projected development. (4) The entrepreneur can try to rent as much production factors as possible in contrast to owning them and keep the capital stock flexible. (5) The producer can to a certain degree 'educate the taste' (261) of his customers by marketing strategies. For both Schumpeter and Knight the distribution of profits depends on the distribution of judgment capacities and initiative in an economy.

From a Parsonian perspective, uncertainty in the Knightian sense can be understood as a coordination problem of double contingency (Beckert 1996). Uncertainty is a threat to Ego who is trying to individually rationalize on his strategical options with Alter facing the same problem. While within economics dilemmata of rational action could be modelled as rational games situation (if payouts are given and transparent to everybody), from a sociological perspective all individual economic actions are always and everywhere already embedded - or even better: entangled - in a social context, in a historically grown pattern of social relations and communication that creates a high availability of common standpoints and shared cognitive frames (Denzau, North 2004). Contemporary market sociology treats uncertainty not so much as actually present but as an *enduring threat* to coordination in markets (Granovetter 1985). Therefore, even self-oriented rational actors will always have a chance to interact on the basis of trust, socially accessible information and reciprocity to control the permanent threat of defection. Interest seeking and social interaction necessarily co-exist and mutually depend on each other in all markets.

If these arguments are taken serious they directly speak to the uncertainty-oriented theory of profit that Knight has developed: If in most cases the social context pre-structures the probability for certain forms of behavior, this means that social structures grant reliability of expectations on all sides that may help the entrepreneur to secure profits over the economic process. This may be understood as 'judgment capacity' as Knight has stressed. But if we at the same time assume that the reliability of expectations depends on social position that cannot be easily acquired or altered, the distribution of profits must be seen as a question of social position within a market structure. A first example: the production process over

time may turn out to be much cheaper than originally planned by the entrepreneur because of a very successful internal learning process and specialization among the workers. However, the success of this knowledge regime may have much less to do with a special entrepreneurial "inspiring capacity" to his employees but with the existence of well integrated social networks within a firm that develop externally, by shared recreation activities or a coherent ethnic or religious background that strongly decreases the risk of delayed production. A second example: Harrison White has shown how producers of competing products do not try to outcompete each other but build up a structure of product niches defined by quality-price combinations that reflect (or even create) a segmentation of customer groups (White 2002). Again, the link between the consumers in a niche and certain producers may be formed socially by aspects of identity-building (e.g. the rise of Apple in IT technology) or even reciprocity (if customers are offered to participate in the improvement of the product as it happens in some segments of video games markets). A lot of firm marketing activities that Knight describes as 'education of the taste' can be understood as what Bourdieu called the use of 'cultural' and 'social capital in economic fields' that is heavily dependent on field and network position (Bourdieu 2005, p. 76). While profit is the outcome of an uncertain process of production and distribution, the cost – revenue calculation is shaped by the capabilities of a firm within a given field structure in which not only material but also symbolic and cultural, communicative resources are unevenly distributed. The special entrepreneurial capacity would be dependent on a structural social position in a market or an industry.

A similar argument could be raised against the Schumpeterian approach to profits. Instead of "forecasting" the entrepreneurial success is here defined by the capacity

to create new combinations of economic factors. While Schumpeter related his thoughts to a 'leadership in the economic system' (147) and the spark of economic genius, many economic sociologists have pointed to the role of social *organization* for innovation. As David Stark has shown, creativity can be raised and innovation supported if a developer group is heterogeneous in regard to social factors, value orientations, identities and network backgrounds (Stark 2001). Therefore, if profits are an effect of economic innovation in the Schumpeterian sense the successful organization of heterarchy in a firm may guarantee them over a longer period. Therefore the Schumpeterian entrepreneur may be understood as a group. This means that many, especially incremental forms of innovation may depend on the communicative process within a firm. Again, this would make the profit distribution dependent on the social context rather than on the individual entrepreneurial genius.

Now, the argument that uncertainty of coordination and innovation can be heavily reduced by social structures can be framed in a *weaker* and in a *stronger* statement depending on how much this perspective breaks with the tradition of economic theory of distribution. In the *weak* version profit still can be described either as 'judgment' or 'entrepreneurial capacity and creativity', while the entrepreneurial capacity has to be redefined as a communicative or social competence of f*orecasting and influencing the social behavior of others* and a successful creation of favorable social structures that create surplus.

In a *strong* version the profit opportunities reachable for an entrepreneur directly depend on his or her own social position that cannot easily be altered by her. For example, profit chances may be significantly higher for an entrepreneur who starts from a position of high social capital that allows for lower cost or higher product

prices – which may explain, for example, the striking entrepreneurial success of many members of the old noble class in the modern economy, or the many success stories of migrant entrepreneurs who have a favorable social position in specific networks. Sociological approaches to entrepreneurship have pointed to the importance of structural positions – or as Bourdieu called it capital endowment - that cannot freely acquired by an individual therefore cannot simply be linked to individual capacities. For the risk theory of profit the important aspect of social structures in markets is their direct influence on the exposure to incalculable risks of different entrepreneurs. Schumpeter and Knight described the special role of the entrepreneur but avoided to further explore the social dimensions of their path-breaking insights.

2.4. Profit as a Market Power Rent

With the marginalist revolution perfect competition became the natural opposite to profits. Wherever factor payments of a single firm or within a special market exceed their productive contribution to the market value of the product free competition lead to the entry of new competitors that offer lower wages or interest rates to reduce the prices back to the marginal productivity of the last factor unit employed. However, it was apparent and undeniable that profits remained existent under competition or could be positive even if firms produced inefficiently, as happened in the Great Depression of the 1930s. To understand these model deviance, in the 1930s simultaneously in Cambridge, UK and in Cambridge, USA some economists tried to build a bridge between the theory of monopoly and competition to explain profits.

Joan Robinson in UK argued that market competition is systematically distorted by (1) transport cost for consumers who change markets, (2) quality of the products, which Robinson in a stunningly constructivist remark describes as 'provided by a well-known name' "(Robinson 1969, p. 89). (3) Competition will be distorted by the consumer preference for the way services are provided, among which she mentions 'quickness of service, good manners of salesman; length of credit, and the attention paid to their individual wants.' Finally, (4) advertisement will drive consumer preferences towards a segmentation of market competition.

In her formal model, imperfect competition means that 'the demand curve for the output of each individual producer is not perfectly elastic' (Robinson 1969, p. 86). This means that the price is not given but can be set higher or lower than competitive market price – which, of course, has implications for the output. What matters for a monopolist is not marginal cost but marginal revenue that depends on individual output *and* price, defined by his individual demand curve. Market power relations are formalized by the assumption of negative sloping individual demand curves, rendering it possible for firms (in principal) to gain revenue by reducing output and raising price. Changes of overall demand patterns do not coherently change individual demand curves but can have very different effects on the optimizing decision of the single firm: 'When the total demand increases some firms may find that their individual demand curves are raised more, and some less. Some that they are raised but made more elastic, some that they are raised and made less elastic' (Robinson 1969, p. 88). Robinson argued that industries should not be conceptualized as being either competitive or monopolist but there are different degrees of segmentation and price discrimination that allow for a long-term stability of 'normal profits' although there is relevant competition in the

market. She connected her perspective to the equilibrium model and claimed that even under monopolistic competition, in which firms can raise prices and reduce output, profits can be reduced to 'normal' (zero economic profit) as long as no 'abnormal' profits will induce new firms to enter the market[6].

On the other side of the Atlantic but with very similar formal tools Chamberlin went deeper into the analysis of the possibility of persistent 'abnormal' profits in monopolistic competition. In contrast to Robinson he argued that the main reasons for the imperfection of competition did not lie in the limited number of firms in the market that are technically able to cut out individual demand curves, but in the *degree of potential substitution* between different products that is a competitive strategy open to active pursuit by the producers. For any producer 'the volume of his sales depends in part upon the manner in which his product differs from that of his competitors' (Chamberlin 1969, p. 72). Very often, alteration and variation are gradual and small. Moreover, the product may be 'improved, deteriorated, or merely changed, and with or without a readjustment of price.' Finally, advertising will change consumer preferences – here Chamberlin also stresses the role of imperfect knowledge in markets for product differentiation. 'The result is

[6] Abnormal profits occur if the average cost structures of a firm lie beneath its average revenue per unit, which happens – mathematically speaking – if the individual demand of a firm cuts its average cost instead of being tangent to it. In this situation the incumbent is not able to produce up to the efficiency point at which unit costs equals unit revenue, more products could be sold at a positive profit which induces competitors to enter *the same niche as the incumbent*. In contrast, if the individual firm is producing efficiently than the unfed demand potential in the aggregate demand curve (that is caused by the lack of product competition) is not enough of an inducement because this would require the potential competitor *to build up a new niche* from the scratch.

heterogeneity of prices, and variation over a wide range in outputs […] and in profits.' (81). Chamberlin stresses that this heterogeneity does not mean friction in the sense of an equally distributed deviance from assumptions of the competitive model but a heterogeneity in which any single product reacts to all others. If new firms enter, the 'position and shape' of demand curves of all others will not be uniformly influenced but idiosyncratically. With this Chamberlin also opened the possibility of collective coordination problems with problematic consequences for profits and losses (Chamberlin 1969, pp. 149ff.). For example, if with a new entry of firms process fall under the revenue curve there is inducement for all single firms to simultaneously cut prices and expand the output. This, however, may cause the demand curves for all individual firms to drop even further rendering equilibrium unreachable unless some firms drop out of the market.

In his comparison of competition and monopolistic competition scenarios Chamberlin repeatedly encounters the incalculability of individual demand curves if the efficiency-securing effect of competition is taken out of the assumptions. He argues that the concrete distributional effect of changes 'depends upon the facts of the case' (167) or admits that the competitive demand curves "do not constitute even an intermediate step in the analysis' (174). Chamberlin's breakthrough towards mutual adjustment problems in the monopoly theory of profit provide a fourth pathway to a sociological perspective on profits that was examined more deeply by his disciple Robert Triffin.

The role of strategic firm interaction for profits in monopolistic competition

Robert E. Triffin, PhD-student to Chamberlin, criticized the theories of imperfect competition for their lack of analysis of the highly uncertain and complex of

competition dynamics and profit opportunities that arise if the assumptions of the equilibrium model are relaxed. First, Triffin criticized that Robinson and Chamberlin equalize subjective and objective demand curves. Can we assume that the individual (sloping) demand curve that is subject to entrepreneurial calculation embodies the 'actual reactions of the market' (Triffin 1962, p. 63) that are to be expected if the firm actually pursues a particular strategy? Second, Triffin argued that the most important determinants of the degree of competition in a market are not the given group configuration of firms or products but the *strategical interdependence* of the firms in a market or industry.

> "To define seller A's sales curve, we must know the reactions of his rival B, i.e., not only the influence of A's move upon B's position, but also the way in which B will adapt himself to the changes in his situation: for this, we must know B's sales curve. But again to know B'S sales curve, we must know the sales curve of A." (Triffin 1962, p. 69)

What Triffin describes here is the Parsonian problem of double contingency. The individual strategic adjustment process has to be answered by all actors *simultaneously*. Triffin calls it the 'poker game element' (Triffin 1962, p. 102) of firm competition. Profit strategies in monopolistic competition may therefore produce 'unpredictable reactions' (70) and lead to the oligopolists being 'frozen into a policy of routine and immobilism. Or […] they may feel in a fighting spirit and launch an undercutting policy in the hope of running their rivals […]. Or again, they may accept […] the lead of one of them and abstain from price competition' (71). Triffin argues that Chamberlin and Robinson made the mistake of staying within the framework of equilibrium theory. While rightly pointing towards substitutability (and technicological similarity) as major yardsticks of incompleteness of competition they still held on to the equilibrium framework by basing their models on groups of 'similar' or 'average' products or firms - a

conceptual ambivalence that allowed the direct move from subjective to objective demand curves. In a striking parallel to the debate on a homogeneous concept of capital discussed above Triffin stresses that even by implementing the smallest step of heterogeneity into competition the applicability of equilibrium methods is in heavy doubt (Samuelson 1967, p. 138). 'Monopolistic competition throws us into the stream of general competitiveness between non-homogeneous products. […] Particular equilibrium methodology is no longer of any help.' (Triffin 1962, p. 86). Or in the words of Sweezy: '[…] monopolistic price theory rapidly turns into a catalogue of special cases, each with its own particular solution."(Sweezy 1949, p. 271)

The important question for profit theory involved here is which factors explain to which degree oligopolistic 'abnormal' profits can be skimmed by new entrees. Profits can only function as incentives for market entry if the production technique is practically reachable, applicable to the new firm *and* substitutability of the new product will not be a problem (identical product and identical cost). However, 'as soon as the concept of perfectly free entry is abandoned, the door is opened for all kinds of possibilities.' (Triffin 1962, p. 87). Under the problem of mutual strategic orientation treating all firms in monopolistic competition as a group based on technological and/or product similarities needs a standard of 'closeness' that is inherently empirical and bound to a certain historical, concrete state of an economy, but it cannot be coherently derived from a theoretical concept applicable to a logical or mathematical 'average degree of firm interdependence'. While the elasticity of substitutability may remain a plausible concept for *describing* the degree of competitiveness there is no way to generalize about the figure and position of the curves beyond particular markets. As Triffin

puts it: ‘We are left facing a world of particular markets or firms, cemented together by the pervasive influence of general economic interdependence.’ (Triffin 1962, p. 93).

Sociological implications

In his own model of monopolistic competition Triffin downplays the explosive power of his approach to the individualist framework of economics. He tries to capture a ‘degree of competition’ between two firms by building a rationally scaled index of interdependence of individual cost and demand curves. He then weighs the effects of economic changes on the individual demand curve, cost curve and the possibility of market entry with this this index (Triffin 1962, pp. 99ff.). With this formalization step Triffin succeeds in bringing the concrete interdependence structures of a market into a general mathematical formula. However, this theoretical progress comes at the cost of reverting back to the assumption that two firms have to be treated as having *a given, rationally scaled* interdependence in regard to certain products. This drops out all his insights about the ‘poker game’, different forms of competition or interaction patterns in markets that exceed the logic of ‘more’ or ‘less’ demand curve similarity. For example, one firm may only be able to influence the decisions of a competitor in regard to certain aspects of the product (e.g. layout), but not in others (e.g. possible range of uses of the product) due to the meaning assigned to a product by its buyers and their routines of using it. A firm may be a hierarchical leader in production technology development but still face a much weaker position on the labor market for employing trained professionals for using this technology. Does this mean a high or low interdependence of cost curves with other firms? In Triffin’s framework, all possible forms of organization within markets and between firms

have to be subsumed under *one quantitative concept of interdependence* that (1) equals out qualitative differences of interdependence and (2) focuses on the *intensity* of reaction only without a qualitative estimation of the direction of the likely reactions. While this is feasible for a theory that is interested in the mathematical possibility of an equilibrium it is not enough for a empirically usable theory of profit. Those qualitative aspects of market organization may heavily influence if profit opportunities from imperfect competition will remain or vanish, grow or shrink[7].

Again we see a point where economic sociology might help profit theory. Network approaches have turned towards geometrical forms of networks and the information flow within and across them. For example, Burt has pointed to the importance of structural holes for returns in markets as well as for innovation (Burt 1992, 2004). Intense social relations within dense networks have control benefits while building bridges between such dense networks can offer an opportunity to gain from 'information arbitrage' (Burt 2004, p. 354). Granovetter has shown how 'weak ties' can be especially conducive for finding good employees (Granovetter 1973) who may in the end yield a surplus profit. White has pointed to the social organization of competition. Instead of profit maximization he assumed that the most important goal of firms is to stabilize market structures to avoid the uncertainty of open competition that involves all

[7] The qualitative structure of goods market is not the only possible influence that exceeds the framework of economic theory. In his macroeconomic model based on a Keynesian framework Michael Kalecki pointed to the role of class struggle for the macro-level degree of monopoly Rugitsky 2013. If the working class is powerful high profit mark-ups will lead to wage pressures that tend to limit the profit effects of monopolization.

types of coordination problems (Leifer, White 1987). Not being able to directly observe customer demand firms timidly observe the behavior of other competitors and try to build a market niche by positioning themselves within a network that shapes ‘upstream’ and ‘downstream’ production process.

The substitutability of products may not only be subject to individual firm strategy, as Triffin described, but also depend on the field structure of a market or sector, in which power positions are contestable and some actors can much more easily build favorable positions (and therefore cost and revenue structures) than others. Is it therefore necessary, in order to empirically study the distribution of profits and losses within a field, to examine also the non-material communicative action orientations that influence cost structures for economic interactions without being dependent on material resources alone.

3. Conclusion

It is now possible to sum up and systematize the four different perspectives on profit that we have found in the history of classical economic thought. Profit has been understood as *labor surplus* in the classical labor value theory, as *capital income* in the works of Say, taken up later by subjective value equilibrium theory, as a *premium for the bearing of economic risks* in the works of Thünen, Roscher, Pierson and Hawley, and finally, as a *market power rent* for individual firms by Robinson and Chamberlin. There are two dimensions within these different perspectives on profit by which these four approaches can be sorted.

First, for classical political economy the profit question was a question of the distribution of social value among different groups (or even classes). Along the lines set by Smith the explanation of profit was directed at deriving the social rate

of profit in comparison to wages and rents. Marx saw the orientation focus of capitalist production in the social rate of profit that is added upon all production cost, a mechanism which distributes the overall surplus labor value according to capital ownership. Say examined profit as a social rate as well, but he saw it as reflecting the value added by capital in the sense of natural agents, adding value to the product beyond the labor put into it. Even in their abandonment of objective value theory the proponents of the Walrasian and Jevonian equilibrium revolution concentrated on the social rate of profit that was believed to even out between different firms and sectors towards an aggregate market price on capital that reflected capital productivity as much as wages reflected labor productivity.

Especially in the German, Austrian and Dutch monarchies classical political economists had concentrated on profit in a different sense, namely as an *individual* remuneration for specific achievement and capacities. They brought wages and profit close together which may be applicable to the context of a growing class conflict within their societies. Their question was to which special entrepreneurial service profit may be attributed[8]. Differences in profit distribution here concerned distributional differences *between firms or entrepreneurs*. Risk exposure was one of the explanatory keys offered in continental Europe, distorted market structures in the Anglo-Saxian countries were the two answers for the question how profits are distributed.

The second dimension of profit is much less explicit in the history of profit theory. It concerns the question if profit is seen as the final outcome of an

[8] Apparently, this thought provided an implicit justification of profit that was subject to leftist attacks as being appropriated but not deserved.

economic process or as the result of economic structures. Profit may be seen as a an economic flow or as stock. For both Ricardo and Marx, profit was only realized at the end of reproduction cycle, in the value form of the product price. The possible distortion between the work process as the cradle of profit and its realization through market competition was an important corner stone of Marx's theory of crisis dynamics. Schumpeter provided the clearest argument towards dynamics when he claimed that profit is the *only* form of income that exceeds the static logics of markets and production. In contrast, for Say as well as for theories of monopolistic competition profit is a structural factor, reflecting a non-monetary, physical stock of money, machines and tools or a structurally fixed position within market competition. With this two dimensions the profit debate in economics may now by systematized.

Figure 1: Profit theory and conceptual problems in the history of economic thought

Profit Concept	**Flow**	**Stock**
Social Rate	Labor Surplus Value	Capital Income
	The transformation of value into price	*The aggregation of capital*
Individual Remuneration	Entrepreneurial Risk	Market Power Rent
	The problem of incalculability and uncertainty	*The strategic interdependence of firms*

Why profit theory needs a sociological perspective

What have we learnt from these economic discussions for a sociological perspective on capitalism and the profit motive? It is the main argument of this paper that in their ambition to solve their self-inflicted conceptual problems Sraffa, Böhm-Bawerk, Schumpeter, Knight and Triffin all implicitly pointed towards the explanatory potential of sociology for the solution of the profit puzzle. While most of them were only interested in either solving the problem in a formal mathematical way or relating it back to individual capacities of the entrepreneur ('judgement', 'entrepreneurial spirit') it has become clear that the four major conceptual challenges of economic profit theory these authors isolated called for a more sociological approach to profit. However, all of them - with the possible exception of Triffin - tried to avoid or circumvent these insights in their own frameworks.

The social structure of valuation in markets

The boundaries between individual and social aspects of profits reflect basic question of economic sociology, namely the relation between individual rational action and its social embeddedness. The Marxian problem how production values can be turned into market prices points to the social structures of valuation in markets. To which degree do we see prices actually, empirically structured in accordance to socially necessary amounts of labor? There may be a variety of influences on prices beyond this principle that might give explanation for a *systematic and permanent* deviance of prices from the production values and a distribution of profits that does not follow the distribution of capital ownership. At the same time, we have seen that turning towards a radically individualistic, subjective concept of values (signaled by individual preferences) in the equilibrium model renders firm profits improbable and convergent. Instead, with

the help of social structures of valuation we can understand how stable profit gaps between different firms are systematically possible. Valuation in markets can be understood as an objective social phenomenon in which individual preferences are not random or exogeneous, but still they show no necessary coherence to the quantitative or physical structure of the production side. A sociology of values may help to solve the Marxian paradox that the Marxian 'oscillation' of prices around their production-side value may never be able to reach the average rate of profit even though Marx was right in stressing the historical evolution of value as a social-cultural phenomenon. For every firm higher profits are always possible – not only by raising surplus rates which then is followed by all others as well – but also if a producer is able to exploit a favorable position within the social structure of valuation in markets.

The social structure of competition

The market power rent perspective on profits points to a second sociological contribution to the micro-macro-problem of economic profit theory. Networks and institutions influence competition in all markets. Triffin laid special emphasis on the problems of double contingency in markets which makes it difficult to estimate or even measure the substitutability of products without taking into account social relations among firms. This aspect has been raised under the concepts of 'salesmanship' and 'advertising' but have not been transferred to the macroscopic scale (Dobb 1973, p. 212). However, in order to explain profits from such structures it is necessary to go beyond the mathematical category of "demand elasticity" and delve deeper into the communicative and normative aspects of firm relations that shape such market power based profit opportunities. Economic sociology has shown that a possible reaction of firms is to organize a

differentiated structure of status positions that cuts markets in segments. Here again social patterns of economic interaction help to understand how changes on the aggregate level, for example a demand shift, is moderated – via communication and social control – into individual profit chances.

The social organization of the production process

Böhm-Bawerk's solution to the capital problem has pointed to another link between the social structures of the economy and the profits reachable that is connected to the structure-process problem of profit theory. If the distribution of labor over time is brought into a theory of the capital stock value that creates profits, the organization structures within firms move into the center of profit theory defining the capital cost *beyond* the price of the labor units. The structure of production may make it possible to use machines and tools in a certain way that raises (or lowers) cost and output. However, from a sociological point of view actual work processes do not only – not even primarily – depend on managerial decisions, but on routines, communication and learning processes. It is the social interaction of workers inevitable to every production process that make it possible to estimate when production technologies are changed and how the actual time structure of the labor process is structured. By bringing in the analysis of communication, norms and social learning it is possible to more realistically estimate how processes are likely to turn out and how a certain time pattern of work flows is brought about. This influences the answer to the question why firms may be more or less able to create favorable profit surpluses and 'make more' out of the same capital and labor stock than other firms.

The social structure of risk calculability

It has been shown that the Knightian uncertainty aspect point towards the processual aspects of profit as well. Instead of turning towards a purely descriptive 'judgment capacity' of the entrepreneur from an economic sociology perspective it is possible to understand what higher or lower judgment capacity consists of. Networks between clients and suppliers as well as a special cultural context in which consumers use a certain product may render the course of the process more or less calculable for the single entrepreneur. Economic actors facing uncertainty orient towards social patterns. Thus, some actors may have better or worse access to important information how other actors will behave or even will be capable of influencing this through communication. With a growing capacity of foresight profit chances are raised. Risks will be lower than market prices reflect. This makes it possible to organize a very favorable nexus of insurance contracts for the production factors in advance. A similar point can be raised to the social aspects of entrepreneurship. An entrepreneur may be more or less able to develop new combinations in the Schumpeterian sense due to his own social and cultural capital position, his access to innovative ideas of others or his ability to organize a creative process among his employees. Entrepreneurial profits are subject to social structural aspects even where they eventually are derived from incalculable innovative action. Where profit is perceived to be the outcome of a dynamic processes it is still possible to examine the social aspects of such processes in order to understand why some results (and profits) are more likely than others.

Table 2: Sociological dimensions of profit and economic profit theory

Aspect of Economic Sociology	**Source of Profit**	**Central problem identified by economists**	**Related economic concept of profit**
Valuation	Price Structure	Relation between Value and Price	Labor Surplus Value
Organization	Value of the capital stock	Aggregation of Capital	Capital Income
Actors' Expectations	Calculability of revenue and cost	Uncertainty	Risk Premium
Market Segmentation	Market Power	Strategic Interaction	Market Power Rent

Profit as a social rent

To sum up, the critical conceptual debates in all four camps of economic profit theory suggest implicitly that profit is largely dependent on social structures and the position of a single firm within them. This is true for the social structure of prices, of organization, of planning and innovation, as well as of competition. Of course the distribution of profits will depend on the ability of an entrepreneur or a firm to use their position in a favorable way. But if we assume that social positions can only to a limited degree be acquired in a short-term rational way, through strategy and opportunism, but are to a large degree objectively given, inherited or take a lot of time to be altered, the nature of profit has to be described differently. Viewed from this point profit it to a large degree a *social rent*, a remuneration for inhibiting a special position in the social structure of markets and production fields. Thus, it becomes understandable why economists have shied away from further exploring these social aspects of profit. Profit as an economic income undercuts the basic assumption of most economic theories that

all payments can be substantiated on the individual level, at least micro-founded even where aggregate distributions are examined. From the perspective developed here empirical research on profits has to start with the social structures of economic markets or fields, the networks, norms and institutions that define profit opportunities for individual actors in a restricted way. Over the last 30 years market sociology has shown the indispensable entanglement of all economic interaction in ubiquitous social structures. It has now become clear that this is not primarily a threat to profit seeking actors (in the sense of social shackles of efficiency and growth) but provides a systematic *source* of profit where a pure market competition and an overall triumph of individual economic rationality would reduce profits or even make them vanish. As Richard Swedberg has remarked: 'It is also important to keep in mind that the key objective of capitalism if profit; and that culture, organizations, and networks will all be used by the key actors in their hunt for profit.' (Swedberg 2003, p. 72)

As Figure 2 shows, four research topics of economic sociology can be made fruitable for the explanation of profits as they fill conceptual gaps in economic theory. In a straight forward way, individual firm profit as well as sectoral or overall market profit depend on the simple relation between cost and revenue. Behind this descriptive account, however, the problems and critique of all different profit theories in economics have shown that cost and revenue structures are highly divergent and dynamic due to the social structure of markets, fields or economic sectors. From the perspective developed here profit signals the ability for a firm to use its social, cultural or even political position to influence price structures in way that will in the end lead to a stream of additional money flowing into the entrepreneur's pocket. Profit may be seen as the payment for a superior

capacity or opportunity for organizing a favorable payment stream in economic contexts based on the local structure of networks, norms, institutions and organizations. From a business administration research perspective many of the points raised here do little more than re-emphasizing the role of marketing and strategic management for firms to raise their profitability. For example, in the debate between a resource-based and a dynamic capabilities approach to the analysis of firm success (Teece et al. 1997) complex models have been developed that either stress its structural position (assets) or its processual capabilities (strategies). Within these models social, communicative capabilities or cultural assets are a self-evident part of firm success. However, if these insights are transferred to the macroscopic scale they can only be integrated into a general framework of profit sources if their dependence on non-economic assets and capabilities is taken into account. This calls for more sociological methods and models that are able to explain how structures of valuation, work processes, economic expectations and market segmentation are built and reproduced in routines and practices.

A sociological perspective on capitalism?

What does a sociological concept of profit contribute to a sociological analysis of capitalism? It is important to remark that economic sociology has shown repeatedly that pure competition and radical economic rationality on the individual level are not able to coordinate economic interaction in a stable way. Real world economic actors, even if they want to act rationally, will always have to engage themselves with all kinds of social dynamics and non-economic communication that shapes action in markets as much as in all other social fields. I hope to have persuasively argued in this article that the social embeddedness of

markets is not only an empirical fact that makes the understanding and explanation of real economic phenomena more complicated, but is of fundamental importance to capitalism. In a capitalist economic order all production activities are directed at the sale of commodities in markets with the primary if not exclusive aim of raising profits. However, if profits are to a large degree dependent on the social structures of valuation, firm organization, economic expectations and firm interaction, then the social structure of markets is an indispensable building block of capitalism. For without social structures that make sure that markets never work model-like, no profits would be possible. From this perspective the Polanyian double-movement picture has to be discussed more critically: The emergence of social organization, institution- and network-building in markets is not a *counter-movement* against the profit motive but a crucial prerequisite for it.

The argument that capitalism lives from conditions it cannot create itself is right and wrong at the same time. Capitalism as a profit-oriented form of production can only guarantee profits if there are non-market, social structures that open profit chances. However, in a capitalist market economy profits are always possible *because* of this inherent incompleteness and deficiency of the pure market as a device for social coordination. The ineptitude of economic rationality to encompass interaction in the economic sphere provides a permanent point of entry for social structures that provide profit chances. The toolkit of economic sociology makes it possible to understand the profit puzzle by describing capitalism as an economic order in which production and goods markets will always provoke their social entanglement which at the same time provides the basis for profit squeezing. Capitalism lives from the exploitation of those social

structures that people develop to cope with its deficient capacity to coordinate economic action.

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