



The Entrepreneur: A Lost Actor That Should Resurrect

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Abstract

A survey of a large number of Norwegian and English language introductory textbooks in economics, micro-economics and business economics, published in the last three decades, had as a result that the entrepreneur was not present at all in most of these books. This is surprising considering the importance of entrepreneurial activity for economic growth in most countries.

This paper discusses the importance of specific types of entrepreneurs for the creation of employment, development and growth. Then it gives a historical account of how the entrepreneur was introduced into economics in general and the textbooks of what we today will call economics or business in particular.

For almost one hundred and fifty years, the entrepreneur had an important place in economic textbooks used at universities and colleges in the United States and in Norway. However, in Norway the entrepreneur disappeared almost completely from economic textbooks in the 1930. In the United States, the same occurred in the first decade after WWII.

In Norway Professor Ragnar Frisch, who in 1969 received the Memorial Nobel Prize in Economics, became a strong believer in a Soviet type planned economy. In such an economy the role of the entrepreneur should be taken over by the economists, who had graduated from his study programme at the University of Oslo. In the United States Professor Paul Samuelson, who received the Memorial Nobel Prize in Economics in 1970 and who for long was an admirer of Ragnar Frisch, eliminated the entrepreneur from economics with the introduction of his Principles of Economic Analysis in 1948. This book has had a tremendous influence on the teaching of economics in many countries across the world.

The climate changed in the 1970's and 1980's. Economic research showed that the use of markets were the most efficient method to allocate resources to different sectors of production and to distribute final products among diverse groups of consumers. This should also have resulted in the resurrection of the entrepreneur in textbooks of economics and business. However, this did not occur, the entrepreneur is still neglected and the paper explores some avenues that can throw light on this issue.

The paper concludes that the time has come for a resurrection of the entrepreneur in textbooks of economics and business in general and particularly in introductory textbooks.

1. Introduction

The purpose of this presentation is to argue that the entrepreneur should resurrect from many years of omission in both economic theory and in textbooks of economics and microeconomics.

In 2010, Eriksen and Sæther (2010), carried out a survey of all Norwegian language introductory textbooks in economics, and introductory and intermediate textbooks in microeconomics published between 1970 and 2010. The year after, a similar investigation of some textbooks in business economics was conducted. This investigation revealed that they had one common feature with the previous survey. The entrepreneur as such or the discussion of entrepreneurship was not present at all the in any of these books.

Since English language (American) textbooks in economics and microeconomics are frequently used

at Norwegian business schools, universities and colleges, a survey of a substantial number of such textbooks, published in the same period, was also carried out.¹ The investigation of these textbooks gave quite a similar result as the survey of the Norwegian. In most textbooks, there were no trace of the entrepreneur or any discussion of entrepreneurship. It was particularly surprising that in two books the entrepreneur had a role in early editions but disappeared in later editions. However, some textbooks were found where the entrepreneur was mentioned, but not given a comprehensive treatment. In a couple of books, the entrepreneur was to some extent treated as an important factor.

In our review of Norwegian and English textbooks of economics, we have concentrated on introductory text in economics and microeconomics. However, it is not only in these introductory texts that we do not find the entrepreneur. Johansson (2004) has investigated whether the entrepreneur or entrepreneurship theories are part of Ph.D programs in economics. His investigation was of leading textbooks used in all such programs in Sweden. But, it should be emphasized that his investigation treats the dominant mainstream style of Ph.D programs, regardless of where on the globe they are situated. This exploration shows that the entrepreneur or ideas of entrepreneurship have no place in the textbooks of the core classes in the PhD economic programs.

The result of these surveys was astonishing since the majority of these books were written in an environment where there has been a growing understanding of the importance of the entrepreneur and entrepreneurial activity for economic growth, development and job creation in most countries.

This paper, as an introduction, discusses the result of a recent study that investigate the importance of entrepreneurship for the creation of employment, development and growth. Then it gives a historical account of how the entrepreneur was introduced into economics in general and textbooks of economics in particular and thereafter how the entrepreneur disappeared from these textbooks. Finally, it discusses why the entrepreneur as a lost actor should resurrect and how he or she should be reinstated in economic textbooks.

Parts of this presentation are a reworking of materials that have earlier been published or presented at international conferences in Europe and North America.

2. Does Entrepreneurship drive Economic Growth?

The last decades have seen an increasing amount of research on the importance of the entrepreneur and entrepreneurial activities. There have been studies of entrepreneurial activities in different industries or branches of industries. Investigations have been carried out on the managerial ideologies, the strategies, the successes and the failures of the entrepreneurs. The entrepreneurs, uncertainty and risk taking are another area of research. Internationalisation and entrepreneurship has been another field of studies.

Recent research has found it useful to distinguish between two types of entrepreneurs, the necessity entrepreneur and the opportunity entrepreneur. The first does not have alternative work. He or she has become an entrepreneur because the alternative is unemployment. In regions or countries with high structural unemployment studies have shown that this kind of necessity entrepreneurship has less of an impact on economic development and growth.

The key to foster development and growth is therefore to create an environment and a system of support for opportunity entrepreneurs who launches new enterprises in response to market needs or to create new markets.

There have also been carried out a few studies of the importance of entrepreneurs and entrepreneurial activities for growth and development in local areas and regions. However, entrepreneurship fails to be a well-documented factor in the empirical growth literature on country level. This is due to the difficulties in both defining and measuring entrepreneurship. The lack of reliable data has been a major concern.

However, this changed when the Global Entrepreneurship Monitor (GEM) project was initiated in 1999. As a non-profit research organisation, it is a partnership between London Business School and Babson

¹ The books investigated in this survey were not randomly selected from all published books in these decades. They were only collected from our own shelves and the shelves of our colleagues.

College, Massachusetts. It is an annual assessment of the entrepreneurial activity, aspirations and attitudes of individuals across a wide range of countries. The first study covered 10 countries, since then nearly 100 'National Teams' from every corner of the globe have participated in the project, which continues to grow annually. The project has an estimated global budget of nearly USD 89 million; the 2013 survey is set to cover 75% of world population and 89% GDP. Today GEM is the largest on-going study of entrepreneurial dynamics in the world. It explores the role of entrepreneurship in national economic growth; unveiling detailed national features and characteristics associated with entrepreneurial activity. The data collected is 'harmonized' by a central team of experts, guaranteeing its quality and facilitating cross-national comparisons.

Using the new material provided by the GEM, Stel, Carree and Thurik (2005) carried out an investigation into the effect of entrepreneurial activity on economic growth at country level. This Monitor contains the Total Entrepreneurial activity (TEA) rate that measure the relative amount of nascent entrepreneurs and business owners of young firms for a range of countries. This variable is measured across a variety of countries and the authors finds it to be a useful index for measuring the extent of entrepreneurship.

An important element in their analysis was to investigate whether total entrepreneurial activity influences GDP growth. They tested whether this influence depended on the level of economic development measured as GDP growth per capita. Furthermore, they analysed if such activity played a similar growth-stimulating role in highly economic developed (relative rich) countries and in less developed (relative poor) countries. In this analysis, they include both transformation countries and developing countries. The authors test of the influence of entrepreneurship is based on a statistical analysis of whether Total Entrepreneurial Activity (TEA) influence GDP growth in the 1999-2003 period for a sample of 36 countries.

The authors also surveyed the literature that have empirically investigated the importance of the impact of entrepreneurship on economic performance. From this literature survey, they concluded that it was problematic to compare countries in different stages of development.

The main argument of the paper is that the impact of 'entrepreneurship' on growth differs for countries at different stages of development. For highly developed countries, we expect a positive impact of entrepreneurial activity on subsequent economic performance. For relatively poor countries it is more uncertain what high start-up rates stand for in terms of an industrial organisation conducive to innovation and economic growth.

Their analysis shows that entrepreneurship has a clear positive effect for the relative rich countries but also that it has a negative effect for the relative poor countries. The result that poorer countries fail to benefit from entrepreneurial activity does not, according to the authors, imply that entrepreneurship should be discouraged in these countries. Two explanations are given. First, it may be that the number of large firms are not at a sufficient level in these countries. Large firms are important in the transformation process from a developing to a developed economy. *"Through exploitation of economics of scale and scope they are able to produce medium-tech products."*(Stel, Carree and Thurik, 2005, 317) Local workers that are trained on the job in large firms may become more productive compared to if they get their experience from struggling to survive as an entrepreneur running a small shop. Furthermore, in the proximity of a larger company smaller firms may prosper as they may act as suppliers for larger firms. They may learn from the larger firms. A second possible explanation is that the entrepreneurs in developing countries have lower human capital levels compared to their colleagues in developed countries. It is, according to the authors, likely that the negative effect reflects the presence of many 'marginal' necessity entrepreneurs (shopkeepers) in small crafts who may be more productive as wage earners in a larger company. However, it may still be wise to encourage entrepreneurship if the alternative is unemployment.

The conclusion so far is clear, the entrepreneur and entrepreneurial activities are crucial for economic development and growth, but this has not been reflected in textbooks of economics. This raises an important question. Has this always been the case or was it different in previous centuries?

3. How was the Entrepreneur Introduced into Economics?

“The exchange of goods and merchandise as well as their production are carried on in Europe by entrepreneurs, and at risk,” wrote Richard Cantillon (1680-1734) in an essay that was published in 1755.² He thereby contributed to the introduction of the entrepreneur as an analytical concept in economics and he gave the entrepreneur an important role in economic development. The entrepreneur decide what kind of goods produce and how to combine the factors of production to produce these goods.

Furthermore, he argues that these activities demand that the entrepreneur takes upon himself the payment commitments for the fixed costs, i.e. the cost of utilising the land and the labour wage. These costs are independent of the economic result. The entrepreneur does not in advance know what the market price and the income of the sales of his products will be. The volume and the quality of the produce will depend on the weather and other natural conditions and the price will be determined by demand and supply in the market. From this point of view the entrepreneur is not only a producer of agricultural products, he is also a risk bearer who organise a variety of activities to be able to bring the products to the market. He will always try to find the best possible way to utilise his resources. If his products give a higher income, then the total cost of production he gains a profit that he earns in his role as the entrepreneur.

Cantillon's treatment of the entrepreneur was not taken up by any major economist in Europe before Jean-Baptiste Say (1767-1832) in 1803 published *Traité d'économie politique, littéraire, et politique* (A Treatise on Political Economy).³ Here he introduced the entrepreneur as the fourth productive force in economics. Say believed that political economy was a true science, but as such was also a moral science, since it involved the goals and motivation of human beings. He stated that the “*the aim of political economy is to show the ways in which wealth is produced, distributed and consumed.*” He argued that a productive economy must rest on private property, private enterprise, and private incentives. However, he also claimed that a strong state and reliable legal system was necessary for such an economy to properly function. Furthermore, he held that a free and representative government assuring individual rights could only be maintained by a productive economy from which all social classes received a fair but not equal share of production.

At an early stage in his career, Say read Adam Smith's *Wealth of Nations* and became an ardent supporter of his theory. His *Treatise* was intended as a shorter and more systematic presentation of economics. Furthermore, Say (1832, p. xxiv) recognized Smith as the master and he claimed that his “*monumental work alone earned him the title of father of the new science in political economy*”. However, he wanted to correct some errors that he had discovered in Smith's account. One of the errors, which Say identified and attempted to correct, was that the role of the entrepreneur was not sufficiently emphasised by Smith.

The entrepreneur earns his profit in a productive activity using his own capital, borrowing capital, renting land, hiring the necessary amount of labour and finally yet importantly taking the risk of the undertaking. Schumpeter (1954, p. 555) claims that Say was, “*the first to assign to the entrepreneur per se and as distinct from the capitalist a definite position in the schema of the economic process.*”

Say's entrepreneur is the person that unites labour, land and capital in production. He is the farmer or agriculturist in agriculture, the master-manufacturer in industry and the trader or merchants in commerce. The entrepreneur avails himself to the creation and marketing of useful products. In doing this, he takes upon himself the management responsibility and coordination in uniting the other factors of production labour capital and land.

The entrepreneur is also the one that takes upon him the risk of the business activity using his own or borrowed capital. Furthermore, it is clear that the entrepreneurs also have a macroeconomic role (Say, 1832, p. 82). “*a country well stacked with intelligent merchants, manufacturers and agriculturists has more pow-*

² Cantillon (1931 [1755]). *The Essay on the Nature of Trade in General* is thought to have been written between 1730 and his death but it was not published in a complete version until 1755 and then in a French translation *The edition from 1931 includes also an English translation. The New Palgrave dictionary of economics* 1987 Vol. 1, s. 318.

³ This book was published in five editions between 1803 and 1826, The entrepreneur also had an important role in his popularised version *Catechisme d'économie politique (The Catechism of Political Economy)* published in 1815 and in his *Cours Complet d'économie politique pratique (A Complete Course in practical political economy)* from 1828. The latter was an expansion of his *Treatise with practical applications*.

erful means of attaining prosperity than (other countries)”. He also discusses the sources of wealth, which he claims are the value of the products raised by the productive means, human industry, capital, and natural powers and agents, at the command of mankind (Ibid. p. 292). He then goes on to discuss what creates the income of each of the factors of production. A clear distinction is made between the ‘*profit of the entrepreneur*’ and the ‘*return on capital*’ (Ibid. pp. 329-332):

Say claimed that the entrepreneur is “*necessary for the setting in motion of every class of industry whatever; that is to say, the application of acquired knowledge to the creation of a product for human consumption*” and that this application is equally necessary in all industries. Furthermore, it is necessary for the entrepreneur to have adequate funding for a new project. “*It is commonly requisite for the entrepreneur himself to provide the necessary fund.*” Nevertheless, it is not necessary for him to come up with all funding himself, “*for he may work upon borrowed capital*”. To be able to procure the necessary loan of capital, which he does not happen to possess himself; “*he must at least be solvent*” and furthermore “*have the reputation of intelligence, prudence, probity, and regularity*”. Say then noted: “*These requisites shut out a great many competitors*” (Ibid. p. 330). Finally, it is not for anybody to be a successful entrepreneur. This is made clear in a description of the required personal properties an entrepreneur need to have (Ibid. p. 330-331).

Furthermore Say claimed that economics was an applied practical science. He proved this himself when he from 1806 to 1813 was the founder, owner and manager of cotton mill in a northern French town Auchy-les Hesdin. At his cotton mill, Say struggled day in and day out to combine labour, land and capital in the most efficient way to make a profit. He also carried the risk of executing this enterprise.

After Napoleon’s fall in 1814, the new French government sent Say to England and Scotland to study the economic conditions there. His experience here led to changes in the third edition of his book, which appeared in 1817. England was much wealthier than France because it had several times as many entrepreneurs (Ibid. p. 85).

A chair in commerce and industrial economics was created for Say at the Conservatoire des Art et Metier in Paris in 1819. In 1831, he was appointed professor of political economy at the Collège de France. The year after he died, leaving behind him a well-earned reputation for private worth and political integrity.

4. The Diffusion of Say’s Entrepreneur

Jean-Baptiste Say’s treatment of the entrepreneur is considered a significant step beyond what Adam Smith and Richard Cantillon had written on the entrepreneur (Rothbard, 2006, p. 25).

One of Say’s greatest strength was that *‘he had the ability to write on conceptual topics in a language that an interested average citizen could understand’* (Say, 1832, p. xxviii). It is therefore no wonder that his works caught the immediate attention of educated people in most countries across Europe and North America. His practical approach and his emphasis on the role of the entrepreneur, who takes upon himself the immediate responsibility, risk and conduct of a firm, whether using his own or borrowed capital also caught the attention of academics, business people and politicians. They all saw that private initiative was essential in the struggle to rebuild the economies of most European countries after the deep depression that followed the end of the Napoleonic wars.

French had in many ways taken over as the international language of the educated classes, after Latin lost its position in the eighteenth century. Say’s books in the original language could therefore be found in many public and private libraries across Europe and North America during the 19th century.

However, Say’s works were also translated, into several foreign languages within his own lifetime. A German edition of his *Treatise* appeared already in 1807, a Russian a few years later, a Spanish in 1817. The first translation into English is dated 1818. The same year a Danish translation appeared. Danish was at this time also the written language in Norway. A second English translation appeared in London in 1821.

Say’s *Treatise* was translated to many foreign languages, got a wide audience and exercised, according to most historians of economic thought, great influence. Rothbard (2006, p. 11), claims that it had great influence in Germany, Italy, Spain, the Latin American countries and last but not least in the United States.

When Say died in 1832, he was then (Biddle 1832, p. xxlv), “a much admired man in France and widely known in Europe and America as a talented expositor of Adam Smith and an original contributor to political economy”.

In France his work in general and his emphasize on the role of the entrepreneur in particular was taken over by most economists. Here it is necessary to mentioned one of the most important, Leon Walras (1834-1910). He not only took over Say’s entrepreneur and stressed its important role, but he also unintentionally contributed to its eradication.

Walras was one of the three economists who independently in the 1870’s propounded a theory of value based on a marginal utility theory. The other two were William Stanley Jevons (1835-82) and Carl Menger (1840-1921). Walras main work was his *Eléments d’économie politique pure* (Elements of Pure Economics), which was first published in 1874.⁴ In this work, he was the first to construct a mathematical model of general equilibrium. It was a system of simultaneous equations in which he tried to show that all prices and quantities are uniquely determined. Bannock, Baxter and Davis (1992) claim that this is regarded as one of the foremost achievements in mathematical economics, of which Walras is considered the founder.

However, most authors that have used Walras work in their own writings focus on his mathematical model of general equilibrium. Either deliberately or accidently they have overlooked the fact that he in his *Elements* attached an important role to the entrepreneur. His entrepreneur played an important role as the coordinator of resources.

“Let us call the holder of land, whoever he may be, a land-owner, the holder of personal faculties a worker and the holder of capital a capitalist. In addition, let us designate by the term entrepreneur a fourth person, entirely distinct from those just mentioned, whose role is to lease land from the land-owner, hire personal faculties for the labourer, and borrow capital from the capitalist, in order to combine the three productive services in agriculture, industry or trade” (*Walras 1954[1926], p. 222*).

The entrepreneur pays the land-owners’ rent, the workers’ wages, the capitalists’ interest, and finally applies certain productive services to the raw materials and sells the resulting products on his own account. Then he goes on to discuss in different tasks of the agricultural entrepreneur, the industrial entrepreneur and the commercial entrepreneur. The alternative the entrepreneur, of whatever category, faces is that if he sells his product or merchandise at a price higher then cost he makes a profit and if he sells at a lower price he incur a loss.

For Walras a state in equilibrium is hypothetical.

“Equilibrium in production, like equilibrium in exchange is an ideal and not a real state. It never happens in the real world that the selling price of any given product is absolutely equal to the cost of the productive services that enter into that product, or that the effective demand and supply of services or products are absolutely equal” (*Ibid, p. 224*).

But he goes on to state that equilibrium is the normal state in the sense that it is the state towards markets spontaneously tend under a regime of free competition in exchange and in production. In fact, the entrepreneurs will be the driving force in this process. If under free competition, the selling price of a product exceeds the cost of production a profit results and entrepreneurs will enter this branch and increase production. The price will fall. On the contrary, if the cost of production was higher than the price a loss would result and entrepreneurs would leave this branch. The price would subsequently rise. This will be an ongoing process.

When Walras then went on to develop his general equilibrium model he abstracted from real life entrepreneurs, his system of general equilibrium and his solution to it was a hypothetical one, in which the

⁴ It saw new editions in 1877, 1889, 1896, 1900 and 1926.

entrepreneur as coordinator and negotiator had already fulfilled its function. Nevertheless, in disequilibrium, which is the normal state, the entrepreneurs plays a major role in the process.

5. The Entrepreneur in Norwegian Economics.

The second half of the 18th century had been the breakthrough of economics as a science in Denmark-Norway. It is sufficient to mention that Adam Smith's *Wealth of Nations* was translated to Danish, at the time the written language in both Denmark and Norway, on the initiative of Norwegian businessmen, in 1779. However, many found that this book was too theoretical and not adopted to the realities of a poor sparsely populated country.

There is no doubt that Say's practical approach and his emphasis on private initiative and the role of the entrepreneur, caught the attention of Norwegian business people and politicians. They read his books in both French and Danish. In addition, an abbreviated account of Say's *Treatisé* was published under the title *Oversigt over Statsøkonomien* (A Survey of Political Economy), as a serial story in the weekly journal *Skillingmagasinet* during 1845 and 1846. This weekly journal had a large circulation, and was widely read.

Say had therefore a strong influence on the development of political economy in Norway. The role of the entrepreneur became an important feature in the subsequent teaching and writings on political economy.

Norway got its first university in 1811 when the Royal Frederik's University was established in Christiania.⁵ The first professor to teach economics and technology was Gregers Fougner Lundh (1786-1836). It is clear from his lecture notes that Say's works had inspired him. The role of the entrepreneurs for economic progress is stressed.

With his successor Anton Martin Schweigaard (1808-1870) political economy as a science gained a firm foothold. He became a leading Member of Parliament and under his leadership, it passed a series of laws that introduced freedom of establishment, commerce and trade. Schweigaard did not publish any books in economics but his *Lecture notes* from 1846 circulated among students and other learned people.⁶ A closer investigation of these notes shows that he follows the structure of the 1803 edition of Say's *Treatisé*. The basic source of production is human work, natural resources and capital. He rejects Smith's view that the only and last source of production is labour. As Say, he split the national product between the four income shares; wages, capital interest, rent and entrepreneurial proceeds. The entrepreneur, who possesses capital, borrowed or his own, got his income, the entrepreneurial income, determined as a compensation (requital) for the work he has carried out for the business. Entrepreneurial income and the amount of capital are closely tied together. When more capital is invested in an industry, more entrepreneurs will enter this industry.

With Schweigaard the teaching of political economy was firmly established as a subject at the university. The role of the entrepreneur for the development and growth of an economy became an important feature in the subsequent teaching and writings on political economy.

Schweigaard's successor Torkel H. Aschehoug (1822-1909) was until his death the dominating figure in Norwegian economics.⁷ In 1891, he published the first edition of his work *Socialøkonomik* (Economics). The fourth edition in four volumes was published after his death in 1909. Here he produced an extensive account of the science of economics in the Norwegian language. He treats both the theories of the classical economists and the moderns. His favourite is unquestionably J. B. Say, whom he frequently quotes and whose economic definitions and theories he uses. Among the moderns, he also quotes Walras but his favourite is Alfred Marshall (1842-1929), whom he repeatedly cites.

Aschehoug accepts and supports Say's views particular his emphasise on the role of the entrepreneur. The theory of the three factors of production labour, nature and capital can be found in its core in Adam Smith, but he claims that Say was the first to develop this theory and added entrepreneurship (business tal-

⁵ The official name of the capital of Norway was from 1625 until 1924 Christiania, from 1877 spelled Kristiania. The name was in 1924 changed to the city's old name Oslo.

⁶ Published in 1904 by Oskar Jæger and Frederik Stang as Schweigaards early works.

⁷ Aschehoug was behind the establishment of the Statistical Bureau of Census in 1876, *Statsøkonomisk forening*, an association for Norwegian economists in 1883 and *Statsøkonomisk Tidsskrift* (Journal of Political Economy) in 1887.

ent) as the fourth factor of production. To the factors of production nature, labour, capital and entrepreneurship (business talent) correspond the incomes rent, wage, capital interest and entrepreneurial gains. In his discussion of why business talent or entrepreneurship can be treated as a factor of production, Aschehoug (1910, p. 257) concludes: “*All things considered, I dare all the same say that most reasons are in favour of treating business talent as a production factor in its own right.*”

He follows Say and found it necessary to distinguish between capitalists and entrepreneurs. “*Adam Smith mentions surely the entrepreneurs, but assumed that they as a rule owned capital, and he therefore included their kind under the designation capitalists. J.B. Say is due the big service that he distinguished between capitalists and entrepreneurs*” (Ibid. pp. 433-434).

Furthermore, Aschehoug claimed that Say used the term *entrepreneur* in the widest possible meaning. All that worked on their own account even if they were employed in the most ordinary work were included. Examples are cobblers and grinders. He emphasised what an extraordinary great role the entrepreneurial class plays in present day’s economy. He (Ibid. p. 434) calls them the Chiefs of Production. Furthermore, he claims that the production capability of nature, human labour and capital are small when we look at them one by one.

“For them to be a force, they have to be present in a befitting proportion, of requisite usefulness and brought into a proper connection with each other. This is the duty of the entrepreneur. And in this the strongest defence for a system, which mention business talent as a means of production next to nature, labour and capital” (Ibid, p. 435).

The entrepreneur plans and decides what kind of economic activities should be started and kept going. As the founder of a firm, he must himself secure machines and equipment, select the able workers and collaborators and organise the teamwork between these. He decides what and how much should be produced, in what markets and to what prices the products should be offered. To be able to initiate and coordinate production the entrepreneur has to be of “*sound judgement, equanimity, enterprise, staying power, strong will and the capability to survey many particulars and to be able to make fast decisions. From this it follows that organisational talent is important and it is this side of the business ability which are the most important*”. The entrepreneurs make agreements with many participants in the production process. That is with “*the owners of land and buildings used, with the hiring or buying of these or other capital goods, with clerks and workers about wages, and with banks and customers about loans and granting of credits*”. The result is that the entrepreneurs have an important influence on the distribution of the proceeds from the production. He adds that this is also Marshall’s convictions (Ibid, p. 435).

Aschehoug pointed out the interaction between the entrepreneurial activity and economic development. The entrepreneurs have directed this development. Furthermore he emphasised that the entrepreneur also carried the risk for the firm’s economic activity and result.

His four-volume *Socialøkonomik* (Economics) became the standard reference work for Norwegian economists. Its reputation was such that instead of referring to the original sources, writers were in many cases content with citing his work. As a result, his views in general and his emphasis on the role of the entrepreneur in society put its imprint on Norwegian textbooks in economics until the middle of the 1930’s.

Oskar Jæger (1863-1933), who in 1902 was appointed to a new chair in economics, was called the modern among the Norwegian university economists.⁸ On the basis of his lecture notes Jæger published in 1922 his *Teoretisk Socialøkonomikk* (Theoretical Economics).⁹

The entrepreneur has a pronounced place in Jæger’s account. He is the one that operate the economic activity. The state or a municipality can also be an entrepreneur. However, Jæger argued that it was not cor-

⁸ He cooperated with Aschehoug and led the way introducing the marginal theory of value into Norwegian economics. The new neoclassical theory changed the subject of political economy. The distinction between economic theory and policy recommendations became clearer.

⁹ This book was on the initiative of Ragnar Frisch republished in 1934.

rect to treat the entrepreneur as an independent factor of production and furthermore he splits the entrepreneurial income into entrepreneurial wage and entrepreneurial gain. In addition, entrepreneurs are important for economic development and growth in a society.

Petter Thorvald Aarum (1867-1926) was called to a chair in economics in 1917. He published in 1924 a two volume treatise called *Læren om Samfundets Økonomi* (The Theory of Political Economy). His treatise was intended to make Aschehoug's work redundant as a text for the students but not as a reference work. The entrepreneur has also a major role in Aarum's economics. However, he does not treat the entrepreneur as a fourth factor of production. In his discussion of the organisation of production he brings up the difference between the firm and the entrepreneur. Aarum carried out a large research project concerned with the theory of production. As a young research assistant, he employed Ragnar Frisch (1895-1973).

Kristian G. Schønheyder (1874-1953) became professor of economics at the new School of Business Administration in Bergen in 1936. He had published in 1934 *Hovedpunkter i økonomiens teori og politik* (Main points in economics theory and politics).¹⁰ The entrepreneur has an important role in his exposition and he emphasised that the task of the entrepreneur in modern business life is a continuous fight to keep up with the developments and that the ability of the entrepreneurs is of major importance in business life.

Thomas Sinding (1896-1951) became doctor of philosophy in 1928, reader in 1934 and professor in 1947. He had published in 1935, *Socialøkonomisk teori* (Economic Theory). The text built on his lecturers in economics for students of law. It is clear that it is the English classical school, Smith, Ricardo, Malthus, Senior and Stuart, together with Böhm-Bauwerk Marshall and Fisher that are his favours. He does not mention Say, but even so, his influence is clear and can be found in the sentence: "What we create with production is utility" (Sinding 1935, p. 22). The entrepreneur has still a role in his exposition but it becomes clear that the importance of the entrepreneur for the development of an economy have been somewhat eased into the background in comparison with the former mentioned books.

6. The Entrepreneur in America

In 1817 *A Treatise of Political Economy* by the French philosopher Antoine Destutt de Tracy (1754-1836) was published in United States. The book had been translated by Thomas Jefferson (1743-1826), one of the founding fathers, and the third president. In his *Prospectus* Jefferson states, that Adam Smith was the first in England to publish a rational and systematic work in political economy. Although Smith's book was both able and of the first degree of merit it has been considered to be prolix and tedious. However, in France, John Baptist Say had the merit of producing a very superior work on the subject of Political Economy. "His arrangement is luminous, ideas clear, style perspicuous, and the whole subject brought within half the volume of Smith's work; add to this, considerable advances in correctness, and extension of principle." De Tracy was strongly influence by Say, he refers to him and he has adopted his concepts. This book therefore gave the publication of Say's *Treatise* a flying start, when it was translated and published in the United States a few years later.

With the translation of Say's *Treatisé* into English in 1821 and its reissue in Boston the same year and in 1832, with annotation by the free trade champion Clement C. Biddle¹¹, Says economic theories, included the important role of the entrepreneur, spread across North America. From the discussion of Joseph Dorfman (1946), it is clear that Say's economic theories had an important place in the discussion of economic problems in the United States in the 19th century.

Consequently, Say's *Treatise* was used as a textbook at many universities and colleges into the 1880's. As noted by Rothbard (2006, p. 11) Say's *Treatise* "quickly became and remained the most popular textbook of economics in the United States down through the Civil War. Indeed, it was still being reprinted as a college text in 1880. During that period the *Treatise* had gone through 26 American printings, in contrast to only eight in France." Dorfman (1946, p. 596) discusses why Say's *Treatise* was used and refers to a Brown

¹⁰ The year after he was appointed professor of economics at the recently established Norwegian School of Economics and Business Administration.

¹¹ "Colonel Clement C. Biddle a former Federalist, merchant and littérateur, brought out an American edition of J.B. Say's *A Treatise of Political Economy* in 1821 for the cause of free trade." (Dorfman 1946, p.389).

University faculty report of 1829: “Aware of the increasing importance of the science of political economy, the Faculty after mature deliberation has resolved to introduce it into the course of collegiate instruction. The learned work of Say has been adopted as a textbook.” He goes on to state that “Say and to a lesser degree other free-trade treaties were the texts not only in colleges of free-trade persuasion, but also in colleges in areas where protectionist sentiments prevailed. The protectionists could not supply a textbook that was simple, lucid and in good English.” At institutions where it was not used as a textbook, it was in many instances recommended for additional readings or used as a reference book. Therefore, the entrepreneur became an important factor in the teaching of economics in United States throughout the 19th century.

How strong position the entrepreneur had can of course be discussed. Textbooks from more traditional classical authors, in which the undertaker or entrepreneur at best had a minor role, were also used (Dorfman 1949, p. 596).

In 2012 we, Eriksen and Sæther (2012), carried out an investigation of two leading American textbooks in the first half of the 20th century. It was Richard T. Ely (1854-1943) *Outlines of Economics*, and Frederic Benjamin Garver (1884-1950) & Alvin Harvey Hansen (1887-1975) *Principles of Economics*.

Ely’s first textbook of economics, *Introduction to Political Economy*, was published in 1893. A revised version *Outlines of Economics* in 1900. Because of Ely’s reputation as a leading economist and the new style of this book it was widely used as an undergraduate text in many universities and colleges. The book has been published in many editions, with many co-authors. Each edition of the book has been reprinted many times. With new editions the book was substantially enlarged, from the first editions four hundred pages to last 1937, seventh edition, with more than one thousand pages. A few co-authors were brought in in later editions.

The book became a bestseller of the time. According to Dorfman (1959, p. 211), it was the market leading text and sold in total 350 000 copies.¹² It was also translated to several languages.

The entrepreneur had an important function and place in all editions of this book. Although Say is only mentioned as a follower of Adam Smith it is clear that it is Say’s ‘*entrepreneur*’ that hold this strong position. The last edition is more than an ordinary new edition. “*The changes that have taken place since 1930 have been some momentous that a rewriting has been necessary. Thus it is almost a new book*” (Ely 1937, p. vii). The entrepreneur has a strong position and presented as the fourth factor of production.

“In actual life the factors or agents of production are almost infinite in number, but to simplify the analysis of production the economist has grouped them in four categories or classes: labor, land, capital and the enterpriser or entrepreneur. The last, a particularly elusive term, is applied to the ultimate owners of business enterprises, those who make the final decisions and assume the risks involved in the decisions. Corresponding to these factors are the four basic shares in the distribution of the product: wages, rent, interest and profits” (Ely, 1937, p. 95).

The entrepreneur has the important task of combining and organising the productive factors. He can be called a ‘captain of industry’ since he commands the industrial force. On the entrepreneur rests the responsibility for success or failure. “A business which has achieved magnificent success often becomes bankrupt when, owing to death or other cause, an unfortunate change in the entrepreneur is made.” (Ely, 1937, p. 113). His role in the actual operation is explained as follows.

“The entrepreneur in every kind of undertaking has to decide as to the advisability of a particular investment in land, capital goods, or labor, with reference to the fundamental question. ‘Will it pay?’ Any such investment is determined by balancing the cost of the unit of land, labor, or capital good against the selling value of the quantity it will add to the entrepreneur’s total product of commodities or services.

In order to achieve maximum profits, each entrepreneur will endeavour, so far as is practicable, to apportion

¹² Here an overview of other important pre-war textbooks can also be found.

his use of different classes of productive agents so that the value of the increment of product attributable to the marginal unit of each class will about equal its expense” (Ely 1937, p. 414).

The entrepreneur has to have a plan for his business undertaking. In carrying out his plans, in securing a product and a market for it, the entrepreneur has to utilize productive agents. The remuneration received by the factors of production, wages, rent, interest and profits is then discussed. Garver & Hansen’s *Principles of Economics* was first published in 1926 by Perine Book Company, Minneapolis. The first couple of years it was mostly used by universities and colleges in Minnesota. The publishing rights were in 1928 taken over by Ginn & Co., Boston, and their first edition of the book appeared in 1928. A second revised edition was published in 1937, another revised reprint occurred in 1939. The third and last edition was published in 1947.

This textbook was also seen as a standard introduction text in economics and became popular with many university and colleges professors. It competed with Ely’s *Outlines of Economics*, but took over an increasing share of the market. As an introductory text it was recommended by Harvard teachers in the 1930s, and it was also read and studied by Paul Samuelson (1915-2009). It was “seen as the Paul Samuelson *Economics of the time*”.¹³ The book had a wide circulation before WWII but was not much in use after 1950.

Although Say is not mentioned at all in the book his entrepreneur has a prominent and an important role in all the three editions. The entrepreneur is introduced in the 1928 edition as:

“Someone must promote the business in the first place and later assume the ultimate control and responsibility for the successful carrying-on of the venture. There must be “captains of industry” or entrepreneurs.” (Garver & Hansen, 1928, p. 23).

The entrepreneur is the person or group of persons who control the business unit. The entrepreneur is the final coordinator of the factors employed and the ultimate aspects of management are therefore in his hands. He is the one who is in control, “*who dictates the business policies of an enterprise.*” Any person who does anything in a business assumes risk but the entrepreneur assumes a special risk. “*His capital, it is said, is placed in the front-line trench*” (Garver & Hansen, 1928, p. 41). Here it withstands the first shock of a loss and it serves as a buffer against the claims of wages earners and capitalists.

Five forms of organizations through which entrepreneurs functions are presented: Individual proprietorship, partnerships, corporations, cooperative associations and political units, such as a municipality, state or nations.

How the entrepreneur should employ and find the best combination of the various types of labour, natural resources and capital goods, is discussed in some details. Furthermore, there are extensive discussions of how the entrepreneur contributes in the process of determining not only the price of the products but also the wages, rent and interest. What is the income of the entrepreneur.

“By economic profits, or pure profits, we mean the gains of the entrepreneur over and above all explicit expenses of conduction the business [included labour wages] and all imputed costs, which include depreciation of the plant, the competitive interest on the proprietors’ investment, the competitive rent on their land, and the wages they could earn as salaried managers” (Garver & Hansen, 1928, pp. 493-494).

The entrepreneur as a risk taker is discussed in some detail. They concludes that in the average small business the entrepreneur is both the final authority and the principal risk taker. It is emphasised that the development of giant corporations has changed somewhat the relations between risk-taking and final authority for business decisions.

The second edition from 1937 follows the first edition but has two new interesting chapters on the dy-

¹³ *Minnesota Department of Economics Graduate Alumni Newsletter Fall 1994.*

namics of price.¹⁴ Here they consider certain problems of price under competition and changing conditions.

“If competition were free, if there were no restraints on the entrance of firms into and withdrawal from any line of production, if the agents of production could move freely and without friction, and if there were no changes in demand or in methods of production, then normal price would always prevail. The individual producer, under these conditions, would operate in a world where economic production could be carried on with something like the same precision as routine tests in a chemical laboratory. Mistakes might happen as the result of negligence, incapacity, or wilful error on the part of individuals, but not because of uncertainty in the economic environment. Technique, costs of the agents, and demand being known, all production would become mere routine. Under such conditions there would be no entrepreneurs, but merely directors and supervisors” (Garver & Hansen, 1937, p. 203).

In such a market there will be no entrepreneurial profit. However, this is of course true in theory, in practise there are many reason why the entrepreneur will make profits.

“It is a matter of common knowledge that even in relative stable times entrepreneurs make business profits ranging from large losses (minus profits) to very large positive amounts. In part the latter caused by monopolistic conditions. But they also persist in businesses where little of what is commonly called monopolization exists. Not only the existence of imperfect competition, but also the forces of progress or decay give to differences in the profitableness of investments made by different concerns in the same line of industry.” (Garver & Hansen 1937, p. 204).

The authors then discuss in some details why it is so and emphasize that different entrepreneurs for example have different costs and that risk and uncertainty are handled differently.

A third and last edition, was published in 1947. It represents a comprehensive revision of both the theoretical and the descriptive chapters. According to the authors, “*It takes cognizance of the many important events and changes in economic institutions, legislation, and social control brought about by the great depression of the thirties and by the Second World War*” (Garver & Hansen, 1947 p. iii). The layout is also modernised. The text is in two columns and substantially more tables and figures have been added.

The entrepreneur has also in this edition an important role. He is important for the production in society and is referred to and treated in several places. His role is explained in the following way.

“The entrepreneur is the final coordinator of the factors employed, including even the salaried managers themselves. The going concern is under the final control of the entrepreneur, or group of entrepreneurs and the ultimate decisions of management therefore are in their hands” (Ibid, p.16).

In a society, that has larger firms or group of companies the entrepreneurs are “The small group of stockholders who dominate the company, elect the directors and officers, and dictate the policies of the enterprise - these persons are the entrepreneurs” (Ibid, p.17).

In addition, it is emphasised that in business life most of the participants have to take upon themselves some kind of risk but it is underscored that the assumption that the entrepreneur takes risk is inseparable from the concept entrepreneurship.

The entrepreneurs play an important role in the determination of the lowest production cost and the determination of prices in dynamic markets. In a new chapter on speculation and prices, methods of meeting business risks are discussed:

“If future events could be predicted accurately, entrepreneurs would be able to calculate the future costs of

¹⁴ Garver and Hansen (1937) chapter XIII and XIV pp. 203-239.

making good their losses, and these losses would be added to costs of production or subtracted from gross income. Prices would be affected by a change in the magnitude of the losses, to be sure, but there would be no business risks. As things are, it is not the total amount of the losses that embarrasses the businessman but the impossibility of being prepared to meet them”(Ibid, pp.136-137).

One method to eliminate uncertainty, and therefore risk, is the perfection of knowledge of future events. In a discussion of the *The Distribution of Wealth and Income* the authors deliberate the functional distribution and the content of the terms; wages as the price of labour, rent as the payment for the use of land and buildings and interest as the return on capital. The gains of the entrepreneur are designated as economic profits or pure profits. It is the gains over and above all explicit expenses of conducting the business and all imputed costs. These costs include wages, rent, interest and the wages they could earn as salaried managers. According to the authors dynamics is the source of the entrepreneur’s profits.

“If the economy always operate under conditions of perfect competition and if it were always in equilibrium, there would be no pure profits. ... The entrepreneur exercises his chief function under changing and therefore uncertain conditions. It is precisely because competition is rendered imperfect by inventions, changes in consumers’ demand, the exhaustion of natural resources in certain areas, and the phenomenon called business cycles that the entrepreneur has a separate role to play. More correctly we should say that the function of entrepreneurship is different from that of labor, saving, and landownership”(Ibid, p. 311).

The authors then ask the question if entrepreneurship is to be identified with risk-taking in the narrow sense. Their answer is that it is not. “The entrepreneur is rather the eliminator of risks in a dynamic economy. He eliminates the risk in business through skilful forecasting of demand, supply, and general environmental conditions, plus ‘doing something about it” (Ibid, p. 311).

The next question asked is whether the entrepreneur must risk his own capital in the investment. The answer is that in a majority of cases he does but not always. If he does not the answer is that he risk his high income as an entrepreneur.

The authors stress that it does not have to be only one entrepreneur in a firm. The function of risk elimination and of responsibility-taking for the success of the enterprise is often shared with the managers, the stockholders, the firm’s bankers, and, when governments steps in by their executives.

Finally, it should be stressed that the two textbooks by Ely, and Garver & Hansen respectively were not the only one used by American universities and colleges in their introductory courses in economics by the end of WWII, but they dominated the market. It can therefore be concluded that the entrepreneur at this time had a strong position in the teaching of economics.

7. The Disappearance of the Entrepreneur

In 1917, Ragnar Frisch embarked on his economic studies at the University of Oslo. He graduated with distinction two years later. The next years he with a scholarship studied economics, mathematics and statistics in France, and visited Great Britain, Germany, and Italy.

As a promising research assistant for professor Aarum he also got a three year Rockefeller Scholarship and went to the United States. Declining in 1932 an offer of a tenured professorship at Yale University, he accepted a chair in economics and statistics at the University of Oslo.¹⁵ At the same time he became one of the two directors of the new Rockefeller funded Institute of Economics.

Subsequently, a paradigm change took place in Norwegian economics. Frisch started immediately his grand project of bringing economics as a science out of ‘*the fog*’. He fought against what he called; ‘*fictional*

¹⁵ Bjerkholt (2000) claims that a confluence of circumstances led to the foundation of the Institute of Economics in 1932, and that this had ‘a major influence on the career of Ragnar Frisch as well as on the development of empirical social science in Norway’. According to Eriksen et al (2006) he might have added that it had a major, but questionable, influence on state economic planning and the economic development of post war Norway.

economics' and his enemies, and they were at the time many, belonged to what he called '*the unenlightened plutocracy*' and he managed, in a short time, to create his own school, the so called '*Oslo School*' within economic research and teaching.¹⁶ This school was, according to Eriksen, Hanisch and Sæther (2007), marked by an extensive use of quantitative methods, in economic teaching and research, development of national accounts and national budgets and macroeconomic planning models, an increasing scepticism to the use of markets and little interest in the international debate about the feasibility and efficiency of centrally planned economies. There were no use of entrepreneurs in this scheme.

Frisch had already in 1926 lectured on economic theory in general and on the theory of production in particular. As research fellow in the United States and as a professor at the University of Oslo he continued this practice. In his lectures he used his own notes and Marshall's *Principles of Economics*. This book had been on the curriculum for Norwegian students since it was first published in 1890.

His lecture notes on production were published as *Innledning til produksjonsteorien* (Introduction to the theory of production), first as compendiums by the university and later by the Oslo University Press. In 1965 translated into English as *Theory of Production*. In this exposition Frisch makes a clear break with the textbooks of his former teachers and colleagues at the university. There are absolutely no references to the entrepreneur, or the role of the entrepreneurs in an economy, as used by his predecessors. He makes a couple of references to Marshall. Nevertheless, Frisch does not mention Marshall's emphasize on the importance of business management. Using Marshall's *Principles* he laid stress upon price theory and he soon produced what he called *Notater til økonomisk teori* (Notes to economic theory) as a supplement to his lectures. These notes were also published by the university and expanded into new editions and several reprints. In them we find an extensive use of mathematics and we do not find any reference to the entrepreneur, the business manager or business management.

There were no places for entrepreneurs in the mathematical modeling of Frisch in the 1920's and the beginning of the 1930's. This might be due to the mathematical difficulties of modeling entrepreneurial behavior. However Frisch became fascinated by the concept of general equilibrium developed by Leon Walras. But strangely enough he missed Walras emphasize on the role of entrepreneurs in the movement of the economy towards general equilibrium, a general equilibrium that never would be reached. Ariane Dupont-Kieffer (2012) claims that the decisive shift in Frisch's modeling for scientific purposes to modeling for planning purposes was the General Equilibrium model he developed in the very long and controversial 1934 paper on *Circulation Planning*.

However, it should also be mentioned that in the beginning of his academic career Frisch had a positive view on the market and the role of entrepreneurs. He himself came from an entrepreneurial family. Nevertheless, from the beginning of the 1930's his scepticism towards the market and the role played by the entrepreneurs in allocating resources efficiently grew. By the mid-thirties, he was convinced that the market economic system had utterly failed and was responsible for the world crisis.¹⁷

The kind of economic planning that Frisch now advocated was built upon macroeconomic planning and detailed economic regulation of the economic life. He had no use of the '*individualistic features*' represented by the entrepreneurs. It was the economists, who graduated from the new study programme he had created in 1935, that should take over their role. The economists should do this utilising the tools they had acquired and through their work in the government ministries and planning agencies. Here they should determine investment levels in the different branches of industries, plan new state enterprises and carry out a detailed regulation of the economic life. Norway was therefore in the first years after WWII on the track to become a centrally planned economy with features close to the countries of Eastern Europe. Frisch himself was convinced that that the economic growth in the centrally planned economies of Eastern Europe and the Soviet

¹⁶ According to Berg & Hanisch (1984) the term '*Oslo School*' was probably first used by the economist Ole David Koht-Nordby in review of the book '*Hva krigen kostet Norge*' (What the war cost Norway) in the newspaper *Verdens Gang* 22.09 1945.

¹⁷ How his view changed is analysed by Hanich & Sæther (2003) and Eriksen & Sæther (2007 and 2013).

Union was far greater than in the west.¹⁸ However, the country was saved from this fate, due to the fact that Norway, very reluctantly, accepted Marshall aid and as a consequence joined, and adapted to the principles of the OEEC and the GATT.¹⁹ This restricted the country from taking the most extreme steps in the direction of a state controlled centrally planned economy.

At the end of the 1950's the post war restrictions on private consumption, on corporate trade, on import and export and the detailed control measures had therefore been withdrawn or sharply reduced. The government control system from this time onwards, aimed at the capital flows in the economy, partly through public investments and partly indirectly through influencing private investments and consequently industry structure. This implied on one hand that the market mechanism had been partly allowed to function in relation to most transactions but on the other hand that possibilities seen in relation to the important innovation structures were confined. The Ministry of Finance claimed that the country's industrial structure was too important to be left to "everyday rules", as used by business managers in their investment decisions.²⁰

In 1947 Paul Anthony Samuelson (1915-2009), published in United States his book *Foundations of Economic Analysis*. The material presented had been already written 10 years earlier and had to some extent circulated. It is clear from this book that Samuelson was an admirer of Ragnar Frisch, he cites him many times. Although he accepts that Alfred Marshall was a great economist, he already in his introduction attacks his precepts (Samuelson, 1965, p. 6). Walras and his general equilibrium analysis is also important. Samuelson had been a student of Alvin Hansen and had used his *Principles of Economics* as the introductory textbook. It is therefore astonishing, that the entrepreneur has absolutely no place in his foundations.

A year later, in 1948, McGraw Hill Book Co. published Samuelson's *Economics: An Introductory Analysis*. This book was intended as a new modern introductory textbook in economics for the use at colleges and universities. Although there were significant competitors as also Samuelson himself recalls (Gottesman et al, 2005, pp.102-103), such as the book by Ely et al and the book by Garver & Hansen, it hit the market at the right time. Almost immediately it became "the college textbook", a position it held virtually unchallenged for more than a generation and to a lesser extent still enjoys today. The book became a national and international bestseller. It pushed, other introductory textbooks in economics aside and had for the first twenty years almost monopoly in a fast growing market. One reason for its immediate success could have been the special kind of neoclassical synthesis presented, which a new generation of economics professors found appealing. It could definitely not have been the layout since in that respect it could not compete with the third 1947 edition of Garver and Hansen's *Principles of Economics*.

No other textbooks in economics have had such dissemination as Samuelson's *Economics*. The first edition sold almost 121 500 copies, the second more than 137 000 and the high water mark was the sixth edition which sold almost 442 000 copies.²¹ From this edition onwards, it started to get competition from other textbooks. Consequently, the sales somewhat decreased but remained strong.

In total more than 4 million copies have been sold. The book became the standard introductory textbook. It has been published in new editions and reprinted again and again for more than 60 years. The book has been translated to more than 40 languages. In addition, the book also became the standard for introductory text that other authors who have written such books built on. The number of imitations is therefore large.

The book has been the dominating textbook at American universities and colleges in the second half of the 20th century and has had an enormous influence not only in the United States but also in Europe and

¹⁸ National Library. Letter collection no 761B 11.08 1958. Letters between Ragnar Frisch and the editor Trygve Hoff of the economic journal *Farmand*.

¹⁹ Organisation for European Economic Cooperation and the General Agreement on Tariffs and Trade. Later called *The Organization for Economic Cooperation and Development (OECD)* and *The World Trade Organization (WTO)*.

²⁰ The term was used by Director General Per Schreiner in a memo from the Ministry of Finance entitled 'Investeringskriterier' (*Investment Criteria*), September 17, 1963.

²¹ The figures are here taken from Gottesman et al (2005). They took them from Skousen (1997) who again based the figures on Elzinga (1992) pp. 861-79.

the rest of the world. It is recognized as the standard work in neoclassical economics.²² As a consequence of its success Samuelson's *Economics* grew, according to Gottesman et al. (2005, p. 104), "into something more than just another obscure textbook; its wide popularity meant that it strongly influenced the way that economists, The American public, and the entire world perceived economics."

Paul Samuelson had no use of the entrepreneur in his exposition of economics. The entrepreneur or entrepreneurial activity is therefore totally absent. In the first editions of his *Economics*, from 1948 until the 1960's the entrepreneur or entrepreneurship is not mentioned at all. In the editions of the 1960's the innovator or the entrepreneur is just mentioned in a very short account of Joseph Schumpeter's analysis (Samuelson 1967, p. 593). In a chapter about growth and development it says that experience shows that economic development is a difficult and time consuming process but not impossible. Here entrepreneurship is mentioned, but only in one sentence: "To hasten its evolution, spontaneous entrepreneurship and innovation must develop among the peoples directly involved" (Ibid, p. 593).

This changed only marginally when William D. Nordhaus, in the 1985 edition, became co-author. Here, in a table on earnings, the entrepreneurial profit is included. But, there are no comments or discussion of the content of the table in the text. In later editions, entrepreneurial profit is just mentioned, in a brief discussion, as an important source to wealth (Samuelson & Nordhaus, 1998, p. 348-349). This acknowledgement does not, however, lead to a closer discussion or analysis of the entrepreneur or the role of the entrepreneur in the economy.

Therefore, the entrepreneur do not play any role in Samuelson's neoclassical economics. Moreover, with him the entrepreneur became almost an invisible man in mainstream economics. We do not know why this happened. Could it be the influence of Leon Walras or Ragnar Frisch and his scepticism towards market economies? We know for example that Samuelson, like Frisch, had soft spot for the socialist command economies of the Soviet Union and the countries in Eastern Europe.

"The Soviet economy is proof that, contrary to what many sceptics had earlier believed, the socialist command economy can function and even thrive" (Ibid, p. 837). However, it is a fact that Samuelson's *Economics* had, as mentioned above, a tremendous influence on the teaching of economics, not only in the United States, but also across the world. Paul Samuelson therefore has to take a lot of blame for the fact that the entrepreneur and his role in the economy has vanished for the vast majority of textbooks in economics.

8. The entrepreneur – A lost actor that should resurrect

We have claimed that the strong influence of the two Nobel Prize Laureates' Ragnar Frisch, who got the prize in 1979 and Paul Samuelson, who got the prize the year after, have had a tremendous impact in bringing down the entrepreneurs as a major actor in mainstream economics, that is in the introductory and intermediate textbooks of economics. For almost one hundred and fifty years, the entrepreneur had an important place in economic textbooks used at universities and colleges both in the United States and in Norway. Nevertheless these two economists manage to bring the entrepreneur down.

From our discussion, it follows that Ragnar Frisch became increasingly sceptical to the market economy in the 1930's. Frisch and his 'Oslo School' had no use of the entrepreneur. However, the economic climate changed in the 1970's and the 1980's. In the first two decades after the war, there were no challenge to the 'Oslo School' and its strong emphasis on economic planning and detailed state governance of economic life. However, this changed in the 1970's when the basic characteristics of the 'Oslo School' were challenged both from the academic side, represented by the 'new' economics from the Norwegian School of Economics and Business Administration and from the poor performance of the economy. This led over the next ten years to the fall of the 'Oslo School' and a total change in economic policies.

At the same time, research which to a large extent was initiated by economists at American universities,

²² The term neoclassical economics was first used by Torstein Veblen to characterise Alfred Marshall and Marshallian economic theory. After WWII the term has mostly been used to characterise marginal theory in general. Gottesman et al. (2005) p. 98. However, it should be mentioned that the influence of Samuelson's textbook caused severe criticism from some economists. For a short review of some of the criticism, see pp. 99-100.

started to investigate new areas of business management and innovations. Innovations driven by entrepreneurs, who in their daily work handled uncertainty and risk. Economic research also showed that the use of markets were the most efficient method to allocate resources to different sector of production and to distribute final products among diverse groups of consumers. Norway abandoned its strong emphasize on economic planning and state governance of economic life at the end of the 1970's. A decentralised market system would better tackle the economic problems. It was decided that the role of the state should be limited to an economic policy which created favourable framework conditions for businesses and industries and that the selective industrial policies should be winded up. The entrepreneurs were again seen as having an important role in the economy. Although most other OECD countries had not gone as far as Norway on the path to central economic planning there were a clear change in the policies towards more competition and the use of markets to create growth and development.

All these changes should have resulted in the resurrection of the entrepreneur in the textbooks of economics. However, the heritage from Ragnar Frisch, Paul Samuelson and their collaborators have been so strong that the entrepreneur has not yet found his place in textbooks of economics.

It has been some speculations in the literature why the entrepreneur disappeared and why it has not resurrected. This is a difficult question to answer. But, already in 1968 the American economist Willian Baumol (1968) in his seminal article *Entrepreneurship in Economic Theory* indirectly raised the question.

He examined three major matters that concern this problem. First, he reviewed briefly the grounds on which entrepreneurship should concern us. He claims that it *"has long been recognized that the entrepreneurial function is a vital component in the process of economic growth"* (Baumol, 1968, p. 65). Empirical evidence and the lessons of experience confirm this view. Second, he explains why economic theory has failed to develop a formal analysis of entrepreneurship. The entrepreneurs have been read out of the models. The firms perform a mathematical calculation and there is no room for enterprise or initiative. Therefore, it is in his opinion unlikely that the theory will include this in the near future. History has shown that Baumol was right in his prediction. Third, he argues that theory can say a great deal that is highly relevant to the subject of entrepreneurship even if it fails to provide a rigorous analysis of the behaviour of the entrepreneur or the supply of entrepreneurship. He sums up his opinion. *"In a growth-conscious world I remain convinced that encouragement of the entrepreneur is the key to the stimulation of growth"* (Baumol 1968, p. 71). Again he was right. Recent research, Thurik, Audretsch and Stam (2013, pp. 302-310), has shown that opportunity related entrepreneurship is important for economic development and growth.

Barreto (1989, pp. 118-138), in his book *The entrepreneur in microeconomic theory*, also accounts for the disappearance of the entrepreneur. He explores how and why such a fundamental agent in production, distribution and growth theory disappeared from economic theory. He points out that the vanishing of the entrepreneur coincided with the rise of the firm as an organizing principle in microeconomic theory. He show that the orthodox microeconomic theory seeks its fulfilment in a perfectly interlocking self-contained model; a series of pieces, which fit neatly together. Furthermore he claims that any attempt to introduce the entrepreneur into this theoretical structure destroys the internal consistency of the model. For this reason, the entrepreneur was removed.

There are three levels of explanation for the entrepreneur's disappearance. On the first level, the answer is the development of the modern theory of the firm from 1935 and onwards. The second level finds the theoretical assumptions inherent in the modern theory of the firm as the key. This theory carried with it assumptions that were incompatible with the exercise of entrepreneurship. The modern theory of the firm consists of the following fundamental concepts, the production function, the logic of rational choice, and the perfect information. The third level is the most fundamental. The need to maintain internal consistency within the theoretical structure is found to be the motivating force behind the disappearance. In his explanation Barreto draws on both Frisch and Samuelson.

In a comment to the earlier mentioned article by Johansson (2004), Baumol (2006, p. 133) again calls for the restoration of the entrepreneurs' place in theory, *"given the fact that no one seems to deny the their*

importance for the workings of the free-market economy in general and for its growth and innovation in particular". He asks the why the entrepreneur has been exiled from standard micro theory. The more critical explanation is in his opinion that the theory is generally composed of equilibrium models in which structurally nothing is changing. *"Equilibrium models exclude the entrepreneur by their very nature"*.

Furthermore, Baumol claims that static analysis has offered many valuable insights and that its body of theory is an admirable accomplishment. Furthermore, that the entrepreneur is not offered a place in this theory because it would then undermine the value of that theory.

This we humbly disagree with. One fundamental question in all static theory is how the economy move from one equilibrium to another. Both in micro and macro situation will the entrepreneurs be important actors and play important roles in this movement.

In their nicely written *A History of Entrepreneurship* Hebert and Link (2009) conclude that one lesson that can be learned from a study of the past is that the place of entrepreneurship in economic theory is more a problem of method than a problem of theory. The history demonstrates that *"the entrepreneur was squeezed from economics when the discipline attempted to emulate the physical sciences by incorporating the mathematical method"* (Hebert and Link 2009, p. 104). We can see no reason why the introduction of entrepreneurship cannot be combined with the use of mathematics.

9. How can the Entrepreneur be reintroduced in Economic Textbooks?

Here it is necessary with a reminder: Leon Walras, the father of the general equilibrium theory, pointed out, as we have emphasised above, that equilibrium in production like equilibrium in exchange, *"is an ideal and not a real state"*. In the real world it never happens that an economy would be in equilibrium. He explicitly states that in disequilibrium situation, which were the normal situations, the entrepreneurs would play a major role. This could be the starting point for the reintroduction of the entrepreneur in economic textbooks.

An important question arise: Can comparative static partial or general equilibrium models be used to discuss the role of the entrepreneur in economics? In our opinion the answer is yes. True economic life is dynamic and in a static market equilibrium model there is no profit if equilibrium has been reached and therefore strictly speaking there is no room for entrepreneurs. However, such a situation has nothing to do with reality. The best we can claim is that the market forces will tend to move towards equilibrium. However in a dynamic market there are continuous changes in both demand supply. If for example prices are moving to a level where they just cover the cost with the consequence that entrepreneurial profit is reduced, entrepreneurs would look around for new business opportunities, new methods of production or other measures that would reduce cost and increase profit again. There would therefore be an important role for entrepreneurs in competitive markets not only in a high degree of monopolization. In monopolistic competition the entrepreneurs already plays a role.

To find the important areas where the entrepreneur should be introduced we should go back to the textbooks where the entrepreneurs played and important role and investigate these areas in the light of all the research that has been carried out in the last couple of decades. In this it is enough to point to the absorption of new knowledge and the entrepreneurial role in risk taking or the elimination of risk, as pointed out by Garver & Hansen.

In the theory of production the old and the new forms of organizations through which the entrepreneur functions should be discussed. And of course it is important to investigate how the entrepreneurs employ and find the best combinations of the factors of production in the production of selected products using the mathematical tools that neoclassical economics has provided. The resurrection of the entrepreneur in economics should not have as a result that the new methods developed by neoclassical economics should be abandoned, on the contrary the entrepreneurs important role should be integrated and becoming a part of these methods.

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