

# The Entrepreneurial Rent: The Value of and Compensation for Entrepreneurship

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**DOI/Link:** <https://doi.org/10.1108/JEPP-07-2016-0027>

**Reference:** Henrekson, Magnus and Mikael Stenkula (2017). “The Entrepreneurial Rent: The Value of and Compensation for Entrepreneurship”. *Journal of Entrepreneurship and Public Policy*, 6(1), 11–25.

# **The Entrepreneurial Rent: The Value of and Compensation for Entrepreneurship\***

March 2, 2017

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*Abstract:* The surplus that is created in a successful entrepreneurial venture is much higher than the profit corresponding to the risk-adjusted market rate of return. The part of the surplus that exceeds this level may be denoted “entrepreneurial rent.” Such rents normally disappear in the long run but so-called isolating mechanisms ensure that these rents persist in the short or medium run. Entrepreneurial rents arise when successful entrepreneurship is exercised and entrepreneurial firms create and successfully commercialize something new and unique. The presence of and search for entrepreneurial rents is a prerequisite for the innovations and structural change required to generate economic growth. High *ex post* compensation for successful entrepreneurship cannot be taxed harshly without affecting entrepreneurs’ willingness to supply effort.

*JEL Codes:* D51; J30; L26; O31.

*Keywords:* Entrepreneurship; Economic rent; Entrepreneurial rent; Innovation; Imitation.

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\* We are grateful for useful comments and suggestions from Niclas Berggren, Niklas Elert, David Audretsch, Randall Holcombe, Al Link and Joakim Wernberg. Financial support from the Jan Wallander and Tom Hedelius Foundation and the Marianne and Marcus Wallenberg Foundation is gratefully acknowledged.

## 1. Introduction

The profit rate and the compensation to entrepreneurs in successful firms often receive much attention in the media. Superentrepreneurs such as Facebook's Mark Zuckerberg and Google founders Sergey Brin and Larry Page have not only created firms that have rapidly attained stellar value, they have also received a phenomenal rate of return on the modest financial investment they have made in their companies. More generally, studies show that the rate of return on the exploitation of innovations is low or sharply negative in the majority of cases, but it is also true that the rate of return is exceptionally large for a small share of all innovations.

How can these exceptionally large rates of return—which are much higher than the risk-adjusted market rate of return—be understood? The purpose of this paper is to analyze the role of the entrepreneurial function in value creation and the nature and incentive effects of the compensation received for exercising entrepreneurship. The value created by exercising entrepreneurship will be denoted an entrepreneurial rent. The extent to which an entrepreneurial rent accrues to the entrepreneurs depends on the contractual arrangements with the owners of the other factors of production.

It is important to understand the function of the entrepreneur and the compensation for exercising this key function in order to analyze how the economy works and to understand the potential effect of economic policy measures. The entrepreneurial function and its compensation are often neglected in standard neoclassical theory taught at the universities and presented in modern text books.<sup>1</sup>

One fruitful way to analyze entrepreneurship is to posit that entrepreneurs are searching for rates of return exceeding the risk-adjusted market rate of return, i.e., they try to create or discover economic rents.<sup>2</sup> Entrepreneurial rents arise when entrepreneurship is successfully combined with the use of other inputs such as capital and labor.

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<sup>1</sup> The entrepreneurial element in both micro- and macroeconomics is sparse at best (Bianchi and Henrekson 2005) and is often completely absent from the teaching material that economics students encounter (Johansson and Malm 2016).

<sup>2</sup> The term is not used in the constrained way applied in public choice to “describe behavior in institutional settings where individual efforts to maximize value generate social waste rather than social surplus” (Buchanan, 1980, p. 4). In that tradition, rent seeking is an activity which, by definition, generates social loss.

As we will argue in this paper, the search for and existence of these entrepreneurial rents are crucial for economic development. Without the possibility to earn entrepreneurial rents, no entrepreneur would be willing to exercise entrepreneurship and exploit entrepreneurial opportunities. Successful entrepreneurship attracts imitating firms that will push back profits to normal levels. At the same time, the benefits of the innovation will be diffused in society in the form of better and less expensive products. Even if most of these rents will disappear in the long run they serve a key function as they provide both incentives and valuable information.

The paper is organized as follows. In section 2 we discuss what we mean by entrepreneurship and how it can be understood as a factor of production. Section 3 explores economic rents and introduces the concept of entrepreneurial rent. The following section examines how the entrepreneurial rent typically evolves in the short and long run. Section 5 and 6 analyze how entrepreneurial rents can be understood from an individual and social perspective, respectively. Section 7 concludes.

## **2. Defining Entrepreneurship**

We define entrepreneurship as the ability and willingness of individuals, both independently and within organizations, to discover and create new economic opportunities by introducing their ideas in the market under uncertainty and making decisions regarding the localization, product design, use of resources and reward systems with the objective to create value (cf. Wennekers and Thurik 1999). Entrepreneurship is not a profession or a position and entrepreneurs do not constitute a distinct group in the same way that employees and capital owners do. An entrepreneur may also be—and often is—a capital owner or an employee. Not all entrepreneurship is productive in terms of benefiting both the individual entrepreneur and society. If an entrepreneurial action benefits the entrepreneur but harms society, it should be termed destructive in contrast to productive entrepreneurship.

Different approaches for including the entrepreneurial function in economic theory have been suggested. Each approach has its advantages and disadvantages. One option involves starting out with an ordinary production function that stipulates how the traditional factors of production—labor and capital—can be combined to produce output. While an analysis based on the production function is descriptively overly simplistic, this approach has the appeal of analytical tractability which fits into neoclassical analysis and its toolbox.

As entrepreneurship is the function of combining factors of production into more valuable uses, one possibility may be to interpret the specific production function in itself—how labor and capital is transformed into output—as a result of entrepreneurial insights. A new entrepreneurial insight then implies a new possible production function showing how the factors of production can be combined in novel ways to create innovative and more valuable products.

A more direct way to analyze the entrepreneurial function is to include it as a separate factor in the production function.<sup>3</sup> After all, the entrepreneur performs a crucial function, which is in scarce supply. Hence, it has an economic value. This implies that there will be a supply and demand for entrepreneurial services.<sup>4</sup> Interpreting the entrepreneur/entrepreneurship as a factor of production is not new or farfetched. Modern contributions include Schultz (1980), Casson (2003) and Baumol (2010), but also in many older works, notably Say (1843 [1968]), the entrepreneur may be interpreted as a distinct factor of production.<sup>5</sup> If entrepreneurship is interpreted as a factor of production, it will be remunerated for the service it provides as discussed in the next section.

### **3. Economic Rents and Entrepreneurial Rents**

As the entrepreneur has a specific function, s/he will receive compensation for exercising this function, just as employees and capital owners receive compensation for their inputs. An employee receives a salary, and labor will receive a compensation (in the case of perfect competition and assuming that capital and labor are the only inputs) equal to the marginal revenue product of labor (MRP). Similarly, capital owners will receive compensation (a risk-adjusted rate of return), which, in the long run, corresponds to capital's marginal revenue product.

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<sup>3</sup> In mainstream economics, the simplest form of aggregate production function used is  $Y = f(K, L)$ , which stipulates that aggregate production ( $Y$ ) is a function of the capital stock ( $K$ ) and labor ( $L$ ). An entrepreneurship augmented production function would be  $Y = f(E, K, L)$ , where  $E$  is the entrepreneurial effort in the economy. Formalizing the relationship in more detail is outside the scope of this paper as it is primarily a conceptual paper. Formalization can be done in several different ways, e.g., that  $E$  augments  $K$  and  $L$  proportionately or that  $E$  gives rise to capital deepening in combination with greater efficiency of capital so that the marginal productivity of capital does not decline despite a larger capital stock.

<sup>4</sup> However, there is no regular market for entrepreneurs. The value of an entrepreneurial activity cannot be known *ex ante* as entrepreneurship is about coordinating scarce resources under uncertainty. Thus, entrepreneurship cannot be bought in the same way as raw materials or hired in the same way as workers. As a result, except in exceptional cases, no external market for entrepreneurship exists. The same person usually both supplies and demands the entrepreneurial services, which are then realized in one's own firm.

<sup>5</sup> Formal contributions analyzing the market for entrepreneurs include Kaiser (1990), O'Kean (2000), and Lee and Venkataraman (2006).

The risk-adjusted rate of return includes the return exceeding the risk-free rate of interest. The more risky the project, the greater the return a (risk averse) investor will require to invest in the project. When investing in an innovation-based start-up, forming a clear notion regarding the outcome—or its probability distribution—is impossible before the product is fully developed and introduced in the market. Normally, a few projects have very high rates of return *ex post*, while most projects develop only modestly or are terminated, which often implies that investors lose their entire investment (Åstebro 2003).

The surplus generated in a successful, entrepreneurial new or incumbent firm will be higher than the profit that corresponds to the risk-adjusted market rate of return. We call this additional profit the *entrepreneurial rent*. It results from the entrepreneur's actions when he or she actively discovers or creates opportunities and makes decisions about how to combine factors of production and how to allocate resources across activities. Complementarity of the factors means that the contribution of entrepreneurship augments the marginal contribution of the other inputs (cf. Nelson 1973).<sup>6</sup>

Formally, there exists no income category called “entrepreneurial rent” in any country's tax code. Workers receive a wage while capital owners receive capital income, normally in the form of dividends, taken from the residual surplus in the company that originates from revenue after all (other) costs have been deducted. According to this division, there is no place for any entrepreneur or any entrepreneurial rent.

To understand the function of the entrepreneur, one has to realize that the entrepreneur also has other roles in an entrepreneurial firm. One can imagine three scenarios: (i) the entrepreneur is the only capital owner, (ii) the entrepreneur is one of several capital owners, and (iii) the entrepreneur is an employee.

In most startups, the entrepreneur and the owner is the same person. Asymmetric information, moral hazard and a high degree of uncertainty will make it hard to receive external financing.

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<sup>6</sup> In addition, entrepreneurs typically cannot decouple their savings from investments, their capital from their own labor, or their labor and capital from their business ideas. When examining entrepreneurship, it may therefore be impossible to split the MRP across the different factors of production because the value created is the result of the inseparable combination of entrepreneurial talent, work effort, human capital and financial capital.

The entrepreneur normally knows more about the firm's potential and an external financier must handle the risk of excessive optimism among founders/entrepreneurs and the risk that the entrepreneur abuses the resources received. Debt financing is only possible if the firm has either fixed collateralizable assets or a secure positive cash flow.

Part of the entrepreneurial rent may in this case formally and from a tax perspective be treated as capital income. However, this classification is conceptually irrelevant. Part of the total compensation that the capitalist–entrepreneur receives is a return to entrepreneurship.

Oftentimes, the entrepreneur is not the only capital owner. For instance, passive capital owners, business angels or venture capital firms may provide equity capital to the entrepreneurial firm. In established entrepreneurial firms, the entrepreneur is seldom the only owner. The surplus that arises in these firms—including the entrepreneurial rent—must be divided among the capital owners in a way that, at least in the short run, not necessarily implies that all entrepreneurial rent accrues to the entrepreneur. If the remuneration to the entrepreneur is too low, the incentive to be an entrepreneur will weaken and the entrepreneurial activity will be lower.

Finally, the entrepreneur can be an employee, i.e., an intrapreneur. An intrapreneur will normally receive a wage (with or without a performance-based element). Hence, (part of) the entrepreneurial rent that these intrapreneurs generates—if successful—will be received by other actors (normally the capital owners). Even if the entrepreneurial rent is received by parties other than the entrepreneur, the concept is still relevant.

### **3.1 Different Kinds of Economic Rents**

The entrepreneurial rent closely relates to what is referred to as an economic rent in economics, which also goes by the name of *Ricardian rent* after economist David Ricardo (1772–1823). A Ricardian rent is defined as the return to a factor of production exceeding the level necessary to ascertain its supply (for example, the risk-adjusted market rate of return to a capital owner).<sup>7</sup> An economic rent can be the result of a quantity constraint on the supply side. For example, a hotel located on an attractive beach may charge prices that result in a return in excess of the risk-adjusted market rate of return (given that it owns the beach; otherwise the

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<sup>7</sup> Ricardo mainly analyzed land rents, which he defined as the compensation to landlords for “the use of the original and indestructible powers of soil,” i.e., remuneration for the fixed supply of land.

rent accrues to the land owner). Nature supplies the economy with a fixed stock of attractive beaches; therefore, even in the long run, competing hotels cannot offer the same service and thereby drive down the rate of return. Another example is a unique piece of art, where the supply of that particular piece in its original state is also given.

Closely linked to this concept are quasi rents, also called *Marshallian rents* after economist Alfred Marshall (1842–1924). Quasi rents are economic rents that eventually disappear because the supply is adjustable in the long run, while it is fixed in the short and medium run. A typical example is the housing stock in a town, which is very nearly fixed in the short run, as new construction only represents a few percent of the total stock. However, in the long run, supply is elastic.

Government interventions and regulations may also give rise to economic rents. By giving monopoly privileges to a specific firm in a certain industry, this firm may, without fearing competitors, charge higher prices and thereby extract more profits. This is an example of an economic rent that is created through government intervention rather than through natural limitations. Another example is the introduction of patent and licensing laws that can induce firms to charge higher prices than what would have been possible otherwise. Given that patents and licenses are granted for a limited period, these returns are quasi rents that can be obtained in the short and medium run, but they will disappear in the long run.

Should an economic rent be regarded as an equilibrium or a disequilibrium phenomenon? An economic rent may exist in equilibrium based on government regulations or natural limitations, but it can also exist because of an entrepreneurial discovery or activity. This rent can be referred to as an entrepreneurial rent that initially pushes the economy away from equilibrium. It may end up in an equilibrium rent or fade away in the long run (see further discussion below). A summary of the different types of rent is presented in *Table 1*.<sup>8</sup>

The definition of equilibrium varies between theories and models. In neoclassical microeconomic theory, equilibrium typically refers to a situation where supply, demand, prices and factors of production have adjusted to a situation where only “normal profits” exist (the profit after remuneration to all factors of production including capital is zero). If there

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<sup>8</sup> See, for instance, Lewin and Phelan (2002, p. 221–245), Alvarez (2005, p. 133–135) or Rumelt (2005) for a further discussion of entrepreneurial rents and economic rents in general.

exists some form of monopoly power, profits above the normal level may persist in equilibrium. The concept of equilibrium may be easier to understand in terms of willingness to change. If no agent want to change its behavior—given the behavior of everybody else—the economy is in equilibrium. It can also be understood using the concept of expectation.<sup>9</sup> When everyone acts upon its own expectations and these expectations are correct, there is no reason to change behaviors (Lewin and Phelan 2002, p. 233–234).

*Table 1* Rents in equilibrium and entrepreneurial rents.

	Ordinary equilibrium rent	Entrepreneurial rent
Economic rent (Ricardian)	Arises as a result of resources (or factors of production) in absolutely fixed supply.	Arises as a result of an entrepreneurial activity that requires a resource whose supply is fixed (unique competence, organizational advantage that cannot be imitated, copyright, locational advantage, etc.).
Quasi rent (Marshallian)	Arises as a result of resources (or factors of production) in fixed supply in the short or medium run.	Arises as a result of an entrepreneurial activity that requires a resource whose supply is fixed or highly constrained for some significant period of time (organizational superiority, patent protection of limited duration, creation of a strong brand name, etc.).

*Note:* Entrepreneurial rents are disequilibrium rents that may end up as an equilibrium rent or fade away in the long run.

*Source:* Lewin and Phelan (2002).

A rent that exists in equilibrium does not disappear even if everyone has the same correct information or expectations. All agents know and expect that an owner of a hotel on a unique beach will earn an economic rent. As there is a fixed stock of attractive beaches by nature, no other agent will try to extract part of the profit; even if it exceeds the “normal” level—the market is in equilibrium. No one wants to change behavior despite the positive rent.

If an entrepreneur introduces something new in the economy that no one else realized (or no one else thought was feasible in practice), a rent may arise. This entrepreneurial rent arises as people have different expectations, and some expectations turn out to be wrong. As long as

<sup>9</sup> Expectations can refer to prices, costs, demand, expectation about profit opportunities, the behavior of other agents, how the behavior of others influences your earnings, etc.

this entrepreneurial rent exists, others may try to extract (part of) the rent when they revise their expectations and their actions. If an entrepreneurial rent is to persist in equilibrium, some form of monopoly power is required.<sup>10</sup> In other cases equilibrium will not be reached until the entrepreneurial rent is entirely eliminated. Hence, an entrepreneurial rent not backed by a patent or some natural limitation may be regarded as a disequilibrium rent in contrast to “ordinary” monopoly rents that persist in equilibrium.

### **3.2 Why Do Entrepreneurial Rents Arise?**

An entrepreneurial rent arises as a result of entrepreneurial insight and the entrepreneurial skill to implement the idea in practice. To start an ordinary taxi service in an already crowded market without contributing anything innovative does not generate any entrepreneurial rent, while a successful innovation-intensive startup will generate an entrepreneurial rent.

Entrepreneurial rents may also arise even if every actor knows the potential value of an innovation in advance, as the entrepreneur may have a unique ability to combine other factors of production to ensure that all or part of the innovation’s potential value is actually realized.<sup>11</sup> Knowing that a commercializable innovation can generate an entrepreneurial rent is insufficient; being able to implement that commercialization is also necessary.

The quantity constraints that form the basis for entrepreneurial rents primarily originate in the limited entrepreneurial ability and effort that the economy supplies. Because the supply of entrepreneurs with capital is limited and entrepreneurs constitute a heterogeneous group, entrepreneurial rents do not have to be temporary.

Conceptually, the entrepreneur’s short-run compensation can be considered a “monopoly” on superior knowledge about an entrepreneurial opportunity and how to realize that opportunity, which contributes to the firm’s superior performance. However, stressing the differences between monopoly rents and entrepreneurial rents is important. Despite their similarities, these are two distinct phenomena. A monopolist can take advantage of a unique position to acquire resources at the expense of others (consumers in particular) and to prevent innovations by potential rivals. An entrepreneur contributes his or her unique competence to

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<sup>10</sup> For example, if an entrepreneurial rent is backed up by a strong patent.

<sup>11</sup> This requires that all other agents will not immediately revise their required compensation upwards in a way that eliminates the entrepreneurial rent.

the development of the firm by creating and/or discovering and exploiting new opportunities, which ultimately benefits society.

The importance of innovation was acknowledged as far back as the 1950s when the exogenous growth models failed to explain some 80 percent of growth. However, within traditional growth theory the importance of the entrepreneur is at best rudimentarily integrated or at worst completely overlooked (Bianchi and Henrekson 2005). These theories often fail to distinguish between inventions and innovations. New knowledge and inventions must be developed into innovations in order for them to be exploited and commercialized. For an invention to become economically valuable and benefit the economy at large, someone must exploit the new knowledge by introducing new products, new intermediate goods or new production methods, or by creating new markets. Entrepreneurs play a crucial role in such development. Innovations may then lead to development and economic growth. While modern growth theories have taken important steps toward integrating technological change and some of its determinants, they still ignore or downplay the importance of entrepreneurs (Braunerhjelm et al. 2010).

#### **4. Entrepreneurial Rents in the Short and Long Run**

Entrepreneurial rents are plausibly reduced or even eliminated in the long run. The differences between various entrepreneurial activities may be significant; some entrepreneurial rents may disappear quickly, while others persist for a long time. Entrepreneurial rents that are likely to disappear relatively quickly generally come from activities that are rather easy to imitate and when the knowledge or ability—in practice or based on proprietary rights—is not linked to a specific person or organization. In this case, the relevant knowledge is easily transferable at low cost and thus may rapidly diffuse through the economy. Such entrepreneurial rents are quasi rents with relatively short lifespans. Ordinarily, imitating rivals enter the market, which increases supply and lowers price.

However, certain activities are difficult to imitate and may be based on an entrepreneur's unique traits. The critical knowledge is then tacit. Entrepreneurial services of Steve Jobs' caliber cannot be purchased at a specified market price in any market. Activities that initially seem easy to imitate may prove to be much more complex and hard to imitate, thus requiring particular entrepreneurial skills to be realized.

As mentioned above, entrepreneurs constitute a heterogeneous group. Every firm can be regarded as a unique combination of employees and entrepreneurs with different innate abilities, learned skills and experiences. This combination may give rise to a distinctive entrepreneurial firm, which cannot be imitated in the market at a reasonable cost and thus cannot be replicated (Ricketts 2002; Wu 1989). In this case, the entrepreneurial rent is Ricardian and persists in the long run; the entrepreneur can be seen as having a monopoly on his or her own non-replicable entrepreneurial talent.<sup>12</sup>

#### **4.1 Isolating Mechanisms and Imitation**

Rumelt (2005) identifies various forms of what he calls “isolating mechanisms,” which protect entrepreneurial rents from being taken away by imitators. Patents are an obvious example of such a mechanism. Not all innovations can be protected through patenting, but many other mechanisms exist:

- *Response lags in competitors' behavior.* Competitors always take some time to observe, evaluate and implement countermeasures.
- *Tacit knowledge.* The information required to successfully imitate an innovation is often more difficult to access and absorb than one might think because of a significant element of non-codifiability. This element makes imitating an innovating firm not only more difficult but also more costly.
- *Economies of scale.* Increased competition can result in the market price being pushed down below cost, which is unprofitable for imitating firms (and for the innovating firm). An incumbent firm may also deliberately and temporarily lower the price below the average cost to deter or get rid of competitors.
- *Learning costs* (for potential competitors). If imitation requires learning and experience, imitating firms with less experience will be one step behind, and it will take time before competitors are able to challenge the innovating firm.
- *Buyer switching costs for product/firm/supplier* (for the end user). If the buyer's costs associated with switching to another product or supplier are high, imitating rivals will find competing with the firm that introduced the innovation difficult, even if imitating competitors improve the product (somewhat).

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<sup>12</sup> However, the entrepreneurial rent may completely vanish in the future due to new technology (i.e., not through imitation) that entirely supplants innovations based on the previous technology.

- *Network products*. If the innovation is a network product (where the utility of the product is increasing with the number of users), it will be difficult for imitating rivals to compete with the innovating firm (if it has built a sufficiently large customer base), even if imitating competitors improve the product (somewhat).
- *Reputation*. If demand for the product is linked to the good reputation of the firm's product and if the reputation is a function of how long the product has been in the market, imitating rivals will find competing with the firm that introduced the innovation difficult.
- *Buyer evaluation costs* (for the end user). For customers, evaluating and choosing between numerous alternatives may be costly. A cost-minimizing strategy involves doing what "most people" do and selecting the market-leading product. This strategy means that new competitors find gaining market shares difficult, even if imitating competitors manage to offer a slightly better product.
- *Advertising and channel crowding*. Promoting oneself and creating a good image for one's product may be cheaper when operating alone and being the first one in the market, while doing so becomes increasingly difficult and expensive when many competitors are fighting for attention.

The above points imply that imitating competitors may find achieving success difficult if they simply imitate the entrepreneur or merely improve the product slightly. To succeed and extract an entrepreneurial rent, imitating competitors must generally improve the product substantially. Hence, competition and imitation lead to continual improvements, and imitating competitors must be, to some extent, entrepreneurial to succeed. Entrepreneurial breakthroughs create an incentive for new entrepreneurial improvements. Radical innovations normally entail a possibility to earn higher entrepreneurial rents for a longer period of time than incremental improvements, which are normally more easily and more rapidly imitated and improved.

#### **4.2 Price Formation, Factor Prices and Entrepreneurial Rents over Time**

Baumol (2010) argues that price setting for entrepreneurial firms' innovative products is a kind of intertemporal price discrimination. Initially, when an innovation is commercialized and competition is weak or non-existent, demand will be inelastic, and the price (and thereby

the entrepreneurial rent) will be high. As imitating competitors enter, demand becomes more elastic, and the price (and thereby the entrepreneurial rent) will fall.

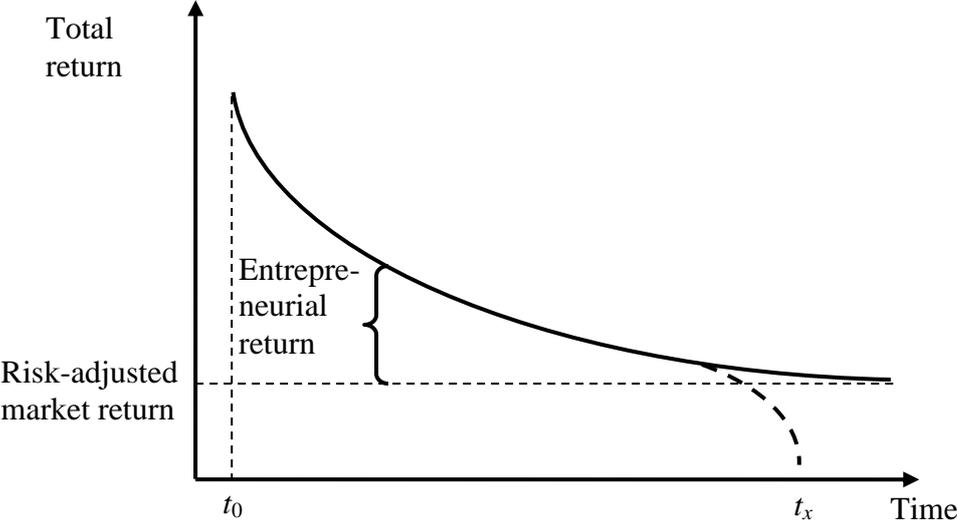
Entrepreneurial rents are not simply reduced or eliminated by increased competition from new entrants. Entrepreneurial rents can also be reduced by rising prices for raw materials, intermediate inputs and other factors of production. For instance, those who supply inputs to the firm will notice that the firm makes an “excess profit” and want to get a share of the entrepreneurial rent. Some part of the above-normal return tends to “trickle down” to the other factors of production (labor, capital, land, intermediate inputs) that the entrepreneur has combined in a more value-creating way than before. For such profit sharing to occur, a supplier or an employee must have a certain degree of market power, or imitating competitors must push up the price of inputs and wages for those who possess critical inputs or skills.

This situation can be analyzed as a hold-up problem (Malcolmson 1997), where the entrepreneur creates entrepreneurial rents by combining factors of production and making certain investments that cannot be easily undone. Realizing profit opportunities depends on, among other things, the suppliers of inputs, who do not necessarily depend on the entrepreneur to the same extent. Therefore, the suppliers can take advantage of their power position and seize a portion of the entrepreneurial rent. In other words, part of the entrepreneurial rents will, in the long run, be transformed not only into lower prices for consumers but also into higher salaries for employees as production volumes increase and/or new competitors enter the market. As a result, entrepreneurial rents in a particular firm or type of production are reduced or even eliminated.

This process is illustrated graphically in *Figure 1*. When an entrepreneurial opportunity is exploited at  $t_0$ , a return—which can be denoted an entrepreneurial return—above the risk-adjusted market rate or return accrues to the entrepreneur. Over time, the entrepreneurial return—and hence the entrepreneurial rent—will decline, and the return will approach the risk-adjusted market rate of return. Eventually, the entrepreneurial rent may be fully eliminated. One can also imagine a situation in which the return at some point in the future ( $t_x$ ) falls to zero when new innovations are introduced that make the exploited opportunity obsolete.

Part of the entrepreneurial rent will be transformed into consumer surplus as a result of lower prices and increased competition by imitating rivals.<sup>13</sup> Innovation drives economic development and raises social welfare by diffusing the value of an innovation to the population at large in the form of new and better products, more output or both.

Figure 1 Entrepreneurial rent from the exploitation of an entrepreneurial opportunity.



Note: Entrepreneurial rent (in \$) = entrepreneurial return (%) · capital (in \$), where entrepreneurial return = actual return – risk-adjusted market return.

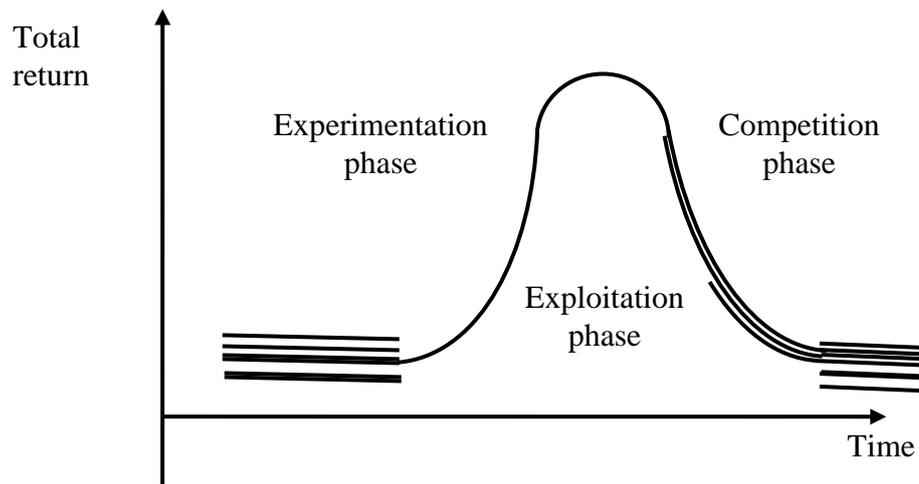
On the aggregate level, entrepreneurial rents will not vanish because new entrepreneurial opportunities are continuously discovered and created in a dynamic economy. When these opportunities are successfully exploited, new entrepreneurial rents arise. The aggregated entrepreneurial rents may occasionally be high, but this does not imply that there exist any certain and permanently high individual entrepreneurial rents (that can be extracted by the public sector with no effects on behavior).

The entire course of events can be illustrated as in *Figure 2*. Initially, the economy (or a particular industry) is in an experimentation phase, in which several firms test and modify potential entrepreneurial opportunities with varying results. Eventually, one firm has a breakthrough in the form of a successful discovery and exploitation of an innovation (or all the firms might fail). This successful exploitation will result in a return that exceeds the risk-adjusted market rate of return; the successful firm obtains an entrepreneurial rent (the exploitation phase). The increased rate of return and the innovation attract imitating rivals,

<sup>13</sup> Holcombe (2014).

and the market enters the competition phase, during which the total return is pushed back to “normal” levels and the entrepreneurial rent is eliminated. A new experimentation phase ensues to pursue new entrepreneurial rents. The duration of the exploitation phase depends on the presence and the extent of isolating mechanisms.

*Figure 2* Experimentation and competition for entrepreneurial opportunities.



*Source:* Knudsen and Swedberg (2009).

## 5. The Entrepreneurial Rent from the Individual Perspective

It is the entrepreneurs’ quest for high return in the form of entrepreneurial rents that results in the development and marketing of new products. Even an uncertain but extremely high entrepreneurial rent may serve as a strong incentive for many people to expend entrepreneurial effort. From the individual’s economic perspective, investing in uncertain entrepreneurial projects may only be warranted if the high likelihood of extensive losses is offset by a very high rate of return if successful.

Of course, potential entrepreneurs may be motivated by other factors than profit seeking. Many entrepreneurs have an intrinsic desire to produce a valued good or service and outcompete other entrepreneurs (Manish and Sutter 2016). However, the entrepreneurial rent will have a central function even in this case as it is a necessary means for an entrepreneur who wants to expand and become the market leader, but it also serves as the yardstick when comparing how successful one’s business is relative to others.

Even though the future is uncertain and non-entrepreneurs and entrepreneurs cannot precisely predict how factors, such as demand, the price of inputs and other economic variables, will evolve, describing positive entrepreneurial rents as the product of nothing but pure luck is also misleading. Making informed decisions under uncertainty requires competence and experience. The degree of uncertainty is often reduced over time, and the rents that result from an entrepreneurial project are neither definitive nor predetermined; they instead depend on continued efforts that require the input of entrepreneurial talents and skills (Alvarez 2005, p. 24–25).

One should not disregard that even a certain degree of luck and fortunate circumstances, which have not been included in an entrepreneur's calculations, may partly explain the size of the entrepreneurial rent. However, this luck factor is conditional. The potential entrepreneur must act and actually realize his or her entrepreneurship. A luck factor can only become operative if projects are actually carried out, and entrepreneurship is uncertain and demanding. Entrepreneurial rents are never caused by luck in the sense of profits falling into the entrepreneur's hand as "manna from heaven." Someone who does not actively look for opportunities and strives to realize these opportunities in the form of an activity within the framework of a firm will have zero probability of becoming a member of a group of people who turn out to be exceptionally "lucky" *ex post*.<sup>14</sup>

## **6. The Social Function of the Entrepreneurial Rent**

In mainstream economic theory, an economic rent is what a factor owner is paid minus what s/he would have demanded for supplying the factor in question. This does not imply that entrepreneurial rents emanating from productive entrepreneurship are unjustified and serve no purpose. The entrepreneurial rents that persist in the long run can be considered compensation for the unique and non-replicable competence that is needed and that these entrepreneurs contribute.

At first sight, it may be tempting to view entrepreneurial rents that will vanish in long-run equilibrium as a waste that serves no purpose. When a product is mature and the production technology is well known and widely diffused, the same economic activity will occur without

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<sup>14</sup> Luck may, of course, also cause the compensation of ordinary capital owners or workers to be higher than otherwise. On the other hand, the element of luck—but above all the possibility of bad luck—is of greater importance for entrepreneurs. This implies that the possibility of a very high compensation if successful is of crucial importance for the willingness to exercise entrepreneurship.

requiring any entrepreneurial rent. For example, a new product may initially have a high price, which then falls over time; eventually, the product may not provide more than compensation at the going market rate for the labor, capital and other inputs required for its production. Initially, the product is allegedly sold at an “excess price,” which accrues to the entrepreneur as a rent.

This reasoning is flawed; the entrepreneurial rent emanating from productive entrepreneurship in a “fair” institutional setting cannot be regarded as unnecessary or undeserved. Most entrepreneurial rents will disappear over time. The traditional analysis overlooks that the individual entrepreneur’s quest for entrepreneurial rents leads to a product’s development and marketing in the first place. Entrepreneurial rents or the expectation of entrepreneurial rents are necessary to induce people to devote themselves to entrepreneurship; entrepreneurial rents provide the necessary incentives for innovative activities. The temporary entrepreneurial rents compensate the entrepreneur for her exploitation costs, which are costs that imitators do not have to incur. Considering all the losses associated with failed entrepreneurial ventures, the average return on innovative activities is modest, perhaps even negative. Blocking the “upside” of successful entrepreneurship, for example, by means of highly progressive taxation of entrepreneurial income, reduces the extent of productive entrepreneurial activity.

Competition will have an ambiguous effect on the willingness to innovate through its effect on the entrepreneurial rent. Firms that are close to the technology frontier and already earn entrepreneurial rents will innovate more if the competition is intense in order to “escape” competition and be able to continue to earn entrepreneurial rents (the *escape competition* effect). On the other hand, potential new firms or firms that are far from the technological frontier only earning “normal” profit will be discouraged by more intense competition as the potential entrepreneurial rent will be lower the more intense the competition is (the *discouragement* effect).<sup>15</sup> The total effect on the economy depends on the size of these two countervailing effects. Studies have shown that the effect of competition on innovations has an inverted-U shape. At low levels of competition the escape competition effect dominates the discouragement effect, whereas the reverse is true at high levels of competition (Aghion et al. 2005, 2009). How the entrepreneurial rents evolve in size and over time will depend on the strength of these two countervailing effects.

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<sup>15</sup> The concepts of *escape competition* and *discouragement* effects come from Aghion et al. (2005).

A tradeoff exists between the need for a sufficiently long exploitation phase to generate an entrepreneurial rent and a quick start of the diffusion phase, which corresponds to the competition phase in *Figure 2*. Without an exploitation phase, no innovative activities will occur. Without the diffusion phase, society cannot benefit from the full potential of an innovation.<sup>16</sup> Disseminating and benefitting from new knowledge is crucial for economic growth and prosperity, but the more rapid diffusion of new knowledge results in a shorter exploitation phase, which weakens the incentives to innovate. The more radical an innovation is, the longer the exploitation phase will be.

This tradeoff is most apparent with regard to patent law. Patents are a way of stimulating innovation by legally stipulating a predetermined duration for the exploitation phase, while the patent's extent and duration determine the scope and speed of the diffusion phase. Patents legally define—and probably prolong—the period during which a firm can successfully escape competition and earn an entrepreneurial rent and hence stimulate innovations (Aghion et al. 2013). However, patents do not necessarily put an end to diffusion. Through licensing and royalty contracts, knowledge diffusion can take place during the term of the patent. When properly designed, patent law does not slow down the creation, exploitation and diffusion of new valuable knowledge—it just guarantees the innovator–entrepreneur a fair compensation if successful.<sup>17</sup>

Entrepreneurial rents also function as a signal and indicator to decision makers in other parts of the economy, sending the message that reallocating resources and putting them to more efficient use elsewhere would be profitable. As resources are reallocated to the activities where entrepreneurial rents are large, these rents will fall. When no further reallocation is necessary, the entrepreneurial rent has been eliminated, and it no longer serves as a signal. Although entrepreneurial rents may not exist in long-run equilibrium, they fill a crucial role in the economic system. Only analyzing and comparing static long-run equilibria is misleading because the entrepreneurial function then appears unnecessary.

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<sup>16</sup> Cf. Holcombe's (2014) discussion about the optimal rate of depletion.

<sup>17</sup> This does not imply that the existing patent system is optimally designed. Many analysts claim that filing for patents in the United States has become too easy, which arguably has led to socially harmful barriers to competition (e.g., Jaffe and Lerner 2004),

Many (heterodox) economists with interest in the entrepreneurial function, such as Hayek (1948) and Kirzner (1973), have stressed the importance of profits as a signaling device to incentivize entrepreneurs to take action and to allocate entrepreneurial talent (in combination with other resources) where they add most value. However, we find it important to distinguish what we denote entrepreneurial rent from the concept of (total) profit. Total profit includes compensation to capital and thus it does not identify and make explicit the distinct contribution made by the entrepreneur.<sup>18</sup> Moreover, it is important to distinguish entrepreneurial rents from other forms of rent. The entrepreneurial rent is conceptually a remuneration distinct from other income categories. Hopefully, this way of conceptualizing the entrepreneurial discovery process helps bridging the gap between neoclassical economics and the field of entrepreneurship.

Entrepreneurial rents may be very high because the entrepreneur does something unique and, in some cases, something exceptionally value creating and difficult to imitate. Aghion et al. (2015) show that one explanation for the exceptionally high income share among the top 1 percent income earners is a result of successful innovations.<sup>19</sup> Even if narrow measures of income distribution shows a temporary increase in inequality due to successful entrepreneurship, the possibility to innovate actually increases social mobility (Aghion et al. 2015). Therefore, if the institutional framework fosters innovation and productive entrepreneurship, an unequal income distribution explained by high earnings at the extreme top must not necessarily be counteracted. The income streams from successful innovations are necessary to incentivize entrepreneurs but are only temporary, and the social value will be diffused to the rest of the economy over time, through increased consumer surplus and/or increased compensation to the other factors of production. Baumol (2002) estimates that roughly 80 percent of an innovation's value goes to parties not directly involved in its creation and exploitation. Nordhaus (2005) calculates that entrepreneurs, on average, receive less than five percent of the increased value generated by entrepreneurial activities. The rest primarily accrues to consumers in the form of lower prices and products of higher quality.

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<sup>18</sup> To facilitate the understanding of the profit notion, traditional theory has introduced concepts such as “supernormal profit” or “pure profit”, which in reality only blurs the understanding of profit and its components. In our view, the term “entrepreneurial rent” more aptly highlights the importance, value and compensation to entrepreneurship.

<sup>19</sup> Henrekson and Sanandaji (2014) have also shown that a majority of the world's billionaires acquired their wealth by starting and developing their own firm. This is especially true in the United States.

The capital values created in firms controlled by people such as Microsoft's Bill Gates, Ikea's Ingvar Kamrad, Amazon's Jeff Bezos and the Zara founders Amancio Ortega and Rosalía Mera are not return on invested capital, nor would the same wealth have been created had they invested money in the stock market and become employees in other companies. These entrepreneurial rents instead represent a return to a completely different factor of production, namely, entrepreneurship.

## **7. Conclusions**

In this essay we have analyzed the role of the entrepreneurial function in value creation and the nature and incentive effects of the compensation received for exercising entrepreneurship. The surplus arising in a new or established successful entrepreneurial firm will be higher than the profit that corresponds to the risk-adjusted market rate of return. We refer to this profit as the entrepreneurial rent. Such rents arise as entrepreneurial firms discover or create something new and unique that no other firms have done before, and in order to realize the potential of their discovery make judgmental decisions about the combination and reallocation of factors of production.

Entrepreneurial rents have some similarities with monopoly rents that accrue to monopolists. However, there are also major differences. A monopolist takes advantage of the absence of any consumer choice to earn a monopoly rent, while an entrepreneur—by introducing something new—earns an entrepreneurial rent by increasing the consumers' opportunity set and by introducing better goods and services. Most entrepreneurial rents will disappear in the long run, but various isolating mechanisms ensure that entrepreneurial rents persist in the short or medium run. Even if chance plays some role with regard to the presence and size of entrepreneurial rents, these rents are neither certain nor predetermined.

From a social perspective, the presence of and search for entrepreneurial rents are of crucial importance for bringing about the innovation and continuous structural change required to generate economic growth. If no potential entrepreneurial rents existed, no one would be willing to assume the role of the entrepreneur and agent of change in the economy. The entrepreneur is needed for economic development, and entrepreneurial rents are a prerequisite for the emergence and implementation of entrepreneurship. If entrepreneurial rents did not exist or were subject to very high effective taxation, firms would continue producing existing goods and services, while the motivation to search for new products would be eliminated.

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