

## ENTREPRENEURSHIP THEORY AND THE CREATION OF ECONOMICS: INSIGHTS FROM CANTILLON'S ESSAI

*Chris Brown: Swinburne University, Hawthorn, Australia*

*Mark Thornton: Ludwig Von Mises Institute, Auburn, United States of America*

~

**Contact:** Chris Brown, Swinburne University, Cnr Wakefield and Williams streets, 3122  
Hawthorn, Australia, Email: [chrisbrown77@gmail.com](mailto:chrisbrown77@gmail.com)

Richard Cantillon (1755) is credited with the discovery of economic theory and was the first to fully consider the critical role of entrepreneurship in the economy. Cantillon described entrepreneurship as pervasive and endowed the entrepreneur with the most pivotal role. Using a sample of models from Cantillon's *Essai*, we provide evidence that his theory of the entrepreneur is the tool by which he constructed economic theory and that absent the entrepreneur his constructions fail. We believe that Cantillon offers a "new" theory of the entrepreneur that can strengthen entrepreneurship and economic theory by understanding the economic role of the entrepreneur.

## INTRODUCTION

Richard Cantillon (168?-173?) is considered the father of economic theory for providing the first theoretical analysis of commerce in his *Essai sur la Nature du Commerce en Général*, posthumously and anonymously published in 1755.<sup>1</sup> The *Essai* was the springboard for first-generation economists David Hume, Adam Smith and the Physiocrats. However, Cantillon and the *Essai* were soon forgotten, only to be rediscovered by economist William Stanley Jevons in the late 19<sup>th</sup> century who dubbed the book, “more emphatically than any other single work, the cradle of political economy” (Jevons, 1931, p. 342). Jevons’ assessment comes from recognition of Cantillon’s myriad theoretical contributions, ranging from basic methodology to complex macroeconomic models that include the circular-flow model and the price-specie flow mechanism.

In addition to the economic contributions of the *Essai*, Cantillon can be credited for developing an important—and in many ways wholly modern—theory of entrepreneurship. Indeed, Cantillon has received increased attention and recognition, primarily in the entrepreneurship literature, as *the* original thinker on entrepreneurship (Murphy et al., 2006). And although introduction of the term “entrepreneur” was originally attributed to Jean-Baptiste Say, it is now known that Cantillon was the “first significant writer to make frequent and obtrusive use of the term in a semblance of its modern form” (Hébert and Link, 2006, p. 589; also see Ebner, 2005; Formaini, 2001; Hamilton and Harper, 1994) and particularly as a concept for formal theoretical purposes (Hébert and Link, 2006; Long, 1983). Despite this deserved recognition, Cantillon’s theory of the entrepreneur has long been thought of as merely an isolated component of his many economic contributions rather than as the basis for his economic theory.

In this paper, we seek to understand the role that Cantillon’s theory of the entrepreneur plays in the development of his theoretical contributions to economics. We provide evidence that the role of Cantillon’s entrepreneur is not merely an isolated component of his system of economics but in fact better understood as the fundamental building block thereof. Not only is the entrepreneur critical for building his economic models, but in the absence of the entrepreneur, none of Cantillon’s theoretical constructions would work. Therefore, his theory of the entrepreneur should not be viewed simply as one ingredient among many but rather as *the foundation* for understanding economic phenomena. This point, we believe, is not currently recognized in the economics or entrepreneurship literature.

At first this might seem like a circular argument in that you cannot separate his view of entrepreneurship from his perspective on the economy. However, we show that our central finding is a matter of cause and effect, and thus it is more like a lock and key proposition. Cantillon’s entrepreneur is omnipresent in his book, and while consumption and demand are the prime drivers, it is the entrepreneur who actually moves resources and goods throughout the economy in what he called “the circulation.” The entrepreneur plays a key role in his models and theories, and absent the entrepreneur all of his theoretical constructions fail. A moment’s reflection should confirm that the circular-flow model would not flow if it were not for the entrepreneur, the quest for profits, and the aversion to risk.

The causal connection between Cantillon’s theory of entrepreneurship and his economic theories is significant on several accounts. For one thing, it significantly elevates the status of entrepreneurship theory within the broader framework of economic theory. This is especially significant given that many economists have removed the entrepreneur from their modeling because of the mathematical difficulties inherent in equilibrium frameworks (Cassis and Minoglou, 2005). When such equilibrium models are used for economic and policy analysis they will inherently contain defects that could be significant when applied in the “real world.” Birchhoff (1991, p. 109) recognized this problem and emphasized that “general equilibrium theory represents a serious threat to the future of entrepreneurship and the economies of all capitalist nations.” Our finding provides one answer for the deficiency of such models and indicates a path towards improvement. It also weighs in on more basic questions of entrepreneurship theory such as the definition of the entrepreneur.

We begin with an overview of Cantillon in the history of economic thought and his major contributions in the *Essai*. We review the main actors in Cantillon's economy and then delineate his theory of entrepreneurship, briefly comparing his characteristics of the entrepreneur with those of Schumpeter and Knight. We choose a sample of five examples from the *Essai* to illustrate how Cantillon used his theory of entrepreneurship to construct economic theory. The implications for understanding economic phenomena, conducting policy analysis, and the teaching of economics conclude the article.

### THEORY AND OVERVIEW OF CANTILLON'S *ESSAI*

Historians of economic thought have dusted off an important and long neglected year on the historical timeline—1730—that is just as crucial as 1776 (Adam Smith), 1871 (the Marginal Revolution), 1936 (Keynes), and 1947 (Samuelson). Before 1730, when Richard Cantillon is thought to have completed his *Essai sur la Nature du Commerce en Général*, there was precious little in the economics literature that could be described as economic “theory”; after 1730, there was a burgeoning output of economic writings that became increasingly more theoretical and systematic. During this ensuing progress, the Physiocratic, French Liberal, and British Classical schools developed, all having acknowledged roots in Cantillon's influential work.

Prior to Cantillon and the *Essai* economics was dominated by reflections of religious thinkers and philosophers. Noteworthy among them were the Spanish Scholastics, but nearly all of their insights were driven more by ethical considerations than by a desire to develop a coherent/integrated system of economic theory. They are better seen as having incorporated economic issues into their philosophical and religious paradigms rather than having attempted to determine the nature of economic phenomena as a whole. Also noteworthy were the Mercantilists, but they too suffered from a dearth of theory and organizing principles. The Mercantilist writings are generally thought to have been motivated by their self-interest in business and trade, and they did not produce a systematic approach for understanding and describing the nature of commerce. Anti-mercantilists also made contributions to economics, most notably in France, but they also lacked theory and a systematic approach for explaining economic phenomena. The anti-mercantilists' galvanizing force was their opposition to the mercantilist policies of the ruling elite. They were more concerned with the fairness of things, such as taxes, rather than with economic questions, such as the efficiency of tax systems.

Cantillon should be seen as having made a revolutionary break with these schools of thought. He removed the ethical and political concerns in order to focus specifically on “the economic features of human action” (Rothbard, 1995, p. 348). When the *Essai* was finally published in 1755, economics took a giant step forward and became a more scientific, systematic discipline in its own right. In addition, it helped inaugurate the Physiocratic School of economics in 1756. Cantillon was also an acknowledged influence on the French liberals, including Turgot and Condillac, as well as the Classical economists David Hume and Adam Smith. Arguably, many of those influenced by Cantillon took their economic thought in wrong directions and ended up in intellectual dead ends, but this should not diminish the fact that Cantillon placed economics on scientific foundations. Thanks to Murphy (1986) we know a great deal about why Cantillon wrote the *Essai*, but it has remained a puzzle as to how he was able to independently create so much of what economic theory would come to be.

#### Contributions of Cantillon's *Essai*

Cantillon's *Essai* represents a deep reflection on and rejection of existing economic knowledge. In Part 1 of the *Essai*, he began by discarding the mercantilist notion that money was wealth and then began to build his analysis of commerce from the ground up with an analysis of the property rights of landowners and the establishment of villages, market towns, and cities. Next, he provided an analysis of labor and wage rate differentials that concludes with the remarkable finding that the true cost or “intrinsic value” of something is its opportunity cost. He showed that there was a mutual interdependence among the economic classes and that the economy would be self-regulating because entrepreneurs would obey the command of price signals. He then provided a population theory that predates and exceeds that of Malthus and integrated it into his theory of wealth. In Part 2 he analyzed barter, market prices, money and its velocity, and changes

in the quantity of money and its relation to changes in the interest rate. Part 3 explains foreign trade, exchange rates, banking, inflation, and the business cycle.

Cantillon is credited with many contributions, including location theory, population theory, the price-specie flow mechanism, the circular-flow model, business cycle theory, methodological individualism and subjectivism, abstraction, the *ceteris paribus* assumption, closed- and open-economy models, as well as methodological innovations like the separation of positive and normative economics.

Cantillon's wide-ranging experience as an entrepreneur led him to a theory of the entrepreneur that he then used to construct economic theory. It is in his theory of entrepreneurship that Cantillon seems to have had no prior influence.

### **Cantillon's Theory of Entrepreneurship**

There are three main actors in Cantillon's economy. Property owners are the main consumers and all production in the economy (supply) is an attempt to meet their subjective wishes and desires (demand). The two remaining actors are primarily distinguished by the nature of their income, which leads to *the* major characteristic of Cantillon's entrepreneur: living on unfixed income. While wage laborers are on fixed wages, entrepreneurs must subsist with no guarantee of income. In addition to this feature, the entrepreneur is responsible for the production, circulation, and exchange of goods in the economy in an attempt to meet the demands of property owners. Thus Cantillon's theory of the entrepreneur is distinctly supply-side (Hébert and Link, 2006). In this capacity the entrepreneur acts on perceived arbitrage opportunities: "[Entrepreneurs] will buy at a low price the products of the villages and will [transport them] to the Capital to be sold there at a higher price" (Cantillon, 1931, p. 151).

For Cantillon, entrepreneurship is pervasive in the economy. The term "entrepreneur" is mentioned over 100 times in the *Essai* and is widely applied to both producers and exchangers (Hébert and Link, 2006), including their entrepreneurial activities all along the supply chain, from the production of raw materials to the retail distribution of finished products. For example, he considers as entrepreneurs producers of all kinds, including farmers, wholesalers of wool and grain, and manufacturers. Retailers, such as restaurateurs and shopkeepers, were considered entrepreneurs. Owners of mines, theaters, and buildings are entrepreneurs as well, as are merchants of myriad varieties, including artisans, bakers, butchers, and drapers. Many more "mundane" occupations that would not typically be equated with entrepreneurship today are also specified in the *Essai*: chimney sweeps, shoemakers, tailors, carpenters, painters, physicians, lawyers, supervisors, miners, and brewers. Cantillon even included beggars and robbers in the category of entrepreneurs, showing the importance of unfixed income as the fundamental and necessary characteristic of entrepreneurs.

Cantillon's theory of entrepreneurship is therefore specifically defined but broadly applicable. Anyone who invests (in the sense of acquiring and employing resources) with the purpose of selling goods in the future at an uncertain price is an entrepreneur.

### **Risk and Uncertainty**

There are two important and interrelated implications of unfixed income as the main characteristic of entrepreneurship, and both are frequently recognized and discussed by Cantillon, with multiple examples given throughout the *Essai*. First, the future, due to the dynamic nature of economic actors through time, is necessarily uncertain. The entrepreneur can produce at a certain and known cost *in the present* but, because of the elapsed time between production and exchange, the price is uncertain *in the future* and will depend on haggling between entrepreneur and consumer. More significantly, there is no certainty that an exchange will even take place, and additional uncertainty arises due to competition from other entrepreneurs as well as the changing tastes and desires of the property owners. For entrepreneurs who rely on uncertain natural conditions such as farmers, the supply of a crop also leads to an uncertain price. Using this example Cantillon showed the uncertainty in a relationship between farmer-entrepreneur and transport-entrepreneur, demonstrating the arbitrage function of the entrepreneur:

*“[Transport-entrepreneurs] obligate themselves to pay the farmer a fixed price for his products—the market price of the day—to receive an uncertain price in the city, which should nonetheless defray the cost of transport and leave them a profit. However, the daily variation in the price of products in the city, though not considerable, makes their profit uncertain.”* (Cantillon, 1931, p. 55)

The second implication that forms part of Cantillon’s theory of entrepreneurship is the related notion of risk. The entrepreneur’s income, or profit, is uncertain due to an unknown future price, which leads to two related types of entrepreneurial risk that Cantillon identified: bankruptcy and starvation. Without any guarantee of income, there is the risk of entrepreneurial loss which holds for those with capital, such as the manufacturer, and for those without capital, such as the artist or lawyer who simply invest their labor. According to Cantillon, sustained losses can lead to bankruptcy and, ultimately, starvation, as in the case of beggars. Cantillon also saw the potential for profits as a reward for risk-bearing and claimed that profit is the difference between revenue and costs *plus* risk. Cantillon wrote that:

*“The difference between the prices in the capital and the provinces must pay for the costs and risks of transport, otherwise cash will be sent to the capital to pay the balance and this will continue until the differences in prices between the capital and the provinces cover the costs and risks of transport.”* (Cantillon, 1931, p. 138)

### **Comparing Cantillon, Schumpeter, and Knight**

To illustrate the significance of Cantillon’s view of the entrepreneur it is useful to compare his entrepreneur to the more well known views of Joseph Schumpeter and Frank Knight. The more “restricted” view of Schumpeter (1934) is that the entrepreneur *only* exists while carrying out “new combinations.” In other words, once the new combination has been performed, the entrepreneur loses both the function and the title (Hébert and Link, 2006). The nature of income as fixed versus unfixed plays no distinguishing role in Schumpeter’s theory of the entrepreneur. Schumpeter restricts entrepreneurs to the “talented few” (Hébert and Link, 2006) whereas Cantillon’s entrepreneurs have no such constraints and are found throughout the economy. Similarly, for Schumpeter (1934), those who mimic the new combinations of others are only imitators and are not engaging in entrepreneurial activity (Adaman and Devine, 2002) since the combinations are no longer new. In contrast, Cantillon does not require any particular action or new combination for an individual to be an entrepreneur but only the criterion of unfixed income.

Frank Knight (1921) is properly recognized for describing in detail the difference between (measurable) risk and (immeasurable) uncertainty, but we found that Cantillon also seemed to view risk as distinct from uncertainty. Cantillon linked uncertainty to the passage of time and viewed uncertainty in the typical sense of not knowing what the price will be when the entrepreneur’s goods are sold in the future. In nearly every instance where Cantillon used the terms “uncertain” and “uncertainty”—incertain and incertitude in French—it is in reference to the entrepreneur, translated as “undertaker” in English. For example, Cantillon wrote: “Entrepreneurs bind themselves to pay the farmer a fixed price for his produce, that of the market price of the day, to get in the city an uncertain price [...]” (Cantillon, 1931, p. 24).

In some contrast, risk seems to refer to the overall prospects of the entrepreneur’s venture in terms of the threat of bankruptcy. Cantillon explained: “If there are too many hatters in a city or in a street for the number of people who buy hats there, some who are least patronised must become bankrupt” (Cantillon, 1931, p. 25). He also wrote of contingencies such as crop failure, war, and robbery as risks, and he even mentions that insurance-like fees associated with transporting money by coach or ship vary with the degree of risk. When it becomes profitable to measure risk, entrepreneurs will start businesses such as banks and stagecoaches that provide insurance for a fee. When discussing entrepreneurs—due to their common function of buying in one location and selling in a different one—Cantillon most often uses risk (*risque* or, less common, *hasard* in French) to refer to the risk of transport. It would therefore seem that Cantillon’s views were substantively similar to Knight’s in that the entrepreneur typically bears both uncertainty and risk, and that both cause the unfixed wage of the entrepreneur.

## USING ENTREPRENEURSHIP TO ESTABLISH ECONOMICS

Let us now take Cantillon's general theory of entrepreneurship and see how it might be the key that Cantillon used to unlock the door to economic theory which he then used to explain the phenomena of the real world. We proceed by describing and evaluating five examples of economic phenomena that Cantillon developed in the *Essai*. As we examine Cantillon's contributions to economics we will highlight three features. First, entrepreneurship plays a pivotal and necessary role in his theoretical constructions. Second, Cantillon illustrates his theoretical constructions with examples of entrepreneurial plans, actions, and constraints. Third, absent the entrepreneur the particular theoretical construction would fail.

### Economic Geography and the Entrepreneur

Cantillon offers four short chapters (3-6) in the *Essai* on economic geography and location theory. It is in chapter 4 in particular where Cantillon first employs the term "entrepreneur" in referring to the entrepreneur's crucial role in spatial economics. For Cantillon, there are villages, market towns, and cities in a state, all of which are interrelated and depend upon the decisions of the entrepreneur for their size, location and proximity to one another.

The size and location of a village is determined by the entrepreneurial production decisions of the property owners. These decisions determine both the types of production and the quantity of labor required. They also determine the number of farmer-entrepreneurs and the number and type of artisan-entrepreneurs that will live in the village. If the owner decides to live in the village then this will also affect the size and composition of the population of the village. Thus, in order to satisfy the demand of the property owners, villages are located in surrounding areas with their size and location determined by entrepreneurial decisions. Cantillon also highlights the role of transportation costs in economic geography:

*"To whatever cultivation land is put, whether pasture, corn, vines, etc. the farmers or laborers who carry on the work must live near at hand; otherwise the time taken in going to their fields and returning to their houses would take up too much of the day."* (Cantillon, 1931, p. 9)

The size and location of villages are therefore the result of the entrepreneurial decisions of property owners, farmers, artisans, and in this case even the common wage laborer, largely based on the goal of reducing transportation costs and maximizing productive time. If the property owner decided not to produce anything, the village would not exist.

Market towns develop in the center of a group of villages and have a marketplace that operates at least one day a week. The location of the market town is determined by the entrepreneurial decisions of artisans regarding where to locate their business. The size of the market town is a function of the aggregate size of the surrounding villages. Market towns provide a benefit by reducing overall transportation costs, facilitating exchange by reducing uncertainty and transaction costs, and by providing an auction-like environment that facilitates the setting of prices. As Cantillon explained:

*"A market town being placed in the centre of the villages whose people come to market, it is more natural and easy that the villagers should bring their products thither for sale on market days and buy the articles they need, than that the merchants and factors should transport them to the villages in exchange for their products."* (Cantillon, 1931, p. 11)

Thus market towns develop as a result of entrepreneurial activity. The entrepreneur's function consists of three exchanges: (a) purchasing products from the villagers for local resale and export to the cities; (b) purchasing products in the city in order to sell them to the villagers; and (c) producing goods and services to be sold in the market town.

Cities are a further step in geographical agglomeration that appear when property owners find a particular location to their liking and cause a larger and more diverse group of entrepreneurs to collect at that location. Cantillon observed that bakers, butchers, and brewers are entrepreneurs who will locate in cities

in order to serve the noblemen and exchange with other entrepreneurs. The size of a city is a function of the number of property owners who choose to live there as well as the size of surrounding market towns and villages.

Cantillon's contributions to economic geography, location theory, and transportation economics are all related to the decisions of the entrepreneur on where to profitably locate. While the property owner is responsible for the initial production decisions in Cantillon's economic framework, it is the entrepreneurs who determine how to carry out such decision and where villages and market towns will be located. Indeed, when enough entrepreneurs settle down and locate in a village to serve the villagers, Cantillon says it *becomes* a market town. Most importantly, the driving force of the size and location of villages, towns and cities is the transport and transaction cost decisions of entrepreneurs. Absent the entrepreneur there would be no factor in the model to make the necessary decisions that determine the size and location of settlements. It should be clear that entrepreneurs are the fundamental ingredient in urban economic development and that their absence would make the provisioning of large concentrated population centers difficult, if not impossible, to imagine.<sup>2</sup>

### **Labor Markets and the Entrepreneur**

In chapters 7-9 of Part One of the *Essai* we can see how the entrepreneur and entrepreneurship also play the role of prime movers in labor markets. Cantillon states that skilled labor is better paid than unskilled labor because there is an opportunity cost of time in learning the skill. Within the skilled labor category, incomes will differ based on quality, cost of training, the risks and dangers of a profession, and the amount of trust that must be placed into the worker's hands. For Cantillon, risks go hand-in-hand with rewards. Therefore the amount and type of training to obtain a certain skill in the present must be offset by enhanced, although uncertain, wages in the future. Artisan-entrepreneurs, for example, are at risk that future market wage rates for their profession might be lower once the artisans are trained and ready to trade. Thus, the number of artisans in a particular line of work must be proportioned to the demand so that if too many exist in a particular location, income will fall and some of them must either leave to find work elsewhere or find another line of work. Cantillon explained:

*"It often happens that laborers and handicraftsmen have not enough employment when there are too many of them to share the business. It happens also that they are deprived of work by accidents and by variations in demand, or that they are overburdened with work according to circumstances. Be that as it may, when they have no work they quit the villages, towns or cities where they live in such numbers that those who remain are always proportioned to the employment which suffices to maintain them."* (Cantillon, 1931, p. 25)

For Cantillon, then, employment and wages are the result of the interplay of decision-making by various entrepreneurs.

Cantillon illustrates his theory of labor and wages with the example of a father's decision to have his son trained in a profession. Here the father has to evaluate the present costs of training versus the projected future income earned in the profession, which is uncertain. He remarks later that if the king had many people trained in high paying jobs, it would be useless if there were no demand for them, and that if there were demand it would be supplied by entrepreneurs. The entrepreneur obviously plays many essential roles in labor markets and it would be difficult to imagine a labor market functioning in the absence of Cantillon's entrepreneurs.

Entrepreneurship, which takes account of costs and benefits, produces balance and harmony in labor markets and makes adjustments to changing conditions over time. At a time when the economy was transitioning from a relatively inert feudal order to the more dynamic economy of emerging capitalism, Cantillon's explication of labor markets driven by entrepreneurship was a breakthrough.

### “Intrinsic” Value

In Chapter 10 Cantillon makes a useful distinction between the “intrinsic value” of a product and its market price. For Cantillon, the intrinsic value of any good or service is the amount of land and labor required to produce it and is equivalent to the modern concept of opportunity cost (Thornton, 2007). The intrinsic value of a product never changes, but the market price changes according to “the humors and fancies of men” (Cantillon, 1931, p. 29) and is uncertain since it will occur (or possibly not occur) in the future. This view is similar to Adam Smith’s distinction between value in use and value in exchange, except for the crucial difference that Cantillon’s distinction is specifically related to entrepreneurship and the determination of profit and loss, whereas Smith’s is not.

Cantillon uses several examples of entrepreneurs to illustrate the concept of intrinsic value. For instance, Cantillon discusses a farmer as an entrepreneur who invests in land and labor to produce crops. Farmers could profit or lose based on the crops planted, growing conditions, and changing market prices.

Cantillon also wrote about a homeowner who could profit or lose from the improvements upon selling his property:

*“If a gentleman cuts canals and erects terraces in his garden, their intrinsic value will be proportionable to the land and labor; but the price in reality will not always follow this proportion. If he offers to sell the garden possibly no one will give him half the expense he has incurred. It is also possible that if several persons desire it he may be given double the intrinsic value, that is twice the value of the land and the expense he has incurred.”* (Cantillon, 1931, p. 29)

Cantillon’s concept of intrinsic value fits hand-in-glove with his concept of entrepreneurship. Intrinsic value is not simply a certain quantity of land and labor but also accounts for quality and is therefore the true opportunity cost of making a good. The difference between intrinsic value and market price yields economic profit or loss. The distinction between intrinsic value and market price is so intimately related to his theory of entrepreneurship that it rules out the absence of entrepreneurship.

### The Circular-flow Model

The final chapters of Part One of the *Essai* examine how everyone in a given state is “dependent” upon the property owner. The real point of the chapter is that working people do not just serve the property owners but also each other, and that there is a mutual interdependence between the property class and laborers. In Chapter 3 of Part 2, Cantillon developed his circular-flow model of the economy to explain distribution. Here the entrepreneur is what gives impetus to the flow of goods where “each branch of the circulation in the cities is carried out by entrepreneurs” (Cantillon, 1931, p. 129).

Cantillon describes how the tastes of the property owners drive the market as a prime mover on the demand side of the economy. He then derives a circular-flow model of the economy involving goods, incomes, and expenditures to illustrate the mutual interdependence of the different economic classes. He begins with his model of the isolated estate, initially directed by the estate owner who has nothing until he hires labor, and whose return increases with the amount of labor that can be profitably employed. In short, the estate owner is only advantaged if he supports people who will carry out his “demands.”

As part of the labor force employed by the estate owner, Cantillon points out the role of supervisors of farm and artisan labor. The supervisors of labor *act like* entrepreneurs in satisfying the demands of the estate owners (see Foss et al., 2007 for further development of the Cantillonian idea of “proxy” entrepreneurship). Cantillon then changes the model so that everyone *actually becomes* an entrepreneur in their profession. Here nearly everyone but the property owner and wage laborer is an entrepreneur: wholesalers of wool and grain, bakers, butchers, transporters, manufacturers, and merchants of all kinds. As entrepreneurs, they are “working at risk, [and] some get rich and gain more than double their subsistence, [while] others are ruined and become bankrupt” (Cantillon, 1931, p. 41).



Cantillon used the farmer as an example of the role of an entrepreneur: “The farmer is an entrepreneur who promises to pay the property owner, for his farm or land, a fixed sum of money [...] without assurance of the profit he will derive from this enterprise” (Cantillon, 1931, pp. 48-49). The farmer-entrepreneur hires and supervises labor and also buys goods from other entrepreneurs.

Cantillon described the entrepreneur as someone who uses “judgment, without being able to foresee which [product] will pay the best price” (Cantillon, 1931, p. 55), depending on factors of supply and demand. Cantillon also specified that the entrepreneur can be seen as the owner of an enterprise operating under uncertainty. Entrepreneurs are those who “adjust themselves to risks in a state” (Cantillon, 1931, p. 53), namely bankruptcy and starvation.

Next, Cantillon induced a change in demand by the estate owner and explained how entrepreneurs working with the incentives provided by the profit and loss framework restore the model to equilibrium. With his model of the isolated estate he was able to show the circular flow of goods, incomes, and expenditures between property owners, farmers, farm labor, and entrepreneurs of all sorts. Indeed, Cantillon wrote that “all the exchange and circulation of the state is conducted by the actions of these entrepreneurs” (Cantillon, 1931, p. 57).

Interestingly, this is where Adam Smith found the model for his “invisible hand” (Thornton, 2009). Ironically, the model is driven by entrepreneurship, though Smith himself downplayed the role of the entrepreneur within his system. Cantillon’s circular flow nature of the economy is dependent on entrepreneurs to carry and adjust the flow to restore a temporary equilibrium. With the model of the isolated estate, Cantillon is able to show that in the absence of entrepreneurs society must revert back to feudalism.

### **The Price-specie Flow Mechanism**

Part Two of the *Essai* opens with a discussion of barter, money and market prices. For Cantillon, prices are based on supply and demand but are actually determined by the haggling of buyers and sellers. In the example he provided, price is set between two groups of entrepreneurs. Entrepreneurs also establish a system regarding the flow and timing of payments where, for example, farmers receive large payments from wholesalers and make large rent payments to property owners. Entrepreneurs make payments to wholesalers for their products after having collected numerous small payments from their customers. Cantillon even used the system set up by entrepreneurs to theoretically calculate the quantity of money.

Unlike the mercantilists who viewed money as wealth, Cantillon showed that an increase in the quantity of money had both seemingly beneficial effects as well as dangerous negative effects. By basing his analysis on entrepreneurs he was able to show that an increase in the supply of money could alter *relative* prices depending on how and where the money was injected into the economy rather than simply causing an overall increase in prices. Whoever received the new money would spend it, and what they spent it on would increase in price. As the price increased, domestic entrepreneurs would then begin changing the structure of production in the economy to address the new pattern of demand. These structural changes created by entrepreneurs are now called “Cantillon effects.”

Furthermore, by explaining how money penetrated into the economy through entrepreneurs Cantillon was able to construct the price-specie flow mechanism. If money is relatively abundant, prices of domestic goods increase and people tend to buy more imports. Gold is then exported to pay for the increase in imports. The exportation of gold would cause domestic prices to fall and thereby bring the domestic money supply into equilibrium with the foreign money supply. Entrepreneurs adjust and coordinate their plans and actions to relative changes in the money supply. Therefore the price-specie flow mechanism—which modern economists can treat as a machine and translate into equations—is actually dependent on widespread but unorganized entrepreneurial activity. Without entrepreneurs the mechanism and equations fail to function.

## IMPLICATIONS FOR THEORY AND PRACTICE

We have found that insights derived from examples in the *Essai* have important implications for modern economics. Despite Cantillon's treatise and the crucial role that his conception of entrepreneurship played in the formation of economics, the entrepreneur was later removed from the stage of economic theory beginning with Leon Walras in 1870. Modern economics has continued this unfortunate trend, and the entrepreneur is now largely missing from its models and textbooks (Kent and Rushing, 1999) and economics has arguably become a more sterile discipline. Neoclassical economic theory, despite some attempts (e.g., Baumol, 1993; Kihlstrom and Laffont, 1979; Lazear, 2005), rarely even mentions the entrepreneur. We believe that economics can benefit from Cantillon's theory of entrepreneurship by viewing the actions of entrepreneurs as critical to an economy.

While economics researchers may not seem concerned with the lack of the entrepreneur in their models, most entrepreneurship scholars recognize that the entrepreneur is not compatible in any meaningful way with equilibrium models (e.g., Eckhardt and Shane, 2003). Kirzner (1973) has argued that such models simply reduce entrepreneurs to automata and entrepreneurial miscalculation to errors in arithmetic. In contrast to the dynamic entrepreneur of Cantillon, static equilibrium models of neoclassical economics do away with time aspects of the economy which then removes the risk and uncertainty inherent in entrepreneurship. Birchhoff (1991, p. 109) recognized this issue and concluded: "The intra-economics conflict between general equilibrium theory and entrepreneurship will eventually evolve to a crisis point." We feel this point has been reached and remains unresolved but that the pervasive entrepreneur in Cantillon's economic constructions provides evidence of how the entrepreneur can fit into economic theory.

In addition to entrepreneurship as the driver of economic growth and progress, Holcombe (2007) shows that it also creates information, knowledge, and even economic wisdom. While Holcombe (2007) does not link entrepreneurship with the development of economic theory, he does identify a problem of entrepreneurship and its relationship to modern economic theory:

*"The problem, then, is not that no economists recognize the role of entrepreneurship, but rather that entrepreneurship remains outside the basic framework of mainstream economic analysis, and especially the mainstream economic analysis of growth."* (Holcombe, 2007, p. 5)

It is hardly the case that the concept of the entrepreneur merely became antiquated and was replaced with a better and more modern concept or technique. Holcombe (2007, p. 8) finds that the absence of entrepreneurship strikes at the *raison d'être* of economic analysis and that, "because of its assumptions, the neoclassical framework has serious deficiencies for analyzing the underlying causes of prosperity. The neoclassical model does not provide the appropriate vantage point for looking at this issue."

Thus, for economists, our finding should provoke greater caution when using models of the economy that do not account for the entrepreneur. This is especially true as one goes from pure theory to economic analysis and the construction of economic policy. Economic analysis, which is typically based on equilibrium models that exclude entrepreneurship, may have important defects if used for real world policies. Economic policy analysts would also be wise to visit Cantillon's treatise to understand economic phenomena as it actually occurs. Indeed, Professor Antoin Murphy (2010) provides a modern example of this when he uses the *Essai* to explain economic growth in China, stating that "Richard Cantillon can provide assistance in unlocking the paradox of China and its entrepreneurial class."

Cantillon's insights also provide important lessons for the teaching of basic economic concepts like supply and demand. In order to understand such economic models, students must understand the prime mover in the system—the entrepreneur—and static models of the economy do not fully depict the continuous changes and dynamic nature of the real world. Allowing for the entrepreneur (real people) and entrepreneurship (risk, uncertainly, profit and loss) to be a central focus of economics, it will be easier to give everyday examples of entrepreneurship to students who are required to take economics classes. Cantillon's robust theory of the entrepreneur helps resolve the problem of making economics lively and relevant to students and is able to explain everyday events.

We also believe that entrepreneurship scholars will benefit from this “new” perspective provided by Cantillon. For entrepreneurship scholars, a greater attention to basic economic theory should result in better research and studies of entrepreneurs. They can also benefit from the knowledge of how pervasive entrepreneurship is throughout the economy. Such a view shows the relevance and importance of understanding the widespread effects of entrepreneurship. It can inspire confidence in those doing research in entrepreneurship, and it demonstrates the need for future studies.

## CONCLUSION

We have examined a variety of examples from the *Essai* to show that Cantillon’s theory of the entrepreneur plays a key role in his construction of economic theory. His use of the entrepreneur is pervasive—anyone on unfixed income—and he illustrates his findings with examples of entrepreneurial actions and situations. Furthermore, if the entrepreneur were removed from his analysis all of his constructions would fail. We believe that this demonstrates that Cantillon’s theory of entrepreneurship is the key to understanding his many contributions to economic theory and that economics and entrepreneurship can both benefit from a review of the *Essai*. Our finding gives us greater admiration for Cantillon, his *Essai*, and its central character—the entrepreneur.

## Notes

<sup>1</sup> For a complete biography of Cantillon see Murphy (1986).

<sup>2</sup> In Cantillon you can find all three aspects of Alfred Marshall’s theory of agglomeration. Marshall (1920) put forth three theories of industrial agglomeration that include transportation costs, the labor force, and intellectual spillovers. Cantillon included all three aspects in his location theory, including the obvious emphasis he placed on transportation costs and labor force determination. In terms of intellectual spillovers, Cantillon’s discussion of how prices are set on market days is clearly a reflection of an intellectual spillover or “meeting of minds.” Cantillon’s analysis is in terms of a pre-industrial economy, as we understand it, and is entirely choice motivated. Marshall’s analysis is in terms of the modern industrial economy and is partly driven by random constraints.

## References

- Adaman, F, Devine, P, 2002, ‘A reconsideration of the theory of entrepreneurship: a participatory approach’, *Review of Political Economy*, vol. 14, no. 3, pp. 329-355.
- Baumol, WJ, 1993, ‘Formal entrepreneurship theory in economics: existence and bounds’, *Journal of Business Venturing*, vol. 8, no. 3, pp. 197-210.
- Cantillon, R 1931, *Essai sur la nature du commerce en general*, Macmillan, London.
- Cassis, Y, Minoglou, I 2005, *Entrepreneurship in theory and history*, Palgrave Macmillan, New York.
- Ebner, A, 2005, ‘Entrepreneurship and economic development, from classical political economy to economic sociology’, *Journal of Economic Studies*, vol. 32, no. 3, pp. 256-274.
- Eckhardt, JT, Shane, S A, 2003, ‘Opportunities and entrepreneurship’, *Journal of Management*, vol. 29, no. 3, pp. 333-349.
- Formaini, R, 2001, ‘The engine of capitalist process: Entrepreneurs in economic theory’, *Economic & Financial Review*, qtr. 4, pp. 2-11.
- Foss, K, Foss, NJ, Klein, PG, 2007, ‘Original and derived judgment: an entrepreneurial theory of economic organization’, *Organization Studies*, vol. 28, no. 12, pp. 1893-1912.

- Hamilton, R, Harper, D, 1994, 'The entrepreneur in theory and practice', *Journal of Economic Studies*, vol. 21, no. 6, pp. 3-18.
- Hébert, R, Link, A, 2006, 'The entrepreneur as innovator', *Journal of Technology Transfer*, vol. 31, pp. 589-597.
- Holcombe, R, 2007, *Entrepreneurship and economic progress*, Routledge, New York.
- Jevons, WS, 1931, 'Richard Cantillon and the nationality of political economy', in Cantillon, R, 1931, *Essai sur la nature du commerce en general*, Macmillan, London, pp. 133-157.
- Kent C, Rushing, F, 1999, 'Coverage of entrepreneurship in principles of economics textbooks: an update', *The Journal of Economic Education*, vol. 30, no.2, pp. 184-188.
- Kihlstrom, R, Laffront, JJ, 1979, 'A general equilibrium entrepreneurial theory of firm formation based on risk aversion', *Journal of Political Economy*, vol. 87, no. 4, pp. 719-748.
- Kirchoff, BA, 1991, 'Entrepreneurship's contribution to economics', *Entrepreneurship Theory & Practice*, Winter, pp. 93-112.
- Kirzner, IM, 1973, *Competition and entrepreneurship*, University of Chicago Press, Chicago, IL.
- Knight, FH, 1921, *Risk, uncertainty and profit*. Houghton Mifflin, Boston.
- Lazear, EP, 2005, 'Entrepreneurship', *Journal of Labor Economics*, vol. 23, no. 4, pp. 649-680.
- Long, W, 1983, 'The meaning of entrepreneurship', *American Journal of Small Business*, vol. 3, no. 2, pp. 47-56.
- Marshall, A, 1920, *Industry and trade: a study of industrial technique and business organization; and of their influences on the conditions of various classes and nations*, third ed. Macmillan and Company, London.
- Murphy A, 2010, 'Theories of 18th-century Irishman key in today's China', *Irish Times*, 10 January.
- Murphy, A, 1986, *Richard Cantillon: entrepreneur and economist*, Oxford University Press, New York.
- Murphy, PJ, Liao, J, Welsch, HP, 2006, 'A conceptual history of entrepreneurial thought', *Journal of Management History*, vol. 12, no. 1, pp. 12-35.
- Rothbard, M, 1995, *Economic thought before Adam Smith*, Ludwig von Mises Institute, Auburn, AL.
- Schumpeter, JA, 1934, *The theory of economic development*, Harvard University Press, Cambridge, MA.
- Thornton, M, 2009, 'Cantillon and the invisible hand', *Quarterly Journal of Austrian Economics*, vol. 12, no. 2, pp. 27-46.
- Thornton, M, 2007, 'Was Richard Cantillon a mercantilist?', *Journal of the History of Economic Thought*, vol. 29, no. 4, pp. 417-435.
- Thornton, M, 2007, 'Cantillon, Hume and the rise of anti-mercantilism', *History of Political Economy*, vol. 39, no. 3, pp. 453-480.
- Thornton, M, 2007, 'Richard Cantillon and the discovery of opportunity cost', *History of Political Economy*, vol. 39, no. 1, pp. 97-120.

Thornton, M, 2006, 'Cantillon on the cause of the business cycle', *Quarterly Journal of Austrian Economics*, vol. 9, no. 3, pp. 45-60.

Thornton, M, 1998, 'Richard Cantillon and the origins of economic theory', *Journal des Economistes et des Etudes Humaines*, vol. 8, no. 1, pp. 61-74.

Walras, L, 1870, *Elements of Pure Economics*, Harvard University Press, Cambridge.