

Cantillon's *Essai*: A Current Perspective*

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Professor Spengler's, "Richard Cantillon: First of the Moderns," published in 1954, remains the classic survey article of Cantillon's contributions to economic thought.¹ These contributions consist of views on population and related matters, theory of value, monetary theory, and international trade and finance. Many of his ideas became a part of the economic thought of the closing years of the eighteenth century, and, as Professor Spengler points out, unfortunately, Cantillon's name had been stripped from most if not all of his ideas. Professor Spengler, then, has done both Cantillon and the economics profession a service by restoring to Cantillon his rightful place in the history of economic thought.

My purpose is to reexamine certain aspects of Cantillon's ideas from a current prospective, both from the point of view of theory as well as current economic problems. Hence my approach will be selective rather than exhaustive. I hope to demonstrate the lasting qualities of Cantillon's contributions contained in the *Essai*.^{2*}

Cantillon on Population

Professor Spengler has provided a comprehensive discussion of Cantillon's views of population, which he groups under five headings: "(1) the mechanism by which numbers are adjusted in time and space (2) the demand for labor and population (3) foreign trade, population capacity, and population growth (4) the genesis of living standards and (5) the distribution of population in space." (110) In the case of population, I shall make explicit what is implicit both in Cantillon and Spengler's excellent discussion.

To begin, what Cantillon seems to be suggesting in his numerous examples is that three factors determine population size: natural resources, technology, and cultural factors. (69, 83, 75, 67) Although he uses the term "land" to designate what we today call natural resources, it is clear that the meaning of the term "land"

*All references, denoted by figures in parentheses, are to page numbers in Richard Cantillon, *Essai Sur la Nature Du Commerce en General*, ed. and trans. by Henry Higgs (London: MacMillan & Co., 1931).

as used by Cantillon was quite modern. (3) However, he was primarily interested in the analysis of an eighteenth century agrarian economy, and therefore his examples were mostly those of agricultural land, particularly with differential fertility. Cantillon also recognized that technology would influence population size, and his best example is in the recognition that the colonization of America would not be a simple displacement of people by people but the introduction of a new agricultural technology which would support a larger population per unit of land. (83) Hence technology influences the extent to which existing resources can be utilized.

Cultural factors affect population size in two ways. Religious and other cultural norms may influence the extent of family size, although Cantillon recognizes the propensity to multiply like mice, given resources and technology. (83) The latter qualification is important because it explains how population adjusts to the three factors (resources, technology, and cultural values). For example, in an absolute sense it could not be argued that pre-colonial America was "overpopulated" by Indians, even though there were no apparent cultural constraints on population. The Indian population had simply adjusted to its resources base and technology (essentially hunting and gathering society) as had the *apparently* "overpopulated" Chinese in the Southern provinces of China. In other words, what Cantillon was offering in his examples was a theory of optimum population size.

A second way that cultural factors may affect population size is through product demand, which, in turn, reflects tastes, fads, etc. In this case, it is the tastes of the proprietary class which determine the demand for agricultural products. (75) A change in the demand for products which are more land intensive would tend to reduce the demand for labor, and ultimately cause a reduction in the supply of agricultural labor and population. Indeed Cantillon describes a rational population policy based on variations in product demands having different labor-land intensities.³

Finally, Cantillon pointed out that a country with a poor resource base could increase its population through international trade. (85) He recognized that international trade was equivalent to a transfer of resources (land) from a well-endowed to a poorly endowed nation. However, it is the difference in technology (and culture) between the two trading nations which makes trade possible. (237)

With respect to population theory, Cantillon was more "modern" than such writers as Smith, Ricardo and Malthus. His framework was general enough to account for a variety of circumstances. For example, today we witness a tendency of industrialized nations moving towards a zero rate of population growth because of smaller family size due essentially to cultural change. At the same time, we observe population "explosions" in less-developed countries as these countries adjust to the transfer of technology from industrialized nations. In both cases, however, global resources are being consumed at ever increasing rates, and if technology is unable to provide new utilizable resources as others are depleted, then resource constraints will become real and, if Cantillon is any guide, global population growth

may end or indeed depopulation may take place, as was the case for civilizations of the past.⁴

Value Theory and the Problem of Uncertainty

Cantillon's theory of value is less "speculative" than his theory of population in that the former also reflects his experiences as a merchant. On the one hand, there is Cantillon the "theorist" distinguishing between the traditional exchange value and intrinsic value concepts of his predecessors, and whose contribution was to make those distinctions more explicit. On the other hand, there is Cantillon the speculator-merchant stressing the uncertain nature of entrepreneurial activity, who goes so far as to divide the inhabitants of the state into two classes: entrepreneurs with unfixed wages and "hired people" with fixed wages. The uncertainty aspect of entrepreneurial behavior is all pervasive, whether in the agricultural sector where the farmer bears the risk of fixed costs of production and uncertain prices of output, or for the undertaker or merchant whose activities in distribution and manufacturing cause him to be subjected to similar risks. (50-56)

This uncertain environment in which farmers and undertakers operate result in profits or losses and therefore fluctuations in activity and employment. Professor Spengler argues that "Cantillon did not, however, develop anything like an uncertainty theory of profit. Instead, he thought of profit as a composite gross return and as a supply price that reflected the scale of living characteristic of the relevant entrepreneurial group." (121) If Professor Spengler has in mind a risk theory of profit such as Adam Smith's where part of the undertaker's profits were for risk bearing and the other for interest return on capital, then he is certainly correct.

My impression is that at the level of the *individual* farmer or undertaker, profit or losses were of a purely random character, while for the members of any particular *group* characterized by a diversity of individual expectations a certain degree of stability of profits existed. This distinction between the individually heterogeneous actors' expectations as opposed to the aggregate stability (i.e. less unstable than the individual element) of enterprise is an important insight which has been completely overlooked by later writers, as an important contribution. Instead, a rational theory of profit following Smith became characteristic, with the emphasis on risk and interest return. Eventually this led to a dead-end in the case of Walras (as it did earlier with Quesnay) where the entrepreneur's role is said to be central to production, but he disappears because he is deprived of an environment characterized by uncertainty.⁵ It was only later with Frank Knight, Keynes, and today with modern Austrian theory that the flavor of Cantillon's world of uncertainty is recaptured.

The above is not meant to convey the impression that Cantillon was a precursor of Frank Knight, Keynes, or the modern Austrians, for he did not present a cohesive theory of uncertainty. Instead, he opened the door for a theory of uncertainty, and no one entered, at least not for over one and one-half centuries, and then without any discernible influence on his part. All that can be said for Cantillon in this case

was that he was a pioneer. He was not a pioneer in another sense; he did not link entrepreneurial characteristics to personality types, as did Pareto later in his sociology.⁶

What is perhaps most remarkable is that the problem of uncertainty was essentially ignored in economics for almost two centuries, and when it was finally broached, the approach was largely of a descriptive nature. In recent years, the approaches to uncertainty have been largely of a statistical character, which reduces the problem to subjective probabilities. Although such an approach provides insights from a statistical viewpoint, it is doubtful that entrepreneurial behavior can be captured by such highly simplified models of behavior.⁷

Monetary Theory

Cantillon's contributions to monetary theory are essentially his discussion relating to the determinants of velocity of circulation, which is exhaustive by current standards and his analysis of the differential effects on price levels of injections of money from different sources. Both of these contributions are well-known largely due to Professor Spengler, and there is little to add to here. Instead, I shall examine a neglected aspect of Cantillon's theory of money—its relationship to his theory of value.

From a current perspective, it appears that Cantillon's distinction between exchange and intrinsic value is as dated as it was for Walras and his contemporaries. For Cantillon intrinsic value signifies the amount of land and labor which enter production. ". . . Gold, silver, iron, etc. serve several purposes and have a value proportional to the Land and Labor which enters into their Production." (107) What is important is that a commodity money, such as gold or silver, will possess an intrinsic value reflecting the amount of land and labor used in its production (97-107), given different qualities of ores. In other words, the intrinsic values of all commodities have a definite basis for measurement in terms of factor inputs necessary to produce one unit of output. In the absence of qualitative changes in the factor inputs the relative intrinsic values do not change. The market value of money (like all other commodities) will sometimes be above or below its intrinsic value depending on conditions of supply and demand.

It follows that when market values differ from intrinsic values, allocative effects take place until the equality is restored (largely due to the activities of entrepreneurs who see profit possibilities since market prices are above production costs). Commodity money, being a commodity, is subject to the same theory of value as other commodities. What emerges is a type of self-regulating monetary view where monetary disequilibrium is a transitory condition.

It would appear that Cantillon's attempt to make commodity money a special case of his value theory is somewhat strained since the supply of precious metals from mines does not adjust quickly to changes in the market price of such metals. In cases where market price is above intrinsic value, monetary disequilibrium could

persist for a long time. Also, since gold and silver production is a small part of the total available supply of precious metals (indeed the storage quality of these two precious metals accounts for their attractiveness as a store of value) then a situation in which market price is below intrinsic value could persist for a long time even if the mines ceased production.

However, one must distinguish, as Cantillon does (261-263), between nominal price of gold in terms of some unit of exchange (in this case gold coins), market price of bullion and intrinsic value of gold. Suppose that initially all three prices are equal, and the market price of bullion falls below the nominal price and intrinsic value. Suppose further that because market price of bullion is below its intrinsic value, gold production ceases. The lower bullion market price will cause gold to be sold at the mint where it will be exchanged for gold coin (which has a higher nominal value). The reduction in the supply of gold bullion will cause its market price to rise until it reaches parity or the nominal price. The equality of market price of bullion and intrinsic value is also reestablished. However, the increase in the quantity of gold *coin* in circulation causes the price level to rise, so the monetary equilibrium is reestablished at a higher price level.

In the above example, there need not be any change in the *velocity* of money (in this case gold coins) to bring about monetary equilibrium. However, if the money supply is defined as consisting of gold coins *and* bullion the above described process would give the impression that the higher price level was the result of an increase in velocity, since the total supply of gold (coin and bullion) did not change. Cantillon seems to use both definitions of money, which is confusing although not necessarily contradictory.

Once government monopoly over token money creation or bank credit is introduced, the above considerations become more complex. Such forms of money have no intrinsic value, but they do possess a market price expressed in terms of gold and silver. Departure of market price of fiduciary money from market prices of commodity money (i.e., departure from par) is a transitory phenomenon because market adjustments both in money markets and commodity markets bring both back to par. The same situation occurs with respect to international exchange rates. (249-267).

Cantillon's insights into the nature of the international exchange rate mechanism are revealing of his experiences as a banker. Nevertheless one wonders what happens to the intrinsic value of gold and silver, and to what extent such a distinction is of any consequence. Cantillon suggests that in equilibrium exchange rates will be regulated by the intrinsic value of specie, or to put it differently if one allows for transport costs of specie, as well as risk of loss, then a balance of trade between two countries implies that the exchange rate between two currencies will be at par, i.e., equivalent to the intrinsic value of the specie. (257)

In summary, the distinction between market prices and intrinsic value is extended to money and exchange rate equilibrium, a refinement which seems to reach its

peak with Cantillon. All this may seem a dead-end in the history of economic thought. Nevertheless, although Walras did not specifically speak of intrinsic value, it should be recalled that commodity money for Walras had a cost of production, so that the relative price of say, gold, in terms of other commodities reflected the resource costs of producing gold versus other commodities *in equilibrium*.

A result analogous to Cantillon's is obtained in the Walrasian system. In such a case, prices, interest rates, etc., expressed "real" (resources) values. However when Walras introduces fiduciary money into his system the monetary sector becomes "unhinged" from the "real" sector, so the distinction between nominal and "real" prices and interest rates must be made. But it is not clear what the relationship between the two sectors is, or what the adjustment mechanism is between both sectors—certainly an ad hoc quantity theory of money, to the extent that it assumes quantities and velocity as constant, tells us very little.⁸

The substance of Cantillon's monetary-value theory remains in Walras' monetary theory. This is not surprising because both writers assumed the existence of a bimetallic system of commodity money with and without fiduciary money. All this would seem to be irrelevant to modern monetary theorists, since commodity money is a relic of the past. But it may be that the absence of what was taken for granted by both Cantillon and Walras is precisely why the world is experiencing the greatest sustained inflation (1932–1980) in history.

It might be worthwhile to explore one other point, not often recognized in Cantillon. If the quantity of money is held constant, as well as the velocity of circulation, then in equilibrium exchange values will be proportional to land and labor used in production. If it is further assumed that labor is the major component of cost of production then, depending upon how much weight one wishes to assign to labor costs, one has a corresponding labor theory of value. Of course, this exercise would be contrary to Cantillon, since he did not assume "average" factor proportions for the corn industry or the gold industry or any other industry for that matter, as did Ricardo. It only serves to show that one can derive a labor theory of value from a land-labor theory of value without too much effort if one chooses to do so.⁹

The Self-Regulating Nature of Cantillon's System

What remains to be mentioned is the self-regulating nature of Cantillon's system. Professor Spengler has correctly pointed out that in this regard Cantillon was influenced by his environment and, in turn, helped to influence it.

The self-regulating nature of economic activity is probably the dominant theme of the *Essai*. It occurs at every level of discourse. Market prices of individual commodities adjust to intrinsic values. Wages adjust to supply and demand conditions, as do the number of workers in particular occupations. The regional distribution of merchants and workers adjusts to market conditions. International trade and exchange rates adjust to conditions of supply and demand. Population size adjusts to resource base, technology, and cultural factors.

Although much of Cantillon's analysis is cast with the context of static equilibrium, his discussions and examples very often reflect a description of how adjustments take place from one equilibrium level to another, so that change is an integral part of the context of his framework of analysis. This is particularly the case with respect to the uncertainty characteristic of entrepreneurial behavior.

Although there are some suggestions for rational interventionism in such a system, in general Cantillon's theme is anti-interventionist in specific instances, such as central bank regulation, to non-interventionist as implied in the self-regulating nature of the system. Yet to argue that he was influenced by his environment in this regard is not to detract from him any more than it would be so to argue that modern economists' pro-interventionism is also environmentally induced.

What really is at issue is the degree of confidence regarding the ability of market mechanisms to adapt to changing circumstances in an "acceptable" way. No one doubts this adaptive ability. The key is the term "acceptable." Those who view such changes from the point of view of distributional effects on particular groups, will often support intervention to mitigate such effects (positive or negative depending where their sympathies lie). Such government policies have the effect of modifying behavior. What is often ignored in such cases is the unintended consequence of behavior modification, which brings with it further intervention, and so on. The aggregate impact of many individual policies on the performance of the economic system, as a whole, is unknown. This is why when an economic system is not performing to expectations there is so much dispute regarding the causes of the poor performance.

The realization that no person or group of persons, including government, reasoning from the point of view of the limited information available to him, or it, knows what is best for an economy led most economists subsequent to Cantillon, right up through the nineteenth century, to take the position that there was a presumption against government intervention. This view was rejected in the 1930's, and economists since have flourished as the handmaidens of those inside and outside of government who support greater government intervention. The results have been less than satisfying even for the strongest supporters of this view. Nevertheless, it does not seem likely that the supporters of this view will recant as a consequence of recent policy failures; instead, the response has been for more government intervention.

If and when Cantillon's view will ever prevail again is a matter of conjecture. The fact that history may someday grant to Cantillon his proven reward is little comfort in itself to those among us who see *more* of the present in the future.¹⁰

Conclusion

I have argued that modern economists *should* find four topics discussed by Cantillon of current interest. These are his (1) population theory, which is quite general and accounts for the effects of changes in resources, technology, and cultural factors on population size, (2) the uncertainty aspects of entrepreneurial behavior,

(3) monetary-value theory and (4) themes regarding the self-regulating character of economic activity.

With respect to the first, it is only in recent years we have come to appreciate the interaction of all three factors on population size. In the case of the second, the current state of that topic is best exemplified by the contributions of Kirzner and Lachmann, and others, such as Shackle, largely outside "mainstream" economics. The third is largely ignored and will continue to be ignored as long as commodity money is viewed as a relic of the past. Hence the dichotomy between value theory and monetary theory, with all that it conveys will continue to exist as long as the present views persist. Finally, in the last case, the rejection of the efficacy of a self-regulating market system which occurred in the 1930s, together with the general acceptance of the desirability of controls to mitigate the "undesirable" consequences of free markets is the dominant view among economists. This view is a matter which deserves reconsideration, and Cantillon provides a "neutral" environment for such a reevaluation precisely because he did not belong to the present.

NOTES

1. Joseph J. Spengler, "Richard Cantillon: "First of the Moderns," *The Journal of Political Economy*, LXII (August-October 1954), pp. 281-95, 406-24; reprinted in Joseph J. Spengler and William R. Allen, eds., *Essays in Economic Thought: Aristotle to Marshall* (Chicago: Rand McNally & Co., 1960), pp. 105-140. All references to Spengler's article will be within the latter.
2. Richard Cantillon, *Essai Sur La Nature du Commerce en General*, ed. and trans. Henry Higgs (London: Macmillan and Company, 1931).
3. However, Cantillon, *Essai*, p. 85 he concludes that whether it is better to have a large population of poor people or a smaller population of people who are better off is a question outside of the scope of his analysis: an early example of the distinction between positive and normative theory.
4. An intriguing aspect of Cantillon's ideas on population is his almost matter of fact observation that population decline occurred with the decline of many ancient civilizations, the most notable being Rome, whose population in Italy declined from 26 million to about 6 million in seventeen centuries.
5. In the case of Walras, the entrepreneur's function is reduced to a mechanical accounting one. Cf. Leon Walras, *Elements of Pure Economics*, trans. William Jaffee (Homewood, Ill.: Richard D. Irwin, Inc., 1954), pp. 235-36.
6. In this sense, Pareto attempted to accomplish what Walras was unable to do because of the framework of his static equilibrium analysis. However, Pareto did not deal with the problem of entrepreneurial behavior in his economics, but in his sociology. The reason was that entrepreneurial behavior is a special case of "innovative" behavior which cuts across all facets of concrete behavior, military, political, religious, etc., as well as economic. What Pareto did was to abstract from the concrete manifestations and analyze the activities of personality types reflected in the specific categories. The appropriate place to do this was in his sociology rather than in his economics. Vilfredo Pareto, *The Mind and Society*, trans. and ed., A. Livingston (4 vols.; New York: Harcourt, Trace and Co., 1935).
7. Pareto's approach has been ignored by economists because it lies outside the scope of economics, as it is currently defined. The Austrian approach possesses the merit of realism, but has been essentially descriptive rather than analytical. Keynes's *Treatise or Probability*, has not received much atten-

tion among economists and it is more philosophical in its orientation, although there are some loose points of correspondence between his approach and modern Bayesian procedures with their emphasis on prior probabilities. Cf. R. B. Braithwaite, "Keynes as a Philosopher," in Milo Keynes, ed., *Essays on John Maynard Keynes* (London: Cambridge University Press, 1975), pp. 237-242.

8. Walras committed the error of assuming that the introduction of fiduciary money involved simply adding an additional equation and an additional unknown to his system of equations. Mathematically, this procedure was correct, but economically, the nature of the system changed, since it became dichotomized between its monetary and real sectors. The quantity theory determines the absolute level of prices and relative prices reflect "real" conditions. Changes in the former are not presumed to have allocative effects where the latter are presumed to do so. But the neutrality of money doctrine rests upon some very restrictive assumptions about the nature of production, namely, product exhaustion must take place. Even under conditions of free competition the latter may not occur, as Pareto showed.
9. This may not be as arid an exercise as it may appear to be, for it points to the highly restrictive nature of the labor theory of value, where land is assumed away (but not capital, because capital is defined as congealed labor, yet no mention is made of land as a component of capital).
10. Those who believe that public sentiment regarding government intervention will change as a consequence of "reason" are committing the same errors of the nineteenth century liberals who believed that the "obvious" merits of laissez-faire, together with "education," would assure a movement in that direction.