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## **The Praxeological Concept of International Entrepreneurship**

### 1. Introduction

The dual aim of this paper is to summarize the theory of praxeological entrepreneurship that I have been developing in recent research and to show its relevance to international economics. In 1990 book, I used the term "new subjectivism" to refer to Ludwig von Mises's *praxeology*, or theory of action (Mises 1966). I defined entrepreneurship in terms of the method one must use to identify and elucidate the properties of action in the market economy. I wrote that "[e]ntrepreneurship is that part of economic interaction under the conditions specified in the definition of the market economy that cannot be represented by robots" (Gunning 1990: 85). To identify and elucidate its properties, one must use the method of contrasting (1) interaction in the market economy with (2) an image of a robot economy, from which such interaction is necessarily absent. I proceeded to derive what I called three fundamental categories of entrepreneurial action: appraisal of factors of production, undertaking and uncertainty-bearing. To appraise factors means to identify them and to estimate the "net benefits of using a prospective factor according to a production plan" (Gunning 1997: 176). I claimed that economics assumes that every normal human being possesses these categories.

Identifying and elucidating the properties of entrepreneurship is important in economics because it is the first step in dealing with the enormous complexity of the market economy. To identify patterns in this complex, we begin by building simple images of the market economy based on the assumption that everyone is an entrepreneur – that is, that everyone is a normal human actor. In my book, I argued that, to insure that our images reflect this assumption while at the same time simplifying the complexity

of the market economy interaction, we must employ images of "entrepreneur economies," in which some subjects are robots that operate according to algorithms and others are "fully integrated entrepreneurs."

### **Entrepreneurship and Praxeological Economics**

I briefly summarized this view of entrepreneurship in my 1997 paper. I defined entrepreneurship as

the willingness to bet one's time and/or money that one's appraisals of factors are superior to the appraisals of others. To fit this definition into the saving-production-consumption nexus, we must add that the bet contributes in some way to the production of goods to satisfy consumers' wants (*ibid.*: 175-6).

At the end of the paper, I described my previous work by saying that

I have tried to elaborate and expand these ideas in an effort to construct an image of entrepreneurship that we can trace directly to distinctly human action. I wanted a concept of entrepreneurship that embodies all of the distinctly human action in the market economy. This is the kind of concept that I believe Mises had in mind when he wrote about the function of the entrepreneur. I have called this the new subjectivist concept of the entrepreneur (*ibid.*: 187).

In my more recent manuscripts, I have replaced the label "new subjectivist" with the term "praxeological." Briefly, praxeological entrepreneurship refers to distinctly human action under the conditions of the pure market economy. It refers more specifically to the actions of appraisal, undertaking, and uncertainty-bearing by individuals who are assumed to possess imagination, creativity and inventiveness. I have also suggested the term praxeological economics to refer to a study of the market economy that makes praxeological entrepreneurship its foundation.

In building its basic theory, praxeological economics, like economics generally, assumes a specific set of market economy conditions: private property rights, free enterprise, neutral money, and specialization. With the exception of specialization, these conditions are the same for everyone. For example, private property rights implies that everyone faces the same laws regarding the acquisition and disposition of the items and control over actions defined as property. Free enterprise means that all actors are equally permitted by law to negotiate any business or employment agreement. In the eyes of the law,

there are no restrictions on movement from one place to another and the relevant law is identical in all locations.

Thus, the starting point of economics is an image of interaction under a kind of ideal law. Under it, people are not treated differently because (1) they were born in one location or another or (2) they are classified as having a particular ethnicity, religion, sex, age, and so on. More generally, we assume that the laws defining private property rights and free enterprise do not discriminate in favor of particular classes of individuals. We deliberately disregard discriminatory treatment in order to develop images that are simple enough to illustrate the general patterns that are present, to a greater or lesser extent, in all of the more capitalistic societies. Later, having identified the most important patterns, we turn our attention to the task of understanding real capitalist societies. At that stage, we must modify our images to take account of the different legal statuses of different individuals.

In building images of the market economy, praxeological economics also assumes that everyone faces the same monetary regime. We shall have little to say about that assumption in this paper.

### **International Economics**

The subject of international economics is a special field within the broader field of economics. Its focus is not the market economy but the international economy. Praxeological economics defines the difference between these from the standpoint of entrepreneurship. From this standpoint, there are two key differences: (1) different nations have different property rights, free enterprise conditions, and monetary regimes; and (2) the property rights and free enterprise conditions (and possibly the freedom to use money in particular ways) differ according to an individual's citizenship status and location. Individuals acting in the role of the entrepreneur who are citizens (and/or who act in one location) are treated differently from those who are not citizens \*(and/or who act in another location).<sup>1</sup> The focus in

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<sup>1</sup>Different nations also differ in their natural resources, the nature of their specialized factors, and their culture. However different regions in the market economy also contain such differences. Thus, these do not constitute *key* differences between the market economy and

this paper is on the second difference. Before discussing it further, let us briefly review the history of progress from the point of view suggested by the praxeological concept of international entrepreneurship.

### **A Brief History of Entrepreneurship-Driven Progress in the International Economy**

Those people who are in a position to take advantage of it are in the midst of a period of historically unprecedented growth in technology and potential well being. The visible evidence of this includes progress in transportation in overland carriage, shipping, aviation, and space travel; progress in communication from hand writing to computer graphics, from typeset printing to computer graphic design, and from overland mail delivery, to telegraph, to satellite-relayed messages delivered to a computer screen; progress in medicine and, beyond that, in life extension; progress in agricultural productivity; and progress in materials development which facilitated the other types of progress. A catalogue of these achievements is unnecessary. Technological growth is evident to anyone who pays attention to these industries.

Although the inventors and innovators in some nations were definite pioneers in this growth, it spread quickly to those nations whose leaders have allowed their people to interact with the pioneers. The leaders of a nation can do more than merely permit their citizens to gain from advances that have occurred in other nations. If they develop institutions that are conducive to progress, their citizens will be able to become pioneers themselves. Accordingly, after World War II, as the USA opened its trade to several Asian countries and as an increasing number of nations became part of the global trading club following the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO), individuals in an increasing number of countries have made contributions to technological advance. Entrepreneurship has "globalized." The imaginative, creative, and inventive activities associated with the distinctly human action of individuals in an increasing number of countries have contributed to progress not only in their own countries but also in their trading partners' countries.

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the international economy.

This process of globalization has not proceeded along a straight path. As the progressing empires of the early capitalist era set out on their adventures to acquire resources and colonize territories occupied by militarily weaker peoples, their agents encountered a wide variety of different groups. Many of the people lived in small family groups, clans, tribes, and small villages. From the standpoint of global technology, their daily activities contributed virtually nothing to the progress and development of their neighbors, including the colonizers. Occasionally, the colonizers learned about new products and new methods of production from such people; the indigenous people also learned from the colonizers. Rarely, however, did the indigenous people invent products or methods of production that were totally new to both themselves and the colonizers.

The colonizers sometimes encountered more organized empires, albeit with inferior military might. In this case, there was a choice: trade or conquer. When they chose trade, the result was trade between the merchant traders of the technologically advanced empire and either government agents of the newly-discovered empire or individuals whose actions were strictly controlled by the empire's government. Such arrangements proved unstable since it was profitable to circumvent the government's restrictions. Smuggling and other black market activities occurred, which undermined the emperor's power. So the emperor tried to block it. The result was often war. Seldom did the two empires become sufficient "partners in trade" to enable their citizens to profit reciprocally from the invention in each empire of new products and methods of production.

During the long period of colonization and appropriation by militarily superior empires, the location of national boundaries was continually brought into question. There were frequent wars. In other words, the expanding empires competed not only economically but militarily. They battled both the indigenous people and other empires for territory. The result was insecure private property rights and stiff restrictions against foreign free enterprise in the conquered lands. For example, the governments of Europe often sanctioned piracy by their own citizens against the merchant shippers of other empires. And

the desire to conquer the territory currently in the possession of rivals, rather than to colonize new territory, was occasionally the primary goal of national leaders.

International conflict was not the only factor that hampered the development of a global trading system during the past 600-or-so years. Capitalism in the empires themselves was often not strong. The most technologically advanced nations only gradually shifted from a set of domestic laws, which helped perpetuate a system of class and privilege, to a system of relatively equally-applied private property rights and free enterprise. Even today, this shift is far from complete and it varies among the more capitalistic countries.

This era of international instability ended abruptly with World War II. In the years that followed the war, two factors played an important role in the development of a global economy. First, the winners of the war, for the most part, came to promote the principle that peace requires respect for national boundaries where they exist and the creation of nations with boundaries where they do not. In the non-communist world, the great empires gradually transformed many of their previous colonies into nations by granting independence and trying to establish and defend distinct national boundaries. Although the communist countries did not participate, the balance of power during the cold war mitigated "undue" expansionism by the militarily stronger nations, thereby continuing the acceptance of the distinct national boundaries. Gradually, the post-World War II boundaries in the non-communist world came to be respected, for the most part.

Second, the winners promoted relatively free trade and economic interdependence. The Lend Lease program and the relatively free import policy of the USA enabled previously belligerent nations like Japan and West Germany gradually to emerge from the devastation that they suffered during the war and to become leaders in the new world trading system. The government officials in these nations also developed a strong motivation to continue the new trading system and to take steps to reduce the probability of war. The same was true over the longer period for nations and territories like South Korea, Hong Kong, Taiwan, and Singapore. International trading agreements, spearheaded by the victors of

WWII, also played an important role. Many of the nations that came into being after World War II were incorporated into the GATT and the WTO. Some also joined regional trading unions like the European Union. The vast North American region also took large steps towards becoming a trading union. Later, as the Soviet Union collapsed, some of the former members of the Soviet Bloc joined the system. Other countries in the Far East, South America, and Africa tried to follow this lead. The result is that many nations moved rapidly from relative isolation to a mode of living that was largely integrated with the economies of other nations. Broadly speaking, there has been a surge of technological progress in those countries that have joined the world trading system. This surge is highlighted by the contrast with countries, excepting those with natural resource wealth, that have not joined and that, for one reason or another, have failed to institute conditions associated with the market economy.

The reason for progress in the countries that (a) have developed an internal system of private property rights and free enterprise and (b) have joined the world trading system is, of course, *distinctly human action*. In other words, it is entrepreneurship. Joining the world trading system has enabled individuals in member countries to enjoy the benefits of entrepreneurship in other member countries and has, broadly speaking, enabled ordinary people in each member country to gain from the widening of competition. From this point of view, it can be said that "international entrepreneurship" has been the main "engine of growth" for the global economy just as it is, by definition, the main "engine of growth" in the pure market economy.

### **Plan of the Paper**

To achieve the goal of showing the relevance of praxeological entrepreneurship to international economics, we must accomplish two sub-tasks: (1) describe the praxeological concept of entrepreneurship and its application to the market economy and (2) apply the concept to an international setting. Part two of this paper describes praxeological entrepreneurship and the method used to derive various patterns of economic interaction in the pure market economy. Part three identifies various

procedures that can be used to apply the concept of praxeological entrepreneurship to the problems of international economics. It presents an addendum to the principle of comparative advantage, it describes a procedure for analyzing a nation's trade barriers, and it shows how to use the concept of praxeological entrepreneurship in a two-nation global pure market economy to compare nations that have different property systems relating to pollution.

## 2. Praxeological Entrepreneurship and the Method of Economics

It is obvious that technological progress is the product of "distinctly human action." We do not observe progress of this sort among other species of animals. Nevertheless, the mere existence of human beings does not guarantee progress. Today's world still contains functioning hunter-gatherer societies. And even in societies that have moved way beyond that stage, there is widespread poverty, occasional starvation, illiteracy, and general misery. Being distinctly human is not enough. To achieve the progress that we have observed in recent times, groups must have "institutions" that make it possible for distinctly human action to have this particular manifestation. In short, technological progress in the global economy has been caused by distinctly human action *and* institutions.

### **Praxeology (the Study of Distinctly Human Action) and Economics**

Mises used the term "praxeology" to refer to the logical extension of the work done by the classical and neoclassical economist (Mises 1966: 1-3). Following Adam Smith, these writers studied the various causes and complements of the wealth of nations. By the end of the nineteenth century, the best economists understood that to explain the growth of wealth and technological progress, one had to account for the institutions of capitalism. They set out to build models of the essential characteristics, or conditions, of these institutions and of the interaction they believed would occur if they were present. In those models, they assumed that individuals make choices on the basis of self interest. Mises

recognized that the systematic building of such models was something totally new in the field of human knowledge. Moreover he argued that the economic procedure used to understand action under the conditions of capitalism is also the proper one for studying human action and interaction under all sorts of assumed conditions. He proceeded to deepen the methodological underpinnings of economics by (1) substituting the concept of "action" for that of "choice in one's self interest" and (2) exploring the epistemological status of the "action" concept. This enabled him to support his contention that economics is a *branch* of a broader, yet-to-develop praxeology. Whereas praxeology deals with action in general, economics deals with action and interaction under the conditions of the market economy.

The task faced by those who aim to develop the science of economics as a branch of praxeology is to rework the images and models of economics based on self-interested choice so that action becomes the foundation of the images. The problem with the concept of "self-interested choice" is that the builders of models developed on the basis of this assumption too often disregarded the imagination, creativity, and inventiveness of human actors. They neglected the fact that economists can, at best, make educated guesses about only a small portion of goals of individuals and the alternative means of achieving them that the individuals perceive.

Mises believed that, if economists follow the procedure of praxeological economics, they would have a sounder epistemological foundation and be able to avoid some of the errors associated with using the self-interested choice models. My work on entrepreneurship has been an attempt to develop praxeological economics by identifying the procedure that praxeological economists must use to ensure that imagination, creativity, and inventiveness are not neglected.

### **Entrepreneurship as Distinctly Human Action Under Market Economy Conditions**

If the task of making praxeology the foundation for economics is to succeed, a term is needed to refer generally to distinctly human action under the conditions of the market economy. I was inspired by Mises and also by some major writers in the history of American economic thought, including F. B.

Hawley (1900), H. Davenport (1914), and F. Knight (1921) to use the term "entrepreneurship" for this purpose. Mises refers to the entrepreneur as a "catallactic category" (1966: 251). Davenport and Knight incorporated this concept in a specific procedure that entails building a sequence of images in which entrepreneurship is embodied in a particular way.<sup>2</sup>

### **The Procedure of Praxeological Economics**

If we assume that entrepreneurship is present in all actors, the question arises of how we should deal with two obvious problems. The first is complexity. One of the conditions of the market economy is specialization. With so many varied and specialized individuals acting in the role of the entrepreneur, how can we identify patterns of economic interaction? The second is the fact that some people play a more significant role in causing progress to occur than others. How do we square the assumption that "everyone is an entrepreneur" with the knowledge that some individuals are more important than others?

These problems are solved by using a specific procedure. In this procedure, we build images of the pure entrepreneur, the pure entrepreneur economy, and other entrepreneur economies. Following this, we give examples of entrepreneurship. Good economists have always proceeded in this way. A recognition of the praxeological foundations of economics and the use of the praxeological concept of the entrepreneur helps us understand why.

### **The Pure Market Economy**

The derivation of the role of the entrepreneur begins with *pure market economy*. We cannot directly observe such an economy. For this reason, we can say that it is an imaginary construct. Reason and experience reveal to us that we must build an image of it in order to comprehend the capitalist

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<sup>2</sup>See Gunning (1993) for a review of Knight on entrepreneurship, and Gunning (1998) for a review of Davenport on the subject.

system, or capitalism, which we can observe. We conceive of this image by assuming that many of the characteristics of capitalism, as we know it, are absent.

The pure market economy refers to interaction under four hypothetical conditions. The first two are complete private property rights and freedom of enterprise. By complete private property rights, we mean that each person has a right to all the benefits of her action and must bear full responsibility for any harm that she does.<sup>3</sup> Both of these conditions apply equally to everyone. There are no privileged individuals or classes. The third condition is the use of money. In the pure market economy, all wants are satisfied indirectly, as it were, through the medium of money. There is no self-production or barter. The fourth condition is specialization, which corresponds to the reason why individuals would choose to satisfy their wants only indirectly by using money. To avoid the complication of taxes, the hypothetical pure market economy contains no government, even though it is assumed that there are private property rights.<sup>4</sup> To avoid the complication of public goods, the image of the pure market economy assumes only private goods; no goods possess the jointness-in-consumption characteristic that we associate with public goods. Finally, for simplicity, we disregard fraud and deception, such as that involved in misleading advertising.

The image of the hypothetical pure market economy was invented (a) to represent the features of capitalism that economists have traditionally regarded as part of their subject matter, and (b) for simplicity. Capitalism (which corresponds to most economists' notion of the market economy) refers to

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<sup>3</sup>Mises writes:

Carried through consistently, the right of property would entitle the proprietor to claim all the advantages which the good's employment may generate on the one hand and would burden him with all the disadvantages resulting from its employment on the other hand (Mises: 1966: 655).

<sup>4</sup>Mises defined the pure market economy in the following way:

It assumes that the operation of the market [exchange of goods and services] is not obstructed by institutional factors. It assumes that the government, the social apparatus of compulsion and coercion, is intent upon preserving the operation of the market [exchange of goods and services], abstains from hindering its functioning, and protects it against encroachments on the part of other people. The market [exchange of goods and services] is free; there is no interference of factors, foreign to the market, with prices, wage rates, and interest rate (ibid: 237-8).

a broader set of characteristics. It includes externalities such as pollution, congestion, personal injury and property crime, which are associated with yet-to-be-defined or costly-to-enforce private property rights; the special problems related to public goods; and the bargaining associated with the development and use of institutions to enforce contracts and property rights. It also includes taxes, self-production, barter, fraud, and deception.

Capitalism itself is a limited concept in the sense that it refers to only one aspect of all of the human action and interaction that take place in a society in which capitalism exists. Capitalism does not include pure political activity such as that involved by one group to obtain a transfer of wealth from another group. Nor does it include the use of collective action to appropriate or to help appropriate the wealth of peoples outside the jurisdiction of a nation. The term "capitalist society" may be used to refer to this broader notion.

Capitalism is a broader and more vague notion than the pure market economy. Indeed it is precisely for this reason that economists start by trying to build an image of the narrower concept of the pure market economy. An economist who aims to evaluate economic policy arguments in a real capitalist economy would have to supplement the theory of the pure market economy with a theory that includes the relevant factors with which this simplistic definition does not deal.

### **The Praxeological Concept of the Entrepreneur.**

The key concept in understanding the pure market economy is the praxeological concept of the entrepreneur, which refers to a *role* that represents what we know from intuition and experience to be the undeniable "category of human action" (Mises 1966: ch. 4), as it becomes manifest in the hypothetical pure market economy. "It means: acting man exclusively seen from the aspect of the uncertainty inherent in every action" (*ibid.*: 253); and "acting man in regard to the changes occurring in the data of the market" (*ibid.*: 254). To use this concept, we must begin by identifying the necessary properties of distinctly human action. Then we must devise a means of showing how these properties

come to be manifest under the conditions of the market economy. As mentioned in the introduction, entrepreneurship appraises, undertakes and bears uncertainty; and it exhibits the characteristics of imagination, creativity and inventiveness.

The distinguishing advantage of using the praxeological concept of the entrepreneur is greater efficiency of communication. Because economists are normal<sup>5</sup> human actors, they can form identical concepts of distinctly human action. Moreover, because each economist can reason logically about how that action will become manifest under particular conditions, there is no doubt about his ability to know exactly what he means by the praxeological concept of the entrepreneur. The concept of the praxeological entrepreneur is an intuitive notion based on an *a priori* assumption about normal human beings and upon experience which helps one reason about how human beings would act under the conditions of the pure market economy.

### **The Role of the Pure Entrepreneur**

To help us identify patterns in the pure market economy, we build an image of the *pure entrepreneur*. To do this we draw a sharp distinction between distinctly human economic interaction and the function-performing behavior of the consumer-saver, factor supplier, and hired manager. The latter roles are said to perform the routine functions that we derive from our definition of economic action. They behave automatically like robots, according to programs, or algorithms. I. Kirzner uses the term "Robbinsian economizers" to describe them (Kirzner 1967: 796-797; 1973: 32-3, see below).

The role of the pure entrepreneur is vastly different. This role identifies the items or actions that are candidates for being factors of production. She proceeds to appraise them in anticipation of producing goods that consumers will buy. Next she buys or leases the factors of others. Then she proceeds to direct

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<sup>5</sup>The term "normal" is used in order to rule out people who would be classified as human beings by biologists but who either cannot or are as yet unable to act in a way that we know by intuition and experience human beings can act. Examples are the infirm, the mentally handicapped, and children. Mises notes that "the minor family members in the market society...are...themselves not actors" (*ibid.*: 252).

that they be used to produce specific goods for the purpose of sale. In performing these actions, she exercises creativity, imagination, and inventiveness.

The pure entrepreneur bears all of the intersubjective uncertainty. In other words, she bears all of the consumer uncertainty, worker uncertainty, and the uncertainty connected with lending and ownership of property. She can do this because we assume that she (1) possesses the factors, (2) has sufficient funds to buy or lease the factors, or (3) possesses sufficient guaranty to pay back any money that she borrows to finance her production.

The actions that encompass the role of the pure entrepreneur can only be elucidated by making a contrast between (1) an image in which non-entrepreneurial routine functions of consuming, saving, factor-supplying, and producing are performed by robots and (2) what we know from intuition and experience to be how distinctly human actors would perform these functions under the conditions of the pure market economy (Gunning 1990: chapter 6; 1997: 174-6). In the older economics literature, the first image was called the static equilibrium. Mises introduced what is probably a better term – the *evenly rotating economy*.<sup>6</sup>

The characteristics of the pure entrepreneur are derived by using intuition and experience to inform us about how distinctly human actors differ from the robot consumers, savers, factor-suppliers, and producers of the evenly rotating economy. We look first at the evenly rotating economy. Then we ask: how would consumption, saving, factor-supply, and production take place under the assumption that these robots are, in fact, distinctly human actors? Thus, we say that the characteristics of the pure entrepreneur are derived by means of a *contrast* between the robots of the evenly rotating economy and what we can know from intuition and experience about distinctly human action under the conditions of the pure market economy.

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<sup>6</sup>He says: "Such a rigid system is not peopled with living men making choices liable to error; it is a world of soulless unthinking automatons; it is not a human society, it is an ant hill" (Mises 1966: 248). Mises's concept was criticized by T. Cowen and R. Fink (1985) and the criticism was countered by Gunning (1988).

## Entrepreneur Economies

As a role, entrepreneurship is present in every market action, including a household's shopping and a janitor's cleaning. Everyone who makes a distinctly human decision to earn money or to use money with the aim of obtaining goods is acting in the role of the entrepreneur. However, in order to build the simplest image of a pure market economy, we can imagine an economy consisting of distinctly human pure entrepreneurs and robot, economizing consumer-savers and factor suppliers. We call such an image the *pure entrepreneur economy*. In this economy, at least one pure entrepreneur commands the production of each product. And each pure entrepreneur has a perspective sufficiently broad that, if conditions warrant, he can shift his funds from the production of one good to the production of others. Thus, each pure entrepreneur is a potential competitor with every other pure entrepreneur.

The pure entrepreneur economy can be conceived as a consequence of the interaction of all distinctly human actors who, together, initially own all of the factors of production in an economy. Some of the actors choose to sell or rent out control over their factors to others and, consequently, give up the rights to control them. Others acquire those rights and thereafter behave as robots. The ones who acquire them become pure entrepreneurs. The pure entrepreneur economy is useful in helping us identify various patterns of the pure market economy. These include competition, the relationship between the prices of goods and the prices of the factors of production, and consumer sovereignty.

We build images of other entrepreneur economies in order to help us understand the division of entrepreneurial tasks. For example, we can build an image of an economy containing wealthy *capitalist entrepreneurs*, who do not themselves decide how the factors will be used but who only guarantee the loans from savers to other producing entrepreneurs, who we assume are penniless. Such an image gives us insight into the role of middleman activity and the division of knowledge. Some entrepreneurs specialize in production (penniless entrepreneurs), others in deciding which lines of business are most profitable (capitalist guarantors), and still others (middlemen) in facilitating this specialization by arranging trades and in supplying information. Such an image helps us understand the role of financial

institutions and specialists. Other entrepreneur economies are similar. By making the realistic assumption that exchange entails costs of transactions, we can build images of entrepreneur economies in which specialists emerge to economize on these costs and in which the economic organization depends on the nature of such costs and the means of avoiding them.

### 3. The International Aspects of Entrepreneurship

In this part, we introduce two ways in which praxeology is relevant to international trade. In the first, we show how it can be used to modify the typical beginning point of international economics – the theory of comparative advantage. In the second, we begin with the theory of a pure global market economy and then show how to determine the effects of various interventions associated with dividing the regions of the global economy into nations. To complete the latter task would require much more space than allotted here. Our main goal is to provide some hints for further investigation.

#### **The Theory of Comparative Advantage**

The theory of comparative advantage is designed to deal with trade between two nations, where a nation is treated as an individual. The logic of the theory has two steps. The first is to make the assumption that comparative advantage exists. Here we consider only the simple two-good case. In this case, comparative advantage refers to a difference in the ratio of the marginal opportunity costs of supply. The nation with the lowest relative marginal opportunity cost of producing a good has a comparative advantage in producing the next unit of it. We may make the model more complex by assuming production in which each nation possesses different factors of production, but, to maintain the integrity of the theory, we must assume that these factors cannot cross the nation's boundaries.

The second step is to show that, when there is comparative advantage, a rate of exchange between the two goods exists such that, if the two nations trade at this rate, each nation can obtain more of both goods than it could obtain if trade did not occur. This shows that trade has the potential of raising a nation's well being for the case under consideration. This is the principle of comparative advantage – that *trade according to comparative advantage raises the potential economic welfare of the traders.*

The principle of comparative advantage is a praxeological principle. It assumes that the agents of nations or individual traders have evaluated alternatives and calculated opportunity cost. They do this in the expectation that they can benefit from trade. However the usual models assume only limited scope for imagination, creativity and inventiveness. In making their calculations, the agents are assumed to have only limited interaction. At some point, each is assumed to find out that his opportunity cost differs from that faced by the other and, therefore, that there are potential gains from trade. Consider, for example, a two-good model. Assume that in nation 1, good A has a lower relative opportunity cost mainly because the producer of A has superior knowledge of how to produce it. The model rules out the possibility that the producer of A in nation 2 may learn from the producer in 1 and, as a result, reverse the initial direction of comparative advantage. One might wish to say that we had already ruled this out on the grounds that knowledge is a factor of production, the transfer of which between nations is ruled out by definition. However humans have the ability to at least partly infer, from the consequence of another person's action, the sequence of steps that preceded the consequences. A human being can even partly infer the mental processes that another person uses to decide what action to take. When we contemplate the imagination, creativity and inventiveness entailed in the mental processes needed to make such inferences, we are led to recognize the limited relevance of the assumption of factor immobility. One might also wish to rule out such learning owing to the assumption that the goods traded are homogeneous. If the good imported by nation 1 is identical to the domestically produced good, how could

a producer in 1 learning anything that he does not already know? However, if we assume complete homogeneity, we again limit the relevance of the theory.<sup>7</sup>

The model does not rule out learning per se. As a model of interaction at a specific time, it disregards for simplicity changes that occur through time. A competent user could “dynamicize” the model in order to include changes in technology. What is disregarded is the learning by one agent from the actions of another agent in the other country. To see the importance of this, suppose that, during the trading period assumed in such a dynamic model, the producer of A in 2 learns to exactly duplicate 1's technology and that the producer of B in 1 learns to exactly duplicate nation 2's technology. Comparative advantage and the rationale for trade would disappear. There would be no further potential for gains from trade according to the principle of comparative advantage. Yet trade will have benefitted the agents in both nations. Such benefits cannot be represented by the increased potential output due to trade based on comparative advantage.

By taking more complete account of the praxeological nature of trading actions, we see that free trade may improve the conditions in two nations regardless of the ultimate volume of trade. We are thus in a position to make the following addendum to the theory. *If the governments of two previously non-trading market economies permit free trade in goods, the potential welfare of the trading nations is likely to rise even if, in the longer term, no actual trade occurs. The reason is the potential that individuals in one nation have for learning the methods of production used in another nation.*

An interesting corollary is that a nation may gain from trade even if there is no initial difference in relative marginal opportunity cost. Assume that nation 1 has an absolute advantage in both goods because its technology is more advanced than nation 2's. Nation 2 may gain from importing both goods and enabling its producers to copy the technologies.

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<sup>7</sup>This is especially true if our aim is to build an image that is relevant to the modern world of low-cost communication.

Learning need not be confined to mere duplication of production methods. The producer in 2 may combine knowledge that he initially possesses with new knowledge and, as a result, improve the technical efficiency of production over that used in 1. If so, 1 could later gain by importing from 2. Trade would occur even though initial marginal opportunity costs were identical in the two nations.

It seems evident that, if economists took account of the implications of the praxeological approach to international trade, they would want to make major revisions to the fundamental theory. This, in turn, is likely to lead to fundamental revisions in the evaluation of arguments for and against free trade and in policy recommendations. For example, consider a technologically-superior nation that removes its trade barriers with a technologically-inferior nation. Assume that entrepreneurs in the latter nation are adept at copying. It is easy to build a multi-nation model in which the majority of citizens in the advanced nation are made worse off as a consequence of trade. In the extreme, we can imagine a case where the import of one unit of each good would enable individuals in the low-tech nation to exactly duplicate the technology of the high-tech nation and thereby eliminate the latter's gains from trade due to this initial difference.

In a simple two-nation model, the learning by individuals in the low-technology nation would reduce the potential gains from trade to the high-technology nation below those that would be expected under usual comparative advantage assumptions, although it would not make the high-tech nation worse off than before trade began.

### **Methodology for Determining the Effects of Government Intervention in International Trade**

International economics is a branch of general economics. Like general economics, its aim is to provide the reasoning tools required to evaluate various policy arguments (and, by implication, the ideologies that support them, such as socialism and interventionism). To do this, it proceeds from an image of the pure market economy to images of other economies that contain the elements needed to evaluate a particular argument. In the case of international trade, one of the elements is the division of

the market economy into nations. Accordingly, a necessary step in international economics is to define a "nation." To do this, one must identify characteristics that distinguish one nation from another. It follows that the methodology for doing international economics divides into two parts. The first part is the methodology for doing economics in general. The second is methodology associated with operationalizing the notion of a "nation" and differences among nations. Since many economists pay very little attention to methodology, it will be helpful to describe both of these problems in turn before proceeding further.

### *Methodology of General Economics*

Praxeological economics begins with the theory of the pure market economy. The basic image is the pure entrepreneur economy. We build images of other economies in order to evaluate arguments for or against intervention in the capitalist economy under realistic conditions. Because the pure market economy differs from the reality for which the arguments are constructed, we must make assumptions in order to build relevant images. Consider a few of the more obvious of the assumptions we might make, depending on the particular argument we aim to evaluate. We can begin by recognizing that a market economy contains specialization and transactions costs. Transactions costs help determine the nature of specialization and lead individuals to choose one form of production and marketing organization over another. We may want to make realistic assumptions about the nature of such specialization and transactions costs. To describe other assumptions, it is helpful to use the word "capitalism" to refer to the realistic conditions in which a market economy is embedded. Then we can say that the pure market economy differs from capitalism in various ways. Under capitalism, private property rights are necessarily incomplete. Government agents must identify and define the private property rights that are important and it must employ factors to enforce them. A theory of capitalism must make assumptions about the nature of this incompleteness and about how the assumed structure of private property rights

is likely to be incorporated by entrepreneurship into its appraisals and decisions to produce goods.<sup>8</sup> There are also jointness-in-consumption goods that are more or less excludable. Government agents may deal with these by imposing taxes and by spending. Capitalism also contains fraud and deception. Buyers and sellers aim to avoid fraud and we may want to make assumptions about how they do so, including the use of government agents to deter such activities. To evaluate a particular argument, we may have to describe the particular form that specialization in a market economy takes. This form ordinarily depends on the nature of transactions costs. We may have to make assumptions about these. Unlike the pure market economy, capitalist economies ordinarily contain intervention in free enterprise and intervention with money that makes the money non-neutral. Although our aim is to evaluate a particular argument for a particular type of intervention, we may find it necessary to add assumptions about other government intervention. Finally, the market economy is embedded in a culture, a political system, and natural environment. We may wish to add assumptions about these factors.

The aim of economics is not to build a complete model of either capitalism or a capitalist society. These tasks are impossible to accomplish in their entirety. The main practical use of economic reasoning is to evaluate arguments for and against modifying private property rights or free enterprise in a way that would reduce the role of entrepreneurship, as opposed to that of government agents, in determining the actions that people will take. Similarly, the main use of international economics is to evaluate arguments favoring intervention in a global market economy. One form of intervention is barriers to international trade constructed by agents of national governments. The theory of international trade has been mainly concerned with the evaluation of arguments relating to such barriers.

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<sup>8</sup>Moreover, the existence of incomplete private property rights implies some amount of flexibility. In other words, it suggests both that government agents may change the structure of private property rights and that private individuals may invest in establishing private property rights themselves or in strengthening enforcement. Given that this is possible, one would have to add the assumptions that entrepreneurship would have an incentive to produce private property rights and to identify ways to influence the government agents (i.e., to rent-seek).

*Methodology of International Economics: Barriers to Trade in the Pure Global Market Economy*

The procedure we follow in international economics begins with an image of a pure global market economy. In such an economy, each person has the same private property rights and rights to engage in free enterprise as everyone else. There is a single money. The pure global market economy is identical to the pure market economy. We use the modifier "global" to indicate that we are planning to consider the effects of various barriers that might be imposed in a system where people are divided into nations.

Beginning with the pure global market economy, we proceed to conceive of various types of barriers. Reason seems to suggest that we proceed in one of two ways. First, we can assume that every nation except one is part of a pure global market economy. One nation is outside because it imposes an intervention that either or both (1) restricts its citizens from fully participating in the otherwise pure global market economy or (2) restricts non-citizens from fully participating in its own, otherwise pure market economy. Second, we can assume that all nations intervene in the pure global market economy in the same way. Using one of these two images as a reference, we go on to contrast the outcome of a particular intervention with the outcome that we deduce would occur in the absence of the intervention. For example, if we want to determine the effects of a tariff, we could assume that a single nation's tariff is the only exception to a pure global market economy. Or we could assume that all nations impose an identical tariff. More complex images would be based on one of these reference images.

Consider the analysis of a single nation's imposition of a tariff in an otherwise pure global market economy. The approach of praxeological entrepreneurship leads us to ask how the tariff would affect the incentives to appraise factors, produce goods, and bear uncertainty; and how it would affect imagination, creativity and inventiveness in these activities. Suppose that the only intervention is the imposition of a tariff by one nation on a single good. Assume that entrepreneurship is blocked from crossing national

boundaries.<sup>9</sup> Because the tariff raises the profit of domestic production of the good, domestic entrepreneurship will have a relatively greater incentive to produce the good in the industry protected by the tariff. Foreign entrepreneurship will have a relatively lower incentive to produce it. Relatively less of the tariff-imposing nation's entrepreneurship will be devoted to producing other goods and relatively more of other nations' entrepreneurship will be devoted to these. Since entrepreneurship implies imagination, creativity and inventiveness, we would expect similar shifts in these characteristics. For example, relatively more domestic entrepreneurship will be devoted to identifying new methods of producing the good and relatively less will be devoted to identifying new methods of producing other goods. This implies that domestic entrepreneurship is less likely to make technological advances in the production of other goods.

Finally, since profit depends on being able to predict a future tariff, a flexible tariff policy will provide incentives for entrepreneurs to try to identify the reasons why government officials impose a tariff and the preconditions that prompt them to do so. If an entrepreneur believes that he can gain from a change in the tariff, he may have an incentive to employ factors for the purpose of rent-seeking. If he believes that he will lose from a tariff, he may have an incentive to employ factors for defensive rent-seeking. In both cases, entrepreneurs would also have an incentive to use their imagination, creativity and inventiveness to try to identify new methods of succeeding (and of preventing their rivals from succeeding) in their rent-seeking efforts. The imagination, creativity and inventiveness that can be applied to the rent-seeking game ensures that the game between offensive and defensive rent-seekers will

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<sup>9</sup>In a real capitalist society, this can be accomplished imperfectly by blocking travel in and out of the country. Assuming that entrepreneurship cannot cross boundaries, it cannot profit from moving to the tariff-imposing nation if it perceives higher profit. However, an individual in one nation may still be able to learn something about the cognitive processes used by entrepreneurship in another nation by studying the results of its actions and its words, as suggested earlier in the paper. Moreover, physical travel may not be necessary. An entrepreneur in the free enterprise nation may be able to communicate means of profit to entrepreneurship in the tariff-imposing nation in exchange for money or other benefits. These means of circumventing a travel ban, however, are not perfect substitutes for free enterprise.

evolve and that the rent-seekers will have a continuing incentive to identify new methods of dealing with their rivals and with government agents.

This example gives a rough indication of the way to analyze the effect of intervention by identifying the incentives faced by entrepreneurship. To explore this principle further, consider a nation that completely blocks foreign entrepreneurs from competing with domestic entrepreneurs in producing a specific final good that is only consumed by consumers in the nation and not in any other nation. Then, in comparison with the pure global market economy, the technological growth of the domestic industry would depend entirely on the imagination, creativity and inventiveness of the domestic entrepreneurs. International entrepreneurs would not contribute.<sup>10</sup>

#### 4. Conclusion

The idea of the praxeological entrepreneur can be traced to the early part of the 20th century. The idea of a praxeologically-based economics, or praxeological economics, comes from Mises, although economics has been praxeological from the very beginning. Much of the author's work has sought to describe and clarify these ideas and to organize them into a coherent framework for studying the pure market economy and for evaluating arguments relating to government intervention. The early part of this

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<sup>10</sup>We must qualify this statement by recognizing that effective laws blocking the production of a final product may be difficult not only to enforce but also to make in the first place. For example, a law blocking production may not block assembly of foreign-produced parts. In this case, the effect would be partly to encourage a domestic entrepreneurial shift into the assembly of parts. If the government also blocked assembly, it would have to define the process of assembly by specifying the exact components the assembly of which is prohibited. If it took the other extreme and blocked the import of all factors used to produce the final good, it might hamper the production of other domestic products that use the same factors. To analyze the effects of the law requires a complete specification of what is prohibited and of how the government plans to use its enforcement resources.

paper briefly described the general thrust of this work. The later part addressed the issue of how these ideas may be applied in an international setting.

The first application was to the theory of comparative advantage. We pointed out that because the typical model of comparative advantage rules out entrepreneurial learning, it disregards an important source of effects due to trade that have nothing to do with comparative advantage and that would be present even if no comparative advantage existed. For example, if a nation has an absolute disadvantage in producing a good, its producers can learn to reduce and perhaps even reverse that disadvantage. We deduce this on the basis of the assumptions that distinctly human action possesses the characteristics of imagination, creativity, and inventiveness and that these characteristics are used to copy and innovate. We cannot know exactly what contributions a nation's entrepreneurship will make. As economists, we cannot be specialists in every field. Nevertheless, we are confident that in a free enterprise setting, producers will anticipate profit from successful copying and innovating.

Although the textbook theory of comparative advantage represents the outcome of distinctly human action, it disregards the imagination, creativity, and inventiveness of the producers. When appropriate account is taken of this entrepreneurship, we find that free trade is likely to have very different effects than those suggested by the simple theory of comparative advantage. Indeed, our analysis suggests that in order to account for international entrepreneurship, international trade theory is in need of considerable rebuilding.

Praxeological economics also challenges the usual way of deducing the effects of barriers to trade like tariffs. It suggests that the appropriate beginning point is an image of a pure global market economy with no national boundaries. It conceives of the division of that market economy into nations as a market intervention. This suggests two approaches to the subject of international trade theory. In the first we assume the formation of a single nation in an otherwise pure global market economy. To form a nation means to grant citizens legal rights to do business that differ from those granted to non-citizens. In the second we assume that all nations intervene in the same way. In the analysis of the effects of such

interventions, praxeological economics emphasizes imagination, creativity, and inventiveness in the identification, discovery and production of factors, techniques, and consumer goods. It also emphasizes the entrepreneurship exercised in the interaction between those affected by the laws and those charged with making and administering them. It thereby deduces that entrepreneurship in rent seeking is an integral part of the evaluation of arguments for intervention in the global market economy.

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## ABSTRACT

This chapter applies the concept of praxeological entrepreneurship to international economics. Praxeological entrepreneurship is the personification of the distinctly human features of the interaction of human beings under the conditions specified in the definition of the hypothetical pure market economy. The paper begins by describing this concept and showing how to apply it to help understand a closed market economy. Then it applies the concept to the study of two issues in international economics. First it presents an essential addendum to the principle of comparative advantage based on the copying and innovating that one would expect from imaginative, creative, and inventive distinctly human actors under freedom of enterprise. Then it describes the procedure that one who uses the concept would have to follow in order to evaluate arguments for or against intervention in the global market economy.

# **The Praxeological Concept of International Entrepreneurship**

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