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Article

Entrepreneurial Economies

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Abstract: The study of entrepreneurship often focuses on the activities of the entrepreneur. While entrepreneurship is undertaken by individuals, the degree to which individuals are entrepreneurial, and the directions in which their entrepreneurial actions take, are the result of the institutional environment. Some economies are more entrepreneurial than others. After discussing the institutional factors that encourage entrepreneurship, the ways in which economic models depict the economy are discussed, pointing toward the different policy conclusions regarding entrepreneurship that emanate from different assumptions in economic conditions.

Keywords: entrepreneurship; economic growth; general equilibrium; institutional analysis

1. Introduction

One approach to the study of entrepreneurship focuses on the actions of entrepreneurs. This approach sets aside differences in economic institutions to analyze entrepreneurial behavior within a given set of institutions. This paper takes a different approach, setting aside differences in the actions of individual entrepreneurs to focus on the effect of institutions on entrepreneurship. Some institutions are more conducive to entrepreneurship than others, and this paper develops the idea that entrepreneurship is driven primarily by economic institutions that entice individuals to be entrepreneurial rather than by the actions of entrepreneurial individuals. Entrepreneurial behavior is caused by entrepreneurial institutions, and the actions of those entrepreneurs are the effects of those institutions. People respond to incentives, and some institutional environments provide more incentives to be entrepreneurial than others.

While these two approaches are not mutually exclusive—it is certainly worthwhile to study the actions of entrepreneurs—there are good reasons from an economic perspective to focus more on the institutions rather than the entrepreneurs if one wants to understand the effects that entrepreneurship has on the economy, and even if one wants to understand why entrepreneurs are entrepreneurial. Perhaps entrepreneurship can be encouraged by providing information to potential entrepreneurs on what knowledge and skills facilitate entrepreneurship, but differences in institutions have a greater effect on entrepreneurial activity. The most entrepreneurial individuals in an economy are not people with formal training in entrepreneurship; they are people who are knowledgeable about the markets in which they are selling.

Surely, there are differences among individuals that make some individuals more entrepreneurial than others. People who are more willing to bear risk, who are more imaginative, more perceptive, or who (maybe for the reasons already listed) who have an educational background that has given them human capital to facilitate entrepreneurship are more likely to be entrepreneurial. Knight (1921) suggests that entrepreneurs have superior judgment that allows them to spot profit opportunities. However, the human capital they have acquired rarely is in the field of entrepreneurship. People tend to be entrepreneurial because there is a reward to implementing innovations that create value.

Economic theory, as it has developed through the second half of the twentieth century, has drawn attention away from entrepreneurial activities. The general equilibrium framework that Samuelson (1947) said lays the foundations of economic analysis, depicts



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an economy devoid of entrepreneurial opportunities, making it an ill-suited framework for studying entrepreneurship. More than that, if potential entrepreneurs view the economy as depicted in that model, they will see little incentive to be entrepreneurial. People will not seek profit opportunities if they do not think they exist.

As Baumol (1990, 1993) notes, people's entrepreneurial instincts lead them to productive actions under some institutional structures, but destructive actions under others. In a market setting, the value entrepreneurs create benefits others; but under some institutional structures entrepreneurial activity imposes costs on others even as it benefits the entrepreneur. Rent-seeking entrepreneurs offer a frequently discussed example. Evidence presented by Bjornskov and Foss (2016); Wennekers and Thurik (1999); Urbano et al. (2019); and van Praag and Versloot (2007) indicates that institutions do have a substantial influence on the degree to which economies are entrepreneurial, but those authors also note the weak connections between the literature on economic growth and the literature on entrepreneurship. Economists who want to understand the factors that drive entrepreneurship have good reason to focus on institutions that promote entrepreneurship rather than on differences among individuals that make some people more entrepreneurial than others.

Kirzner (1973) typifies the approach to entrepreneurship that focuses on the actions of entrepreneurs. His depiction of entrepreneurship as alertness—noticing profit opportunities that have previously gone unnoticed—describes the actions of entrepreneurs who act to move an economy toward equilibrium. Similarly, Shane (2003) depicts the activities of entrepreneurs as they search for profit opportunities. Perhaps, as Alvarez and Barney (2007, 2008) indicate, entrepreneurs create their own profit opportunities, and Holcombe (2003) argues that entrepreneurship by some creates more entrepreneurial opportunities for others. This line of reasoning examines the actions of entrepreneurs within a given set of institutions, but profit opportunities are more likely to arise under some institutional structures than in others.

This paper sets aside the question of what makes entrepreneurs entrepreneurial to look at the question of what makes economies entrepreneurial. The approach is along the lines suggested by Buchanan (1964), who argued that economists should focus on exchange—the way markets and other institutions of social interaction enable individuals to cooperate to achieve their goals—rather than on choice—the way that individuals and societies choose to allocate their resources.

2. Entrepreneurship Is Human Action

Mises (1998, p. 13) says “Acting man is eager to substitute a more satisfactory state of affairs for a less satisfactory. His mind imagines conditions which suit him better, and his action aims at bringing about this desired state”. People act when they see opportunities to improve their well-being—an insight that applies to everyone in an economy. Some people are more imaginative than others, some are more risk-averse than others, some are more observant than others, some are more intelligent than others, and some are more motivated than others. Many factors determine what actions individuals will take to improve their state of affairs. For some, taking a salaried job with a well-established employer will fulfill their goals. For others, starting a new business, launching a new product into the market, or finding a better way to market an existing product will fulfill their goals.

In this sense, everyone is entrepreneurial, in that they are looking for actions they can take to enhance their well-being. Mises (1998, p. 286) says, “Profit, in a broader sense, is the gain derived from action . . . To make profit is invariably the aim sought by any action”. In a market economy, the way people do this is to find ways to create value for others. In a system of voluntary exchange, people can profit only when others agree to trade with them, and trade will take place only when all parties to a trade perceive a benefit. This idea goes back at least to Smith ([1776] 1937), who observed that in a market economy, individuals pursuing their own interests are led by an invisible hand to do what is best for everyone. In a market economy, people benefit themselves by creating value for others.

Mises (1998, p. 286) says, “No system of the social division of labor can do without a method that makes individuals responsible for their contributions to the joint productive effort”. Everyone in a market economy looks for ways to create value for others, and in this sense the motivation of someone who waits tables in a restaurant to improve the dining experience of the restaurant’s customers is the same as the person who designs an innovative new product to bring to market. The waiter, the entrepreneur, both are engaging in human action to seek ways of creating value for others.

3. Production and Time

One characteristic of entrepreneurs is that they are residual claimants. People can contractually reduce their risks by taking jobs for agreed-upon wages, so the uncertainty regarding their productivity is borne by their employer, as residual claimant. The employer hires the employee based on a guess about the employee’s productivity, which will be determined at least in part by factors outside the control of the employee. An owner of a garage might hire a mechanic who may have no work to do because nobody has brought in an automobile that needs repair. The employer, taking that risk, is an entrepreneur who acted on the idea that the amount the employer paid the employee would be more than recouped by the services the employee provided to the employer (and the employer’s customers).

Two things stand in the way of entrepreneurial profit: production, and time. For example, if someone notices that apples sell for \$0.50 in one city and \$1.00 in another, there is a profit opportunity because apples can be bought in one city and sold for more in the other. However, to obtain the profit, the apples must be transported, which involves both transportation costs and the possibility that some of the apples will be spoiled in shipping. Those factors are the production that is required to reap the profit. In addition, there is the possibility that by the time the entrepreneur gets the apples to the second city, the price of apples there may have fallen, making it no longer profitable to transport them.

Production and time stand in the way of any perceived entrepreneurial profit. If an entrepreneur hypothesizes that people would like to buy cars with stainless steel bodies, the entrepreneur can buy the factors of production to build the cars with the hope of selling them for more than it cost to buy the inputs. Similarly, people who engage in financial arbitrage notice price discrepancies across different financial markets, and buy in the cheap market to sell in the expensive one. However, although those financial transactions take only fractions of a second, those engaged in arbitrage need to hire employees and buy very fast computers, because those profits disappear rapidly. In all of these examples, what stands in the way of a profit for the entrepreneur who spots a profit opportunity is production and time.

Not all entrepreneurs are successful. Some, such as Henry Ford and Steve Jobs, are celebrated for their successes, but there are others such as John DeLorean—the producer of the stainless steel car—who miscalculated and ended up in bankruptcy. As residual claimants, entrepreneurs bear the risk that the profit opportunities they believe are available may, because of the obstacles of production and time, actually result in losses. To engage in entrepreneurship, entrepreneurs must perceive that there is a good chance they will profit from their entrepreneurial activity.

Entrepreneurship amounts to arbitrage, but even those cases where it appears that buying low and selling high takes place almost simultaneously, such as financial arbitrage, still require still require production and time. In some situations, profit opportunities disappear fractions of a second after they appear; in other situations, it may take years to go from spotting the opportunity to being able to profit from it.

Some economic environments are more conducive to generating entrepreneurial opportunities than others, and some environments make it easier for individuals to find entrepreneurial opportunities than others. In environments in which it is easier for individuals to discover entrepreneurial opportunities, individuals will be more entrepreneurial.

4. Equilibrium and Entrepreneurship

To shed some light on the question of what makes people more entrepreneurial, consider an economy in a competitive general equilibrium. With all markets in equilibrium, all profit opportunities have been competed away, and firms earn only normal profits. Within this framework of competitive general equilibrium, assume that a potential entrepreneur perceives a profit opportunity. Realizing the risk that what at first appears to be a profit opportunity may turn out not to be profitable, should the entrepreneur act on it? Because all profits have already been competed away in general equilibrium, the answer is no. There is no opportunity for profit in a competitive equilibrium.¹

One can see, first, that an economy in general equilibrium allows no role for entrepreneurship, and second, that if economic actors view the general equilibrium model as descriptive of the actual economy, nobody would act entrepreneurially because people would believe that there were no profit opportunities for them to act on.² This points to a reason why neoclassical economic theory has had few insights to offer on the role of entrepreneurship in an economy. However, this point applies to more than just the study of entrepreneurship.

When considering the implications of the general equilibrium framework for whether people in the real world would act entrepreneurially, the key factor is whether potential entrepreneurs view the economy as in general equilibrium, not whether it actually is in general equilibrium. If people believe that the model is descriptive of the real-world economy, they will believe there are no unexploited profit opportunities and will not act entrepreneurially even if profit opportunities actually exist. If they perceive what might be a profit opportunity in an economy in a competitive general equilibrium, they would be mistaken because there are no unexploited profit opportunities in a competitive equilibrium, and if they act on what appeared to be a profit opportunity, they would ultimately end up taking losses.

People do not look for unicorns and mermaids because they do not believe they exist. If people do not believe profit opportunities exist, they will not expend any effort looking for them. Even if an economy actually has profit opportunities, if people believe the economy is in a competitive general equilibrium as described by neoclassical economics, they have no incentive to be alert to the existence of profit opportunities, and every reason to think that even if something looks like a profit opportunity, it actually is not.

This is consistent with the neoclassical model of the competitive firm. Intermediate microeconomics textbooks consistently say that firms should be content with normal profits because the assumptions behind the model of competitive markets rule out the ability of firms to do any better than this in the long run.³ In a neoclassical competitive equilibrium, what at first appears to be a profit opportunity will not actually yield profits if acted upon. So when potential entrepreneurs believe that the economy is in a competitive general equilibrium, (1) people will not be very alert to the spotting of profit opportunities because they believe they do not exist, and (2) even if someone does see what appears to be a profit opportunity, the person is unlikely (or at least less likely) to act on it, because of the risk that some unanticipated problem will actually cause action to lead to a loss.

These comments are relevant both to the neoclassical model of competitive equilibrium and to the real world, to the degree that people take the model to be descriptive. The model rules out the possibility of profit through entrepreneurship because it depicts an economy in equilibrium, and it assumes that each market has a given homogeneous output—no product innovations—and a given production function—no ability to profit from altering production technology.

Going beyond the model, if people view the economy to be in a long-run equilibrium as described by the model, they will not look for profit opportunities because they do not think they are available. An implication for entrepreneurship education is that aspiring entrepreneurs should be taught that the neoclassical model of competitive equilibrium is not descriptive of an actual competitive economy. If it was, there would be no opportunities for entrepreneurship.

5. Progress and Growth

Consider in this context neoclassical growth theory based on Solow (1956), in which economic growth is depicted as occurring in an equilibrium setting. In this framework, aggregate economic growth occurs because of growth in the inputs of capital and labor, and improvements in production technology that the model does not explain—the Solow residual. Following up on Solow, Lucas (1988) and Romer (1986, 1990) more precisely define inputs—in particular, labor, which is better viewed as human capital—and technological change, but remain in the equilibrium framework laid out by Solow. One limitation to this approach to economic growth is that it represents growth as a continual increase in aggregate output. In this framework, output is depicted as homogeneous, but the actual process of growth is built upon innovations that change the types of output being produced and the way that output is produced.

Looking at the increase in well-being that has occurred over the last 20, or 50, or 100 years, some of that increase is the result of people's incomes increasing so they can buy more of everything, but a large part of that increase in well-being is due to their ability to buy improved goods and services, or goods and services that were not available at all a few decades or a century ago. Innovations such as microwave ovens, smart phones, and flat screen televisions, and improvements in goods such as automobiles, athletic shoes, and even coffee, have increased standards of living.

Per capita income in the United States increased by about seven times in the twentieth century, but people at the end of the century did not want seven times as many horses or seven times as much food. Their standards of living increased because of innovations that, for example, allow them to fly from the United States to Europe in a few hours rather than take a week-long trip on a steam ship. They can live in air conditioned houses, improving their comfort, and can store food in refrigerators rather than ice boxes. Per capita income could not have increased as much as it did without the introduction of new and improved goods. That economic progress is what enabled the growth in incomes.

Growth, which economists typically depict as income growth, depends on progress—the innovation that brings people new and improved consumption opportunities. So, to understand growth requires an understanding of progress. Growth cannot be understood without an understanding of how those new and improved consumption opportunities are created. New and improved consumption opportunities are assumed away in growth models where output is depicted as homogeneous—as income growth. Those new and improved consumption opportunities are brought to market through entrepreneurship. For this reason, neoclassical economic growth models are fundamentally misleading. They omit entrepreneurship, which is the ultimate cause of growth. Growth and entrepreneurship, as areas of academic analysis, should be closely related, but they are not because the analysis of growth has focused on income growth rather than on the changing composition of economic output.

6. Entrepreneurial Economies

Compare an economy in general equilibrium with an economy in which innovations are constantly being introduced. General equilibrium describes a stagnant economy, whereas an entrepreneurial economy is characterized by what Schumpeter (1950) called creative destruction. The economy is never in equilibrium, as described by the neoclassical model. Schumpeter (1950, p. 82) says “... with capitalism we are dealing with an evolutionary process. ... Capitalism, then, is by nature a form or method of economic change and not only never is but never can be stationary”. Economies do not change on their own. The economy evolves because individuals find new ways of doing things. Consumers look for ways to change their consumption patterns to better satisfy their desires, and one thing that can entice them to change is a new or improved good offered on the market.

In a market economy, individuals acquire resources by creating value for others. Resources are acquired through voluntary exchange, and exchange takes place only when

both parties perceive that they will gain value by engaging in the exchange. In a market setting, individuals who seek ways to improve their own economic well-being must be seeking ways to create value for others. In an economy that is continually evolving, changes in markets open up profit opportunities for entrepreneurs.

The growth of automobile ownership in the twentieth century obviously opened opportunities for entrepreneurs to open gas stations and garages, but it also created opportunities to open supermarkets and shopping malls, because businesses could attract customers from a larger area, and those customers had the means to carry home more goods than would be feasible if they could not load their purchases into their cars. The wireless computer mouse could not have been developed without the graphical user interface for computers, which was only developed because of the widespread use of personal computers, which could not have occurred without the development of the microprocessor, which could not have been developed without the invention of the transistor. These examples show how the entrepreneurial actions of some create new entrepreneurial opportunities for others. There is a path dependence, as [Arthur \(1989\)](#) describes, in which one innovation creates opportunities for other innovations that build on earlier ones.

[Schumpeter \(1937\)](#) depicts entrepreneurship as an activity that disrupts the status quo—that disturbs an equilibrium. [Kirzner \(1973\)](#) depicts entrepreneurship as an activity that moves an economy in disequilibrium toward equilibrium. These two perspectives on entrepreneurship are complementary, as [Holcombe \(1998, 2007\)](#) explains, in the sense that the disruptive Schumpeterian entrepreneur disturbs the existing equilibrium allowing the Kirznerian equilibrating entrepreneur to pull the economy toward a new equilibrium, but equilibrium may be a misleading term if the equilibrium is always changing.

As normally defined, and consistent with neoclassical economics, an equilibrium is a state of affairs which, if disturbed, equilibrating forces pull it back to the old equilibrium. However, the larger forces that disturb the current state of affairs involve changes that lead the economy further away from the old state of affairs. The replacement of horse-drawn carriages by motor-driven vehicles disturbed the status quo, but the economy was never going to return to its former position. Some markets were expanded as others continued to contract. The concept of equilibrium is an uneasy fit here, and for policy purposes misleading. In many cases, there is no tendency for the economy to return to its former state of affairs when the status quo is disturbed.

The economy evolves along a path that is ever-changing; never in equilibrium if equilibrium is pictured as a state of rest, as in neoclassical general equilibrium. The forces of supply and demand do lead markets to clear, so more descriptive terminology would label those forces as market-clearing rather than equilibrating. One might argue that the underlying equilibrium is always changing, but a continually changing equilibrium seems at odds with the normal meaning of equilibrium.

This suggests two reasons why entrepreneurship education should avoid describing an economy as in (or out of) equilibrium. First, it obscures the features of a dynamic economy that always generate new entrepreneurial opportunities. Second, it suggests that should an entrepreneur find a profitable line of business, those profits will continue into the indefinite future. As [Christensen \(1997\)](#) has illustrated, firms cannot rest on their existing business plans and hope to continue to be profitable, because the creative destruction of the economy will undermine those profits. Entrepreneurs must always be looking for new ways to create value.

An entrepreneurial economy is one in which individuals are constantly bringing innovations to market, and those innovations displace the status quo, offering more opportunities for new innovations to complement and enhance previous innovations. Entrepreneurship creates more entrepreneurial opportunities, as one innovation builds on another, and an entrepreneurial economy produces economic progress. Progress, in the form of new and improved products, generates growth, but growth will not occur without that progress.

7. Why Are Entrepreneurs Entrepreneurial?

The entrepreneurial economy described in the previous section stands in contrast to the economy described by general equilibrium models. A comparison of those two frameworks provides some insights as to why entrepreneurs are entrepreneurial. Think of those two frameworks not as different approaches for modeling an economy but rather as descriptions of the way that economic actors view the nature of the economy.

Most individuals do not have a deep theoretical understanding of the way an economy operates, but if people have an impression that competitive forces in an economy have played themselves out to produce a stable status quo that an economist would describe as a general equilibrium, then there is little point in looking for, or acting upon, apparent profit opportunities. As suggested earlier, in that setting, an apparent profit opportunity is likely to be an illusion. If people view an economy as constantly evolving, with new or improved goods and services constantly replacing the old, the implication is that profit opportunities are continually arising, so people will be more alert to try to spot them, and will be more confident that there are real opportunities for profit that they can take.

Within the same economy, some people can have one view while others can hold the other. People who have the first view of the economy are more likely to take a salaried job, perceiving that real profit opportunities are rare and that a perception that one exists is likely to be mistaken. People who hold the second view are the entrepreneurs who look for and act on the opportunities that arise as a result of economic progress. One reason some people are more entrepreneurial than others is because people have different mental models of the way the economy works. People who view the economy as ever-evolving, characterized by continual economic progress, will tend to be more entrepreneurial than people who take an equilibrium view of the economy—the view that academic economists pass on to their students.

Not all economies are the same, however. Some economies really are more dynamic, and more characterized by continual progress, than others. People who are in more dynamic economies have good reason to seek and act on profit opportunities, because those economies have more profit opportunities than stagnant economies. Entrepreneurship disrupts the status quo and sets in motion the creative destruction that creates additional entrepreneurial opportunities, [Holcombe \(2003\)](#), explains. Entrepreneurship creates an environment that leads to more entrepreneurship.

In an entrepreneurial economy, people tend to be more entrepreneurial for several reasons. First, entrepreneurship generates more entrepreneurial opportunities. Second, the success of existing entrepreneurs reveals the possibility for profitable entrepreneurship. It provides more than just information; it provides a knowledge base from which potential entrepreneurs can judge how profitable an innovation might be. Third, it provides information not only on the existence of profit opportunities, but also on how others have acted on them successfully in the past.

Entrepreneurship also creates institutional changes within an economy that facilitate entrepreneurship. The availability of venture capital is an example. In a stagnant economy, venture capital would not be available to aid the potential entrepreneur, because there would be no profit opportunity for venture capitalists. In an entrepreneurial economy, institutions arise to support entrepreneurship and enhance the success probabilities of entrepreneurs. The institutional features that help support entrepreneurship offer an interesting area of inquiry, as well as the impediments that public policy creates as obstacles to these institutions.

Entrepreneurial economies benefit from the synergy of agglomeration economies, which directly create a more entrepreneurial environment. [Desrochers \(2001\)](#) notes that agglomeration economies take advantage of tacit knowledge that [Hayek \(1937, 1945\)](#) emphasized in his analysis of the way the specific knowledge individuals have can be used in an economy. Agglomeration economies enable individuals to be more entrepreneurial, but because of the creative destruction inherent in entrepreneurial economies, they also require individuals to be more entrepreneurial.

In a more entrepreneurial economy, not only do individuals have the opportunity to be more entrepreneurial, economic survival requires people to be more entrepreneurial, or they will be left behind by others who are. In an entrepreneurial economy, one cannot hope to find a successful business model and stick with it, because activities that were at one time profitable will be eclipsed by entrepreneurial innovators in the future. As [Christensen \(1997\)](#) notes, sticking with a formula that is profitable today will lead to declining profits, and eventually losses, in the future.

Even if one accepts [Kirzner \(1973\)](#) view that entrepreneurship is simply noticing a profit opportunity that has thus far been unnoticed, and that alertness does not require the use of any resources, people in entrepreneurial economies do invest resources to create an environment in which profit opportunities are more likely to be spotted. Firms engage in research and development because R&D creates an environment that can reveal profit opportunities. [Schumpeter \(1937\)](#) distinguishes between invention—advances in technology—and innovation—embodying inventions into profitable products. In this framework, R&D creates an environment that develops inventions, allowing entrepreneurs to discover ways to turn those inventions into innovations.

[Loi and Fayolle \(2021\)](#) note that there is limited evidence on the impact of entrepreneurship education and an economy's level of entrepreneurship. Andrew Carnegie did not invent the Bessemer process, Henry Ford did not invent the assembly line, and Steve Jobs did not invent the graphical user interface for computers. Those individuals were the innovators who used the inventions of others to produce profitable products. They were alert to the profit opportunities they spotted, but they would have acted on them only if they perceived them to be real profit opportunities rather than illusions. They had to perceive an economic environment that was conducive to change. Such an environment encourages entrepreneurs such as John DeLorean (the producer of the stainless steel car) just as it encourages entrepreneurs such as Henry Ford, but in both cases, without the perception of an economy with profit opportunities, there would have been no DeLorean or Ford automobiles.

8. Entrepreneurship Creates Entrepreneurial Opportunities

The examples in the previous section illustrate that entrepreneurial economies generate more entrepreneurial opportunities. The entrepreneurs who developed the automobile industry in the early twentieth century generated opportunities to create gas stations, auto repair shops, shopping malls, and supermarkets. The entrepreneurs who developed personal computers created opportunities to develop software and peripherals for those computers. Twenty-first-century corporate giants such as Google, Amazon, and Facebook would not have been possible without the development of personal computers in the twentieth century. Because entrepreneurial activity creates entrepreneurial opportunities, people in entrepreneurial economies have an incentive to be entrepreneurial to discover those profit opportunities. Potential entrepreneurs can learn from the experience of those entrepreneurs who preceded them, and as they act entrepreneurial, they create even more entrepreneurial opportunities for others.

9. The Environment for Entrepreneurship

A market economy provides an environment for entrepreneurship because people profit in a market economy by creating value for others. The incentive to create value for others is the engine that drives entrepreneurship. As [Hayek \(1937, 1945\)](#) notes, a market economy provides the mechanism that allows individuals to make best use of the decentralized knowledge held by everyone in the economy, without the requirement that they acquire the knowledge held by others. Because knowledge is decentralized and often tacit, people must have the freedom to make best use of their own knowledge through the market process of voluntary exchange. People engage in voluntary exchanges because they believe they gain value by doing so.

A substantial body of literature has developed over the past few decades that identifies those institutional characteristics that create an environment for entrepreneurship, and empirically documents the close relationship between those characteristics and economic prosperity. The Frazer Institute annually publishes an Economic Freedom of the World (EFW) index that measures the degree to which individuals can engage in mutually agreeable voluntary economic transactions. [Gwartney et al. \(2019\)](#) divide the EFW measure into five major categories: size of government, legal system and property rights, sound money, freedom to trade internationally, and regulation. [Berggren \(2003\)](#) and [de Haan et al. \(2006\)](#) review some of the literature showing that countries that have higher EFW indexes have higher incomes, and that countries that improve their EFW ratings have higher rates of economic growth.

The idea that market-oriented institutions create an environment that encourages entrepreneurship and economic progress is reinforced by [Landes \(1998\)](#), [Mokyr \(2002\)](#) and many others. This idea was also the basis for Mises's and Hayek's arguments in the socialist calculation debate. There is ample support for the idea that institutions that protect property rights and promote voluntary market exchange create an entrepreneurial environment. People in entrepreneurial economies have an incentive to be entrepreneurial. Entrepreneurial economies are economies that are characterized by economic freedom—the ability of individuals to make their own economic decisions unencumbered by regulatory barriers or compromised by taxing away the return to entrepreneurship.

There may be cultural differences across countries that enhance or inhibit entrepreneurial actions. [Linan and Chen \(2009\)](#) compare Spain and Taiwan, and [Garcia-Rodriguez et al. \(2020\)](#) compare Cuba and Spain, and both find that cultural differences do have some explanatory power. One might wonder whether cultural differences really proxy for other underlying institutional differences. For example, North Korea and South Korea had the same culture prior to World War II, but very different entrepreneurial environments since then. East and West Germany prior to 1989 offer a similar comparison. In a broader sense, culture is institutional, but it is reasonable to look across countries at informal institutions such as culture in addition to legal and political institutions.

People enter into market transactions to engage in mutually advantageous exchange. Anything that impedes mutually advantageous exchange reduces the opportunity for entrepreneurial action to create value for others. Taxes and regulations are examples of factors that can reduce the scope entrepreneurs have to discover possibilities for creating value for others. Greater restrictions and costs placed on mutually advantageous exchange reduce the availability of entrepreneurial opportunities. Economies with fewer restrictions on market exchange are more entrepreneurial economies.

When resources are allocated through political means, entrepreneurial individuals find ways to use the political process to impose costs on others to benefit themselves. As [Baumol \(1990, 1993\)](#) describes, entrepreneurship shifts from being productive to being destructive, through rent-seeking, ([Tullock 1967](#); [Krueger 1974](#)), regulatory capture ([Stigler 1971](#)), and interest group politics ([Olson 1965, 1982](#)). A market economy provides the economic environment for productive entrepreneurship, and government interference with markets pushes entrepreneurial activities from productive to destructive.

10. Institutional Details

The evidence strongly supports the conclusion that market economies with institutions that protect property rights and enforce rule of law, and with governments that have few regulatory impediments to voluntary exchange along with low government taxes and expenditures are most conducive to entrepreneurship.⁴ This broad conclusion leaves open some questions about institutional details. What constitutes property, and what limits, if any, should be placed on property rights? Economists have explored these issues, although rarely in the context of entrepreneurship.

Economists have debated the degree to which rights to intellectual property should be protected. Patents and copyrights give creators a monopoly right over the use of their

ideas, for example. In most instances, economists view monopolies as undesirable, and patents and copyrights give creators monopoly rights over the use of their ideas. This may give an incentive for entrepreneurs to be more innovative because it raises the return they can receive from their creations. However, [Hirschleifer \(1971\)](#) notes that creators have a first mover advantage that may be sufficient reward to entrepreneurs, and [Kinsella \(2008\)](#) argues that governments should not protect intellectual property rights because intellectual property is not scarce. Once an idea is created, it can be used by anyone without depriving anyone else of its use. Does the government protection of intellectual property rights encourage entrepreneurship, or hinder it? This is an open question.

Economists have focused on how property rights should be assigned, but have not linked the issue directly to entrepreneurship. As [Coase \(1960\)](#) notes, to assign a right to one party means limiting rights to others. The incentive to be entrepreneurial is directly affected by how rights are assigned and enforced.

Entrepreneurship is more the consequence of institutions that create entrepreneurial economies than the product of any specific characteristics or actions of entrepreneurs. To understand entrepreneurship, then, requires an understanding of the institutions that enable entrepreneurial economies. Broadly speaking, entrepreneurial economies are market economies, but the effect of many specific institutional details on entrepreneurship is an area worth exploring in more detail.

11. What Makes People Entrepreneurial?

One way to examine the question of what makes people entrepreneurial, and what can make people more entrepreneurial, is to look for ways to give individuals the human capital that will make them more entrepreneurial. Why are some people more entrepreneurial than others? Universities are increasingly offering students programs and degrees in entrepreneurship to develop those individual entrepreneurial characteristics. Another way to examine the question is to look at the characteristics of economic institutions that encourage people to be entrepreneurial. Focus on entrepreneurial economies rather than entrepreneurial individuals. The biggest factor leading to differences in entrepreneurship across countries is not the differences in the inhabitants of those countries, but the differences in institutions that encourage or discourage entrepreneurial actions, and that channel entrepreneurial individuals in different directions.

What do great entrepreneurs such as Andrew Carnegie, John D. Rockefeller, Henry Ford, Bill Gates, Steve Jobs, and Jeff Bezos have in common? None of them studied entrepreneurship. Rather, they perceived profit opportunities in markets they knew and acted to exploit them. Surely, it is beneficial to equip potential entrepreneurs with business skills to help them make the most of the profit opportunities they perceive. However, entrepreneurship comes from spotting profit opportunities, and to do so, potential entrepreneurs must believe that there are unexploited profit opportunities waiting to be discovered.

There is room for both approaches, but the study of entrepreneurship tends to focus heavily on the characteristics and activities of entrepreneurs, rather than on the characteristics of entrepreneurial economies. Individuals tend to be resourceful and to respond to the incentives they face. As [Baumol \(1990, 1993\)](#) notes, some institutions channel entrepreneurial individuals in productive ways while other institutions lead entrepreneurial individuals toward destructive activities. Individuals will be entrepreneurial when they are in an economic environment that rewards entrepreneurship. A better understanding of the factors that create entrepreneurs can probably be obtained by studying the institutions that generate more entrepreneurship in the aggregate than on the human capital that makes individuals more entrepreneurial.

Entrepreneurial economies are entrepreneurial not because of the characteristics of their entrepreneurs, but because they have institutions that are conducive to entrepreneurship.

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Notes

- ¹ The answer to this question is more convoluted than it may appear. A general equilibrium of the type depicted by Hicks (1939) and Samuelson (1947) assumes perfect information on the part of all parties. So the entrepreneur would know not to act on what initially appears to be a profit opportunity. However, this depends on how one defines equilibrium. Hayek defines equilibrium as a condition in which everybody's plans are mutually consistent, so everyone's plans can be realized. Kirzner defines equilibrium as a condition in which all profit opportunities have been competed away. In the absence of perfect information, which Kirzner assumes will always be the case, the economy will never be in equilibrium as Hicks and Samuelson define it, but may be in equilibrium as Hayek defines it, if profit opportunities remain unnoticed. This is discussed Lewin (1997) and by Holcombe (2007, pp. 46–51). An excellent critique of the Hicks-Samuelson methodology is found in Kohn (2004).
- ² This situation is like the well-known economist joke (Olson 1996): Economist 1: "Look, there's a \$20 bill on the sidewalk." Economist 2: "Couldn't be. If it was, someone would have already picked it up."
- ³ Holcombe (2009) examines half a dozen leading intermediate microeconomics textbooks to document that they tell their readers that firms cannot expect more than just normal profits in the long run.
- ⁴ Gwartney et al. (1998) undertook an empirical study to estimate how government expenditures as a share of GDP affected economic growth and found no lower bound. The smaller government spending was as a share of GDP, the higher the economic growth rate, with some observations of government spending as a share of GDP below 20 percent. If there is some minimal amount of government spending that enhances economic growth, the evidence in that paper indicates that level is below 20 percent.

References

- Alvarez, Sharon A., and Jay B. Barney. 2007. Discovery and Creation: Alternative Theories of Entrepreneurial Action. *Strategic Entrepreneurship Journal* 1: 11–26. [\[CrossRef\]](#)
- Alvarez, Sharon A., and Jay B. Barney. 2008. Opportunities, Organizations, and Entrepreneurship. *Strategic Entrepreneurship Journal* 2: 265–67. [\[CrossRef\]](#)
- Arthur, W. Brian. 1989. Competing Technologies, Increasing Returns, and Lock-In by Historical Events. *Economic Journal* 99: 116–31. [\[CrossRef\]](#)
- Baumol, William J. 1990. Entrepreneurship: Productive, Unproductive, and Destructive. *Journal of Political Economy* 98: 893–921. [\[CrossRef\]](#)
- Baumol, William. 1993. *Entrepreneurship, Management, and the Structure of Payoffs*. Cambridge: MIT Press.
- Berggren, Niclas. 2003. The Benefits of Economic Freedom: A Survey. *Independent Review* 8: 193–211.
- Bjornskov, Christian, and Nicolai J. Foss. 2016. Institutions, Entrepreneurship, and Economic Growth: What Do We Know and What do We still Need to Know? *The Academy of Management Perspectives* 30: 292–315. [\[CrossRef\]](#)
- Buchanan, James M. 1964. What Should Economists Do? *Southern Economic Journal* 30: 213–22. [\[CrossRef\]](#)
- Christensen, Clayton. 1997. *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Cambridge: Harvard Business Review Press.
- Coase, Ronald H. 1960. The Problem of Social Cost. *Journal of Law & Economics* 3: 1–44.
- de Haan, Jakob, Susanna Lundstrom, and Jan-Egbert Sturm. 2006. Market-Oriented Institutions and Policies and Economic Growth: A Critical Survey. *Journal of Economic Surveys* 20: 157–91. [\[CrossRef\]](#)
- Desrochers, Pierre. 2001. Geographical Proximity and the Transmission of Tacit Knowledge. *Review of Austrian Economics* 14: 25–46. [\[CrossRef\]](#)
- Garcia-Rodriguez, Francisco J., Ines Ruiz-Rosa, Desiderio Cutierrez-Tano, and Esperanza Gil-Soto. 2020. Entrepreneurial Intentions in the Context of a Collectivist Economy: A Comparison Between Cuba and Spain. *International Journal of Entrepreneurship and Management Journal*, 1–19. [\[CrossRef\]](#)
- Gwartney, James, Randall Holcombe, and Robert Lawson. 1998. The Scope of Government and the Wealth of Nations. *Cato Journal* 18: 163–90.
- Gwartney, James, Robert Lawson, and Joshua Hall. 2019. *Economic Freedom of the World: 2019 Annual Report*. Vancouver: Fraser Institute.
- Hayek, Friedrich A. 1937. Economics and Knowledge. *Economica* 4: 33–54, Reprinted in Hayek, Friedrich A. 1949. *Individualism and Economic Order*. London: Routledge and Kegan Paul. [\[CrossRef\]](#)
- Hayek, Friedrich August. 1945. The Use of Knowledge in Society. *American Economic Review* 35: 519–30.
- Hicks, John R. 1939. *Value and Capital: An Inquiry into Some Fundamental Principles of Economic Theory*. Oxford: Clarendon Press.
- Hirschleifer, Jack. 1971. The Private and Social Value of Information and the Reward to Inventive Activity. *American Economic Review* 61: 561–74.
- Holcombe, Randall G. 1998. Entrepreneurship and Economic Growth. *Quarterly Journal of Austrian Economics* 1: 45–62. [\[CrossRef\]](#)
- Holcombe, Randall G. 2003. The Origins of Entrepreneurial Opportunities. *Review of Austrian Economics* 16: 25–43. [\[CrossRef\]](#)
- Holcombe, Randall G. 2009. Product Differentiation and Economic Progress. *Quarterly Journal of Austrian Economics* 12: 17–35.
- Holcombe, Randall. 2007. *Entrepreneurship and Economic Progress*. New York: Routledge.

- Kinsella, Stephan. 2008. *Against Intellectual Property*. Auburn: Ludwig von Mises Institute.
- Kirzner, Israel M. 1973. *Competition and Entrepreneurship*. Chicago: University of Chicago Press.
- Knight, Frank H. 1921. *Risk, Uncertainty, and Profit*. Boston: Houghton Mifflin.
- Kohn, Meir. 2004. Value and Exchange. *Cato Journal* 24: 303–39.
- Krueger, Anne O. 1974. The Political Economy of the Rent-Seeking Society. *American Economic Review* 64: 291–303.
- Landes, David S. 1998. *The Wealth and Poverty of Nations*. New York: W.W. Norton.
- Lewin, Peter. 1997. Hayekian Equilibrium and Change. *Journal of Economic Methodology* 4: 245–66. [[CrossRef](#)]
- Linan, Francisco, and Yi-Wen Chen. 2009. Development and Cross-cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice* 33: 593–617. [[CrossRef](#)]
- Loi, Michela, and Alain Fayolle. 2021. Impact of Entrepreneurship Education: A Review of the Past, Overview fo the Present, and a Glimpse of Fiture Trends. In *Annals of Entrepreneurship Education and Padagogy*. Cheltenham: Edward Elgar, pp. 170–93.
- Lucas, Robert E., Jr. 1988. On the Mechanics of Economic Development. *Journal of Monetary Economics* 22: 3–42. [[CrossRef](#)]
- Mises, Ludwig von. 1998. *Human Action*. Scholar's Edition. Auburn: Ludwig von Mises Institute.
- Mokyr, Joel. 2002. *The Gifts of Athena: Historical Origins of the Market Economy*. Princeton: Princeton University Press.
- Olson, Mancur, Jr. 1965. *The Logic of Collective Action*. Cambridge: Harvard University Press.
- Olson, Mancur, Jr. 1996. Big Bills Left on the Sidewalk: Why Some Nations are Rich, Others Poor. *Journal of Economic Perspectives* 10: 3–24. [[CrossRef](#)]
- Olson, Mancur. 1982. *The Rise and Decline of Nations*. New Haven: Yale University Press.
- Romer, Paul M. 1986. Increasing Returns and Long-Run Growth. *Journal of Political Economy* 94: 1002–37. [[CrossRef](#)]
- Romer, Paul M. 1990. Endogenous Technological Change. *Journal of Political Economy* 98: S71–S102. [[CrossRef](#)]
- Samuelson, Paul Anthony. 1947. *Foundations of Economic Analysis*. Cambridge: Harvard University Press.
- Schumpeter, Joseph A. 1937. *The Theory of Economic Development*. Cambridge: Harvard University Press.
- Schumpeter, Joseph A. 1950. *Capitalism, Socialism, and Democracy*, 3rd ed. London: George Allen & Unwin.
- Shane, Scott. 2003. *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus*. Northampton: Edward Elgar.
- Smith, Adam. 1937. *An Inquiry into the Nature and Causes of the Wealth of Nations*. New York: Modern Library. First Published 1776.
- Solow, Robert M. 1956. A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics* 70: 65–94. [[CrossRef](#)]
- Stigler, George J. 1971. The Theory of Economic Regulation. *Bell Journal of Economics and Management Science* 2: 3–21. [[CrossRef](#)]
- Tullock, Gordon. 1967. The Welfare Cost of Tariffs, Monopolies, and Theft. *Western Economic Journal* 5: 224–32. [[CrossRef](#)]
- Urbano, David, Sebastian Aparicio, and David B. Audretsch. 2019. *Institutions, Entrepreneurship, and Economic Performance*. Cham: Springer.
- van Praag, C. Mirjam, and Peter H. Versloot. 2007. What Is the Value of Entrepreneurship? A Review of Recent Research. *Small Business Economics* 29: 351–82. [[CrossRef](#)]
- Wennekers, Sander, and Roy Thurik. 1999. Linking Entrepreneurship and Economic Growth. *Small Business Economics* 13: 77–56. [[CrossRef](#)]