18. The essence of the Austrian School and the concept of dynamic efficiency[1]

Now let me begin by making a few points on the true origin of the Austrian School of Economics, which should be traced back to the works of the Spanish Scholastics of what is known as the "*Siglo de Oro Español"* (in English the "Spanish Golden Age"), which ran from the mid 16th century through the 17th century. The great Austrian scholar Murray N. Rothbard (one of the brightest followers and pupils of Ludwig von Mises) first developed the thesis that the Austrian School is of Spanish origin in 1974. The Nobel Prize winner Friedrich A. Hayek shared this view, particularly after meeting Bruno Leoni, the great Italian scholar and author of the book, freedom and the law. The two met in the 1950s, and Leoni convinced Hayek that the intellectual origins of classical economic liberalism lay in Mediterranean Europe and not in Scotland.

I have here a letter from Hayek dated January 7, 1979, in which Hayek writes that Rothbard "demonstrates that the basic principles of the theory of the competitive market were worked out by the Spanish scholastics of the 16th century and that economic liberalism was not designed by the Calvinists but by the Spanish Jesuits." Hayek concludes his letter by telling us: "I can assure you from my personal knowledge of the sources that Rothbard's case is extremely strong."

Who were these Spanish intellectual ancestors of the modern free market movement? Most of them were scholastics teaching morals and theology at the University of the city of Salamanca, a wonderful medieval city located 150 miles to the northwest of Madrid, close to the border of my country with Portugal. These scholastics were mainly either Dominicans or Jesuits, and as we are about to see, they were able to articulate the subjectivist, dynamic, and libertarian tradition which, 250 years later, was to be stressed by Carl Menger and his followers of the Austrian School of free market economics. Let us recall some of their contributions.

Perhaps the first author to be mentioned should be Diego de Covarrubias y Leyva. Covarrubias was born in 1512, the son of a famous architect, and he became bishop of the city of Segovia and minister of King Philip II. If you should visit Spain, I recommend you tour the museum of the great Spanish painter El Greco in the city of Toledo. There you will see a stunning portrait of Covarrubias, who, in 1554, set forth better than anyone before him the subjectivist theory of value, which is the foundation of all free market principles. Specifically, Covarrubias concludes that "the value of an article does not depend on its essential nature but on the subjective estimation of men, even if that estimation is foolish." He adds that "in the Indies wheat is dearer than in Spain because men esteem it more highly, though the nature of the wheat is the same in both places."

Another important author is Luis Saravia de la Calle, who was the first Spanish scholastic to demonstrate that prices determine costs, not vice versa. Saravia de la Calle also has the special merit of having written his main work in Spanish, not in Latin. Its title is *Instrucción de Mercaderes* (Instruction to Merchants), and there we read that "those who measure the just price by the labour, costs, and risk incurred by the person who deals in the merchandise are greatly in error. The just price is found not by counting the cost, but by common estimation."

Saravia de la Calle is also a great critic of fractional-reserve banking. He maintains that receiving interest from a bank is incompatible with the nature of a demand deposit and that, in any case, a fee should be paid to the banker for the custody and safekeeping of the money entrusted to him.

A similar conclusion is reached by another famous Spanish scholastic, Martín Azpilcueta. Azpilcueta was also known as Dr. Navarro, because he was born in Navarra, the north-eastern autonomous region of Spain famous for the "encierros", a festival held in the region's capital city of

Pamplona, where every July people run in front of the bulls at great risk to their lives. Azpilcueta was born the year following the discovery of America (1493), lived to be ninety-four years old, and is especially famous for explaining the quantity theory of money for the first time, in 1556. Azpilcueta observed the effects on Spanish prices of the massive inflow of precious metals from America and declared: "experience shows that in France, where there is less money than in Spain, bread, wine, cloth, and labour cost much less; and even when there was less money in Spain, saleable items and the labour of men were given for much less than after the indies were discovered and covered Spain with gold and silver. The reason is that money is worth more when and where it is scarce than when and where it is abundant."

The Spanish scholastics also gained a clear insight into the true nature of market prices and the impossibility of attaining an economic equilibrium. The Jesuit cardinal Juan de Lugo, wondering what the equilibrium price was, as early as 1643 reached the conclusion that the equilibrium depends on such a large number of specific circumstances that only God can know it. In Latin, he stated: *"Pretium iustum mathematicum licet soli deu notum*." Another Jesuit, Juan de Salas, with regard to the possibility that an authority could come to know specific information on the market, asserted that it is so complex that (in Latin) *"quas exacte comprehendere et ponderare Dei est non hominum."* (in English, "that only God, not men, can understand it exactly.")

Furthermore, the Spanish scholastics were the first to introduce the dynamic concept of competition (in Latin *concurrentium*), which is best understood as a process of rivalry among entrepreneurs. For instance, Jerónimo Castillo de Bovadilla (1547-1605) Wrote that "prices will be driven down by an abundance of sellers, and by rivalry (*emulación*) and competition (*concurrentia*) among them."

Like Ludwig von Mises, Friedrich von Hayek, and most members of the Austrian School, who are naturally prone to be classical liberals, the subjectivist Spanish Scholastics tended to defend strong libertarian positions in political matters. For instance, the great founder of international law, the Dominican Francisco de Vitoria, began the Spanish scholastic tradition of denouncing the conquest and particularly the enslavement of the Indians by the Spanish in the New World, thus reviving the idea that natural law is morally superior to the mere might of the state. This natural law tradition was further developed by the great libertarian Jesuit Juan de Mariana, who in his book, On the alteration of money ("*De monetae mutatione*"), published in 1609, condemns as robbery any government debasement of coins. Mariana also maintained in his well-known theory on tyrannies that any individual citizen can justly assassinate a governor who imposes taxes without the people's consent, seizes the property of individuals and squanders it, or prevents a meeting of a democratic parliament. The only doctrine on which I disagree with Mariana is his condemnation of the typical Spanish "*fiesta*" of bullfighting. But being, as I am, the grandson of a famous Spanish bullfighter, I concede that I am probably not too impartial on this matter…

Now, let me remind you that in the 16th century, the emperor Charles V, who was the King of Spain, sent his brother Ferdinand I to be the king or better the Archduke of Austria. Etymologically, "Austria" means "eastern part of the Empire," which in those days comprised almost all of continental Europe, with the sole exception of France, an island surrounded by Spanish forces. Now you will understand the origin of the intellectual influence the Spanish Scholastics exerted on the Austrian School. This was not pure coincidence or a mere whim of history, but originated from the intimate historical, political, and cultural relations which arose beginning in the 1500s between Spain and Austria and which would continue for several centuries. Italy also played an important role in this connection, acting as an authentic cultural, economic, and financial bridge over which the relations between the two furthest points of the Empire (Spain and Vienna) flowed. So, as you see, there are

very strong arguments to support the thesis that, at least at its roots, the Austrian School is a truly Spanish School!

Indeed, I think the greatest merit of the founder of the Austrian School, Carl Menger, was to rediscover and take up this continental catholic tradition of Spanish Scholastic thought, which was almost forgotten and cut short, due to the negative influence of Adam Smith and his followers of the British classical school. To quote Professor Leland Yeager in his "Review" of Rothbard's last book on the history of economic thought: "Adam Smith dropped earlier contributions about subjective value, entrepreneurship and emphasis on real-world markets and pricing and replaced it all with a labour theory of value and a dominant focus on the long run 'natural price' equilibrium, a world where entrepreneurship was assumed out of existence. He mixed up Calvinism with economics, as in supporting usury prohibition and distinguishing between productive and unproductive occupations. He lapsed from the laissez-faire of several eighteenth-century French, Italian and Spanish economists, introducing many waffles and qualifications. His work was unsystematic and plagued by contradictions."

Fortunately, despite the overwhelming intellectual imperialism of the British classical school, the continental, subjectivist, free market tradition was never totally forgotten. Several economists, like Cantillon, Turgot and Say, kept the torch of subjectivism and entrepreneurial analysis burning. Even in Spain, during the years of decline in the 18th and 19th centuries, the old scholastic tradition survived, in spite of the typical inferiority complex toward the British intellectual world at that time. We find proof of this in the fact that another Spanish catholic writer solved the "paradox of value" and clearly set forth the theory of marginal utility twenty-seven years earlier than Carl Menger did. His name was Jaime Balmes. Balmes was born in Catalonia in 1810 and passed away in 1848. During his short life, he became the most important Spanish Thomist philosopher of his time. A few years before his death, on September 7, 1844, he published an article entitled "true idea of value or thoughts on the origin, nature and variety of prices," in which he solves the paradox of value and clearly sets forth the idea of marginal utility. Balmes asks himself: "why is a precious stone worth more than a piece of bread?" And he answers: "It is not difficult to explain, since the value of a thing is determined by its utility … if the number of means of satisfying a need increases, the need for any one of them in particular decreases; as it is possible to choose among many, none of them is indispensable. For this reason, a necessary relationship exists between an increase or decrease in value, and the shortage or abundance of a thing." In this way, Balmes was able to close the circle of the continental catholic tradition of subjectivism, which could then be completed a few years later by Carl Menger and enhanced by his followers of the Austrian School of Economics.

We can conclude that to a large extent, we owe to these great thinkers of the "Spanish Golden Age" the current revival of free market liberalism and of the Austrian School of Economics all over the world.

It is generally agreed that the 1871 publication of Principles of Economics, by Carl Menger (18401921), gave birth to the Austrian School of Economics. Nevertheless, as we have seen, Menger actually adopted a tradition of thought which originated in continental Europe and can be traced back to the Spanish theorists from the school of Salamanca, of the sixteenth and seventeenth centuries.

Menger's primary contributions include the subjective theory of value, the discovery of the law of marginal utility, the theory of the spontaneous emergence of institutions, the conception of the production process as a series of successive temporal stages, and the criticism of historicism in the *methodenstreit* against Schmoller and the rest of the German "socialists of the chair".

Menger's most brilliant pupil, Eugen von Böhm-Bawerk (1851-1914), developed these contributions and applied them to both the theory of interest (which holds that interest is determined by the subjective valuation of time preference, and never by the marginal productivity of capital) and the theory of capital, understood as the estimated value, in terms of free-market prices, of the capital goods which embody the intermediate stages in any production process. Moreover, Böhm-Bawerk demolished the Marxist theory of exploitation, as well as Marshall's theory of price determination, which held that utility and costs jointly determine prices. (Marshall was right about utility, but mistaken about costs.)

Ludwig von Mises (1881-1973) was the leading member of the third generation of Austrian economists and without a doubt the most important member of all of them. Mises was responsible for the school's most vital practical contributions: the theory of the impossibility of socialism, the theory of economic cycles, the theory of entrepreneurship, the criticism of interventionism, and the systematization of the Austrian methodology. He also gave us the best-known treatise on Austrian Economics, Human Action, which has appeared in numerous editions and in all languages (for instance at least 10 editions only in my own country, Spain).

Mises's foremost disciple was Friedrich A. Hayek (1899-1992), winner of the 1974 Nobel Prize in economics. Hayek further developed all of Mises's contributions, demolished Keynesian economic theory, and was the key theorist of the spontaneous market order in the twentieth century.

Closer to our time, the chief Austrian economists have been Murray N. Rothbard (1926-1995), the author of over twenty books and hundreds of articles on theory and history who provided the driving force behind the theory of anarchocapitalism; and Israel M. Kirzner (1930-), till his retirement a professor of economics at New York university where he has perfected the Austrian theory of entrepreneurship. And nowadays I am particularly proud of the great development of the Austrian School all over the world and specially in my own country, Spain, where, for instance, the first official Master Degree on Austrian Economics directed by me was approved by the authorities three years ago. This Master was adapted to the Bolonia agreements and has full validity in the whole European Union.

XXX

Now let us proceed with the second part of my presentation in which I will try to summarize the essence of the Austrian School.

According to Ludwig von Mises "what distinguishes the Austrian School and will lend it immortal fame is precisely the fact that it created a theory of economic action and not of economic equilibrium or non-action".

The neoclassical paradigm has prevailed thus far in economic science, but it is now stagnating, due to its highly unrealistic assumptions, its static nature, and its formal reductionism. The focus of the Austrian research program is strikingly different: economists of the Austrian School concentrate their analysis on the dynamic processes of social cooperation which characterize the market. They devote close attention to the central role played in these processes by entrepreneurship and by the different institutions that make life in society possible.

The Austrian perspective contrasts starkly with the economic analysis shared, in different versions, by neo-and post-Keynesians, on the one hand, and the Chicago School, on the other. Keynesians hold that the economy is in a state of equilibrium plagued by market failures, while the Chicago theorists

believe it is in a pareto-efficient state of equilibrium, and thus free of market failures. Despite the ideological contradiction between these two versions of equilibrium analysis, Austrians see in them the same lack of understanding about the real workings of the market.

The market is an entrepreneurial process of creativity and coordination, a process which, by definition, can never reach any Pareto optimum. However, because the market fosters creativity and coordination, it is dynamically efficient, as long as the following condition is met: institutional state coercion, in the form of interventionism or socialism, must not hinder the free exercise of entrepreneurship nor make it difficult for any human being to freely reap the fruits of his creative action. This condition requires full respect for private property, within the framework of the rule of law, and a government of strictly limited powers.

One of the main contributions of the Austrian School has been the demonstration that it is impossible to organize society based on coercive commands and regulations, as socialists and interventionists constantly attempt to do. The reason this cannot be done is because a planning agency cannot possibly obtain the firsthand market information necessary to achieve coordination with its commands as I explain with detail in my last book published in England and the United States a few months ago by Edward Elgar with the title Socialism, Economic Calculation and Entrepreneurship (Huerta de Soto, 2010), and which I would like to see also translated into Romanian and published in this country.

As a result of this insight, only Austrian economists were able to predict the collapse of the economies of the former eastern bloc, as well as the dead-end crisis of the welfare state. These predictions contrast sharply with the inability of general-equilibrium theorists (like Lange, Taylor, Samuelson, Dickinson, and others) to even perceive the insoluble economic-calculation problem socialism poses.

It is unsurprising that they failed to recognize the problem. In their models, they start from the assumption that all the information necessary to solve the corresponding system of simultaneous equations is “already given” and available to the planner at all times. In short, the real problem which the spontaneous order of the market resolves each day, in a context of continual change, creativity, and coordination, is considered already solved from the very beginning in the mathematical models of general-equilibrium theorists.

However, they were not the only ones unable to fully grasp the Austrian challenge to the mainstream. Even the equilibrium theorists of the Chicago School (like Knight, Friedman, Stigler, Rosen, and Coase) also failed to grasp it. In fact, a few years ago, at a Mont Pelerin Society General Meeting held in Vienna, the late Sherwin Rosen stated the following: “the collapse of central planning in the past decade has come as a surprise to most of us” (Rosen 1997, 139-152). And Ronald Coase himself said the following words: “Nothing I’d read or known suggested that the collapse was going to occur” (Coase 1997, 45).

The Austrian theory of capital, money, and economic cycles is another of the school’s key contributions which are the subject of my book Money, Bank Credit And Economic Cycles which has been translated into 13 different languages, the last one, as I have said thanks to Tudor Smirna and Diana Costea, into Romanian and published by the “Alexandru Ioan Cuza University Press” under the title *Moneda, creditul bancar si ciclurile economice*. The content of my book could be summarized in this way: in the banking system currently in force worldwide under the supervision of central banks, and in a context of nationalized money and legal-tender laws, bankers enjoy the privilege of operating with a fractional reserve (Huerta de Soto, 2010). This privilege regularly leads

to the expansionary granting of loans unbacked by an actual increase in voluntary saving. The inexorable result of this credit expansion is the unsustainable "lengthening" of the processes of productive investment, which tend to become disproportionately capital-intensive.

A speculative bubble forms and gives rise to grave, real errors in capital-goods investments. The intensification of the inflationary process through credit expansion will inexorably and spontaneously reverse. This reversal will trigger an economic crisis or recession in which investment mistakes will be exposed, unemployment will climb, and the need to liquidate and reallocate the resources invested in error will arise.

Economic crises are not exogenous, as the Chicago School and real-shocks theorists like Kydland and Prescott think. Nor are they inherent in the market economy, as Keynesians and the other market-failure theorists assert. Instead, economic cycles stem from a problem of erroneous institutional design: the existence of a privileged fractional-reserve banking system. The solution lies in the following: the privatization of money and a return to rigid monetary system that humans cannot manipulate like the pure gold standard; the establishment of a 100-percent reserve requirement on demand deposits, as with any other deposit of a fungible good, such as wheat or oil; and the elimination of central banks, which in modern market economies are the only socialist planning agencies in the monetary sphere that remain operative.

It is not surprising that the only theorists to predict the Great Depression of 1929 were Austrians, namely Ludwig von Mises and Friedrich Hayek. They foresaw it as a consequence of the monetary and financial excesses committed after the establishment of the United States Federal Reserve in 1913, and especially during the roaring twenties. (incidentally, during those years, not only Keynes, but also the monetarists led by Fisher, believed the economy had entered a new bonanza period that would never end).

Austrian economists also predicted the stagflation which emerged after the incorrectly named Oil Crisis of 1973 that almost entirely destroyed the Keynesian theoretical analysis. Moreover, Austrians have repeatedly warned about the credit bubble and "irrational exuberance" characteristic of the again so-called "New Economy" period, which began 15 years ago. (see Huerta de Soto, 2010.)

The development of the theory of entrepreneurship has been another of the Austrian School's main contributions. "entrepreneurship" refers to the human capacity to recognize the opportunities for subjective profit that arise in one's environment and to act accordingly to take advantage of them.

When people act in this way, they set in motion a creative process by which pre-existing maladjustments are coordinated. This process lies at the heart of the spontaneous order of the market, as Hayek and Kirzner have shown.

Intimately related to the above is the dynamic concept of competition, understood as a process of rivalry, creativity and discovery in which entrepreneurs compete with each another to be the first to find and seize profit opportunities. This concept is diametrically opposed to the neoclassical model of "perfect" competition, in which, paradoxically, everyone does the same thing and sells at the same price; in other words, in the neoclassical model of perfect competition, nobody competes.

We should also note that Austrians criticize the unjustified application of the methodology used in natural sciences and physics to the field of economics, an error Hayek refers to as "scientism." The Austrian School has developed an aprioristic-deductive methodology which appropriately links the formal realm of theory with the empirical realm of history.

Austrians reject the use of mathematics in economics, since mathematics is a formal language which has emerged in response to the demands of physics and formal logic. In these areas, constancy is assumed, and entrepreneurial creativity and the passage of subjective, non-spatialized time are entirely absent. For the Austrians, only the verbal languages that human beings creatively evolve in the course of their daily entrepreneurial tasks provide a suitable vehicle for scientifically analyzing the real-world facts that pertain to spontaneous market orders, which are never in equilibrium.

In addition, Austrian economists regard the prediction of specific economic events as the task of the entrepreneur and not of the economic scientist. At most, economists can make qualitative or theoretical "predictions," "pattern predictions," to use Hayek's terminology, concerning the discoordinating effects of economic interventionism in any of its forms. However, they cannot, as economic scientists, make predictions which apply to precise circumstances of time and place.

In short, for Austrians, the fundamental economic problem is not a technical one, of how to maximize an objective, constant, and "known" function subject to constraints which are also considered "known" and constant. On the contrary, the fundamental economic problem is strictly "economic" in the Austrian sense: it arises when many ends and means compete with each other, and when knowledge about them is not given nor constant, but dispersed throughout the minds of countless real human beings who are constantly creating it anew.

In this situation, one cannot know all of the existing possibilities and alternatives, much less those that will be created in the future, nor the relative intensity with which each is desired. Therefore, it is not surprising that a growing number of prominent mainstream neoclassical economists, like Mark Blaug, have shown great courage and have ultimately declared their apostasy from the general equilibrium model and the neoclassical-Keynesian synthesis. Blaug concludes: "I have come slowly and extremely reluctantly to the view that they [the Austrian School] are right and that we have all been wrong" (Blaug and de Marchi 1991, 508).

Austrian theorists view the Chicago School's defense of the free market as particularly erroneous: a "perfect" market in the neoclassical sense is a contradiction in terms. The market must be defended not because it is "perfect" or Pareto efficient, but because it is a process of discovery, creativity, and coordination which is never in equilibrium. Furthermore, it is the only possible alternative, and it cannot be improved (but only worsened) through government regulations.

XXX

The term "efficiency" derives etymologically from the Latin verb *ex facio*, which means "to obtain something from." The application to economics of this concept of efficiency as the ability to "obtain something from" predates the Roman world and can even be traced back to ancient Greece, where the term *oeconomía* was first used to refer to the efficient management of the family home. The great Xenophon, in his work on Economics, written 380 years before Christ, explains that there are two different ways to increase the family estate, and each is equivalent to a different concept of efficiency.

The first corresponds with the static concept of efficiency and consists of the sound management of the available (or "given") resources, to prevent them from being wasted. According to Xenophon, the best way to achieve this static efficiency is by keeping the home in good order.

However, along with the concept of static efficiency, Xenophon introduces a different concept, that of "dynamic" efficiency, which consists of the attempt to increase one's estate through entrepreneurial creativity; that is, by trade and speculation, more than by the effort to avoid wasting

the resources already available. This tradition of clearly distinguishing between the two different concepts of efficiency, the static and the dynamic, survived even until the Middle Ages. For example, Saint Bernardine of Siena wrote that the profit of merchants was justified not only by the sound management of their (already given) resources, but also, and mainly, by the assumption of the risks and dangers (in Latin "*pericula*") which arise from any entrepreneurial speculation (hence, the concept of dynamic efficiency).

Unfortunately, the development of mechanical physics, which began with the Modern Age, had a very negative influence on the evolution of economic thought, especially after the nineteenth century, when the idea of dynamic efficiency was almost entirely forgotten in economics.

Both the Austrian Hans Mayer, before the Second World War, and Philip Mirowski, nowadays, have stressed that mainstream neoclassical economics developed as a pure copy of nineteenth century mechanical physics: using the same formal method, but replacing the concept of energy with that of utility and applying the same principles of conservation, maximization of the result, and minimization of waste. The author most representative of this very negative trend was Leon Walras, who for instance, in his paper, "Economics and Mechanics," published in 1909, claimed that the mathematical formulae of his book, Elements of Pure Economics, are identical to those of mathematical physics.

In short, the influence of mechanical physics eradicated the creative, speculative, and dynamic dimension which was implicit in the idea of economic efficiency from its very beginning, and all that remained was the reductionist, static aspect, which consists solely of minimizing the waste of (already known or given) economic resources. This change occurred despite the fact that neither resources nor technology are "given" in real life, but actually do vary continually as a result of entrepreneurial creativity.

The reductionist concept of static efficiency had an immense theoretical and practical influence in the twentieth century. The Fabian socialists Sydney and Beatrice Webb provide a good example. This married couple were shocked by the "waste" they believed was produced in the capitalist system, and they founded the London School of Economics in an effort to champion the socialist reform of capitalism. The object of such socialist reform would be to eliminate waste and make the economic system "efficient." The Webbs later made no secret of their warm admiration for the "efficiency" they believed they observed in Soviet Russia, to the point that Beatrice even declared: "I fell in love with soviet communism." Another noted author to be entirely influenced by the static concept of economic efficiency was John Maynard Keynes himself, who, in his introduction to the 1936 German edition of his General Theory, expressly states that his typically Keynesian economic-policy proposals "are more easily adapted to the conditions of a totalitarian state." Keynes also highly praised the book, Soviet Communism, which the Webbs had published three years earlier.

Furthermore, in the 1920s and 1930s, the static concept of economic efficiency became the focal point for a whole new discipline, which came to be known as "welfare economics," and which grew from a series of alternative approaches, of which Pareto's is the most well-known.

From a Paretian perspective, an economic system is in a state of efficiency if no one can be made better off without making someone else worse off.

Our main criticism of welfare economics is that it reduces the problem of economic efficiency to a simple technical problem of maximization, in which all the economic data are assumed to be given and constant. However, both assumptions are entirely wrong: the data are continually changing as a result of entrepreneurial creativity. Precisely for that reason, we need to introduce a new concept of

dynamic efficiency, understood as the capacity to foster both entrepreneurial creativity as well as coordination. In other words, dynamic efficiency consists of the entrepreneurial capacity to discover profit opportunities as well as the capacity to coordinate any social maladjustments.

In terms of neoclassical economics, the goal of dynamic efficiency should not be to move the system toward the production possibility frontier, but rather to enhance entrepreneurial creativity, and thus to continually "shift" the production possibility curve to the right.

The word "entrepreneurship" derives etymologically from the Latin term *in prehendo*, which means "to discover," "to see," "to realize" something. In this sense, we may define entrepreneurship as the typically human ability to recognize opportunities for subjective profit which appear in the environment and to act accordingly to take advantage of them. Entrepreneurship therefore involves a special alertness, which the Webster's dictionary defines as "the ability to be watchful; vigilant." Also fully applicable to the idea of entrepreneurship is the verb to speculate, which comes from the Latin word *specula*, which refers to the towers from which lookouts could see into the distance to detect anything that approached.

Every entrepreneurial action not only creates and transmits new information, but also coordinates the previously discoordinated behaviour of economic agents. Whenever someone discovers or creates a profit opportunity and buys a certain resource cheap and sells it dear, he harmonizes the previously discoordinated behaviour of the owners of the resource (who were squandering and wasting it) with the behaviour of those in need of that resource. Therefore, creativity and coordination are two sides of the same ("entrepreneurial") coin.

Now, from a dynamic standpoint, an individual, a company, an institution, or an entire economic system will be more efficient the more it promotes entrepreneurial creativity and coordination.

From this dynamic perspective, the truly important goal is not so much to prevent the waste of certain means considered known and "given," as it is to continually discover and create new ends and means.

For a more extensive treatment of this entire matter, I recommend the principal works of Mises, Hayek, Kirzner, and Rothbard on the idea of the market as a dynamic process driven by entrepreneurship and on the notion of competition as a process of discovery and creativity, as well as my book published by Routledge in 2009 and 2010 with the title The Theory of Dynamic Efficiency (Huerta de Soto, 2009).

In my opinion, these "Austrian" authors provide us with the most exact concept of dynamic efficiency, which contrasts with the more imperfect concept of dynamic efficiency developed by Joseph A. Schumpeter and Douglas C. North.

North and Schumpeter offer totally opposite perspectives. While Schumpeter exclusively considers the aspect of entrepreneurial creativity and its destructive power (which he calls the process of "creative destruction"), Douglas North concentrates on the other aspect, which he calls "adaptive efficiency," or the coordinating capacity of entrepreneurship. Now we see that the true Austrian concept of dynamic efficiency, that developed by Mises, Hayek and Kirzner, combines both the creative and coordinating dimensions, which Schumpeter and North studied only in a separate, partial, and reductionist manner.

What is the relationship that exists between ethics and the concept of dynamic efficiency which I have just presented? Mainstream neoclassical economic theory rests on the idea that information is objective and given (either in certain or probabilistic terms), and that the issues of utility maximization have absolutely no connection with moral considerations. Furthermore, the dominant static viewpoint led almost to the conclusion that resources are in a sense given and known, and therefore the economic problem of their distribution was deemed separate and distinct from the issue of their production. Granted, if resources are given, it is vitally important to inquire into the best way to allocate among different people both the available means of production and the consumer goods that result from the different production processes.

This whole approach collapses like a stack of cards if we adhere to the dynamic concept of market processes, the theory of entrepreneurship, and the notion of dynamic efficiency I just have explained. From this perspective, every human being has a unique creative capacity that continually enables him to perceive and discover new profit opportunities. Entrepreneurship consists of the typically human ability to create and discover new ends and means, and is the most important characteristic of human nature.

If ends, means, and resources are not "given," but are continually created from nothing as a result of the entrepreneurial action of human beings, clearly the fundamental ethical problem is no longer how to justly distribute "what already exists," but instead how to promote entrepreneurial creativity and coordination.

Consequently, in the field of social ethics, we arrive at the fundamental conclusion that the idea of human beings as creative and coordinating actors implies the axiomatic acceptance of the principle that every human being has a natural right to appropriate all results of his entrepreneurial creativity. That is, the private appropriation of the fruits of entrepreneurial creation and discovery is a tenet of natural law, because if an acting person were not able to claim what he creates or discovers, his capacity to detect profit opportunities would become entirely blocked, and his incentive to act would disappear. Moreover, the principle is universal in the sense that it can be applied to all people at all possible times and in all conceivable places.

To coerce free human action to any degree by impairing people's right to own what they entrepreneurially create is not only dynamically inefficient, since it obstructs their creativity and coordinating capacity, but also fundamentally immoral, since such coercion prevents human beings from developing that which is by nature most essential in them, i.e. Their innate ability to create and conceive new ends and means and to act to attempt to achieve their own goals and objectives. Precisely for these reasons, socialism, interventionism, and statism are not only dynamically inefficient but also ethically unjust.

It must be taken into account that the force of entrepreneurial creativity also manifests itself in the desire to help poor people and in the systematic search for situations in which others are in need in order to help them. In fact, coercive state intervention, through the typical mechanisms of the socalled welfare state, neutralizes and to a great extent blocks the entrepreneurial effort to help one's neighbors (both close and distant) who are experiencing difficulties. And this is an idea that Pope John Paul II stressed in section 49 of his 1991 encyclical, *Centesimus Annus*.

Furthermore, according to our analysis, nothing is more (dynamically) efficient than justice (understood in its proper sense). If we perceive the market as a dynamic process, then dynamic efficiency, understood as coordination and creativity, results from the behavior of human beings who follow certain moral laws (mainly regarding the respect for life, private property, and the fulfillment

of contracts). The exercise of human action subject to these ethical principles gives rise to a dynamically efficient social process. And it is now easy to see why, from a dynamic standpoint, efficiency is not compatible with different models of equity or justice (as the second fundamental theorem of welfare economics erroneously stated), but instead efficiency arises exclusively from one idea of justice (that based on the respect for private property, entrepreneurship, and as we will see in a moment, the principles of personal morality). Therefore, the contradiction between efficiency and justice is plainly false. What is just cannot be inefficient, and what is efficient cannot be unjust. A dynamic analysis reveals that justice and efficiency are but two sides of the same coin, which also confirms the consistent, integrated order that exists in the spontaneous order of human interactions.

Now let us conclude with some ideas on the relationship between dynamic efficiency and the principles of personal morality, especially in the field of family and sexual relations. Up to this point, we have looked at social ethics and discussed the key principles which provide the framework that makes dynamic efficiency possible. Outside of that realm lie the most intimate principles of personal morality. The influence of principles of personal morality on dynamic efficiency has rarely been studied, and in any case, they are considered to be separate and distinct from social ethics. However, I believe this separation to be completely unjustified. In fact, there are moral principles which are of great importance to the dynamic efficiency of any society which are subject to the following apparent paradox: the failure to uphold them on a personal level entails a huge cost in terms of dynamic efficiency, but at the same time, the attempt to impose these moral principles using the force of the state or of private institutions generates even more severe inefficiency from the dynamic point of view. Hence, certain social institutions are needed to transmit and encourage the observance of these personal moral principles which, by their very nature, cannot be imposed by force but are nevertheless of great importance to the dynamic efficiency of every society. It is mainly through religion and the family that human beings, generation after generation, are able to internalize these principles and thus learn to keep them and transmit them to their children. The principles which relate to sexual morality, the creation and preservation of the family institution, the faithfulness between spouses and the care of children, the control of our atavistic instincts, and specifically, the overcoming and restraint of envy, are all of crucial importance to every successful social process of creativity and coordination.

For an illustration of the importance of analyzing personal moral principles in terms of the theory of dynamic efficiency, let us consider for example the behavior spouses should aspire to, with consistent effort, in order to keep their marriages going and preserve the institution of the family, not only for their own benefit, but especially for that of their children. What happens to dynamic efficiency if, for example, husbands abandon their wives and families to live with new, more attractive, younger women? From the start, wives will then be aware of the high risk that precisely when they are getting older and the children are nearly grown, their husbands may divorce them. If such immoral behavior becomes widespread, not only will a larger number of marriages and families be broken up, but even more significantly, the rate at which new marriages and families are started will decline, and women will tend to prolong their single life to ensure their professional careers and independent means of support, all of which will lead to a dramatic drop in the birth rate. In the absence of migratory trends to ease the decrease in the birth rate and the consequent aging of the population, the social process of entrepreneurial creativity and coordination which promotes dynamic efficiency will be impaired. As Hayek taught us, both the progress of civilization and economic and social development require a constantly expanding population capable of sustaining, among a continually increasing number of people, the steady growth in the volume of social knowledge which entrepreneurial creativity generates. Dynamic efficiency depends on people's creativity and capacity for coordination, and other things being equal, it will tend to increase as the number of human beings increases, which can only happen within a certain framework of moral principles to govern family relationships.

However, as I have already stated, this is a kind of paradox. The entire framework of personal moral principles cannot be imposed by the force of the state: the imposition of moral principles by the force of the government would only give rise to a closed, inquisitorial society that would deprive human beings of the individual freedoms which comprise the foundation of entrepreneurship and dynamic efficiency.

This fact precisely reveals the importance of alternative, non-coercive methods of social guidance which expose people to the most intimate and personal moral principles and encourage their internalization and observance. Religious feelings and principles, which are acquired at an early age within the family, play an indispensable role in this regard (together with the social pressure exerted by other members of the family and the local community). Religious precepts provide direction under which to act, help people control their most atavistic impulses, and serve as a guide in the selection of those human beings of the opposite sex with whom we decide to build a family for the rest of our lives. Other things being equal, the firmer and more enduring personal moral principles are, the greater the dynamic efficiency of a society will tend to be.

Our greatest cause for optimism about the future of the Austrian School as the main intellectual background for this new globalized world of the 21st century, based on entrepreneurship and creativity, is the growing number of young scholars, who in their uncompromising search for scientific truth, are abandoning the Keynesian and monetarist theories of the old mainstream, and embracing the Austrian School of Economics all over the world.

For this reason, I would consider it in Romania's national interest to foster knowledge and research in the field of the Austrian School of Economics, so that at the country's universities, this approach steadily replaces the old Keynesian, neoclassical and monetarist teachings, which are included like a potpourri in the university text books currently used, most of them of American origin.

Let us hope that this new tide soon also culminates its presence in this wonderful country of Romania. And if my book helps even just a bit to accomplish this important task I will consider that all my effort has been worthwhile.

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[1] This conference was held in October 2010 at the anniversary of 150 years since the founding of the Alexandru Ioan Cuza University from Iaşi, Romania and originally published in the *Review of Economic and Business Studies*, 2011, issue 7, pp. 15-32.