JESÚS HUERTA DE SOTO:
THE SYNTHESIZER
OF THE AUSTRIAN SCHOOL

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Abstract: Professor Jesús Huerta de Soto is one of the leading Austrian School economists in the contemporary era. This paper reviews his biography as a great Austrian School economist, a successful entrepreneur and a tireless fighter for freedom. This paper also reviews his original and important academic contributions on the theory of socialism and entrepreneurship, the theory of bank credit and economic cycles, and the theory of dynamic efficiency.

Keywords: Jesús Huerta de Soto, Austrian School, free banking, socialism, dynamic efficiency.

JEL Classification: B41, B53, C18, D53, D6, D81, D83, E32, E42, E52, E6, G21, H23, K11, K12, L21, P11, P41, P21.

Resumen: El profesor Jesús Huerta de Soto es actualmente uno de los principales economistas de la Escuela Austriaca. Este trabajo revisa su biografía como gran economista austriaco, emprendedor de éxito, y un luchador incansable y entusiasta por la libertad. Este artículo también revisa sus contribuciones académicas originales en lo que respecta a la teoría del socialismo y la función empresarial, la teoría del crédito bancario y los ciclos económicos, y la teoría de la eficiencia dinámica.

Palabras clave: Jesús Huerta de Soto, Escuela Austriaca, banca libre, socialismo, eficiencia dinámica.

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1. **Personal Life and Career**

1.1. *Early Life*

Prof. Jesús Huerta de Soto Ballester is one of the leading Austrian School economists in the contemporary era. On December 23, 1956, Huerta de Soto was born in a devout Catholic and business family in Madrid, Spain. As early as 1928, his grandfather Jesús Huerta Peña started running an insurance company called "ESPAÑA S.A". In 1954, Jesús Huerta Ballester, father of Huerta de Soto, began running this enterprise with Huerta Peña. After two generations of painstaking efforts, the business reached a considerable size and strength and grew into one of the most important companies in the insurance industry in Spain. The growing business environment and classical liberalism played a significant role in shaping Huerta de Soto, and led him to become an insightful Austrian School economist. In 1972, 15-year-old Huerta de Soto read Milton Friedman's *Capitalism and Freedom* from the book collection of the library of his libertarian father's library[1]. This is the first libertarian book that Huerta de Soto read. Some time later, by chance, Huerta de Soto also read Ludwig von Mises' *Human Action* at the age of 16[2]. After that, he became a convinced libertarian. In the autumn of 1973, with the help of his father Huerta Ballester and other passionate scholars, Huerta de Soto started to participate in the seminars of Austrian Economics that took place every Thursday in Madrid. The participation in these seminars provided Huerta de Soto a unique and excellent opportunity to explore the thoughts of the Austrian School and the errors of Keynesian Economics and the Chicago School[3].

Huerta de Soto soon showed his interest and talent in law and economics, and the relatively well-off family made the young Huerta de Soto fully devoted to his academic research. He obtained his bachelor degrees in both law and economics from Complutense University of Madrid (UCM) in 1978, and one year later he began

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[1] Huerta de Soto (2016).
[2] Huerta de Soto (2010a).
[3] Huerta de Soto (2015), pp. 11.

working as an assistant professor of Political Economy at the Faculty of Law of the UCM. With a recommendation letter from Prof. F. A. Hayek[4] and the support of his family, Huerta de Soto went to study at Stanford University from which he obtained his MBA in 1983. During this period he deepend his knowledge on Austrian Economics, especially on the capital theory and on the theory of the market process. During his studies in the USA, with the help of his friends from the Institute of Humane Studies, Huerta de Soto met Murray Rothbard, one of the best students of Ludwig von Mises. Together they discussed the most controversial and exciting topics in economics[5]. When remembering this story, Huerta de Soto said that knowing Rothbard was "possibly the greatest intellectual experience"[6].

1.2. *Academic Career and Contributions to Liberty*

When Huerta de Soto finished his studies at Stanford, he went back to Spain. Once back in Spain his thesis *Private Pension Planning*[7]; was awarded King Juan Carlos International Prize of Economy. His thesis discussed how to articulate a private pension system and its relative advantage compared to that of the government. One year later, based on his thesis[8], he obtained his Ph.D. degree in law the Complutense University, and his doctoral thesis *Private Pension Planning* was published. During his tenure in the law faculty of Complutense University, Huerta de Soto continued studying economics and shorty after was awarded his Ph.D. degree in economics. In 1992, based on his economics thesis, *The Controversy over Socialist Economic Calculation*[9], and other academic works, the 36-year-old Huerta de Soto published his famous book *Socialism,*

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[4] *Ibid*, pp. 11.

[5] *Ibid*, pp. 11.

[6] Translated from *Ibid*, pp. 11. The original text in Spanish is "posible la gran experiencia intelectual".

[7] *Ibid*, pp. 12. The original title of the thesis in Spanish is *Planes de pensiones privados.*

[8] Huerta de Soto (2017).

[9] *Ibid*. The original title of the thesis in Spanish is *La polémica sobre el cálculo económico socialista.*

Economic Calculation and Entrepreneurship[10], which demonstrates the impossibility of socialism. The historical and academic background of the debate on the economic calculation problem of socialism of the 1920's between the Austrian School and the Neoclassical School, served as a starting point. Huerta de Soto's book[11] soon became the Austrian School reference book for the study of the socialist economic calculation problem. In his book he systematically and comprehensively discusses the impossibility of socialism from the perspective of entrepreneurship and the nature of socialism.

The 1990s was one of the peaks of Huerta de Soto's academic career. In 1998, his other great book, *Money, Bank Credit, and Economic Cycles*[12] (a systematic analysis of business cycles and free banking theory) was published. Dr. Jörg Hülsmann believes that this book was "the first Misesian treatise on money and banking to appear since [the] publication"[13] of Mises's original work *Theory of Money and Bank Credit*[14] in 1912, and is "the most comprehensive analysis of fractional-reserve banking and of business cycles in print"[15], and considers that "[a]ll serious students of these subject matters will have to become acquainted with it."[16]

Professor Huerta de Soto makes every effort to cultivate younger generations of Austrian School scholars. In 2000, he became a full-time professor of Political Economy at Rey Juan Carlos University in Madrid (URJC) [17], continuing his systematic teaching of Austrian School Economics which he began in the 1980s at Complutense University. Prof. Huerta de Soto currently also serves as a doctoral director. In 2004, Huerta de Soto founded the journal *Procesos de Mercado*[18], which is the first contemporary

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[10] The title of the book in Spanish is *Socialismo, cálculo económico y función empresarial*. See Huerta de Soto (1992).

[11] Huerta de Soto (2010b).

[12] Huerta de Soto (2006).

[13] Hülsmann (2000), pp. 86.

[14] Mises (2013).

[15] Hülsmann (2000), pp. 88.

[16] *Ibid*.

[17] Huerta de Soto (2017). See http://www.jesushuertadesoto.com/curriculum-vitae-en/teaching-activities.

[18] Ibid. See http://www.jesushuertadesoto.com/curriculum-vitae-en/other-achievements.

Austrian Economics' academic journal in Spain. Austrian economists all around the world, especially the Spanish speaking young scholars, enthusiastically submit their articles to this journal, regarding it as a good place to improve their academic research and to communicate with other researchers.

During Huerta de Soto's academic and teaching career, he inherited the life insurance company that his grandfather and father had operated for many years, and gradually he has become a fruitful and steady entrepreneur. In 2005, after 51-years working for the company, Huerta de Soto's father Jesús Huerta Ballester retired and became the Honorary President of the Company[19]. The management of the company was then transferred to Huerta de Soto.

That same year, with the assistance of Huerta de Soto, Spain established its first libertarian-economic institute, Instituto Juan de Mariana, building a bridge between the Spanish speaking countries and libertarians all around the world. The Instituto Juan de Mariana has been heavily influencing on the Spanish speaking libertarians.

In pro of the new generations of Austrian School economists, in September 2007 Huerta de Soto founded the Official Master in Economics of the Austrian School[20] at the Rey Juan Carlos University in Madrid, and started working as its director and coordinator. This program is the world's first master program on the Austrian School of Economics. Since then, Huerta de Soto has been cultivating young Austrian scholars and students from undergraduate to doctoral students all-around the world at Rey Juan Carlos University. Every Thursday night Professor Huerta de Soto's economics seminar takes place. Libertarians and Austrian scholars from all around the world, as well as influential people in the areas of politics and business, from both Spain and Europe, attend his seminars and courses. The participants enjoy his passionate

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[19] España, S.A. (2012).

[20] The title of the master's program in Spanish is: Master Oficial en Economía de la Escuela Austríaca. See its official web page:

https://www.urjc.es/universidad/facultades/facultad-de-ciencias-de-la-comunicacion/909-economia-de-la-escuela-austriaca.

and unique style when giving his lectures. He has inspired some of his students at URJC to become Austrian scholars, including the professors of the Master in Economics of the Austrian School, such as Miguel Ángel Alonso Neira, Philipp Bagus, Juan Ramón Rallo, and others. Young students can also choose these professors as directors of their master and Ph.D. theses. Other students have become entrepreneurs, and others are contributing in many ways to the libertarian movement[21].

Professor Huerta de Soto has also contributed to the global libertarianism movement by donating his publications and his collections of Austrian School works. In Spain, he has given thousands of books to the Instituto Juan de Mariana, Students for Liberty (SFL) and other research institutions and movements related to the Austrian School and libertarianism. Many young Spanish people, who have become libertarians and followers of the Austrian School by reading Huerta de Soto and by listening to his speeches, are devoting themselves to the libertarian movement as Austrian scholars, journalists, editors, and entrepreneurs. Now, every year, thousands of young Spanish people participate in SFL activities through conferences, meetings, and dinners. The books of the Austrian School of Economics have also appeared in leading libraries and bookstores in Spain because of the effort of Professor Huerta de Soto and his disciples. His followers continue to express their views through media and academic journals, extending the influence of the Austrian School and libertarianism to the public and to academia. The idea of libertarianism and market economy is becoming more and more of a concern within the Spanish people, especially the younger elite.

As Spanish is also one of the main languages in Latin America, these libertarian activities supported by Professor Huerta de Soto have also been introduced into that region through donations of books, correspondences, online courses and other means. A variety of research institutions, student movements, conferences and

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[21] One example of Huerta de Soto's outstanding students in the libertarianism movement is Dr. Wolf von Laer, who is the current CEO of Students for Liberty, and received his master degree in Economics from the Austrian School at Rey Juan Carlos University.

other activities on the Austrian School and libertarianism continue to flourish in Latin America. In Guatemala, the great disciples of Huerta de Soto, represented by Gabriel Calzada, are teaching Austrian School Economics at the libertarian university, Francisco Marroquín University (UFM)[22]. The UFM has become one of the roots of the Austrian tradition in Latin America, and has started researching with George Mason University, the Mises Institute, the Cato Institute, the Foundation of Economic Education (FEE) and other prestigious libertarian educational institutions and think tanks. Even in the dictatorship of the Communist Cuba, by the efforts of Professor Huerta de Soto and other liberty fighters, the real economic knowledge and classical liberal ideas have gradually broken through the ideological fence[23]. Some Cubans expressed their desire to know more about the essence of communism, capitalism and the Austrian School Economics, and Huerta de Soto generously sent the related books as gifts[24]. After reading the books, these Cubans were enlightened by the impossibility of the socialist economic calculation and the need of building a true free society in Cuba[25].

Professor Huerta de Soto's enthusiasm in academia and libertarianism has changed the fate of countless people, especially many young students. Both the perseverance of Huerta de Soto and his disciples' academic research are particularly noteworthy in the expansion of libertarianism in Spain and Latin America. Huerta de Soto not only pursues his our personal success in business and the development of his own academic knowledge, but also the benefit of all people around the world, especially the young generations, who seek to understand and construct a free society through their creativity and entrepreneurship.

In 2009, Huerta de Soto's third scholarly work *The Theory of Dynamic Efficiency*[26] was published, which developed the definition of dynamic efficiency in economic science. His books and

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[22] The name of the university in Spanish is Universidad Francisco Marroquín.

[23] Constanza Huerta de Soto, personal communication in Students for Liberty Madrid's activities, October 8, 2016.

[24] *Ibid*.

[25] *Ibid*.

[26] Huerta de Soto (2009).

papers have been translated into at least 21 languages and have been published all around the world. In the next section, Huerta de Soto's academic contributions will be reviewed.

We consider that Huerta de Soto has made three great theoretical contributions: the systemic understanding of the theory of the impossibility of socialism, the theory of bank credit and economic cycles, and the theory of dynamic efficiency. Based on Mises[27] (the thoughts of entrepreneurship, the critics of socialism and the understandings of the methodological and theoretical problems of Neoclassical Economics), Rothbard[28] (the theories of natural law in banking issues), and Hayek[29] (the theory of the social evolutionary process and spontaneous order), he has become a worldwide reference on the Austrian School of Economics. With his deep understanding of both Austrian Economics and Neoclassical Economics, Huerta de Soto has innovatively outlined the systematic and comprehensive theories of the Austrian School. His greatest academic challenge has been inheriting the Austrian traditions and at the same time breaking new academic ground for the future; which are vital for the development of the Austrian School and are particularly important for young scholars to have a comprehensive understanding of the economic science.

Huerta de Soto is also significantly contributing to the development of the Austrian School in China, by helping young Chinese scholars to study Austrian Economics. Because of his support and invitations, at least six young Chinese libertarians[30] have come to study under his direction in the Master in Economics of the Austrian School since 2012. Three of them continued their Ph.D research in economics deepening their knowledge on the Austrian

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[27] Mises (1998)

[28] Rothbard (1998), pp. 3-26.

[29] Hayek (1988).

[30] The young Chinese libertarians who have come to Madrid to study with Professor Huerta de Soto, since 2012, are the following (in order of the time they arrived in Spain): William Wang, Yang Zhou, Jason Li, Tyler Xiong, Chao Pan and Isla He. After reading and watching the materials of Austrian Economics online, a young gentleman, Alan Bi, who had just graduated with a bachelor's degree of trade at the Complutense University, joined the Chinese libertarian group in 2015, and is now organizing the weekly seminars of Austrian Economics for Chinese students in Madrid inspired by what Huerta de Soto and other Austrian scholars have done.

School. Additionally, with the help of Professor Huerta de Soto, a series of works on the Austrian School have been published in China, including his book *The Austrian School*[31] and his three-other major academic books: *Socialism, economic calculation and entrepreneurship*; *Money, bank credit, and economic cycles* and *The Theory of Dynamic Efficiency*. He also maintains regular communication with the Chinese Austrian scholars, following the development of the Austrian School in China, and providing help and guidance to the Chinese scholars. Huerta de Soto's theories on socialism, free-banking, and dynamic efficiency are being widely disseminated among Chinese libertarians, and are becoming the focus of study, analysis and discussion of the Austrian School in China. With the guidance and help of Professor Huerta de Soto, more and more articles from the Chinese scholars on the application and extension of his theories have been published in China and abroad. On behalf of the Chinese scholars studying Huerta de Soto's academic works, we are very grateful for his selflessness and generosity. In this way, Professor Huerta de Soto's ten recommendations for young students are spurring us forward:

1. Be enthusiastic. Enthusiasm is the inner psychic energy that moves us to act to achieve our goals. What do we do when we don't feel enthusiasm? Act as if we are enthusiasts, and we will be enthusiastic.
2. To persevere.
3. Always act the best you can. Put the principles before the seemingly useful or practical.
4. Never worry about anything. Worrying means you are wasting time.
5. Learning languages (English). Learning English is as important as academic study.
6. Being aware of what is happening in the world.
7. Properly balance professional, family and cultural goals. The family side includes family and friends and the cultural side includes physical and spiritual culture (art, travel, history, etc.).
8. Be a good entrepreneur.

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[31] Huerta de Soto (2010c).

9.   Have a critical spirit. Ludwig von Mises said, "Tu ne cede malis sed contra audentior ito." (Do not give in to evil, but proceed ever more boldly against it).
10. Having an excellent, serious and ethical behavior in all areas in our lives. If we ever act badly we must recognize the error, try to solve the damage caused by it and go ahead with all the advice we have learned[32].

For decades, Huerta de Soto has devoted significant effort to academia, business, and the libertarian movement in Spain and in the international society. His modest, professional and serious attitudes towards the thoughts of economic schools, his hard work in the insurance industry, his care and guidance to students, his deep love of freedom, and his selfless, sincere and enthusiastic contribution to liberty has already become a milestone in the history of the Austrian School and libertarian movement, inspiring the revival of the Austrian school and classical-liberalism. In the next section, we will focus on the main academic achievements of Professor Huerta de Soto.

2. **Theoretical Contributions of Huerta de Soto**

2.1. *Theory of the Impossibility of Socialism*

One of Huerta de Soto's greatest academic contributions is his theory on socialism. He redefines socialism by introducing the concept of entrepreneurship, and makes a synthesis of the economic calculation problem of socialism based on the previous Austrian scholars. He also contributes to the theory of different types of socialism and the theory of impossibility of computerized central planning.

2.1.1. Entrepreneurship and Why Socialism is Impossible

In *Human Action*, Mises defined entrepreneurship in a broader sense as "acting man exclusively seen from the aspect of the uncertainty

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[32] González (2011).

inherent in every action"[33], which means that the entrepreneur has to take the risk of uncertainty in the future as a result of his entrepreneurial decision. Mises also believed that entrepreneurship is the driving force of the whole market system. He said,

> "[I]t is impossible to eliminate the entrepreneur from the picture of a market economy. … In eliminating the entrepreneur one eliminates the driving force of the whole market system.[34]"

Inheriting Mises' definition of entrepreneur, Huerta de Soto creates two related definitions on entrepreneurship, in the broad and the strict sense. The broad sense is equal to human action. He argues that by bearing uncertainty, "[E]ntrepreneurship actually coincides with human action. In this respect, it could be said that any person who acts to modify the present and achieve his objectives in the future exercises entrepreneurship"[35]. And human action is "any deliberate behavior or conduct"; "In acting, all men seek to accomplish certain ends which they have discovered are important to them."[36] Based on Israel Kirzner's strict definition of entrepreneurship as the function of alertness[37], Huerta de Soto defines that being an entrepreneur means trying to find a profitable market opportunity and the information for this end through a dynamic market process; thus entrepreneurship "consists basically of discovering and perceiving (prehendo) opportunities to achieve an end, or to gain a profit, and acting accordingly to take advantage of these opportunities which arise in the environment."[38]

As Huerta de Soto points out, "[i]t is impossible to grasp the concept of socialism without a prior understanding of the essence of

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[33] Mises (1998), pp. 254.

[34] Mises (1998), pp. 248.

[35] Huerta de Soto (2010b), pp. 15.

[36] *Ibid*, pp. 16.

[37] Huerta de Soto comments on what Kirzner has contributed to the concept of entrepreneurship. He says, "Kirzner holds that the exercise of entrepreneurship entails a special *alertness*; that is, a constant *vigilance*, which permits a person to discover and grasp what goes on around him". See *Ibid*, pp. 16. For more about Kirzner's theories of entrepreneurship, see Kirzner (1973, 1979, 1985).

[38] *Ibid*, pp. 19.

entrepreneurship." [39] Based on the analysis of entrepreneurship, Huerta de Soto defines the characteristics of information as subjective, creative, tacit, practical, and dispersed[40]. He further defines socialism as "any system of institutional aggression on the free exercise of entrepreneurship" [41], and aggression or coercion by means of "all physical violence or threats of physical violence which another person or group of people initiates and employs against the actor."[42]

Huerta de Soto also systematically reviews the historic debate between the Austrian School, represented by Ludwig von Mises, and the Neoclassical Economics represented by Oskar Lange[43]. In the great debate on the economic calculation problem, Mises and other Austrian School Economists demonstrated that it is impossible for any coercive social institution to make economic calculation. Huerta de Soto concludes why socialism is impossible, as an intellectual error, it is impossible to coordinate "social behaviors via a system of institutional coercion against free human interaction"[44]. He argues that if there is no freedom to practice entrepreneurship, and if the decision is made arbitrarily and coercively, the subjective information necessary for rational economic calculation cannot be created, nor "is it possible for economic agents to learn to discipline their behavior in terms of the needs and circumstances of [other social coordination]" [45].

2.1.2 Different Types of Socialism

Huerta de Soto also connects the theoretical definition of socialism with its various types in real world[46]. Not only does he

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[39] Huerta de Soto (2010b), pp. 15.

[40] *Ibid*, pp. 10.

[41] *Ibid*, pp. 49.

[42] *Ibid*, pp. 49.

[43] For more details about the background and arguments on the economic calculation debate between Austrian School and Neoclassical Economics, see *Ibid*, pp. 99-172 (Chapter 4 to Chapter6).

[44] *Ibid*, pp. 254.

[45] *Ibid*, pp. 254.

[46] Prof. Huerta de Soto's accurate illustrations of different types of socialism in the real world provide our Chinese scholars with a good tip to expound upon

mention the typical and well-known Soviet-type socialism ("real socialism"[47]), democratic socialism[48], social engineering[49], and syndicalist socialism[50] but also the conservative or "right-wing" socialism[51] and Christian or solidarity-based socialism[52], which are usually ignored by the conservatives in western countries. He argues that conservative or "right-wing" socialism is "institutional aggression … employed to maintain the social status quo and the privileges certain people or groups of people enjoy"[53]; thus, he sharply criticizes that "conservatism is an obscurantist doctrine which completely overlooks the manner in which social processes driven by entrepreneurship function, and specifically, the problem of the ineradicable ignorance which envelops all leaders"[54]. Further, Huerta de Soto also points out that some spiritual socialists, like Christian socialists, are in favor of "systematic, institutional use of coercion to modify"[55] the "immoral" or "unjust" results of human action. He argues that the development of our civilization relies on the social process of human interaction in which many people are far away

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another two typical types of socialism: *authoritarian socialism* (威權社會主義) and *Chinese socialism* (中國特色社會主義). Both types of the socialism believe that a political dictatorship, irrespective of whether it is a political party or a personal dictatorship, would be good for the civilization that it rules. Chinese Socialism, which is mainly applied in the ruling communist countries like Mainland China or Vietnam, is more aimed to maintaining the dictators' coercive power and benefit through dis-intervened entrepreneurial activities. However, Chinese socialism does not dynamically see the market process as the best way to coordinate the needs of different individuals, but rather, statically sees it as a stratagem to maintain the political power and economic benefit of the crony elites. Under Chinese socialism, the entrepreneurship of individuals is limited to commercial activities. One could think that with regard to the conditions for exchange, individuals can't blame political coercion. The truth is that the political coercion of Chinese socialism also extends to commercial activities, by violating property rights and creating discoordination and distortion for individuals in the exercise of their entrepreneurship.

[47] *Ibid*, pp. 77-78.
[48] *Ibid*, pp. 78-79.
[49] *Ibid*, pp. 80-82.
[50] *Ibid*, pp. 83.
[51] *Ibid*, pp. 79-80.
[52] *Ibid*, pp. 82-83.
[53] *Ibid*, pp. 79.
[54] *Ibid*, pp. 80.
[55] *Ibid*, pp. 82.

from knowing each other, and thus pursuing *morally superior* goals *per se* is immoral[56].

2.1.3. Computer and Central Planning

Another contribution of Prof. Huerta de Soto's theory of socialism is the theory of the impossibility of computerized central planning. One common fallacy related to computer science is that many people believe that as the technology of computers develops so fast, one day computers can completely receive, create and transmit all the information, making it possible for central planners to deal with the information problem. On the contrary, Huerta de Soto clearly illustrates that though computers can help people manage information better, as information is "practical, dispersed, and tacit"[57], individuals would entrepreneurially generate "progressively deeper and more detailed"[58] information by their entrepreneurship, making it harder for central planners to handle more information[59]. Huerta de Soto illustrates that it is not only the development of computer science that makes it more difficult for central planners to deal with information, but the nature of computers, as manmade machines, "will never be capable of acting or exercising entrepreneurship"[60], and "will never be able to create new practical information from nothing, to discover and seize new profit opportunities unnoticed up to that point."[61] The reason why computer cannot act as a human being to deal with information is that the information itself is "entrepreneurially discovered or created" by acting men[62]; thus computers can "only be used to manage articulated, formalized, and objective information"[63]. Huerta de Soto, therefore, distinguishes two related but different concepts, *knowledge* (subjectively

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[56] *Ibid*, pp. 82-83.
[57] *Ibid*, pp. 59.
[58] *Ibid*, pp. 59.
[59] *Ibid*, pp. 59.
[60] *Ibid*, pp. 59.
[61] *Ibid*, pp. 59.
[62] *Ibid*, pp. 60.
[63] *Ibid*, pp. 60.

created by human being) and *data* (objectively stored by computers), successfully refuting the fallacy that computer science can make socialist calculation possible.

2.2. *Theory of Bank Credit and Economic Cycles*

The second great and original theoretical contribution of Huerta de Soto is his theory on bank credit and economic cycles, especially the theory of free-banking laws, the clear demonstration of the business cycle, the theory of distortion on entrepreneurs created by fractional-reserve banking, the application of the theory of the impossibility of socialism in the banking system, the critiques on fractional-reserve free-banking, and his policy suggestions on banking reform.

The study of monetary theory not only involves the content of political economics but also various other subjects such as law, ethics, and mathematical statistics. Huerta de Soto has a thorough grasp of the above subjects, achieving mastery through a comprehensive study of monetary issues.

2.2.1. The Distinction between Loan Contracts and Deposit Contracts in both Economics and Law

Huerta de Soto starts by reviewing how Roman law defined banking credit[64], and points out that it is necessary to clarify two different types of financial contracts, *loan contracts* and *deposit contracts*, which are often confused by the modern banking system. For the loan contracts, Huerta de Soto defines two sub-classifications. The first is the loan *of use*, "in which case only the use of the lent item is transferred and the borrower is obliged to return it once it has been used"[65], and the second is the loan *for consumption*, "where the property of the lent item is transferred"[66]. No matter what the

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[64] Huerta de Soto (2006), pp. 1-36.
[65] *Ibid*, pp. 1.
[66] *Ibid*, pp. 1.

specific classifications of loan contracts are, both "entail the transfer of the availability of the good, which shifts from the lender to the borrower for the duration of the term"[67]. In the perspective of economics in deposit contracts[68], exchanging present goods for future goods is *not allowed*, as goods should *always* be available for the depositor. However, in the loan contracts, the situation is the contrary — there is *always* a transfer of availability from the lender to the borrower.[69] After the above theoretical demonstrations, Huerta de Soto provides an amazing historical review of how bankers and politicians violated the legal principles of both loan contracts and deposit contracts from ancient Greece and Rome through the 20th century, especially how the violations happened in Europe[70]. Thus, we can conclude that, "throughout history central banks have emerged not as a result of the spontaneous, evolutionary free-market process, but as a consequence of deliberate government intervention in the banking sector."[71]

2.2.2. The Demonstration of Business Cycles

Huerta de Soto demonstrates two types of economic cycles, *the cycles in voluntary saving or in the free banking system*[72], and *the cycles triggered correspond to credit expansion of the central banking system*[73]. The latter, which the current government central-banking system, can cause more severe and systematic problems than the cycles in voluntary saving and the free-banking system. Based on Austrian

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[67] *Ibid*, pp. 4.
[68] For more cases of 100 percent gold dollars, see Rothbard (2001). Though we do not agree with Rozeff's view on being against 100 percent reserve, his argument of whether if it is proper to call an institution that cannot issue loans but only keeps deposits a bank, should also be discussed. He said, "[a] proper bank would … hold all deposits intact and become a 100 percent reserve-storage or safety-deposit bank, although to call such a business a bank under these conditions is something of a misnomer because such a so-called bank makes no loans." See Rozeff (2010), pp. 497.
[69] *Ibid*, pp. 15.
[70] *Ibid,* pp. 37 to 114.
[71] *Ibid,* pp. 647.
[72] *Ibid,* pp. 313-346.
[73] *Ibid,* pp. 347-384.

Capital Theory[74], Huerta de Soto demonstrates the stages of the business cycle which are created by central banking. In the first place, though entrepreneurs have made incorrect market decisions, the central bank still creates more credit and grants it to entrepreneurs, causing a decrease in the interest rate. As more credit has been invested in the market, the prices of capital goods and the prices in the stock market will rise, and productive structures will also be lengthened artificially. This leads to more workers being hired in capital-good fields because of the artificial growth in productive structures. As the money in the market and the production of capital goods seems to be promising, the wages of workers will also rise; the "[m]onetary demand for consumer goods begins to grow"[75]. Then the *Ricardo Effect* occurs and "capital equipment is replaced by workers"[76]. The collapse of the boom emerges: the demand decreases, while costs, interest rate and prices all rise, marking the start of the depression. Capital-good sectors suffer heavily from accounting losses, and more workers will be fired in capital-goods industries. At this stage, entrepreneurs find that they have made many poor investments, and liquidate the erroneous investment projects. Some enterprises will go bankrupt and suspend their payments due to the malinvestment plans. As entrepreneurs are not able to repay their credits, banks will also face bankruptcy, thereby squeezing their credit to avoid more mistakes. The crisis makes the productive structures shorter and the economy gradually enters recovery, and the increase in voluntary saving can recover.

2.2.3. The Theory of Distortion on Entrepreneurs caused by Fractional-reserve

Huerta de Soto points out how artificial credit expansion distorts entrepreneurship in a fractional-reserve banking system. He

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[74] For more information about Austrian Capital Theory, see Bohm-Bawerk (1890), Garrison (1990) and Kirzner (1996).
[75] Huerta de Soto (2006), pp. 506.
[76] *Ibid*, pp. 506.

states, "While the expansion lasts, people's capacity for work is pushed to the limit and their entrepreneurial spirit becomes corrupted"[77], and they focus on short-term goals based on the credit expansion instead of long-term goals and frugality. This also discourages entrepreneurship of the "society's youngest, most innovative and dynamic generations."[78] And as businessmen, intellectuals and other economic agents and social elites take it for granted that the artificial credit expansion and the boom and recession are natural economic phenomena, government will support more pro-credit-expansion policy to meet the satisfaction of the above popular opinions. Thus, credit expansion has become an "old story [that] repeats itself"[79].

2.2.4. The Application of the Theory of the Impossibility of Socialism to the Banking System

Huerta de Soto also applies his theory of the impossibility of socialism to the Austrian Business Cycle Theory. First, he demonstrates that the central banking system is against traditional monetary legal principles, causing social discoordination. Through central banking, entrepreneurs will be misled by inaccurate information and by the privileges authorized by the state. Some entrepreneurs would even irresponsibly make their decision of investment due to the cheap artificial credit.[80] As Huerta de Soto points out, even if we suppose that the decision makers of central banks are not corrupted to give privileges to some bankers (we have to admit that it rarely happens as the decision making of the central banking system is based on coercion of political power), central banking still faces the problem of not being able to create and carry out sufficient information for serving the financial system.[81] Huerta de Soto says,

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[77] *Ibid*, pp. 457.
[78] *Ibid*, pp. 458.
[79] Mises (1998), pp. 578.
[80] Huerta de Soto (2006), pp. 651.
[81] *Ibid*, pp. 656 to 657.

> "[T]he central bank is obliged to make an unceasing effort to collect an extremely vast quantity of statistical information on the banking business. … For such information is not only extraordinarily profuse; but what is more important, it is also subjective, dynamic, constantly changing, and particularly difficult to obtain in the financial sector. Hence it is painfully obvious that the central bank cannot possibly acquire all the information it would need to act in a coordinated manner, and its inability to do so is one more illustration of the theorem of the impossibility of socialism, in this case applied to the financial realm.[82]"

2.2.5. The Critiques on the Fractional-reserve Free-banking Theory

According to Huerta de Soto, the fractional-reserve free-banking theory (FFT) has six fallacies. The *first* fallacy is that it assumes that the demand for money in fiduciary media is *exogenous* to the fractional-reserve free-banking system (FFS) [83]. In fact, it is the credit expansion *per se* in FFS that causes the demand of fiduciary media, distorting the productive structure and causing the economic boom and the recession[84]. Thus, the demand for money in fiduciary media is an *endogenous* variable in FFS. *The fundamental error*, which FFT makes, "lies in a failure to reflect that public demand for credit depends precisely on banks' inclination to lend."[85] The *second* fallacy of FFT is the monetary equilibrium formula of the FFT's equilibrium theory. Like Neoclassical monetary theory, the FFT also uses equilibrium formula; however, the monetary equilibrium formula can only deal with the last stage of the social and production process. On the contrary, the Austrian methodology says that there is always a dynamic entrepreneurial process and tendency[86] to reach equilibrium in monetary issues, but that the equilibrium is never actually reached[87]. New credit issuers will

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82   *Ibid*, pp. 656 to 657.
83   *Ibid*, pp. 679.
84   *Ibid*, pp. 681.
85   *Ibid*, pp. 683.
86   *Ibid*, pp. 685.
87   *Ibid*, pp. 685.

make errors as they have to face the *uncertainty* of the new demand for credit; thus, the equilibrium theory and formula of FFT are false[88]. The *third* fallacy of FFT is that it ignores the *microeconomic* effects but over analyzes the *macroeconomic* effects triggered by FFS.[89] Huerta de Soto points out that FFT focuses on analyzing the equation of exchange of the general price level, as monetarists or Keynesians do[90]. But as price and production structures have been distorted, the newly issued credit will never be immediately and directly sent to the people who value and prefer them more in a fractional-reserve system, making the equation of exchange impossible.[91] The *fourth* fallacy of FFT is the confusion between *the concept of saving* and *the demand for money*. FFT claims that money balance is equal to "savings". However, Huerta de Soto illustrates that there are only three ways in which economic agents can employ their money: spending on consumer goods and services, spending on investments, and holding them (hoarding) [92] as cash balances or fiduciary media[93]. Thus, savings (investment) and money balance are two different concepts and "a rise in the balance of fiduciary media may very well depend on a drop in investment spending, … which makes it possible to increase final monetary expenditure on consumer goods and services."[94] "Under these circumstances an individual's savings would drop, while his balance of fiduciary media would rise."[95] Additionally, FFT confuses note or depositing bank issues with financial assets. Financial assets can be issued as loans for consumption and investment, but a bank note or money is a *present* good different from financial assets[96]. Having a cash balance "says nothing about the proportions in which the economic agent wishes to consume and invest". The *fifth* fallacy of FFT is that it *per se doesn't match empirical*

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[88] *Ibid*, pp. 685 to 686.
[89] *Ibid*, pp. 688.
[90] *Ibid*, pp. 689.
[91] *Ibid*, pp. 689.
[92] Murray Rothbard also gives a specific explanation on hoarding. For more information about hoarding see Rothbard (2016).
[93] Huerta de Soto (2006), pp. 695.
[94] *Ibid*, pp. 695.
[95] *Ibid*, pp. 695.
[96] *Ibid*, pp. 696.

evidence. Huerta de Soto points out how FFS has caused economic booms and busts in at least two countries; in Scotland from the 18th to the 19th century and in Chile after the middle 19th century[97]. The *sixth* fallacy of FFT is that it *excludes legal considerations*. In fact, the legal considerations are as important as economics to understand the banking system[98]. Furthermore, FFT even confuses the difference between the two different contracts in the traditional legal principles. Huerta de Soto also points out that FFS can not only cause economic recessions, but also result in *externality* problems[99], as FFS disrupts the public order and harms third parties' property rights[100].

2.2.6. Policy Suggestions on the Reform of the Banking System

Three policy suggestions on the banking system are made by Huerta de Soto. The *first* proposal is *"complete freedom of choice in currency"*[101]. He argues that currency choice is also an *evolutionary process* according to the monetary regression theorem[102]. The free-banking

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[97] Huerta de Soto points out that, before the establishment of the fractional-reserve free-banking system in 1853, the financial sectors were stable in Chile, and there was no systematic economic recession, see *Ibid*, pp. 704.

[98] *Ibid*, pp. 706.

[99] Huerta de Soto (2006) does not use the word *externality* in his demonstration of the harm of fractional-reserve free-banking system to the third party and to public order, but we think that using the word externality would make his claim stronger and more clearly demonstrate that the issuance of credit through a fractional reserve system (even a free-banking one) also invades the monetary property rights of the third party.

According to Huerta de Soto's theory of the harm of a fractional-reserve free-banking system on the third party, Rozeff's argument for supporting a fractional-reserve free-banking system is false. Rozeff claims that "[p]eople themselves [have the rights to] decide what kinds of property rights they want and find acceptable in bank accounts". According to the legal principles in monetary contracts presented by Huerta de Soto, one does not have the right to decide anything that is a violation of another individual's property (i.e., the value of the third party's currency). For more about Rozeff's false arguments, see Rozeff (2010), pp. 498.

[100] *Ibid*, pp. 707-708.

[101] *Ibid*, pp. 736.

[102] Huerta de Soto says "[w]e should also remember Mises' monetary regression theorem, according to which the price or purchasing power of money is determined by its supply and demand, which is in turn determined not by its purchasing power

currency reform can be practiced more easily[103] if people themselves, who have specific and first-hand information, decide which kind of currency units they prefer and want to adopt[104]. With currencies having been chosen spontaneously by people in a long human history as gold, silver, etc.[105], it is not reasonable to artificially and constructively[106] adopt a new monetary unit[107]. Besides,

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today, but by the knowledge the actor formed on its purchasing power yesterday. At the same time, the purchasing power of money yesterday was determined by the demand for money which developed based on the knowledge of its purchasing power the day before yesterday. We could trace this pattern back to the moment when, for the first time in history, people began to demand a certain good as a medium of exchange." See footnote 35 on *Ibid*, pp. 737-738.

Mises also explained the regression theorem, stating, "[t]he theory of the value of money as such can trace back the objective exchange value of money only to that point where it ceases to be the value of money and becomes merely the value of a commodity. … If in this way we continually go farther and farther back we must eventually arrive at a point where we no longer find any component in the objective exchange value of money that arises from valuations based on the function of money as a common medium of exchange; where the value of money is nothing other than the value of an object that is useful in some other way than as money… Before it was usual to acquire goods in the market, not for personal consumption, but simply in order to exchange them again for the goods that were really wanted, each individual commodity was only accredited with that value given by the subjective valuations based on its direct utility." See Mises (2013), pp. 120.

In applying Mises' regression theorem to digital coins, Tucker (2014) believes that Bitcoin matches the regression theorem, as its original value of use is based on the payment network.

More about monetary regression theorem, see Mises Wiki (2016).

[103] *Ibid*, pp. 739.

[104] *Ibid*, pp. 737.

[105] *Ibid*, pp. 739. Here we must emphasize, that many people who declare that Huerta de Soto only prefers gold as monetary unit, misunderstand and have perhaps not read his claim seriously. *Huerta de Soto has never stated that gold is the only monetary unit which we should accept*, on the contrary, his point is that any monetary unit which has been spontaneously accepted throughout history, like gold or silver, can be used as a valid substitute for current monetary currencies. In footnote 37 on *Ibid*, pp. 739-74, Huerta de Soto expresses his understanding of the function of silver as a unit of currency in human history. He says, "[s]ilver could also be considered a secondary, parallel metallic standard which, if economic agents should wish, could coexist with gold at the fluctuating exchange rate determined by the market. Furthermore we must recognize that the decline in the use of silver as money was accelerated when nineteenth-century governments established fixed exchange rates between gold and silver which artificially undervalued the latter."

[106] See footnote 36 of *Ibid*, pp. 738.

[107] *Ibid*, pp. 739.

Huerta de Soto also argues that any new currency, like electronic currency, should match the traditional legal principles, that do not allow the systematic economic cycle and recession. Under legal principles, the current currency could be retroacted to the early money accepted spontaneously and evolutionarily, like gold and silver[108]. His *second* proposal is to establish a free-banking system with 100% deposit, which can avoid economic discoordination caused by the fractional-reserve system[109]. According to subjective value theory, individuals know their best monetary preference; thus, in the free-banking reform, people can make better choices between different types of banks than the state[110]. In addition, private banks should be reformed completely into free institutions without any state intervention[111]. His *third* proposal is "the obligation of all agents in a free-banking system to observe traditional legal rules and principles, particularly a 100-percent reserve requirement on demand deposits"[112]. He argues that only following the traditional legal principles of deposit contracts can we avoid economic discoordination caused by FFS.

2.3. *Theory of Dynamic Efficiency*

The third great theoretical contribution of Huerta de Soto is his theory of dynamic efficiency. Not only does he review the initial definition of efficiency in history, pointing out the wrong and static definition made by Neoclassical Economics (influenced by mechanical physics), but he also provides the dynamic definition of efficiency from an economic science perspective. Additionally, Huerta de Soto originally contributes to the theory with the relationship between dynamic efficiency and ethics, and he also calls for more academic studies in the approach of dynamic efficiency.

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[108] See footnote 35 of *Ibid*, pp 738.
[109] *Ibid*, pp. 740.
[110] *Ibid*, pp. 740.
[111] *Ibid*, pp. 740.
[112] *Ibid*, pp. 742.

2.3.1. The Review of the Original Definition of Efficiency in History

Huerta de Soto reviews the original definition of *efficiency* in history, covering both the static and dynamic parts. In ancient Greece, Xenophon defined *static efficiency* as "the sound management of the available (or 'given') resources, to prevent them from being wasted"[113]. Xenophon also defined *dynamic efficiency* as "the effort to increase one's goods by way of entrepreneurial creativity; that is, by trade and speculation, more than the effort to avoid wasting the resources already in one's power"[114].

2.3.2. The Wrong and Static Definition of Efficiency by Neoclassical Economists Influenced by Mechanical Physics

As Huerta de Soto points out, Neoclassical Economics has only developed the definition of efficiency in the static part, but not in the dynamic part. He illustrates that Neoclassical Economists use the same methodology as mechanical physics, replacing "the concept of energy with that of utility"[115] and applying "the same principles of conservation, maximization of the result and minimization of waste" to economics[116]. Thus, this static definition of efficiency of Neoclassical Economics excludes the real and creative part in human action through which human beings are pursuing efficiency. Huerta de Soto criticizes that "the influence of mechanical physics eradicated the creative, speculative dimension which belonged to the idea of economic efficiency from its very origins, and all that remained was the reductionist, static aspect, which focuses exclusively on minimizing the waste of (known or given) economic resources"[117]. Huerta de Soto also criticizes that instead of accepting the dynamic aspect of efficiency present in the human

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[113] Huerta de Soto (2009), pp. 2.
[114] *Ibid*, pp. 3.
[115] *Ibid*, pp. 4.
[116] *Ibid*, pp. 4.
[117] *Ibid*, pp. 4.

action, welfare economics only understands efficiency[118] in a static sense influenced by mechanical physics. He says,

> "[T]hese standards focus solely on one of the two aspects of economic efficiency, namely the static aspect, which entails the presumption both that resources are given and constant, and that the fundamental economic challenge is to avoid wasting them. Furthermore, *when, for example, a company, social institution or entire economic system is to be judged, such criteria completely ignore its Dynamic Efficiency, understood as its capacity to foster entrepreneurial creativity as well as coordination; in other words, the entrepreneurial capacity to seek, discover, and overcome different social maladjustments.*[119]"

2.3.3. The Dynamic Definition of Efficiency in Economics

After the profound rediscovery of the original definition of dynamic efficiency in history and after analyzing the fallacies of the static definition of efficiency in Neoclassical Economics, Huerta de Soto goes on to define what is the correct definition of dynamic efficiency as an economic concept: *creativity* and *coordination* driven by human beings' entrepreneurship[120]. From this dynamic perspective of efficiency, we can understand more deeply and clearly how human beings work efficiently: *not only* preventing the waste of the 'given' sources but using entrepreneurship to create and coordinate means to realize their goals. Huerta de Soto points out that "the truly important goal is not so much to prevent the waste of certain means considered known and 'given' (the prime objective from the viewpoint of static efficiency) as to continually discover and create new ends and means, and thus to foster coordination while accepting that in any entrepreneurial process new maladjustments will always appear and *hence a certain amount of waste is inevitable and inherent in any market economy.*"[121] He also

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[118] For more information about welfare economics, see Feldman (1991) and Rothbard (1977).
[119] Huerta de Soto (2009), *Ibid*, pp. 8.
[120] See part 2, *Theory of Impossibility of Socialism* in this thesis.
[121] *Ibid*, pp. 10-11.

points out that as the ways to prevent waste can be discovered by entrepreneurial creation and discovery, the dynamic perspective of economic efficiency also incorporates the static concept of efficiency in economics. He says,

> "[F]or *the same entrepreneurial force which propels dynamic efficiency through the creation and discovery of new profit opportunities is precisely the one which achieves the highest degree of static efficiency humanly possible at each moment by coordinating pre-existing maladjustments.*[122]"

2.3.4. Dynamic Efficiency and Ethics

Huerta de Soto's other great and original contribution is the connection made between the ethics of property rights and dynamic efficiency. The ethics of property rights and dynamic efficiency have not been put in connection by many economists, or others simply believe that the connection between ethics and economics has been already stated in welfare economics: productions can be transferred into social welfare if we find out the "optimum optimorum"[123] in the condition of given and static sources. Huerta de Soto points out that the ethics of property rights is both the necessary and sufficient condition for dynamic efficiency. This is the necessary condition because obviously if people cannot own the products that they have created for themselves, they no longer have the incentive to seek for profitable opportunities. He states,

> "[B]ecause to impede the private ownership of the fruits of each human action is to remove the most powerful incentive to create and discover profit opportunities as well as the fundamental source of creativity and coordination that propels the system's dynamic efficiency.[124]"

The reason why the ethics of property rights is also the sufficient condition of dynamic efficiency is that, if property rights can

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[122] *Ibid*, pp 11.
[123] *Ibid*, pp 19.
[124] *Ibid*, pp 21.

be respected or protected, entrepreneurs can continually create and coordinate resources that are needed in production. Huerta de Soto further argues, "[g]iven the vital drive which characterizes all human beings, an environment of freedom in which they are not coerced and in which their private property is respected constitutes a sufficient condition for the development of the entrepreneurial process of creativity and coordination which marks dynamic efficiency"[125].

Based on Hayek's theory of spontaneous order[126], Huerta de Soto also points out that some existing institutions have already been maintaining and enhancing the entrepreneurial creativity and coordination throughout history, arguing that "certain social institutions carry major significance in transmitting and encouraging the observance of these personal moral principles which, by their very nature, cannot be imposed by force but are nevertheless of vital importance to the dynamic efficiency of society."[127] As a devout Catholic, he also emphasizes the function of religion in the promotion of dynamic efficiency. He argues that by practicing sexual morality through religion or some traditions, people would have a better self-discipline, which is "of crucial importance to the successful working of the social process of creativity and coordination, and to its fostering dynamic efficiency in society as well as possible".[128] He says,

> "Religion plays an important role in the life of an economy. It transmits from generation to generation certain patterns of behavior and moral traditions that are essential for the rule of law, which makes economic exchange possible. For example, if contracts are not kept, society can fall apart. Religion, not the state, is the primary means for imparting to us a sense of our obligations to keep our promises and to respect the property of others.[129]"

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125 *Ibid*, pp. 21.
126 For Hayek's theories of the relationship between spontaneous order and tradition, see Hayek (1988), pp. 66-88.
127 *Ibid*, pp. 22.
128 *Ibid*, pp. 22-23.
129 *Ibid*, pp. 274-75.

2.3.5. Call for More Studies on Dynamic Efficiency

As Huerta de Soto points out, there are many fields that could be enriched by the dynamic-efficiency approach: taxation theory; the theory of regulation, interventionism and antitrust legislation; the economic theory of development; macroeconomics and monetary theory; the economic analysis of law, legal regulations and social institutions[130], etc. In *The Theory of Dynamic Efficiency*, Huerta de Soto has used the theory of dynamic efficiency to analyze socialism, to develop the theory of free market environmentalism, the theory of liberal nationalism, the libertarian theory of free immigration, the theory of crisis and reform of social security, the critical note on fractional-reserve free-banking, the ethics of capitalism, and the strategy to implement free market reforms. These profound, abundant and original theoretical contributions provide us with an excellent foundation and clues for further studies both in theoretical and applied parts of economics. Especially for the younger generation of economists, who should continue investigating on the concept of dynamic efficiency.

3. **Conclusion**

We have reviewed the biography of Prof. Jesús Huerta de Soto, a successful entrepreneur, a profound Austrian School economist, and a tireless fighter for liberty. We also reviewed his original and significant academic contributions to the theory of socialism and entrepreneurship, the theory of bank credit and economic cycles, and the theory of dynamic efficiency. What we as young scholars should learn from Prof. Huerta de Soto, is how to be as entrepreneurial as we can in our research and to be as passionate as possible in our engagement with the ideas of liberty, helping us contribute to the scientific research and attracting more and more people to the philosophy of libertarianism[131].

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[130] *Ibid*, pp. 28 to 29.
[131] Tyler Xiong provided thoughtful suggestions on the structures of this article and his help is greatly appreciated.

BIBLIOGRAPHICAL REFERENCES

BOHM-BAWERK, E. V. (1890). *Capital and Interest*. McMaster University Archive for the History of Economic Thought.

ESPAÑA S.A. (2012). «Historia de España S.A.» Retrieved January 15, 2017, from http://www.espanasa.com/es-es/lacompa%C3%-B1ia/historia.aspx

FELDMAN, A. M. (1991). «Welfare economics». *In The World of Economics* (pp. 713-726). Palgrave Macmillan UK.

GARRISON, R. W. (1990). «Austrian capital theory: the early controversies». *History of Political Economy*, 22, 133-154.

GONZÁLEZ, J. M. (2011). «10 consejos para tener éxito en la vida por Jesús Huerta de Soto». Retrieved August 11, 2017, from https://youtu.be/kY1llJk4sRA

HAYEK, F. A. (1988). *The Fatal Conceit: The Errors of Socialism* (Vol. 1). Routledge.

HUERTA DE SOTO, J. (1992). *Socialismo, Cálculo Económico y Función Empresarial*. 2da. Edición. Unión Editorial. Madrid.

— (2006). *Money, bank credit, and economic cycles*. Ludwig von Mises Institute.

— (2009). *The Theory of Dynamic Efficiency*. Routledge.

— (2010). *Socialism, economic calculation and entrepreneurship*. Edward Elgar.

— (2010). *The Austrian School. Market Order and Entrepreneurial Creativity, Edward Elgar.*

— (2016). «Discurso de recepción del Premio Juan de Mariana 2016». Retrieved January 15, 2017, from https://www.juande-mariana.org/ijm-actualidad/analisis-diario/discurso-de-recepcion-del-premio-juan-de-mariana-2016

— (2017). «Official website of Jesús Huerta de Soto». Retrieved February 1, 2017, from http://www.jesushuertadesoto.com/curriculum-vitae-en

HUERTA DE SOTO, J., & Schmidt, J. (2010). «Intervención del profesor Huerta de Soto publicado en el Johnson for America blog». *Procesos de Mercado,VII*(2), 408-409.

HÜLSMANN, J. (2000). «Book review of Dinero, Crédito Bancario y Ciclos Económicos, by J. Huerta de Soto». *The Quarterly Journal of Austrian Economics*, 3 (2), 85-88.

Mises, L. V. (1998). *Human action*. Ludwig von Mises Institute.

— (2013). *The theory of money and credit*. Skyhorse Publishing, Inc.

Mises Wiki. (2016). «Regression theorem». Retrieved January 15, 2017, from https://wiki.mises.org/wiki/Regression_theorem

Kirzner, I. M. (1973), *Competition and Entrepreneurship*. Chicago: University of Chicago Press.

— (1979), *Perception, Opportunity and Profit. Studies in the Theory of Entrepreneurship*. Chicago and London: University of Chicago Press.

— (1985), *Discovery and the Capitalist Process*. Chicago and London: University of Chicago Press.

— (1996). *Essays on Capital and Interest*. Edward Elgar.

Rothbard, M. N. (1998). *The ethics of liberty*. NYU Press.

— (2001). *The case for a 100 percent gold dollar* (Vol. 130). Ludwig von Mises Institute.

— (2016). «The Problem of "Hoarding"». Retrieved January 15, 2017, from https://mises.org/blog/problem-hoarding

— (1977). *Toward a reconstruction of utility and welfare economics* (No. 3). San Francisco: Center for Libertarian Studies.

Rozeff, M. S. (2010). «Rothbard on Fractional Reserve Banking». *Independent Review, 14*(4).

Tucker, J. A. (2014). «What Gave Bitcoin Its Value?» Retrieved January 15, 2017, from https://fee.org/articles/what-gave-bitcoin-its-value