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THE FOOTPRINT OF J.M. KEYNES IN SPAIN: ANALYSIS OF ITS
INFLUENCE

(LA HUELLA DE J.M. KEYNES EN ESPAÑA: ANALÍISIS DE SU
INFLUENCIA)

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"today we have involved ourselves in a colossal muddle, having blundered in the control of a delicate machine, the working of which we do not understand"

JM Keynes

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1. ABSTRACT

The coronavirus pandemic (SARS-CoV-2) has led to a global health crisis, something that will undoubtedly reignite strong economic consequences with common challenges and high uncertainty. Faced with this situation, political leaders and economists advocate rescuing some of the Keynesian theories that dealt with the great depression of 1929. This work aims to analyze the bases of Keynesian thought, with special attention to *"The General theory of Employment, interest and money"* and its influence in Spain. The aim is to carry out an analysis of the causes and measures taken in the financial crisis in Spain experienced in 2008, to establish some conclusions and final reflections on the effectiveness of these measures.

Key words: Keynes, Spain, Financial Crisis, Great depression, General Theory

RESUMEN

La pandemia provocada por el coronavirus (SARS-CoV-2) ha supuesto una crisis sanitaria a nivel mundial, algo que indudablemente imperará fuertes consecuencias económicas con retos comunes y una elevada incertidumbre. Ante esta situación, líderes políticos y economistas abogan por rescatar algunas de las teorías keynesianas que hicieron frente a la gran depresión del 29. El presente trabajo pretende analizar las bases del pensamiento keynesiano, con especial atención a *"La teoría General del Empleo el interés y el dinero"* y su influencia en España. Se busca realizar un análisis de las causas y las medidas tomadas en la crisis financiera de España vivida en 2008, para establecer unas conclusiones y reflexiones finales sobre la eficacia de estas medidas.

Palabras clave: Keynes, España, Crisis Financiera, Gran depresión, Teoría General

2. INTRODUCTION

The situation caused by the coronavirus (SARS-CoV-2) has broken all economic forecasts for 2020, taking the world economy to a new scenario, with the worst conjunctural data and with a great structural impact on the Spanish economy.

Spain is expected to be one of the countries most affected by the crisis since, together with Italy, they are countries that have been most affected by the pandemic and have had to adopt very harsh measures of confinement prolonged in time. On the other hand, Spain is mainly a country specialized in services, with a great weight in sectors such as restaurants, leisure, commerce, tourism or transport, and which represent a significant percentage of the country's gross added value. In addition, being a crisis whose main origin is health generates an extraordinary uncertainty with fear on the part of the population to future outbreaks.

In addition, a factor that must be taken into account is the state of the public accounts before the outbreak of the crisis. Despite having a cycle of prosperity from 2014 to 2019, Spain never adjusted its accounts and was faced with high levels of debt (approximately 100%). After the crisis, the Spanish public deficit may approach 15% of GDP and the public debt will approach 120%, as stated by Antonio Martínez, Ibercaja's chief financial officer, *“Spanish GDP in 2020 will suffer the greatest contraction since the Civil War, with a drop of -11%. In 2021 Spain will grow to + 8%, recovering two thirds of the GDP lost in 2020”* (Martinez, 2020).

This means that despite this situation, it is expected that in 2021 Spain will recover more quickly thanks to a much more stable and competitive economy than that of the 2008 crisis and rapid action by the monetary and fiscal authorities that have put more tools are up and running than in the previous crisis.

Faced with this scenario, there are many economists, political leaders and central banks who are betting to once again rescue the recipes against the crisis of one of the most influential economists in history, JM Keynes.

The Spanish economist Jose Carlos Díez, former adviser to the Spanish Government to the Spanish Prime Minister Jose Luis Rodriguez Zapatero, stated on April 12 in an interview for a newspaper in his country: *“In the short term, everyone is Keynesian. It happened in 2008 and now too”* (Díez, 2020).

And it is usual since the death of the British economist that economic intellectuals turn to their recipes in times of economic crisis.

John Maynard Keynes was one of the most influential economists of the 20th century due to his theory of the active role of governments in economic control. In *The General Theory* of 1936, Keynes explained that the capitalist system is unstable and generates economic crises, which have their origin in unemployment, overproduction or insufficient consumption. Resources would be left over due to an insufficient level of demand. Unemployment would mean that more people want to work, and fewer employers would be willing to hire additional workers, leading to higher levels of unemployment and lower levels of consumption for people and businesses. Keynes assured that the fall in consumption would cause the economic situation to worsen more and more in a vicious circle.

In times of crisis, Keynes recommended the fiscal policy of stimulating the consumption of individuals and companies through the sustained increase in public spending, even with deficits if necessary, financed with higher taxes, inflation and greater debts. This serves to push consumption levels towards full employment equilibrium. This is the Keynesian multiplier theory, which indicates that public spending causes a multiplier effect on levels of investment, production, employment and income in such a way that they would even tend to reduce the fiscal deficit. Keynes even went so far as to declare such criticized claims that the construction of pyramids, the digging of holes, even wars can serve to increase wealth.

Contrary to the orthodox view of classical economists, Keynes claimed that investment and wealth can increase without prior voluntary savings. On the other hand, it considers that saving is detrimental to the progress of countries, since it induces the underconsumption of economic agents.

These theories have had a great influence in Spain, a country that has suffered substantially from the 2008 financial crisis, since in addition to the effect of the financial bubble, it had internal imbalances caused by another bubble, the housing or the real estate bubble.

Since the credit expansion produced an exorbitant increase in the demand for housing, which caused the productive factors and other resources to move towards the construction

sector. In turn, the increase in public revenue in the administration caused an increase in structural costs to be generated, which in the following years affected very negatively in the public accounts.

After the outbreak of the crisis in the United States, the reduction in the supply of credit worldwide caused the demand for housing and other goods in the construction sector in Spain to decrease. The decrease in this sector caused a fall in public income and a high increase in the unemployment rate.

To cope with this situation, during the years 2008 and 2009 the Government of Spain implemented a set of fiscal incentives known as "E Plan", which represented the largest investment effort by Public Administrations in its history. This plan, based on the Keynesian theories exposed in *the general theory of employment, interest and money*, sought to stimulate demand in the short term and was aimed at reducing unemployment.

To understand the foundation for the application of these theories, it is necessary to analyze the work of Keynes with special attention to the general theory of employment, interest and money, as well as his criticisms from the perspective of classical economists. These economists, contrary to Keynes' view on the role that the state should assume in market intervention, advocate theories of "laissez-faire", free trade without state intervention since they consider that the market by itself, it generates the most efficient allocation of resources without the need for regulation.

With the aim of studying the possible application of these policies based on the theories of Keynes against the next economic crisis that Spain will face, this project aims to analyze at macroeconomic level the effects that the policies applied in 2008 had, and to reason whether it would be necessary to adopt a Different strategy to favor the growth of the Spanish economy.

3. METHODOLOGY

Due to the nature of the project, which is a review and bibliographic research work, the methodology used has been the use of secondary sources. Both qualitative and quantitative data have been provided. For the elaboration of the project, my previous knowledge in economic history and economic analysis has also been crucial. Also my concern for reading about the works that involve the ideologies of Keynesianism and the doctrine of Laissez-faire, especially the classical economists of the Austrian school.

For the revision of the main theories of international trade, various works of economic history have been studied, material studied during the degree has also been used, especially a contribution to the book *International Economics: Theory and Policy* by Paul, Krugman, Maurice, Obstfeld.

The study of the economic biography of John Maynard Keynes is mainly focused on his works and economic contributions and his opinions on political situations that occurred in his time, such as his vision of the treatment that Germany received after the First World War. Although many authors who have developed biographies about Keynes include personal elements and other aspects of his private life because they consider it crucial to understand the thinking of the British economist. These questions have not been included in this section since, for the purpose of this work, they have not been considered relevant.

For the study of the work *The General Theory of Employment, interest and money*, it was necessary to study this work with the support of the analysis of other authors, as is the case of the article by Axel Leijonhufvud for the *Cambridge Journal of Economics* of the past May 29, 2009 and the work of Juan Ramon Rallo "*Los errores de la vieja economía*".

There was also visual content on presentations on his work such as Oscar Vara's on the history of economic thought, at the Francisco Marroquin University on July 1, 2009

For the analysis of the origins of the Spanish crisis, the prior knowledge of the project developer is based on following the current economic situation and reading analyzes from different sources, but to study the influence of these policies in Spain, several projects that deal with the topic in depth with the support of different figures and tables to analyze the macroeconomic impact of these measures. The analysis is clearly focused on the

aspect of employment and the balance of public accounts, since they are the issues of greatest concern among economic specialists in Spain.

Finally, after reasoning about the influence of Keynesian policies in Spain compared to those taken in other countries that have followed different strategies, a conclusion was reached regarding their possible adoption in the current context.

4. GOALS

The main motivation for the preparation of this work has set the following goals:

- Review the main theories on international trade, especially those related to free trade mercantilism and the heterodox theories that oppose this vision of the economy.
- The study of the main contributions of the British economist John Maynard Keynes to theories on international trade and state intervention in economic matters.
- The analysis of the 3 economic conjunctures, the Great Depression of the 1930s, the financial crisis of 2008 and the imminent crisis caused by the Covid-19 pandemic and the economic measures adopted to combat them, especially the effects in Spain.
- Study the direct and indirect influence that Keynes's theories had in Spain and in the thinking of the Spanish economists who have led to the taking of state decisions.
- Reasoning and analysis of the main theories that appear in Keynes' most important work, *The general theory of employment, interest and money* and its application in Spain for the 2008 financial crisis, reasoning its possible application for similar future situations.
- Research on the impact of Keynesian theories in Spain during the first years of the financial crisis, analyzing macroeconomic data.

5. REVISING THE MAIN THEORIES OF INTERNATIONAL TRADE

In the field of the international economy, relations between countries are a crucial aspect. For this reason, classical and neoclassical theories are necessary for economic integration and trade policies.

The most reputable hypotheses were those developed by Adam Smith and David Ricardo when they developed the concepts of absolute advantage and comparative advantage, respectively.

The vast majority of the Students of free enterprise generally identify the origins of pro-market thinking to Scottish professor Adam Smith.

However, there was a group of economist known as The School of Salamanca, which wrote hundreds of years before Smith. They were more moral theologians than economist, influenced by the tradition of St. Thomas Aquinas.

Those scholastics were at least as pro-free market as the Scottish tradition and moreover, their theoretical foundation was more accurate. They anticipated the theories of value and price of the “marginalists” of late-nineteenth-century Austria.

The theory of Marginalism clearly differs from the theory of price according to the cost of production, and in my opinion, it is much more in line with reality. According to a report by the company TechInsights, the manufacture of an iPhone XS Max costs \$ 443, the equivalent of 376 euros. The sale price of the phone in its most basic configuration is 1,259 euros, which is a difference of 883 euros compared to the cost of the phone. Therefore, it is clear that the price of the iPhone is due more to the subjective assessment of consumers than to the total sum of the cost of its components.

Among the authors of the Salamanca school, we can distinguish Francisco de Vitoria who stood out for his contributions in the field of international law and humanist thought.

This author differed significantly from the scholastic trend that considered the profit motive of merchants as sin. According to Vitoria, the natural order is based on the freedom of movement of people, goods and ideas. Regarding International Trade, in his work "*De Indis*" in 1532, he explained his view of trade between Indians and Spaniards,

affirming that governments should not intervene with the prices and relations established between merchants across borders.

During the 16th, 17th and 18th centuries, many countries adopted the mercantile economic system; where the relations between the political and economic power are close, so that the state intervention is full.

Adam Smith criticized and redefined commercialism as the doctrine based on monarchical and imperial ideas. In his book, *The Wealth of Nations*, the author claimed that the specialization of countries in the production of a product and the trade relations between them generates higher total production. This happens as a result of a natural distribution of products that occurs between countries; bringing advantages for each of the parties involved. Contrary to what happens with protectionism, a measure that makes an inefficient allocation of capital.

5.1 Adam Smith's Absolute Advantage

Returning to Smith's proposal, absolute advantage can be defined as the ability of an entity (institution, country, person or organism) to use the fewest factors in the production of a good or performance of a job. Therefore, if one person takes 4 hours to produce a good and another person 8 hours; it can be said that the first person has an absolute advantage over the production time of that good.

Smith, a fervent defender of free trade, developed the theory of absolute advantage on the basis of international trade. A country that specializes in producing a certain product will have an absolute advantage over others.

In this way, as countries specialize in the goods in which they have an absolute advantage, they export those goods and with the profits from this sale they will buy other goods produced by other countries. In this way, he came to the conclusion of international trade efficiency.

5.2 David Ricardo's Comparative Advantage

In 1817, economist David Ricardo took Smith's hypothesis and completed it with comparative advantage in his book *Principles of Political Economy*, stating that "even if one country has absolute advantage over another in the production of goods, there are advantages in specialization, since, in relative terms, your advantage will be greater in one good than in the other. Each country should specialize in those goods whose production has a greater relative advantage over other countries, that is, those in which it is more efficient.

The main conclusion of this theory is that each of the countries will specialize in the good that it produces with greater efficiency, both for its own consumption and for export, and will import those that it produces in a less efficient way.

In order to explain this theory with an example, considering a country like Spain only has one factor of production and only two goods are produced, wine and watches. The following table shows the cost in working hours to produce a litre of wine and a unit of watches if there was no exchange between the two countries:

| | Watches | Wine |
|----------------|----------------|-------------|
| Spain | 80 | 90 |
| England | 120 | 100 |

Table 5.1 Comparative Advantage (own elaboration)

Spain has an absolute advantage in the production of the two goods; but it also has a comparative advantage in wine production since it can produce a unit of wine with only 67% of the English effort ($80 / 120 \times 100$), while $90 / 100 \times 100$, that is, 90% of the English effort is necessary to produce a unit of watches. Therefore Spain will produce wine and England watches.

Regarding this theory, we see that International Trade benefits both countries. Since it establish an efficient allocation of factors. The cheapest way for Spain to obtain watches is to produce Wine, and the cheapest way for England to obtain wine is to manufacture watches.

If labour were the only factor of production, as the Ricardian model assumes, comparative advantage could arise only from international differences in the production of labour. However, in the real world, although trade is partly explained by differences in labour productivity, it also reflects differences in countries' resources. Australia exports more minerals than the United Kingdom, not because its miners are more productive than British miners, but because the reserves of several minerals such as iron, lithium and coal are more plentiful in Australia. Therefore it is crucial to consider the importance, not only of labour, but also of other factors of production, such as land, capital, and mineral resources.

5.3 The Heckscher-Ohlin model

The Heckscher-Ohlin model was developed by the Swedish economists Eli Heckscher and Bertil Ohlin in 1933. This theory explains that export of goods requiring factors of production that a nation has in abundance. It also highlights the import of goods that cannot be produced as efficiently by a country. It takes the view that countries should preferably export materials and resources of which they have excess while importing those resources they need in a proportionate way. It completes the Ricardian model by introducing a second factor of production. This variant is also called two-by-two-by-two model, meaning two goods, two factors, and two countries.

For example, suppose we have two countries, Germany and France. And Germany is abundant in capital as a factor of production while France is abundant in labour. According to the theory of Heckscher-Ohlin, those countries would export products that used those factors to produce goods. Therefore if we have 2 goods such as cars and grapes, and cars are intensive in the capital factor while grapes are intensive in labour factor. Following this theory, Germany should focus on producing cars to export and import grapes, and France should produce grapes to export and import cars.

This model represents one of the simplest general equilibrium models that allow for interactions across factor markets, goods markets, and national markets simultaneously. Considering that the productive factors are perfectly movable between industries within each country, this theory also explains how fluctuations in supply and demand in one market can feed their way through the factor markets and, through trade, the national markets and affect both goods and factor markets at home and abroad.

One of the criticisms that can be made against this theory is that it considers that the goods are perfectly mobile between the countries since there are neither transport costs nor other impediments to trade.

In turn, the productive factors move without costs between both industries within each country but are completely immobile between the countries. Considering the example of Germany and France, imagine that due to some political situation there is a significant migratory flow from France to Germany. In this case, Germany would become more abundant in the labour factor and he could focus in produce other goods. These kinds of variations can make difficult in practice to determine the relative abundance of production factors.

5.4 Heterodox theories

Until now all the theories presented have been defenders of International Trade. However, there is a set of theories and models that criticize the classical and orthodox vision of the economy, and give the state a central role, since they consider that free trade generates great inequalities in the development of countries.

The origin of heterodox thought is based on two currents: Marxism and Protectionism.

Protectionism was the first critical response to free trade, and arose out of the former British colonies in America in the 17th and 18th centuries, seeking a readaptation of mercantilist ideas.

This current of thought had a considerable influence in the United States, Germany, Japan and the United Kingdom, where politicians and economists rejected free trade based on the national interest and seeing that certain externalities and market failures occurred.

The two greatest exponents of protectionism were Alexander Hamilton and Friedrich List.

On the one hand, Alexander Hamilton is one of the fathers of the United States economy. He was the first Secretary of the Treasury and also the founder of the first central bank of the United States, long before the Federal Reserve that we know now. According to his vision of the economy, Hamilton would probably approve the international policy of the current Prime Minister of the United States Donald Trump with his famous "America first".

In the period when he was elected, both the states and Congress were indebted due to the war of the revolution. And Hamilton's proposal in his First Report on Public Credit of 1790 was that the federal government assume and fulfill all the debts that the different states had incurred during the War of Independence and establish new tariffs on imported products for raise the necessary money.

It has to be emphasized, the importance that Hamilton gave to the state being responsible and compliant with debts, so as not to incur higher premiums due to the need to finance themselves by issuing debt in the future: *"For when the credit of a country is in any degree questionable, it never fails to give an extravagant premium, in one shape or another, upon all the loans it has occasion to make. Nor does the evil end here; the same disadvantage must be sustained upon whatever is to be bought on terms of future payment"* (Hamilton, 1789).

Another of Hamilton's reasons for paying off the debt was to offer wealthy and influential investors a stake in the federal government, thereby creating a powerful pro-federal constituency.

In fact, Hamilton claimed that the existence of a large national debt, indeed quite high, would be good for business. Because *"in countries in which the national debt is properly funded, and an object of established confidence, it answers most of the purposes of money."*(Hamilton,1789) .In other words, the bonds issued by the United States Government would represent a safe and easy-to-transfer asset that the private sector could use as a store of value, as a guarantee for its agreements and, in general, as a lubricant for business activity. Consequently, the debt would become a "national blessing" that would make the economy more productive.

On the other hand, the German economist Friedrich List gave the state a central role and considered that it had to have a substantial influence on the economy, in his work National System of Political Economy contended: *"the power of the State is compelled to impose restrictions on private industry."*(List, 1840,p.60) And *"the State is not merely justified in imposing, but bound to impose, certain regulations and restrictions on commerce (which is in itself harmless) for the best interests of the nation."*(List, 1840, p. 61).

Continuing with this reasoning, List considered that it was necessary to protect the internal market of a country with protectionist measures, to ensure its development. He

did not completely reject international trade, but assured that economic policy should focus its efforts on developing domestic industry: *“The internal market of a nation is ten times more important to it than its external one,”* (List, 1841, p.83) And *“It is ten times more important to cultivate and secure the home market, than to seek for wealth abroad, and that only in those nations which have developed their internal industry to a high degree can foreign commerce attain importance.”*(List, 1841, p.84)

To conclude, protectionism seeks the adoption of measures so that national industries are the strongest possible to subsequently achieve better international performance. Friedrich List even pointed to the case of the United Kingdom as a country that embraced free trade, but only after it had industrialized.

The other current on which heterodox theories are based is Marxism. Marxism is an economic theory that denounces the dizzying social change resulting from industrialization. It arose from the influences of Saint-Simon's utopian socialism and German Romanticism. Through historical dialectics, he predicted the rise to power of a certain social group, the proletariat, as an agent destined to overthrow the capitalist system based on private property and the constant search for profit. In such a way that Marxism presents a necessary change to achieve social development and the achievement of equality.

The founders of Marxism, Karl Marx and Friedrich Engels, observed that capitalism had a contradiction that in their opinion would lead to its own destruction. These authors emphasized social inequalities within the capitalist system. His theory observes that real exchange relations and existing class asymmetries determine antagonistic relations. For Marxism, social inequality is an economic cause, which can only be overcome by abolishing private property and achieving a classless society.

In this sense, the economic structure, or relations of production, determines the class relations in society. Among the antagonistic classes are, on the one hand, the bourgeoisie as the owner of the means of production and the proletariat, on the other. The first of these is the ruling class that seeks the unlimited development of trade, the division of labour and the globalization of the market; while the second is the class dominated by excellence: it has neither property, nor family, nor laws, nor morals, nor homeland. So that as the proletariat has nothing to lose, Marx assigns it the inevitable historical role of suppressing

all social classes and thereby destroying the state that legitimizes a social order based on slavery.

The basic concept for understanding Marx's analysis is surplus-value, through which capitalists expropriated the value of labour. So that the worker, despite being forced to produce more, was further impoverished, which would lead to a cycle of overproduction, depression and unemployment. This situation would become intolerable, consequently generating a social revolution that according to its historical dialectic will lead to a collective or socialized economy, that is, without private property, and society as it is will be destroyed.

The origin of the surplus-value was explained by Friedrich Engels in the following way:

"Whence comes this surplus-value? It cannot come either from the buyer buying the commodities under their value, or from the seller selling them above their value. For in both cases the gains and the losses of each individual cancel each other, as each individual is in turn buyer and seller. Nor can it come from cheating, for though cheating can enrich one person at the expense of another, it cannot increase the total sum possessed by both, and therefore cannot augment the sum of the values in circulation. (...) This problem must be solved, and it must be solved in a purely economic way, excluding all cheating and the intervention of any force — the problem being: how is it possible constantly to sell dearer than one has bought, even on the hypothesis that equal values are always exchanged for equal values?" (Engels, 1867, p. 380)

This concept is based on the objective theory of value, which clearly collides with the theories of subjective value that were developed centuries ago by the scholastics of the Salamanca school.

In 1871, Austrian economist Carl Menger came to brilliantly answer this dilemma, in Chapter III of his book *Principles of Economics*:

"The value of goods arises from their relationship to our needs, and is not inherent in the goods themselves. With changes in this relationships, value arises and disappears. For the inhabitants of an oasis, who have command of a spring that abundantly meets their requirements for water, a certain quantity of water at the spring itself will have no value" (Menger, 1871, p. 120).

Returning to Marxist theories, as a strategy for social change, Marx and Engels developed two possible antagonistic strategies that divided the socialist movement. The first was Marxist socialism, which hoped that industrialization itself would produce a class consciousness, which would grow and succeed in assuming power in a democratic society. The second, closer to Marx's first ideas, considered that an elite would take power by force to establish its dictatorship of the proletariat. The first strategy was followed by social democracy in Western Europe, where universal suffrage already existed, while the second was adopted in Russia by Lenin, whose society was still governed by the Tsarist autocracy and whose social stratification was mainly peasant.

Marx and Engels carried out an economic analysis of closed borders, but it was their followers who made their theoretical contributions in an open model. The thought of Vladimir Ilyich Ulianov, better known as Lenin, and the ideas of Leon Trotsky denounced imperialism as the upper phase of the world capitalist regime and pointed to the need to generate a permanent socialist revolution. Imperialism is the last phase of monopoly capitalist development where financial capital and industrial capital merge. Furthermore, the territorial division of the world by the capitalist powers could even lead to war.

Lenin criticized the policy of the capitalist powers, aimed at exploiting territories abroad with the aim of accessing other markets, expropriating raw materials and disposing of their excess capital. In this sense, Lenin collects the ideas of John Hobson who describes that the powers seek to place the surplus of their merchandise and capital abroad, since they do not obtain benefits in their own countries.

The difference between Leninism and Marxism is that Leninism replaced the class struggle with conflict between nations. In this way, Lenin explained why the eminent social revolution predicted by Marx had not yet taken place.

Following this reasoning, Trotsky's doctrine pursues the permanent revolution that tends towards an international socialist revolution and that does not know national borders. Contrary to Marx's classic vision, Trotsky points out that world capitalism was possible in pre-industrial societies and denounces an alliance between capitalists and western proletarians, to the detriment of pre-capitalist societies or colonial territories. This agreement allowed the industrialized proletariat higher levels of wages in advanced economies and delayed the social revolution.

The development of the theories of Lenin and Trosky allowed reformulating classical Marxism incorporating new visions from a peripheral perspective that made it possible to carry out the Bolshevik Revolution in the Russian Empire. Furthermore, as a theoretical and practical current, it laid the foundations for neo-Marxism and dependency theory in the Third World.

5.5 Keynesian theories' brief introduction

Years later, as a result of the Great Depression of 1929, the protagonist of this project, John Maynard Keynes, probably the most influential economist of the 20th century came onto the scene. The Great Depression caused a strong recession worldwide and the main capitalist economies returned to the protectionism. The protectionist doctrine allowed the emergence of the Welfare State, which in the face of the crisis of the 1930s sought to close the economy and isolate it from external shocks.

In this sense, the reason why Keynesian theories had so much influence is because they supposed a change in the economic model since it broke with the “classic” paradigm by focusing its analysis on Aggregate Demand, maintaining that it is demand that determines your own offer. Such statement is a refutation of Say's law that established that supply and demand will always be in balance.

As a strategy, Keynes argued in favour of controlling the external sector with a view to applying macroeconomic investment policies aimed at achieving full employment. His general theory influenced structuralism and neo-structuralism theories

Theories of structuralism and dependency theory signified the origin of heterodox thought in Latin America. After the Second World War, the theory of comparative advantages that supported the insertion of these countries in the production of raw materials, mainly minerals or agricultural or livestock products, was questioned. In this sense, several developing countries sought to encourage industrial growth by limiting imports of manufactured goods. This strategy, known as “industrialization by import substitution”, sought to encourage its local production rather than the exterior.

According to structuralism theory, instead of narrowing the gap between developed and underdeveloped countries, the international market increased it. Therefore, industrialization policies should decrease dependence on the least developed countries.

The maximum exponents of these theories were Hans Singer and Raúl Prebisch, who elaborated the Singer-Prebisch thesis in the 1950s. This theory affirmed that there is a tendency, in the long term, to the deterioration of the terms of trade in benefit of the most powerful and industrialized countries and to the detriment of the weaker countries and producers of raw materials. This theory, therefore, made a division between countries of the centre or core and countries of the periphery.

From this hypothesis, the traditional vision of international trade only benefits the countries of the centre, while conditioning the development of other countries. His thesis is based on the results of a United Nations study on the evolution of the relative price of primary and industrial products during the period 1870-1948.

Singer and Prebisch showed that the prices of industrial products increased to a higher level than that of primary products. As a result of this, in the long term the “Terms of trade” was unfavourable for developing countries and highly favourable for developed countries.

The central idea of structuralism is that trade relations between central and peripheral countries tend to deteriorate constantly. Thus, the relationship between the countries of the centre and those of the periphery is asymmetric according to the worsening of the terms of trade, which is explained by elasticity and specialization.

On the other hand, while the elasticity of demand for income of primary products is low, in industrial products it is considerably high. In addition, the specialization of the underdeveloped countries based on the export of raw materials stimulated by foreign investment generates benefits, but while the investing countries are those that accumulate these benefits, the underdeveloped countries cannot obtain savings.

Following the principles of Keynesian theories, this structuralism vision proposes as development strategy industrialization through a State as an entrepreneur that stimulates domestic demand, supports import substitution processes through protectionist policies and trade between underdeveloped countries that allow economies of scale to be achieved.

Another heterodox theory that pursues to analyze the inequalities of the countries is the dependency theory. According to the economic historian Andre Gunder, dependency theory was defined as *“the result of the historical development and contemporary structure of world capitalism, to which Latin America is subordinated, and the economic, political, social and cultural policies generated by the resulting class structure”*(Gunder,1970, p. 26)

Another definition of dependency was given by Theotonio Dos Santos, *“a situation in which the economy of certain countries is conditioned by the development and expansion of another economy to which the forms is subjected”* (Dos Santos, 1970, p. 26). Dos Santos points to three historical periods of dependency: Colonial Dependency (16th - 19th centuries), dominated by monopoly relations of land and labour; the Financial - Industrial Unit (XIX century and half of the XX century) where the capital of the hegemonic centres expands abroad through investments; and the Technical-Industrial Unit (Since the Second Post-War), where multinationals invest in industries in peripheral countries aimed at satisfying the internal market of these countries.

Dependency theory explains that the evolution of developed countries has its origin in a common past: colonial and imperialist. And in addition to dependence on the export of raw materials, it adds new ones in technology, investment and intellectual capital.

From his position, development policies are criticized since they were carried out accompanied by foreign capital, so that the denationalization of the economy took place. As a strategy, followers of Dependency Theory propose to break the link of traditional elites with international capital through a national revolution and the formation of a state-capitalism model.

Other currents that have appeared within heterodox thought are neo-Marxism and neo-structuralism. The neo-Marxist authors analyze the flows of wealth between countries. From this perspective, the proletarian forces of the centre live as “parasites” of the oppression of the underdeveloped nations.

Following this line of thought, the Greek economist Arghiri Emmanuel elaborated the Unequal Exchange Theory. Rejecting the basis of the Heckscher-Ohlin-Samuelson theorem by abandoning the assumption of capital factor immobility supports an international equalization of profit rates. However, the same is not the case with regard

to equalization of wages. Therefore, while earnings are extremely high in underdeveloped countries, their wages are lower.

According to Emmanuel, the appropriate strategy to reduce this unequal exchange is to achieve an accelerated industrialization of the developing countries, which will make it possible to reduce the share of surplus value and increase wages, bringing them closer to those of the developed capitalist countries.

In conclusion, historically numerous theories have been developed in favour and against international trade. According to the classic vision of the economy, free trade benefits all the countries and sectors involved. Therefore, the intervention of the State in the adoption of protectionist measures would only harm the obtaining of these benefits.

On the other hand, heterodox theories of international trade try to explain the inability of the market to solve problems related to unequal growth. All these theories analyze new variables that the liberal model does not consider, such as the role of the State, social classes, imperialism, aggregate demand, deterioration in terms of trade, different levels of development and wage asymmetries, among others.

Finally, in recent years the joint model of the Nordic countries has received much praise. Economies such as Finland, Sweden, Norway and Denmark combine the benefits of free trade with a system of social benefits from the State.

In this sense, in 2015 former Danish Prime Minister Lars Løkke Rasmussen, after seeing his country as an example in a United States presidential debate, took advantage of a speech at Harvard University to explain the Nordic model to an American audience.

"I know that some people in the US associate the Nordic model with some sort of socialism. Therefore I would like to make one thing clear. Denmark is far from a socialist planned economy. Denmark is a market economy," (Rasmusen, 2015) Rasmussen said.

"The Nordic model is an expanded welfare state which provides a high level of security for its citizens, but it is also a successful market economy with much freedom to pursue your dreams and live your life as you wish," (Rasmusen, 2015) he added.

6. ECONOMIC BIOGRAPHY OF JOHN MAYNARD KEYNES

John Maynard Keynes was an English economist, considered one of the most important and influential thinkers in economics of the 20th century and founding father of the modern discipline of Macroeconomics, he was born on June 5, 1883, in the city of Cambridge, England, in a typical middle-class English family.

His father, John Neville Keynes, was a young professor of Moral Philosophy and Political Economy at the University of Cambridge, a disciple of Alfred Marshall, and who subsequently gained significant notoriety in the profession, for the publication of his doctoral thesis in Science, *The Scope and Method of Political Economy*.

In this work he had to deal with an eclectic position in the then burning controversy over economic science methodology maintained by the economists of the Austrian School, supporters of deductive methods, led by Carl Menger, and those of the German Historical School, promoters of the induction approach, led by Gustav Schmoller.

In addition, he formulated the important contribution of approximating the problems of the method in economics, establishing a distinction between positive economics, normative economics and applied economics - a methodological distinction so successful that it continues to be widely used by economists more than a hundred years after having been formulated.

Keynes' mother Florence Ada Brown, was one of the first women to graduate from Cambridge University, in 1932, become a notable author and activist of social reform in England, was also the first woman to achieve the position of Mayor from the city of Cambridge, which he performed admirably.

Thanks to a scholarship, John Maynard Keynes was educated from his 14 years at the prestigious and elite Eton College, a private teaching institution closely linked to the University of Cambridge, founded in the 15th century in conjunction with King's College, by the King Henry VI. From Eton, he went to King's College in Cambridge with another scholarship, where in 1905 he obtained a degree in Mathematics; and from there to the University of Cambridge, where under the guidance and tutoring of Alfred Marshall and Arthur Cecil Pigou, he completed his formal studies in Economics. After a very brief stint

in the civilian bureaucracy, in the India Office, as an Office Clerk (from October 1906), in 1908 he returned to Cambridge, accepting a position as Professor of Economics personally financed by Alfred Marshall and presented in 1909 his doctoral thesis , A Treatise on Probability, before King's College, which he published as a book in 1921.

From the bureaucratic experience accumulated in that brief internship in the civil service in the India Office, in 1913 arose his first published book, *Indian Currency and Finance*, a work that Keynes scholars consider to be little elaborate, highly descriptive and exclusively aimed at presenting the monetary system From India, as an example of how the gold change standard could work in a country, instead of the pure gold standard, in force in a good part of the world at that time. The book, however, allowed him to obtain his designation as a member of the Royal Commission on Indian Finance and Currency, which was his first major foray into the British public sector and constituted a position from which Keynes began to project an image of economist talented for tackling practical governance issues.

During these initial years of residence at Cambridge, Keynes established a set of relationships that he managed to consolidate and maintain for a very good part of his remaining life. Beginning with his own relationship with King's College as a teacher, which he never resigned, despite his sporadic absences from the civil service. From those years, too, dates his association with the Bloomsbury Group, a kind of cultural circle made up of a small group of very high-level intellectuals, and finally, his long association with the *Economic Journal*, the most important British economic magazine. , of which he was appointed Editor in 1911, at the age of 28, a position he held for thirty-three years.

When the war began, he obtained permission from Cambridge to work as an advisor to the British Treasury (HM Treasury). His responsibilities included the design of credit contracts between the United Kingdom and its continental allies during the war, and external procurement systems. In 1919, after the end of the First World War, he was part of the British delegation at the Paris Peace Conference, a post he resigned that same year for being annoyed with the abusive regime of compensation and reparations imposed on Germany, which he considered a “Carthaginian Peace.” On this subject he wrote, in 1919, the book *The Economic Consequences of the Peace*, in which he announced the

implications and consequences of the economic conditions imposed on Germany in the Treaty of Versailles.

Thanks to the book *The Economic Consequences of the Peace*, Keynes became the most renowned economist in the Anglo-Saxon world, and his views were considered the most authoritative professional point of view on the economic problems of the United Kingdom and the rest of the western world. However, on the other hand, his position contrary to the harsh sanctions imposed on Germany, earned him the reputation of being an extremely liberal and heterodox economist, contrary to the status quo, which caused his name to be excluded from government payrolls for a long time period. It was not until World War II broke out that his name was again considered to occupy some important governmental position.

According to many historians, the disproportionate sanctions imposed on Germany in Versailles, and the strong instability of the German economy, constituted the most important trigger for the events that drove the rise and growth of Nazism in Germany, as well as the outbreak of the Second World War two decades later. In this sense, it is worth noting the visionary role that Keynes had in his book in predicting the social, economic and political consequences of the sanctions of the Treaty of Versailles.

“The policy of reducing Germany to servitude for a generation, of degrading the lives of millions of human beings, and of depriving a whole nation of happiness should be abhorrent and detestable, - abhorrent and detestable, even if it were possible, even if it enriched ourselves, even if it did not sow the decay of the whole civilized life of Europe” (Keynes, 1919, p. 37).

History proved Keynes right, Germany could only pay a small fraction of all the reparations that were imposed on it, it suffered the destruction of its democratic system of government, the establishment of a totalitarian, militaristic and expansionist government that unleashed a warlike conflict that for five years it involved almost all the countries of the world, whose tragic and horrifying balances are widely known as a painful chapter in contemporary history. It would be worth wondering what world history would have been like if, at the Versailles Peace Conference, Keynes' views advocating dignified and comprehensive treatment for Germany.

In the following years Keynes returned to Cambridge and became very actively involved in academic and intellectual work and in journalistic and financial consulting activity. It was during these years that Keynes developed, in successive public debates held in various newspapers and magazines, his main points of view on the role of public policy, which were later collected and compiled in his book *Essays in Persuasion* in 1931. The most famous of those debates turned on the international monetary system, on the permanence or withdrawal of England from the gold standard and on the use of public works as a reactivating element of the economy and as an instrument of public policy to combat unemployment. As a result of these debates many of the ideas present in Keynes's General Theory emerged.

In 1921 he published *A Treatise on Probability*, his doctoral thesis at King's College, a book that, although not exactly on theoretical or applied economics, represented an important contribution in the advancement of this statistical discipline, receiving highly appreciative comments from his Cambridge peers thanks, among other contributions, to the pioneering introduction of the probabilistic intervals approach and decision rules for testing hypotheses of statistical significance.

A Tract on Monetary Reform was published in 1923, a book in which he defended the need for countries to pursue internal price stability, even at the cost of sacrificing external stability, for example, depreciating their national currency, a position that led him to oppose to the maintenance of the gold standard by England, and which it maintained belligerently during the following ten years until the end, in 1931, as one of the effects generated as a result of the great depression that began in October 1929, England abandoned the system. Keynes maintained this position due to his belief that staying in that international monetary system was something that could lead the country to practice deflationary policies at a time like England, when the existence of a high unemployment rate could rather demand the adoption of expansive policies.

One of the most important rivalries in economic history emerged in the 1930s, as reflected by Nicholas Wapshott in 2011 in his book *Keynes vs Hayek: The Clash That Defined Modern Economics*.

Friedrich Von Hayek was an Austrian economist who was born in Vienna in 1899. In 1931, thanks to Lionel Robbins, Hayek went to London where he held a chair at the

London School of Economics. There he developed a strong rivalry with Keynes and showed belligerence against his concepts.

When Keynes published in 1930 what some experts consider one of his most important works in Economics, *The Treatise on Money*, a book so vehemently refuted by Hayek, criticism that had a reply by Keynes. Keynes then took the initiative and asked Piero Sraffa to make a critical report of Hayek's *Pricing and Production*, which he replied. Keynes went on to say that Hayek's Book, seemed to him one of the most frightful muddles he had ever read. Finally a relationship of mutual respect and even sympathy emerged between the two.

In the year of 1936, Keynes published his *The General Theory of Employment, Interest, and Money*, his greatest work, in which he proposed a break and a total confrontation with the classical principles that have been the dominant paradigm in British political economy since the century and a half before.

In 1937 Keynes suffered the first of a series of successive heart attacks that finally led to his death in 1946. The period of rest to which this forced him made him maintain a very modest participation in the various debates on the General Theory that they were raised immediately after publication. It was two years later when his physical recovery began, and from there, already started World War II, in which England was one of the main protagonists, Keynes began to become increasingly involved in carrying out professional activities in support of the war effort, all of them more practical and governmental in nature than academic.

In 1940 *How to Pay for the War* was published, in which he defended the thesis that instead of financing the war effort of the United Kingdom through fiscal deficits, it should appeal to the increase in taxes and the forced saving of workers to avoid inflationary shocks and to ensure that once the war was over, the release of funds saved by workers could act as a reactivating factor for aggregate demand and for the English economy.

In April 1942, the British government already fully reconciled with someone considered several years before as an anti-establishment economist and therefore, excluded from the lists of possible candidates for government positions, Keynes was appointed member of

the Board of the Bank of England, and several Months later he was awarded by His Majesty the title of First Baron of Tilton of Sussex County and incorporated with a chair into the House of Lords.

In 1944 he led the British delegation to the United Nations Monetary and Financial Conference, convened by the Allied countries, which was held in July at the winter hotel complex in Bretton Woods, New Hampshire, USA.

At the conference there were 44 delegations seeking to reach an agreement, however, it ended up reduced to a pulse between John Maynard Keynes, who led the British delegation, and Harry Dexter White, who did the same with the American.

Keynes arrived at Bretton Woods consecrated as an influential economist. His economic model proposed in the thirties had had a powerful influence in many countries in order to combat the effects of the 1929 crack. Without going any further, it was the main inspiration of the New Deal launched by Roosevelt and his approaches had proved successful in that context of crisis.

The British economist proposed a global trading system that would channel all transactions through a single entity, the International Clearing Union. This institution would issue a currency, called Bancor, which would serve to buy and sell internationally. The value of the Bancor would in turn be given by the value of the different and main currencies included in a basket in a weighted manner. However, the novelty did not lie there. Keynes tried to avoid by any means that there were chronically trade deficit countries and others with surpluses year after year, since the global trade balance being a zero sum, if some countries sold excessively, others, by pure mathematics, were going to be deficit. This, constantly, generated gigantic imbalances.

If the countries had an excessive foreign deficit, they would be fined, thus encouraging domestic investment to increase exports and rebalance the trade balance. However, surplus countries would also be penalized if they oversold by selling. With this, the intention was to promote the strengthening of the internal market of the states and allow the rebalancing of the deficit countries, both by reducing the supply at the global level and by increasing the demand by buying from those third countries.

And it is that Keynes was looking for a system in continuous balance and with strong coercive mechanisms - such was the extreme that the countries with surpluses could see how their Bancor reserves were confiscated if they did not spend that money or reduce their trade imbalance - at the same time that Global institutions would ensure with loans the correct development of the countries that, as would begin to happen a few years later, would be decolonized.

The American proposal had substantial differences. The Bank did not contemplate, and the International Compensation Union would not exist in favour of an organism in charge of ensuring the correct global, macroeconomic and inflationary stability of the states: the IMF. Banishing Bancor had a reason: the United States wanted the new global reference currency to be the dollar, giving it a privileged position in global financial and commercial dynamics. To calm misgivings about the aforementioned measure, the dollar would in turn be referenced to gold - for that there was something to support the dollar. Thus, the gold-standard would move to the gold-dollar standard.

Finally, the Bretton Woods agreements would have little British and much American. Keynes's proposal would be parked in favour of White's, and the pro-US system would be approved and soon after implemented, including the creation of the International Monetary Fund and the World Bank.

After the Conference, Keynes returned to England and two years later, on April 21, 1946, he died of a heart attack, in Tilton, Sussex, without having seen the new international monetary and financial system in operation. helped to build, nor the institutions created in Bretton Woods that began operating in 1946.

7. THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY

The General Theory of Employment, Interest and Money was Keynes's most important work. In a historical context of great economic depression, Keynes challenged prevalent economic thought, presenting his theory based on the notion of aggregate demand to explain the general variation of economic activity.

Book I of *The General Theory* is made up of three introductory chapters in which Keynes explains what is innovative about his work compared to all the previous economic literature.

In this part Keynes explains the reasoning of the classical theory of employment, which is based on two fundamental postulates:

1. The wage is equal to the marginal product of labour.

This means that the salary of an employed person is equal to the value that would be lost if the employment were reduced by one unit.

2. The utility of the wage when a given volume of labour is employed is equal to the marginal disutility of that amount of employment.

This means that the salary is also equal to the value that compensates the worker for the inconvenience of working and giving up leisure time (what is known as marginal disutility of work).

Therefore, the volume of resources used is properly determined, according to classical theory, by the two postulates. The first gives us the job demand schedule, the second gives us the supply schedule; and the quantity of employment is fixed at the point where the utility of the marginal product balances the disutility of the marginal employment.

According to the British economist, the wage that determines the level of employment in an economy is not the money-wage, but the real wage: namely, how many basic necessities can be purchased at a certain money-wage. In this case, Keynes wonders, how is it possible that when prices rise - and therefore the real wage falls - the supply of labour (and the volume of employment) does not decrease, as might be inferred from the postulates of classical economics?

According to Keynes, this is because the nominal salary agreed between workers and employers does not actually allow hiring everyone who is willing to work at the current real salary. That is, the usual thing is that at current money-wages there is “involuntary unemployment”. In other words, there will be people willing to work and businessmen willing to hire them at a lower real wage, but both parties will not be able to reach that agreement.

Involuntary unemployment was defined by Keynes as follows:

“Men are involuntarily unemployed If, in the event of a small rise in the price of wage-goods relatively to the money-wage, both the aggregate supply of labour willing to work for the current money-wage and the aggregate demand for it at that wage would be greater than the existing volume of employment” (Keynes, 1936, p. 16)

On balance, Keynes believed that a reduction in nominal wages could lead to a drop in spending within the economy that would in turn lower prices and, therefore, end up raising real wages. In other words, in the opinion of the British economist, the true cause of unemployment was that there was no mechanism within the economy that guaranteed to simultaneously achieve real wages and the level of aggregate expenditure compatible with full employment.

But is it really possible that simply adjusting nominal wages does not guarantee full employment because it leads to a general insufficiency of demand? The classics thought no, that chronic insufficiencies in spending were impossible.

In this sense, Keynes refutes the famous theory known as the Say Law, which is known as: Supply creates its own demand. This idea is expressed in the book as follows:

“From the time of Say and Ricardo the classical economists have taught that supply creates its own demand;—meaning by this in some significant, but not clearly defined, sense that the whole of the costs of production must necessarily be spent in the aggregate, directly or indirectly, on purchasing the product” (Keynes, 1936, p. 18).

Curiously, to refute the theory of the French Economist Jean-Baptiste Say, his work is not cited, something that has been widely criticized by other economists. Instead, Keynes turns to a text by John Stuart Mill from his work *“Principles of political economy”* in which the author states the following:

“What constitutes the means of payment for commodities is simply commodities. Each person's means of paying for the productions of other people consist of those which he himself possesses. All sellers are inevitably, and by the meaning of the word, buyers. Could we suddenly double the productive powers of the country, we should double the supply of commodities in every market; but we should, by the same stroke, double the purchasing power. Everybody would bring a double demand as well as supply; everybody would be able to buy twice as much, because every one would have twice as much to offer in exchange.”(Mill,1848,p. 427)

If Keynes's interpretation of Say's Law is followed, it seems quite obvious that Say's theory is wrong. How is it possible that supply creates its own demand? Any product that is offered by a company will be sold? If the population of a country doubles its supply in all markets, would it mean that demand is also going to double?

However, it would be very interesting to go to the work of Jean-Baptiste Say, *"A Treatise on political economy"* to find out what the author really wanted to say.

“It is worth while to remark, that a product is no sooner created than it, from that instant, affords a market for other products to the full extent of its own value. When the producer has put the finishing hand to his product, he is most anxious to sell it immediately, lest its value should diminish in his hands. Nor is he less anxious to dispose of the money he may get for it; for the value of money is also perishable. But the only way of getting rid of money is in the purchase of some product or other. Thus the mere circumstance of creation of one product immediately opens a vent for other products.(Say,1834, p. 138)

What can really be extracted from Say's original text is that to produce a good, it is necessary to acquire the raw materials that are demanded, and the money obtained from selling the good will be used to demand other goods. In this sense, supply creates its own demand.

It should be noted that Say never pointed out that overproductions goods were impossible, that is, that some specific good could not be produced in greater quantity than desired by consumers. Rather, from Say's words it could be inferred, in any case, that in the long term it is not possible to maintain a partial overproduction of goods, because if too much of a good is produced, the producing company will have losses and the price will fall. And if a company does not produce enough of a good, it will have extraordinary benefits,

the price of the good will rise and this will attract other companies to enter this market. This is how classical economists understand that the market is self-regulating.

Following this vision of the economy that the classics have, the key to avoiding crises is to produce as precisely as possible what is going to be demanded and to generate an efficient allocation of resources. From this perspective, the stimulation of aggregate demand by the public sector, as proposed by Keynes, would be a mistake, since the public sector does not have the necessary information to know what is going to be demanded.

In the free market, choosing what is going to be produced is established following the trial and error method. In a decentralized way, each entrepreneur who has extensive knowledge of a specific sector, and invests his capital taking the risk of his decisions.

On the other side, following the Keynesian recipes with expansive measures, the public sector, in a centralized way, and being unable to have extensive information on all sectors of the economy, and even sometimes being influenced by a conflict of interest, allocates resources without assuming the risk of contributing their own personal capital. Therefore, it is foreseeable that this allocation of resources will be done much less efficiently.

Keynes believed that the normal trend was that the propensity to save was stronger than the incentive to invest, he supported governments that requested loans to invest. He believed that the economy generally operated below its potential, and that public investment should complement private investment.

His idea was to use fiscal policy to maintain a high level of public or semi-public investment. Investment should encourage consumption by raising the general level of production and, therefore, by increasing income. The more consumption there was, the greater the national income and, therefore, the greater the savings of society that could be used to finance the investment. A permanently high level of publicly directed investment would offset fluctuations in private investment and help the economy remain in a "quasi-boom". This effect is known as a Keynesian multiplier.

One of the problems with this reasoning is to establish whether all spending or investment will lead to increased production. For Keynes this was not really a problem since, unlike the classical economists, he had a separate conception of production and spending. But many critics argue that in case of inflation, this increase in spending may not lead to an increase in production.

Actually, for any increase in spending to become an increase in production, some circumstances must be met:

On the one hand, there is idle capacity, that is, there are companies that could produce more if they had more spending. In other words, each industry has all productive factors. But not only the workers, on which the work of Keynes focuses, but also the rest of the resources. If one of the other resources is scarce, this could negatively affect the rest of the industries and therefore reduce production.

For example, if the construction of a public work requires not only workers, but also electricity, petrol, cement, and other construction materials. There may be an idle resource for workers if there is a high level of unemployment, but another resource is scarce. In this case, an increase in the demand for the scarce good could generate a price increase that would generate extraordinary costs for other companies and force them to stop producing. In this example, we would be in the case that an increase in public spending does not produce a total increase in production.

In addition, this effect has other negative consequences, the companies that have been forced to stop producing as a consequence of the increase in the price of a scarce good, were companies that were working in periods of crisis, companies that were probably adjusting their supply to real demand. This situation can cause resources to be allocated to public investments that do not match demand, such as an unused airport, and extraction of resources from companies that did match their supply to their demand. Obviously, if we understand crises as mismatches between supply and demand, this process, far from helping to combat it, would aggravate the crisis.

This type of situation is clearly reflected in Spain, a country where Keynesian theories have had a great economic and political influence.

8. ORIGINS OF THE 2008 SPANISH CRISIS

In 2008, an international financial crisis broke out, which originated in the USA subprime mortgages. However, it is worth studying specifically the Spanish case due to the imbalances that occurred as a result of the collapse of the housing bubble.

Between 2003 and 2007, 3 bubbles were born in Spain that were strongly related to each other. On the one hand, the financial bubble. As shows the Table below, the ECB lowered interest rates to what at that time were all time low.

| Year | Euribor |
|------|---------|
| 1999 | 3.069 |
| 2000 | 3.949 |
| 2001 | 4.574 |
| 2002 | 3.483 |
| 2003 | 2.705 |
| 2004 | 2.216 |
| 2005 | 2.312 |
| 2006 | 2.833 |

Table 8.1 Annual historical evolution of the Euribor since 1999 (Source: BBVA)

The table above shows that interest rates went above 4.5% in 2001, to be around 2% in 2004. The interest rate is the price of money, in other words, it is the price that you pay to use a certain amount of money for a certain time. If this interest rate is very low, there will be an increase in the demand for credit.

Some economists advocate artificially keeping interest rates low during slumps to stimulate the economy. This is currently the ECB's position. If interest rates are low, banks will be able to lend money at a lower interest rate and thus encourage investment in different projects and stimulate consumption.

In the view of classical economists, the fact that interest rates are low is not necessarily a negative thing, like any other good, if there is a large supply of savings willing to be borrowed, it is normal for the price to drop. But if those interest rates fall artificially, this creates imbalances in the economy.

And this is what happened in Spain, companies and families went into massive debt. Families went into debt to demand housing, which caused house prices to rise. In turn, the companies also went into debt to produce housing, since this activity generated a lot of profitability. This caused the housing bubble to be generated.

The table below shows the evolution of Spanish GDP between 2003 and 2007, where we see growth of more than 3% per year, even reaching over 4% in 2006.

| Year | Annual GDP | GDP Variation |
|------|------------|---------------|
| 2003 | 802,266 | 3.0% |
| 2004 | 859,437 | 3.1% |
| 2005 | 927,357 | 3.7% |
| 2006 | 1,003,823 | 4.1% |
| 2007 | 1,073,539 | 3.6% |

Table 8.2 Evolution of the Spanish GDP in millions of Euros (Source: Datos Macro)

However, this economic growth was completely unbalanced, as too much housing was being produced, more than was going to be demanded. The following figure shows the evolution of housing visas in Spain, where in 2006 more than 800,000 homes were produced, that is, more than those produced by France and Germany that same year, countries with more population than Spain. On the other hand, the figure shows that after the outbreak of the housing bubble, the offer drops dramatically.

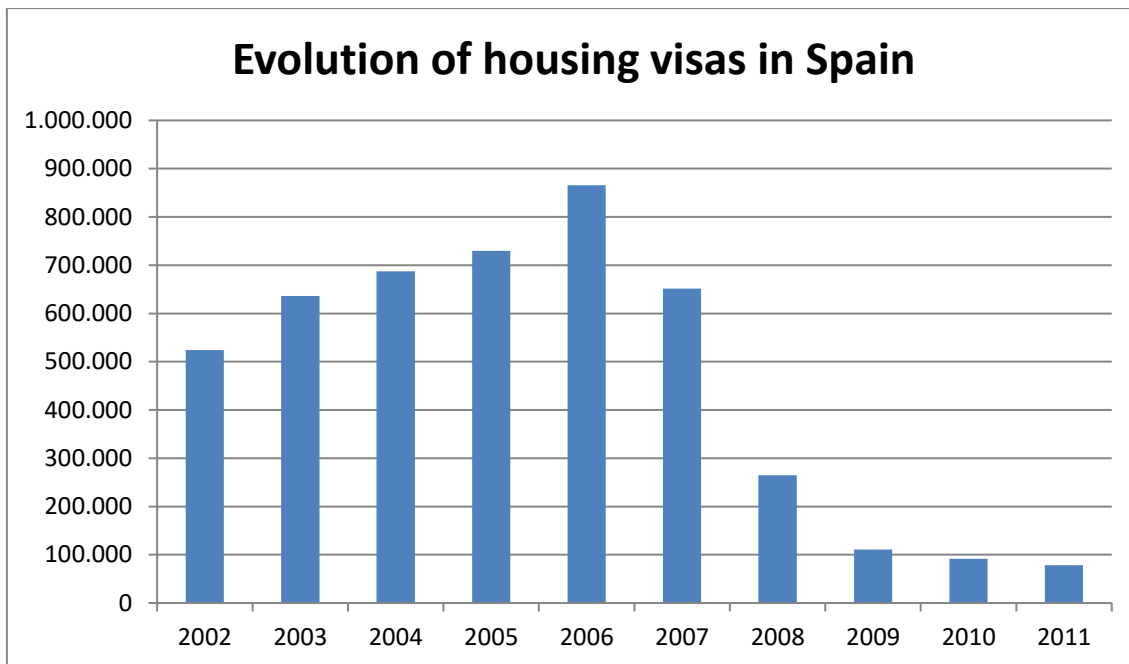


Figure 8.1 Evolution of housing visas in Spain between 2002 and 2011 (Source: Ministry of Development of Spain)

As a result of this process, the construction sector concentrates a large amount of resources and productive factors. But this sector depended on the financial bubble. Furthermore, if we look at the concept of opportunity cost in the economy, Spain was ceasing to produce other goods that the population also demanded to produce housing. In 2007, the Spanish trade balance was negative with a balance of less 9.23%, being a country with high imports but with very few exports because its productive structure allocated too many resources to build houses.

During the period 2002-2007 Spain had a great growth, although unsustainable, which produced a high increase in public collection. The Spanish public administrations were quick to increase their expenses and to consider the increase in extraordinary income from moments of economic and real estate boom as structural income, this created the third bubble, the bubble of the Spanish public administration.

The figure below shows how as revenue was increasing, the Public Administration increased its level of spending and the number of workers in the public sector. The bursting of the housing bubble and the arrival of the national and international economic crisis have reduced income significantly, while the inertia of growth in expenses continued even during 2008 and 2009, years of full economic crisis. Between 2002 and 2007, public revenues increased by 53%. In the same period, expenses increased to a lesser extent, 45%. But the inertia of the increase in public spending, and the inelasticity

of spending down, caused that even when public revenues fell significantly in the following years, public spending continued to increase year after year until reaching its maximum level in 2009.

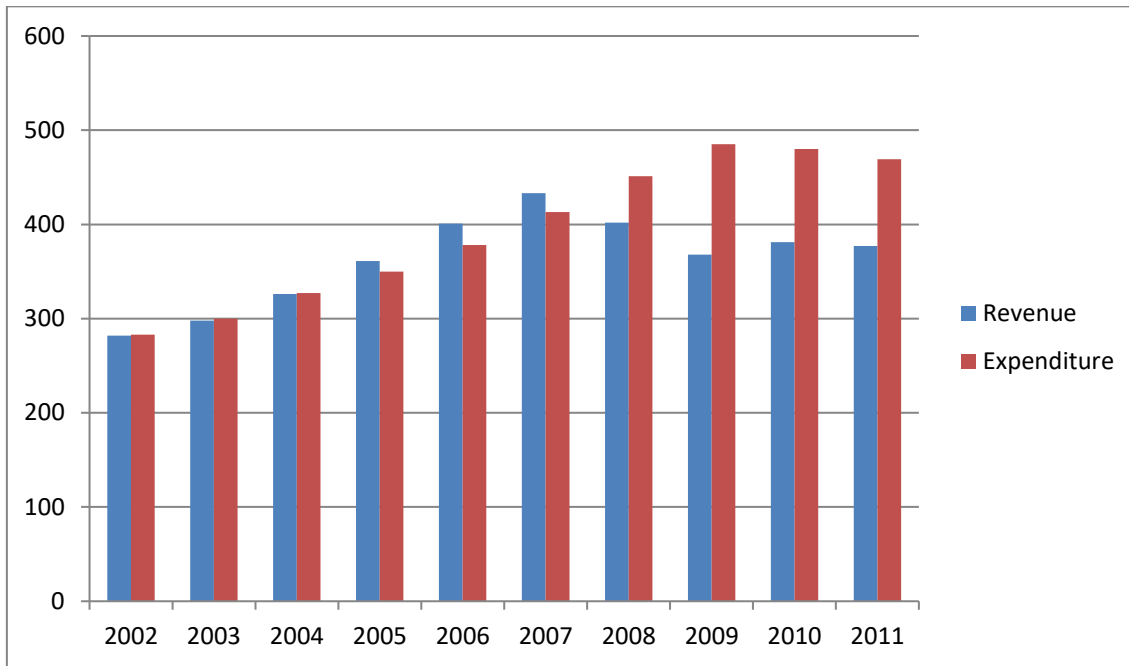


Figure 8.2: Public revenue and expenses in Spain from 2002 to 2011 (Source: Eurostat)

In 2008, the financial bubble burst, triggering a global crisis. This phenomenon added to the deep imbalances that Spain had caused the housing bubble to collapse. Since the supply of credit decreased, the demand for housing decreased. As the demand for housing fell, the price fell, therefore, the production and employment of this sector decreased, which meant a large share of the economy. As housing production fell, this caused a drop in public revenue that caused the public administration bubble to burst. All this chain reaction immersed Spain into a deep economic crisis with devastating effects for the population.

9. KEYNESIAN STRATEGY AGAINST THE CRISIS IN SPAIN

In September 2008 the investment bank Lehman Brothers filed for bankruptcy as a result of losses in the mortgage sector. This event was the one that many analysts indicated as the indicator that the economic crisis had broken out.

Many experts do not hesitate to compare the financial crisis of 2008 with the Great Depression of the 1930s. Another more similar comparison would be the Asian crisis of 1997. Aspects such as: housing bubble, low interest rates, rescue plans, deflation were concepts associated with the Asian crisis of the 1990s. However, in Europe and the United States they did not know how to take the example of Asian countries and they thought that their economy was immune to this type of imbalance.

From the view of classical economists, a comparison is also made between the Great Depression and the 2008 financial crisis. According to these economists, due to the state privileges granted to banks, the economy is experiencing a strong expansion of credit well above the volume of savings, which generalizes both real bad investments and the accumulation of private debt; And eventually, both bad investments and excessive debt accumulation end up collapsing in the form of disorderly asset liquidations and mass default on liabilities: that's what the classics call deflationary depression.

During the financial crisis, central banks in the United States, Europe and England lowered interest rates to record lows, promoting a credit expansion that resulted in bubble overinvestment in the construction sector and underinvestment in raw materials. During the Great Depression, since 1921 it was the central banks of the United States and England (and to a lesser extent, of France and Germany) that caused an international credit expansion aimed at postponing the necessary post-World War I productive restructuring, facilitating the repayment of the German debt imposed by the Versailles reparations, keeping the pound exchange rate artificially appreciated after its return to the gold standard, and finally to give a stimulating boost to the American economy by creating bubbles of financial and real estate assets.

On the other hand, the Swedish economist Axel Leijonhufvud, one of the main experts in Keynes, to whom he dedicated his doctoral thesis, wrote in July 2009 in the Cambridge Journal of Economics an article called Out of the corridor: Keynes and

the crisis. In which he said verbatim: *"The current crisis developed in a manner quite contrary to that presupposed by Keynes in the General Theory"* (Leijonhufvud, 2009).

Leijonhufvud argues that Keynes developed his theories in a context quite different from today: his country, England in the 1920s, had a declining rate of profit after the First World War and artificially high interest rates. However, the United States that have suffered the so-called subprime crisis have experienced a quite different situation.

However, many of the leaders of countries affected by this crisis drew the analysis and the conclusion that these crises had been caused by the implantation of liberal free market policies, and the countries were suffering the consequences of the economic cycles of the capitalist system. In this situation, it is not surprising that many turned to an economist and financial expert who had dedicated his most important work to combat the effects of the Great Depression; J.M. Keynes.

Rescuing Keynesian recipes, many governments implemented expansionary policies, among which it is worth highlighting the US plan called "American Recovery and Reinvestment Plan" (ARRA), endowed with 755,000 million dollars for the period 2009 - 2011 (equivalent to 5.37% of the American GDP). The December 2008 European Council approved the € 200 billion "European Economic Recovery Plan" (1.7% of European GDP). The objective, following Keynesian reasoning, was to increase public spending to stimulate aggregate demand and correct imbalances.

Faced with this scenario, Spanish Prime Minister José Luis Rodríguez Zapatero established a Keynesian response by implementing various public spending programs and a set of fiscal stimuli known as "E plan". In order to analyze the effectiveness of these measures, the impact they had on the Spanish economy will be studied in depth.

During 2008, the Spanish Government had been approving a series of initiatives independent of each other, with budgetary impact, mainly aimed at alleviating the first effects of the crisis: in April 2008, a deduction of 400 euros had been approved in the liquid quota of the Tax on the Income of Natural Persons (Called "IRPF" in Spain), the abolition of the Wealth Tax (Called in Spain "Impuesto sobre Patrimonio"), tax benefits for savings accounts, housing and buying and selling of habitual residence, discounts to the hiring the unemployed, as well as measures to

strengthen the resources of credit institutions and encourage credit to households and companies.

On November 28, 2008 the Spanish Prime Minister announced the launch of a public spending plan amounting to 11,000 million euros, approximately 1% of GDP, with the intention of stimulating GDP via aggregate demand and generating 300,000 jobs of work. It was the first major measure of the "E Plan" and it expressly invokes the agreement of the G-20 summit in Washington and the "European Plan for Economic Recovery".

Initially, the plan resulted in the creation of two programs called FEIL and FEDE. The FEIL, which is the Spanish acronym for "State Fund for Local Investment", which represented 8,000 million euros, and the FEDE "Special State Fund for the Dynamization of the Economy and Employment", endowed with another 3,000 million euros, both financed with two extraordinary credits included in the 2008 General State Budgets. The objective of the FEIL was to finance investment projects to be carried out by the municipalities.

The municipalities would be in charge of proposing such projects and executing them if approved. In this way it was intended that the energizing effects of the Plan spread throughout the entire national territory. To avoid excess spending on projects, a maximum limit of 5 million euros was established for each investment project. In addition, a very short period of time was established for the approval and execution of spending, with the aim that the concentration of spending effort over time would have the maximum macroeconomic impact.

| Autonomous Region | Number of projects | FEIL Program Budget | % of GDP | Number of employment contracts |
|--------------------------|---------------------------|----------------------------|-----------------|---------------------------------------|
| Andalusia | 5,659 | 1,418,866,807 | 0.99 | 83,709 |
| Aragon | 1,413 | 228,763,016 | 0.70 | 13,284 |

| | | | | |
|---------------------|--------|---------------|------|---------|
| Canary islands | 1,011 | 358,183,887 | 0.86 | 23,735 |
| Cantabria | 505 | 101,370,867 | 0.75 | 6,202 |
| Castilla La Mancha | 2,629 | 349,865,029 | 1.00 | 22,309 |
| Castile and Leon | 3,970 | 447,447,203 | 0.80 | 26,707 |
| Catalonia | 3,931 | 1,275,504,542 | 0.65 | 59,693 |
| Community of Madrid | 1,240 | 1,076,299.394 | 0.57 | 54,737 |
| Navarre | 601 | 107,155,126 | 0.59 | 6,242 |
| Valencian Community | 2,537 | 864,511,810 | 0.85 | 43,977 |
| Extremadura | 1,506 | 192,895,922 | 1.10 | 11,153 |
| Galicia | 2,552 | 490,338,335 | 0.90 | 23,956 |
| Balearic Islands | 636 | 182,208,499 | 0.69 | 9,003 |
| Basque Country | 883 | 378,030,597 | 0.58 | 15,823 |
| Asturias | 616 | 190,230,660 | 0.84 | 8,329 |
| Murcia | 672 | 245,990,855 | 0.91 | 13,200 |
| La Rioja | 283 | 54,644,877 | 0.70 | 3,211 |
| Ceuta | 34 | 13,421,037 | 0.83 | 629 |
| Melilla | 21 | 12,289,143 | 0.82 | 314 |
| Total | 30,699 | 7,988,017,606 | 0.76 | 426,213 |

Table 9.1: Impact of the FEIL program by autonomous region in Spain (Source: Spanish Ministry of Territorial Policy and Public Administration 2010)

Impact of the FEIL program in the Spanish autonomous regions (Source: Ministry of Territorial Policy and Public Administration of Spain 2010)

The table above shows the impact of the FEIL program in the Spanish autonomous regions. The Spanish region of Andalusia was the one that carried out the largest number of projects through this program, with a total of 5,659. Andalusia was also the region that had the greatest influence on employment through this program with

a total of 83,709 contracts, it should be noted that this is the region with the most population in the country. However, although the impact in the Andalusia region was significant with almost 1% of the region's GDP, the regions that had the greatest impact from the program were Extremadura and Castilla La Mancha with 1.10 and 1% of GDP respectively.

It should be noted as a positive aspect, that this investment was carried out in a decentralized manner, which allowed the person in charge of each municipality to present the project that best suited their specific needs. In addition, the municipalities provided projects of various kinds: From the protection of the environment, rehabilitation of the Public Heritage and infrastructure or promotion of Tourism. However, it is difficult to think that this plan did not incite municipalities to carry out projects that were not really necessary to receive public funds.

Another criticism of this program is that municipalities with less than 1,000 inhabitants were only able to tackle the least expensive projects, focusing especially on the rehabilitation and improvement of public spaces and facilities in infrastructures and basic services and the preservation of heritage, leaving aside economic promotion and environmental protection. Therefore, the municipalities with the largest population had more opportunities to choose between the different typologies of the projects presented, some of them with higher weight in technological investment and, therefore, more productive.

| Field of the Project | Number of Projects | Budget | | Number of employment contracts | |
|--|--------------------|----------------------|--------------|--------------------------------|--------------|
| | | Euros | % | Euros | % |
| Energy saving and energy efficiently | 658 | 98,771,654 | 1.2 | 4,988 | 1.2 |
| Conservation of historical and municipal heritage | 829 | 208,969,525 | 2.6 | 11,645 | 2.7 |
| Social. health and funeral buildings and facilities | 2,580 | 555,642,880 | 7.0 | 32,795 | 7.7 |
| Basic services equipment and infrastructure | 8,937 | 1,796,171,942 | 22.5 | 96,568 | 22.7 |
| Cultural. educational or sports facilities and buildings | 5,377 | 1,695,586,283 | 21.2 | 93,284 | 21.9 |
| Fire prevention | 62 | 13,784,529 | 0.2 | 1,029 | 0.2 |
| Promotion of mobility and road safety | 1,122 | 380,357,551 | 4.8 | 22,412 | 5.3 |
| Promotion of tourism | 162 | 23,033,751 | 0.3 | 1,400 | 0.3 |
| Industrial promotion | 191 | 74,114,634 | 0.9 | 3,486 | 0.8 |
| Environmental Protection | 401 | 132,421,160 | 1.7 | 6,980 | 1.6 |
| Rehabilitation and improvement of public spaces | 9,717 | 2,837,523,014 | 35.5 | 142,081 | 33.3 |
| Elimination of architectural barriers | 663 | 171,640,682 | 2.1 | 9,545 | 2.2 |
| Total | 30,699 | 7,988,017,606 | 100.0 | 426,213 | 100.0 |

Table 9.2 Distribution of the FEIL program by types of investment (Source: Spanish Ministry of Territorial Policy and Public Administration 2010)

Distribution of the FEIL program by project fields (Source: Spanish Ministry of Territorial Policy and Public Administration 2010)

The table above shows distribution of the FEIL program by project fields. The field with the most projects in Spain was the Rehabilitation and improvement of public spaces with 9,717 projects, which received an investment of 2,837,523,014 euros. Furthermore, this field had an impact on employment of 142,081 labour contracts.

It should also be added that the budgets of the projects carried out were not limited exclusively to the funds of the FEIL, but that many of the Municipalities added amounts to develop more expensive projects.

All this public spending that was carried out during the first years of the outbreak of the economic crisis was added to the notable previous spending that was carried out during the previous years that created the public administration bubble. One of the approaches of this spending, following the Keynesian multiplier theory, was to decrease the unemployment rate

The Keynesian investment multiplier indicates that an increase in investment spending cause a multiplied increase in production and income. The basic idea of the multiplier is that investment can increase without saving previously: investment multiplies income enough to increase savings that self-finances the investment. The multiplier always multiplies spending and, in the presence of idle resources, would multiply not only production but also employment.

In addition, there are a significant number of public jobs that were created directly by the administration. The following figure shows the number of public employees in Spain in thousands of workers since 2001.

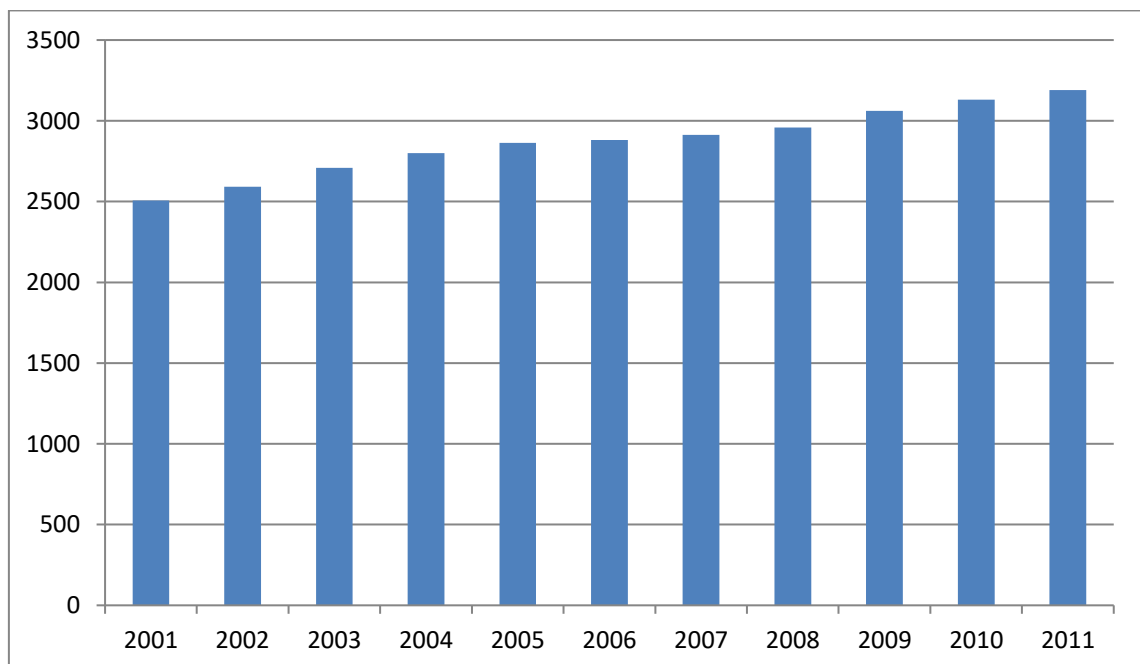


Figure 9.1: Public revenue and expenses in Spain from 2002 to 2011 (Source: Eurostat)

Number of public employees in Spain in thousands of workers. (Source: Bank of Spain, Spanish National Statistical Institute)

9.1 The importance of infrastructure in the Economy

One of the foundations of the investment that was carried out in Spain through these projects is the relationship that exists between investment in infrastructure and economic growth. Many authors have addressed this question. Some of the theories that support this relationship have their origin in the work of Keynes.

Infrastructures are all those capital goods that constitute the base of socioeconomic activity, insofar as they determine or condition the productive potential of the different parts of the territory and the geographical location of the mobile factors of production.

Therefore, the infrastructure endowment of a region is essential in determining its economic development, as well as income differences with other regions.

The influence of infrastructures when determining growth in the medium and long term of an economy is decisive, in many cases it has been studied how the deficit of these infrastructures can stifle growth, although it is also necessary to analyze the immediate effects of their building. These effects are the ones that we seek to analyze in this section.

It should be noted that one of the main purposes of Plan E was to try to compensate for the destruction of jobs as a consequence of the crisis in its initial moments.

Hansen (1965), in looking at the role of public investment in economic development, divided public infrastructure into two categories: Economic Overhead Capital (EOC) and Social Overhead Capital (SOC). EOC is oriented primarily toward the direct support of productive activities or toward the movement of economic goods and includes most of the public works projects listed above. SOC is designed to enhance human capital and consists of social services such as education, public health facilities, fire and police protection, and homes for the aged.

On the other hand, following the 1992 study by Antonio Cutanda and Joaquina Patricio on infrastructure and economic growth, with special attention to the Spanish autonomous regions, economic indicators were used for the categories indicated by Hansen.

Curiously, in this study, the results showed that investments in Social Overhead Capital (SOC) presented more favourable features than investments in Economic Overhead Capital (EOC), and also had less dispersion between regions. Regarding investments in Social Overhead Capital, investments in education and health stood out due to their influence on the well-being of a society due to their influence on the efficiency of the work factor.

The EOC investments that had the greatest impact on economic growth were those made in transportation and communications, as well as the supply of water, energy and other resources.

Therefore, according to this study, the adoption of public investment policies that increase the stock of public capital from the completion of the best infrastructure projects, in addition to not expelling private investment, can have very favourable effects on income and long-term wellness.

From the perspective of time, other research works such as that of Pablo Pérez Maderuelo in his project: "*E plan: an example of Keynesian policy against the crisis?*" analyzes the impact and economic profitability of infrastructure from a macroeconomic perspective from two types of approaches: The Economic impact of the simple construction of infrastructure and the Impact of the increase in the infrastructure stock on economic evolution and development.

The economic impact of the simple construction of infrastructure is a short-term approach that tries to study the impact that construction itself has on different sectors of the economy. Taking as a basis of his analysis the economic interrelations between the productive sectors reflected in the input-output tables. The model he uses to study the effect of infrastructure construction in the short term is the IS-LM.

The IS-LM model shows the interaction between the goods markets (IS curve) and the monetary markets (LM curve). It is inspired by the ideas of J.M. Keynes, but also synthesizes his ideas with those of neoclassical models, such as those of Alfred

Marshall. It was originally produced by John Hicks in 1937 and later developed by Alvin Hansen. The basis of this model lies in the behaviour of public spending and its multiplier.

On the other hand, the impact of the increase in the infrastructure stock on economic evolution and development is a long-term approach that tries to explain the consequences of the structural change derived from the increase in the infrastructure stock. There are several models that study this long-term vision, many are based on Aschauer's initial model of 1989.

The study carried out by Aschauer in 1989 was the first work that investigated the issue of the impact of public infrastructures on the productivity of the countries' economies. Using aggregated data from the United States economy, Aschauer arrived to the conclusion that the effect of the increase in the infrastructure stock on the GDP growth of an economy is positive. In addition, he also assured that basic transport infrastructures explain most of the contribution of the total stock of public infrastructures to productivity growth.

From the work of Aschauer's work, other economists carried out various studies on this matter. The studies referring to Spain reflected a coefficient of impact of the infrastructure stock higher than that of the United States. This seems to indicate that the effect of the increase in public infrastructure on production is higher when the initial level of development is lower and, therefore, the level of infrastructure stock is also lower. On the other hand, this also indicates that the construction of new infrastructures has a greater effect than their improvement. Finally, many experts conclude that there is a saturation level above which increases in the infrastructure stock have little effect on productivity.

To finish this section, it is necessary to point out that with the exposition of these long-term models what we have tried to do has been to explain the importance of infrastructures in the economy of a territory. As previously stated, E Plan was conceived to have short-term effects, making it difficult to analyze its possible long-term effects, since this was not its purpose and more time should still be spent to evaluate its impact.

It should also be noted that, although the positive impact of infrastructures on economic growth has been demonstrated, it is worth asking whether these infrastructures could not be developed by the private sector more efficiently and by drawing less resources from the rest of the sectors of the economy.

9.2 Analysis of the results of Keynesian policies in Spain

As previously mentioned, one of the main objectives of these measures was to stop the destruction of jobs as a consequence of the crisis, especially in the construction sector. The unemployment rate went from the historical low of 7.95% in the second quarter of 2007 to 11.34% in 2008, shooting up to 18.01% in 2009, data that doubled the average rate of the countries of the Euro Zone.

It is difficult to assess the impact of these measures in isolation, since Spain was in a situation of massive job destruction.

On the one hand, the data provided by the Spanish Ministry of Territorial Policy and Public Administration, which was responsible for the award of the FEIL program, are based on the work contracts signed by the companies awarded the projects, but do not collect any information on those companies that have not benefited from any project and have been able to fire workers in this time frame.

The following figure shows the evolution of the unemployment rate in Spain from the first trimester to the last quarter of 2012.

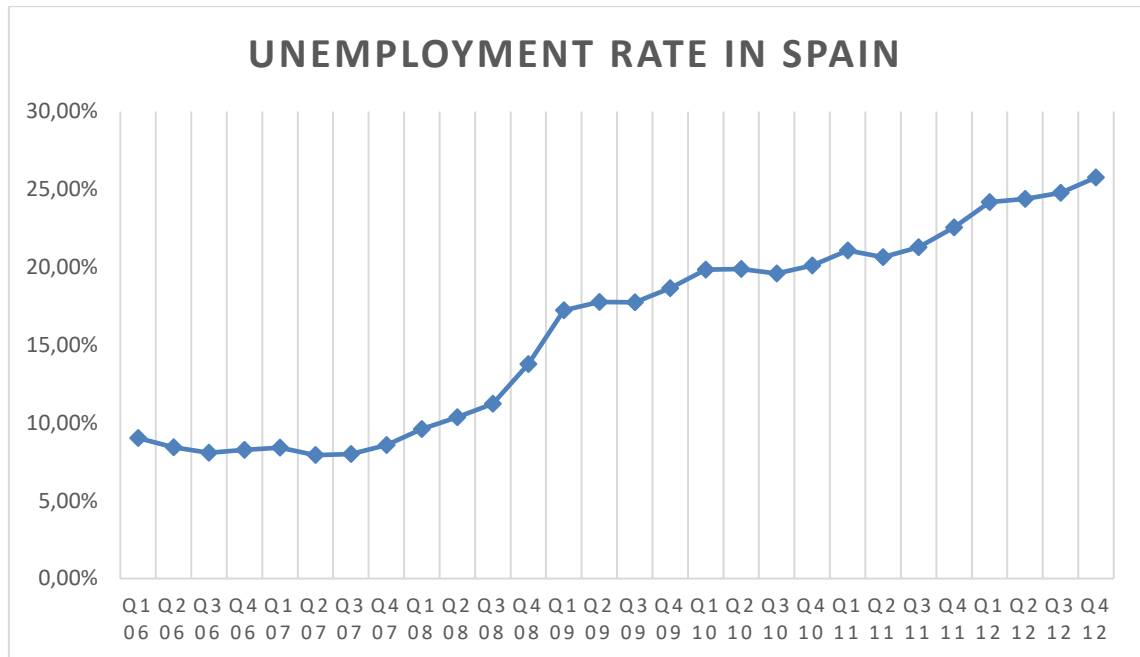


Figure 9.2: Evolution of employment rate in Spain from the first quarter of 2006 to the fourth quarter of 2012 (Statista)

The figure shows that globally, these stimulus policies could not prevent the unemployment rate from continuing to rise. From 7.93% in the second quarter of 2007, it rose to 18.66% in the last quarter of 2009, the last year in which these measures were applied. Furthermore, in the long term there was also no decrease in this unemployment rate, which continued to rise in the following years.

This can be due to what has been said previously in this project, when there are other resources in the economy that are not idle, the application of these policies can negatively influence other sectors of the economy.

As explained above, due to the inability of the public sector to distinguish which are those productive sectors that have a supply that adjusts to demand, we can find that these investments remove resources from the sustainable productive sector to inject them into unsustainable sectors.

These unsustainable sectors may continue to operate overtime due to public sector support, but when they stop receiving state support they will again suffer losses. On the other hand, the sectors that are sustainable and were in balance due to having an offer that adapted to the demand may cease to be sustainable if they are affected by inflation or excessive tax burdens to sustain the state accounts.

Therefore in this scenario the total balance of long-term employment would be negative because jobs in sustainable sectors would be lost to create jobs in unsustainable sectors that would also be destroyed in the long term.

Another aspect to keep in mind is the state of public accounts, based on Keynesian theory, the Keynes multiplier would pay for this investment to maintain long-term stability on public slopes. In this sense, the importance of maintaining a low level of debt to attract foreign investment should be added.

A country with a very high deficit can be considered as not very attractive for foreign companies, since it will have to be financed through high tax burdens for companies. On the other hand, if a country has stable accounts, the attraction of foreign investment can have a very positive impact on employment.

The following figure shows the evolution of the public deficit in Spain as a percentage of GDP. Until 2007, Spain had a surplus due to a high increase in income, but it confused the extraordinary income caused by the housing bubble with extraordinary income. Starting in 2007, revenues fell as a consequence of the fall in the construction sector, but the level of structural cost remained, which meant a deficit of -11.06% of GDP, the highest in the history of Spain.

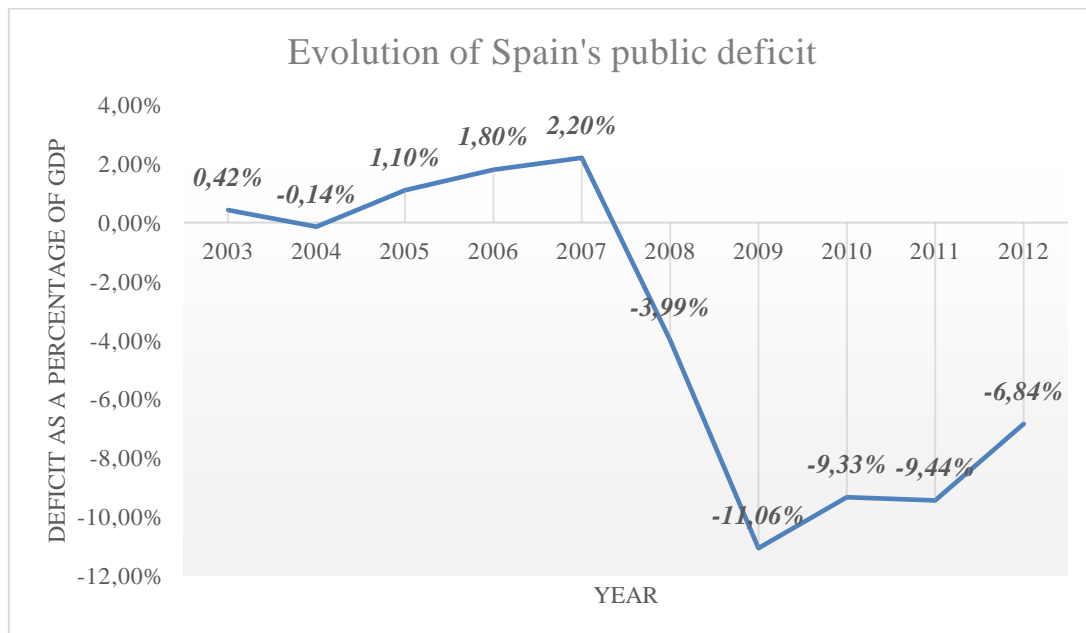


Figure 9.3: Evolution of Spain's public deficit (Source: epdata)

Finally, the economic growth of Spain in these years was not positive either, the following figure shows the variation of the GDP of Spain. As the graph shows since 2007, there is a decrease in growth that reaches -3.8% in 2009, despite the fact that there is a slight rebound in 2010 with growth of 0.20%, in the following years GDP falls again.

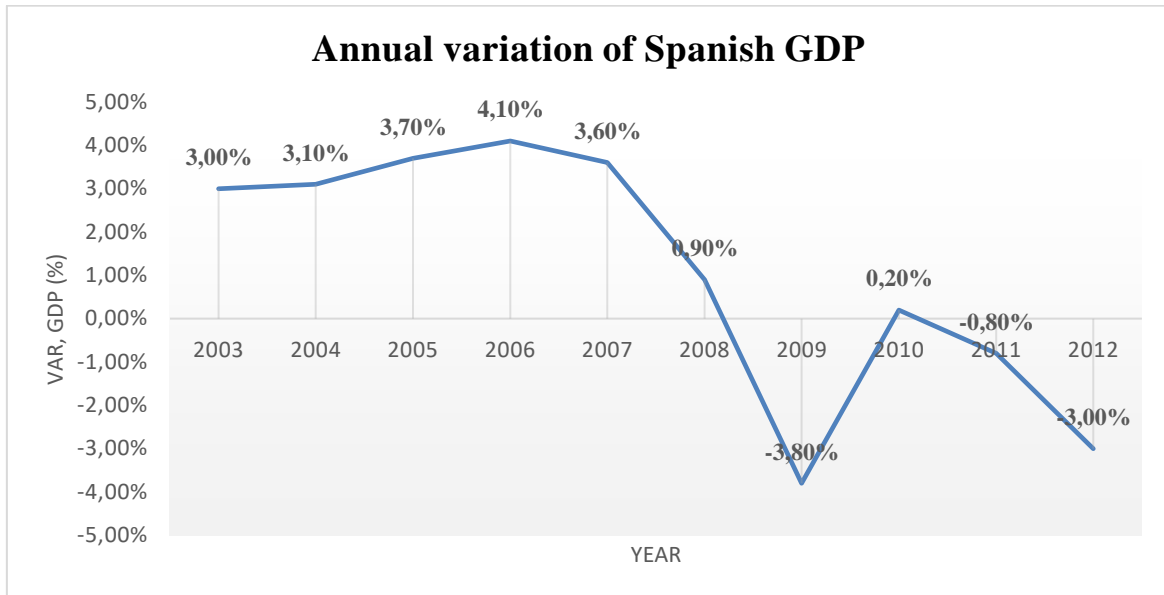


Figure 9.4: Annual variation of Spanish GDP (Source: Datos Macro)

In conclusion, we can see that these measures did not have the expected effect on the Spanish economy. Since in global terms it did not prevent the destruction of employment, and could even help destroy it, negatively affecting foreign investment and other private sector companies.

Nor did it serve to boost growth in Spain in the long term, since as shown in the previous figure, until 2012 there was a negative variation in GDP. As for the Keynesian multiplier, Spain not only did not recover the investment made, but it also obtained the largest public deficit in its history.

The public policies carried out in Spain to combat the crisis, despite being well founded from a theoretical point of view supported by the Keynesian ideas expressed in the General Theory of Keynes and in various studies that showed the correlation between economic growth and spending public.

As explained in the chapter on Keynes' General Theory, the fact that although there is an idle resource in the economy, such as the labour factor, does not prevent poorly made investment from removing resources from other sectors of the economy , since there are other productive factors that may not be idle and are affected by this investment, such as energy, petrol or construction materials.

10. CONCLUSIONS

Given the imminent global crisis that all international organizations predict due to the health crisis caused by coronavirus pandemic (SARS-CoV-2), many economists, central banks and political leaders demand the application of expansionary policies, liquidity injection and public investment. Measures that have already been implemented in response to other economic crises such as the 2008 financial crisis, and which have their origin in the basis of Keynesian thought and ideas that JM Keynes elaborated in his work *"The General Theory of Employment, interest and money"* in response to the great depression of 1929.

Although it seems that there is a clear consensus on the adoption of these measures by the most prestigious economists such as the case of Thomas Piketty, Paul Krugman, Joseph Stiglitz or the Spanish Jose Carlos Díez who demand in the media the injection of money and credits to governments, individuals and companies. After the analysis carried out by this work, it is worth asking whether they are adequate for the current situation.

- i. On the one hand, after analyzing the work of the General theory, some points have been found that invalidate its application to the current case. As the Swedish economist Axel Leijonhufvud expressed in his article for the Cambridge Journal of Economics: *"The current crisis developed in a manner quite contrary to that presupposed by Keynes in the General Theory"* (Leijonhufvud, 2009) in reference to the financial crisis of 2008. And as the author develops in his own article the crisis experienced in 2008 had little to do with the great depression of the 30s and we should not resort to past authors to face current situations.
- ii. On the other hand, although it is true that the transformation of savings into productive investment in the long term is neither a process nor simple, Keynes focused his work on demonstrating the enormous difficulty that the individual restriction of consumption is reflected in an increase in the endowment of capital goods. The real problem is that as long as business investment is implemented in an environment of uncertainty that can lead agents to hoard rather than invest in the long term when they are unsure, the investment decision is the right one.

Free trade is based on a decentralized decision-making system that is adopted precisely to correct this problem, a problem that government interventionism also suffers from.

- iii. Investing without knowing is equal than wasting resources, much worse than keeping them treasured until things are clarified. One of the best aspects of the free market is, precisely, to distribute capital in the best way that human beings know, as demonstrated by the spectacular economic growth that has been experienced in the last two centuries.
- iv. The economy of a country involves a highly complex framework, since it is formed by the sum of the individual decisions of millions of individuals, and it is extremely difficult to know what to produce, how to produce and how much to produce so that supply adjusts to demand .
- v. In a central planning system with such an important role for the state as the one proposed by Keynes, it is practically impossible for the right investment decisions to be made, not to mention the conflict of interest that often arises in political life, which makes that individuals involved in decision-making often make bad decisions knowingly.

An author from another era should never be judged based on current knowledge. And it is impossible to know what would be the opinion of JM Keynes before the interpretation that many authors have given to his work and that has led to multiple post-Keynesian models that have been ineffective in fighting economic crises.

Actually, Keynes himself may have given us the key when he stated *"today we have involved ourselves in a colossal muddle, having blundered in the control of a delicate machine, the working of which we do not understand"* (Keynes, 1930), claim that would probably be supported by any economist of the doctrine of laissez faire.

In the case of Spain, analyzing the origin of the 2008 crisis, the drop in interest rates by central banks led to the creation of three related bubbles: the financial bubble, the real estate bubble and the public administration. The real estate bubble caused an internal imbalance of the Spanish production factors that concentrated resources in the construction sector.

In response to the fall in aggregate demand, Spanish Prime Minister Jose Luis Rodriguez Zapatero established a Keynesian-based expansionary policy plan called “E plan” to stimulate demand and reduce job destruction, as did many countries in the eurozone and the United States.

- vi. Analysing the results, it has been concluded that this plan did not obtain the results it hoped for as it did not prevent the unemployment rate from increasing during those years, which went from 7.93% in the second quarter of 2007, it rose to 18.66% in the last quarter of 2009. Furthermore, this measure, added to the high structural costs that occurred in previous years, caused the public deficit to increase to an 11.06% deficit on GDP.

Therefore, considering the macroeconomic indicators and the theoretical basis of international trade and politics, it would be more interesting to use a different strategy to combat the coronavirus economic crisis.

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12.ANNEX



Faculty of Economics and Business Administration
University of Leon

Degree in international Trade

Course 2019 / 2020

RESUMEN DEL TRABAJO EN LENGUA ESPAÑOLA

León 2020

La situación causada por el coronavirus (SARS-CoV-2) ha roto todos los pronósticos económicos para 2020, llevando a la economía mundial a un nuevo escenario en el que se prevé la llegada de una fuerte recesión económica.

Se espera que España sea uno de los países más afectados por esta crisis, ya que, junto con Italia, son los países que más han sido afectados por la pandemia y han tenido que adoptar medidas muy estrictas de confinamiento prolongadas en el tiempo. Por otro lado, España es principalmente un país especializado en servicios, con un gran peso en sectores como restaurantes, ocio, comercio, turismo o transporte, y que representan un porcentaje significativo del producto interior bruto del país. Además, al ser una crisis sanitaria genera una incertidumbre extraordinaria con temor por parte de la población a futuros brotes.

Otro factor que debe tenerse en cuenta es el estado de las cuentas públicas antes del estallido de la crisis. A pesar de tener un ciclo de prosperidad de 2014 a 2019, España nunca ajustó sus cuentas y se enfrentó a altos niveles de deuda pública (aproximadamente el 100%). Según las previsiones de Antonio Martínez, director financiero de Ibercaja, el déficit público español puede acercarse al 15% del PIB y la deuda pública rondará el 120%. También añade que el PIB español en 2020 sufrirá la mayor contracción desde la Guerra Civil, con una posible caída de -11%. También prevé que en 2021, España crezca al 8%, recuperando dos tercios del PIB perdido en 2020 .

Ante este escenario, hay muchos economistas, líderes políticos y bancos centrales que apuestan por rescatar una vez más las recetas contra la crisis de uno de los economistas más influyentes de la historia, JM Keynes.

El economista español José Carlos Díez, ex asesor del Gobierno de José Luis Rodríguez Zapatero, declaró el 12 de abril en una entrevista concedida a el Independiente que “A corto plazo, todos son keynesianos. Sucedió en 2008 y ahora también”(Díez, 2020).

A nivel internacional, prestigiosos economistas como Thomas Piketty, Paul Krugman, Joseph Stiglitz que exigen en los medios la inyección de dinero y créditos. a gobiernos, particulares y empresas. Y la UE prevé un fondo para recapitalizar empresas que considera estratégicas.

Y es que es habitual desde la muerte del economista británico que los intelectuales económicos recurran a sus recetas en tiempos de crisis económica.

John Maynard Keynes fue uno de los economistas más influyentes del siglo XX debido a su teoría del rol activo de los gobiernos en el control económico, nació el 5 de junio de 1883 en la ciudad de Cambridge, Inglaterra, en una típica familia inglesa de clase media.

Su padre, John Neville Keynes, era un joven profesor de Filosofía Moral y Economía Política en la Universidad de Cambridge, discípulo de Alfred Marshall. Su madre Florence Ada Brown, fue una de las primeras mujeres en graduarse de la Universidad de Cambridge, y se convirtió en una notable autora y activista de la reforma social en Inglaterra, también fue la primera mujer en alcanzar el cargo de alcalde de la ciudad de Cambridge.

Gracias a su libro *Las consecuencias económicas de la Paz*, Keynes alcanzó la fama internacional y se convirtió en el economista más reconocido del mundo anglosajón, y sus opiniones se consideraron el punto de vista profesional más autorizado sobre los problemas económicos del Reino Unido y el resto de Occidente.

En *La Teoría General del Empleo el Interés y el Dinero* de 1936, Keynes argumentó que el sistema capitalista es inestable y genera crisis económicas, que tienen su origen en el desempleo, la sobreproducción o el consumo insuficiente. Quedarían recursos sobrantes debido a un nivel insuficiente de demanda. El desempleo significaría que más personas quieren trabajar, y menos empleadores estarían dispuestos a contratar trabajadores adicionales, lo que llevaría a mayores niveles de desempleo y menores niveles de consumo para las personas y las empresas. Keynes aseguró que la caída del consumo provocaría que la situación económica empeorara cada vez más en un círculo vicioso.

En tiempos de crisis, Keynes recomendó la política fiscal de estimular el consumo de individuos y empresas a través del aumento sostenido del gasto público, incluso con déficit si es necesario, financiado con impuestos más altos, inflación y mayores deudas. Esto sirve para impulsar los niveles de consumo hacia el equilibrio del pleno empleo. Esta es la teoría del multiplicador keynesiano, que indica que el gasto público causa un efecto multiplicador en los niveles de inversión, producción, empleo e ingresos de tal manera que incluso tenderían a reducir el déficit fiscal. Keynes incluso fue tan lejos como para

declarar afirmaciones tan criticadas como que la construcción de pirámides, la excavación de agujeros, incluso las guerras pueden servir para aumentar la riqueza.

Contrariamente a la visión ortodoxa de los economistas clásicos, Keynes afirmó que la inversión y la riqueza pueden aumentar sin ahorros voluntarios previos. Por otro lado, consideraba que el ahorro es perjudicial para el progreso de los países, ya que induce el subconsumo de los agentes económicos.

Estas teorías han tenido una gran influencia en España, un país que ha sufrido sustancialmente la crisis financiera de 2008, ya que además del efecto de la burbuja financiera, tuvo desequilibrios internos causados por otra burbuja, la burbuja inmobiliaria.

La expansión del crédito incentivada por la bajada artificial de los tipos de interés por parte de los bancos centrales produjo un aumento extraordinario de la demanda de vivienda, lo que provocó que los factores productivos y otros recursos se concentraran en el sector de la construcción. A su vez, el aumento de los ingresos públicos en la administración incentivo el aumento en los costes estructurales de la administración, que en los años siguientes, con el estallido de la burbuja inmobiliaria afectaron muy negativamente en las cuentas públicas generando un alto nivel de déficit.

Después del estallido de la crisis en los Estados Unidos, la reducción de la oferta de crédito en todo el mundo provocó una disminución de la demanda de viviendas y otros bienes en el sector de la construcción en España. La disminución en este sector provocó una caída en el ingreso público y un alto aumento en la tasa de desempleo.

Para hacer frente a esta situación, durante los años 2008 y 2009, el Gobierno de España implementó un conjunto de incentivos fiscales conocido como "Plan E", que representó el mayor esfuerzo de inversión de las Administraciones Públicas en su historia. Este plan, basado en las teorías keynesianas expuestas en *La Teoría General del Empleo, el Interés y el Dinero*, buscaba estimular la demanda a corto plazo y con el objetivo de reducir el desempleo.

Pero después de analizar el trabajo de la teoría general, se han encontrado algunos puntos que invalidan su aplicación en el caso actual. Tal y como expresó el economista sueco Axel Leijonhufvud en su artículo para el Cambridge Journal of Economics: "La crisis actual se desarrolló de una manera bastante contraria a la que presupone Keynes en la

teoría general" (Leijonhufvud, 2009) en referencia a la crisis financiera de 2008 y tal como el autor expone en su artículo, la crisis experimentada en 2008 tuvo poco que ver con la gran depresión de los años 30 y no debemos recurrir a autores anteriores para enfrentar situaciones actuales.

Por otro lado, aunque es cierto que la transformación del ahorro en inversión productiva a largo plazo no es un proceso simple ni libre de imperfecciones y desajustes que se van corrigiendo, Keynes centró su trabajo en demostrar la enorme dificultad de que la restricción individual del consumo se refleja en un aumento en la dotación de bienes de capital. La inversión empresarial se establece en un entorno de incertidumbre, que puede llevar a los agentes a atesorar el capital en lugar de invertirlo cuando no están seguros de que decisión de inversión es la correcta. El verdadero reto supone tomar la elección de inversión correcta para producir exactamente aquello que se va a demandar.

El libre comercio se basa en un sistema descentralizado de toma de decisiones que se adopta precisamente para corregir este problema, un problema que también sufre el intervencionismo gubernamental.

Invertir sin saber es equivalente a derrochar recursos, mucho peor que mantenerlos atesorados hasta que las cosas se aclaren. Uno de los mejores aspectos del libre mercado es, precisamente, distribuir el capital de la mejor manera que los seres humanos saben, como lo demuestra el espectacular crecimiento económico que se ha experimentado en los últimos dos siglos.

La economía de un país engloba un marco altamente complejo, ya que está formado por la suma de las decisiones individuales de millones de consumidores, y es extremadamente difícil saber qué producir, cómo producir y cuánto producir para que la oferta se ajuste a la demanda.

En un sistema de planificación central con un papel tan importante para el estado como el propuesto por Keynes, es prácticamente imposible que el burócrata estatal ante la falta de información tome las decisiones de inversión correctas, sin mencionar el conflicto de intereses que a menudo surge en la vida política, que hace que las personas involucradas en la toma de decisiones a menudo tomen malas decisiones a sabiendas.

Un autor de otra época nunca debe ser juzgado en base a el conocimiento actual. Y es imposible saber cuál sería la opinión de JM Keynes ante la interpretación que muchos

autores han dado a su trabajo y que ha llevado a la aparición de múltiples modelos postkeynesianos que se han mostrado ineficaces en la lucha contra las crisis económicas.

En realidad, el mismo Keynes pudo habernos dado la clave cuando dijo "hoy nos hemos involucrado en un desorden colosal, habiendo cometido un error en el control de una máquina delicada, cuyo funcionamiento no entendemos" (Keynes, 1930), afirmación que probablemente sería respaldada por cualquier economista de la doctrina del *laissez faire*.

En el caso de España, tras analizar los resultados, se concluyó que la estrategia keynesiana contra la crisis financiera de 2018 no obtuvo los resultados que esperaba, ya que no evitó que la tasa de desempleo aumentara durante esos años, que pasó del 7,93% en el segundo trimestre de 2007, hasta el 18,66% en el último trimestre de 2009. Además, esta medida, sumada a los altos costes estructurales que ocurrieron en años anteriores, hizo que el déficit público aumentara hasta llegar a un 11.06% sobre el PIB.

Por lo tanto, considerando los indicadores macroeconómicos y la base teórica del comercio internacional y la política, sería más interesante utilizar una estrategia diferente para combatir la crisis del coronavirus.