

Czech University of Life Sciences Prague
Faculty of Economics and Management
Department of Economics



Bachelor Thesis
The Venezuelan Crisis and its Economic Impact in
Latin America

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

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Economics and Management

Economics and Management

Thesis title

The Venezuelan Crisis and its Economic Impact in Latin America

Objectives of thesis

Evaluate the crisis in Venezuela, study the economic measures that caused the crisis and its impact on the Latin American economy. Describe the current situation in Venezuela 2019-2020.

Determine whether there is a relationship between gross domestic production and inflation in recent years in Venezuela.

Methodology

- Regression analysis
- Basic statistical methods
- PESTLE analysis
- Data analysis

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Crisis, Inflation, Oil, Venezuela

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D N Dwivedi, Macroeconomics Theory and Policy, Institute on Management studies Delhi, 2005. ISBN 0-07-058841-4

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Robert J. Barro, Macroeconomics 5th Ed. Massachusetts Institute of Technology, 1997. ISBN 0-262-02436-5

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Declaration

I declare that I have worked on my bachelor thesis titled “The Venezuelan Crisis and its Economic Impact in Latin America” by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any third person.

In Prague on November 16th, 2020.

Wilder Nava

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I would like to thank my supervisor Ing. Tomáš Maier, Ph.D. who gave me a lot of professional advise during my work on this bachelor thesis. I am also grateful to God, my family and my friends for their support.

The Venezuelan Crisis and its Economic Impact in Latin America

Summary

The main aim of this bachelor thesis is to evaluate the crisis in Venezuela, and its impact in Latin America. The thesis consists in two parts, theoretical part and practical part.

The first one is a part that includes definition and types of crises, then it also includes inflation analyses, history of oil market and OPEC organization relating with Venezuela. The practical part compiles data analysis and different kinds of applied methods as simple linear regression analysis, basic statistical methods and PESTLE analysis.

Keywords: Inflation, Crisis, Oil, Venezuela, GDP, Government, Economy.

Venezuelská krize a její ekonomický dopad na Latinskou Ameriku

Souhrn

Hlavním záměrem této bakalářské práce je posoudit Venezuelskou krizi a její dopad na Latinskou Ameriku. Práce se skládá ze dvou částí, a to praktické a teoretické.

První část práce je věnována teoretické části, která zahrnuje definici a typy krizí, dále pojednává o inflaci, historii trhu s ropou a organizaci OPEC ve spojitosti s Venezuelou. Praktická část bakalářské práce je věnována analýzám dat a různým druhům aplikovaných metody, jako analýza lineární regrese, základní statistické metody a PESTLE analýza.

Klíčová slova: inflace, Krize, ropa, Venezuela, HPD, vláda, ekonomie.

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List of Abbreviations

GDP (Gross Domestic Product)

PDVSA (State oil company of Venezuela)

OPEC (Organization of the Petroleum Exporting Countries)

FONDEN (National Development Fund)

CPI (Consumer Price Index)

UNHCR (United Nations High Commissioner for Refugees)

OAS (Organization of American States)

1. Introduction

Latin America is going through a historic moment, socialism and capitalism are defining the political, economic and social structure in most countries. Since the last decades, Chile and Colombia have been marked as capitalist societies, where education, transportation and medical care represent a high cost for their citizens and a business for a minority of the population, on the other hand, there are countries like Venezuela, Cuba, Bolivia, Ecuador, Argentina, and Nicaragua which can be considered as socialist societies, where education and health care are free and politicians make promises about equality, equity and social welfare for all citizens. However each country has a different history, Venezuela is a particular case, since 1999 it began to demonstrate during the first period of President Hugo Chavez that socialism was a possible dream, although in recent years it has paid the consequences of following a system that has not worked properly, it is also one of the reasons why Venezuela is immersed in a deep crisis.

Venezuela was considered one of the richest countries in South America for its large amount of natural resources as oil, gas, gold, iron, bauxite, coal, diamonds, among others. The oil is the most relevant, which occupies more than 50% in terms of Gross Domestic Product, likewise Venezuela is considered a mono-producing country, where any variation in international prices of oil affects the economy of the country.

Oil has been considered a precious commodity in recent decades, from 2004 to 2008 there was a bubble in which it began to rise to the maximum price in July 2008, reaching 137 USD \$ per barrel. At that time, the oil countries obtained very good profits, Venezuela had the highest GDP per capita in Latin America, however it was only for one year. In 2009, oil prices collapsed due to the global financial crisis, therefore the Venezuelan economy had entered a recession. Despite all these events, the economic crisis in Venezuela began in 2014 when there was a depreciation of all the raw materials, mainly oil, due to the slowdown in the Chinese economy and the increase of unconventional oil production in the United States, as well as the economic measures applied during the Hugo Chavez period.

The economic policies applied by the government resulted in very high government spending, which generated a fiscal deficit due to the fall in oil prices, on the other hand the Central Bank of Venezuela to cover this fiscal deficit has issued inorganic money, a monetary policy that brought very negative consequences for the economy. One of the

consequences is the high levels of inflation, in 2018 Venezuela had hyperinflation of more than 1.000.000% during the year. Other policies applied by the government also contributed to the cause of the crisis, such as the fixing prices, the expropriation of companies, such measures created mistrust in the economy, which resulted in a shortage of basic products, shortage of medicines, the closure of companies and a total collapse of the economy.

Nowadays Venezuela is submerged in a serious economic crisis where the lower class has been the most affected, one of the reasons why many people have decided to emigrate mainly to neighboring countries, getting involved in both formal and informal economies. On the other hand, the country used to grant oil and gasoline subsidies to the countries of the region at prices lower than those established in the international market, or instead received products such as food as payment, but oil production was reduced to minimum levels due to lack of maintenance in the industry, likewise the subsidies were reduced.

Despite the economic disaster in Venezuela, since 2019 the rulers have taken certain measures that reflect an improvement in the Venezuelan economy. The problem of hyperinflation along with the latest sanctions imposed by the United States and other countries have put the Venezuelan government in trouble, so it has decided to remove price controls on national products, the acceptance of foreign currencies such as the US dollar, the Euro or the Colombian Peso, as well as the use of cryptocurrencies, making commercial transactions more flexible, likewise the government began the privatization of companies that had previously been nationalized, the elimination of import duties and the recovery of fiscal discipline. All these measures categorized as neoliberal by the left parties, but necessary for the small reactivation of the economy that seeks to follow the Chinese economic model or better known in Venezuela as 'Chinizacion'.

2. Objectives and Methodology

2.1 Objectives

The aim of this thesis is to evaluate the crisis in Venezuela from the economic side, to evaluate the economic collapse of the Latin American oil country through the study of the economic measures that caused the crisis, as well as analyze the impact of the crisis on the Latin American economy. Describe the current situation in Venezuela 2019-2020, how the changes implemented by the government are reflected in the current population. Determine whether there is a relationship between gross domestic product and inflation in recent years in Venezuela.

2.2 Methodology

The variety of methods applied in this thesis research allow us to achieve the proposed objectives, the author use a basic statistical method based on a simple linear regression analysis. This analysis determines the strength of the relationship that exists between the gross domestic product and inflation in recent years in the Venezuelan economy, considering the data of 8 observations from 2009 to 2016. This model shows a dependent and independent variable reflecting a linear relationship between the slope and the intercept, for this thesis the independent or explanatory variable is the gross domestic product and the dependent variable is the inflation which is determined through the consumer price index.

To determine the simple linear regression analysis is necessary the following formula:

$$y = a + b*x \tag{1}$$

Where:

a = is constant

b = is a parameter of the regression function.

y = is the dependent variable (Inflation)

x = is the independent variable (GDP)

The correlation coefficient is the numerical measure to know the level of association between two variables, which is a value between -1 and 1 indicating the strength of association between the variables, denoted by letter R.

Data analysis is also used in this thesis, the author analyses and concludes with real data the impact that has been generated by the political and economic measures applied by the government, as well as the relationship between the Venezuelan economy and the oil industry.

The research of this thesis also focuses on PESTLE analysis, which is a framework to analyse or monitor the macro-environmental factors that may have an impact on an organization now and in the future, in this case the author examines through PESTLE analysis opportunities and threats in the current Venezuela 2019-2020, the PESTLE determination indicates P for political, E for economic, S for social, T for technological, L for Legal, and E for Environmental, all the aspects of this technique are crucial for any industry that may be interested to invest in Venezuela in the future.

3. Theoretical Part

3.1 Crises, types of Crises: Political, Economic, Financial, Speculative, Debt, Currency, Social, Humanitarian.

Crisis is a broad word, but the term can be define like “a disruption that physically affects a system as a whole and threaten its basic assumptions, its subjective sense of self and its existential core” (1 p. 15).

The crisis can be divided into different types, according to the sector that is affected, among these are:

Political Crisis is a situation where the normal functioning of the political system and the relations that unite the political and social sector are disturbed or broken, which generates moments of uncertainty and institutional instability during a certain period of time, likewise it is considered a crisis of legitimacy where the discontent, distrust, disapproval or ignorance of political representatives are the signs that indicate a current political crisis. Venezuela clearly reflects a political crisis, especially due to institutional instability and the lack of legitimacy of the rulers.

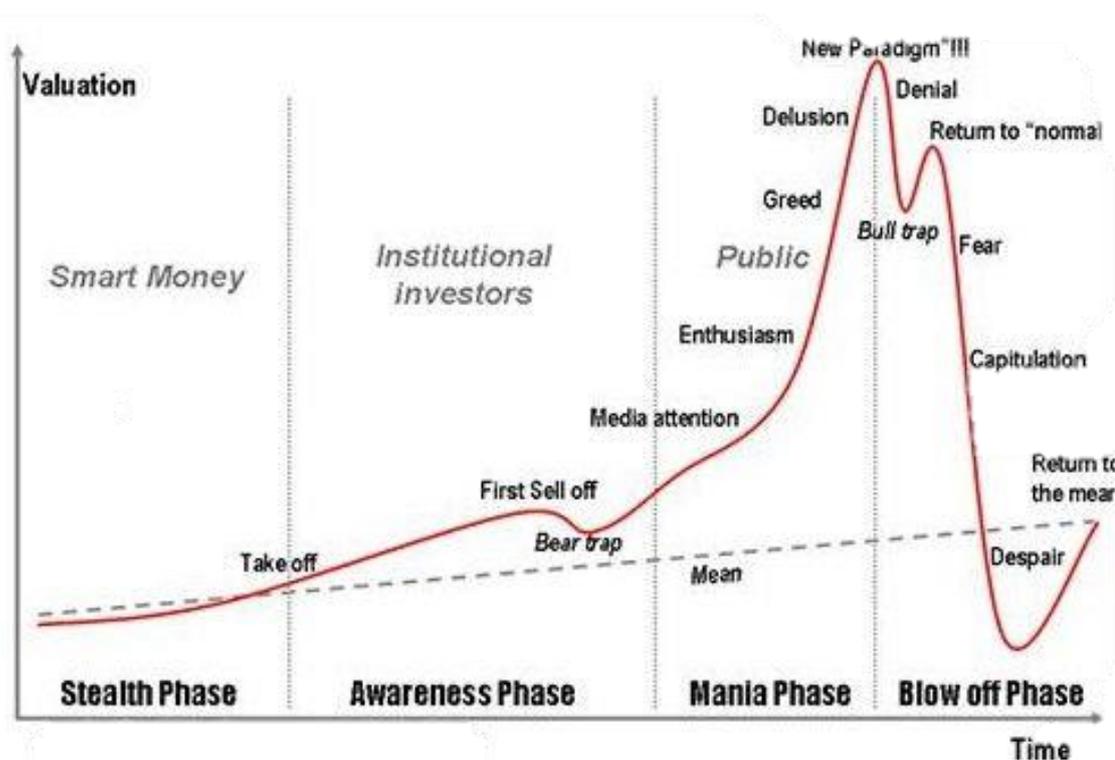
Economic crisis is the depressive phase of the evolution of a recessive economic process. It is possible to observe an economic crisis when all economics agents are affected, that is to say that the production of goods and services of the companies and their consumption by the individuals are diminished by the economic situation.

There are many several ways to identify an economic crisis, depending on the main economic indicators such as employment levels or GDP, which indicate the type of crisis considering the areas of the economy that are directly affected. The Venezuelan economy has been going through a deep economic crisis for a few years, where its inhabitants barely have enough to cover the basic food basket, even in some the cases they eat once a day.

Financial Crisis refers to the situation when “asset prices see a steep decline in value, business and consumers are unable to pay their debts, and financial institutions experience liquidity shortages” (2 p. 1), some events that may give rise to a financial crisis are the bursting of a speculative financial bubble , a stock market crash, a sovereign default, or a currency crisis.

Speculative bubble Crisis is a situation in which there is an excessive and uncontrolled increase in the price of a goods followed by a contraction, which separate it from its fair value, it is characterized by the speculation phenomenon. In other words an economic bubble is where investors buy an asset no for its fundamental value, but because they plan to resell, at a higher price to the next investor, when there are no more investor willing to pay the overinflated price, people start to panic and sell the asset, reason why the bubble bursts, then comes the period of contraction.

Figure 1. The graphical progression on an economic bubble



Source: Life, Liberty and the Pursuit of happiness. Version 4.0. (URL: <https://blog.ganderson.us/articles/economics/endin-u-s-pension-fund-bubble/>)

This figure graphically represents the behavior of the market in a speculative crisis, where in the first phase people invest at very affordable prices, the market is very attractive to invest in, but then it reaches its peak and investors decide to resell, so the bubble burst and the price of goods falls to minimum levels.

Debt Crisis is “a situation in which a country is unable to pay back its government debt, the country can enter into a debt crisis when the tax revenues of its government are less that its expenditures for a prolonged period. Normally the government’s finances its expenditure

through taxes collected, the problem start when tax revenues are insufficient, then the government has to make up the difference by issuing debt through the sale of treasury bills in the open market to investors” (3 p. 1). These investors begin to worry about the ability of the government to pay back, then they start demanding higher interest rate to compensate for the higher risk, which complicate more the government debt and may eventually default and enter in a debt crisis.

Currency Crisis is a situation in the foreign exchange markets where a currency suddenly or unexpectedly loses substantial value in relation to other currencies, this generally occurs in countries with high levels of inflation, inadequate application of monetary policies such as issuance of inorganic money by the institutions in charge of monetary policies and banking crises. The currency crisis is one of the biggest problems for Venezuelans, since the bolivar, which is the national currency, frequently loses its value and people can just buy less and less.

Social Crisis occurs when the main social indicators regarding the living and working conditions of the proportionally majority sectors of the population are affected, these indicators are incomes, public health, education, pensions, etc. Whenever these indicators are affected in large proportion, it could generate a social crisis.

Humanitarian Crises “is an event or series of events that represents a critical threat to the health, safety, security, or wellbeing of a community or other large group of people” (4 p. 1).

There are three types of humanitarian crisis, among which are:

- 1) Man-made Crises: it is the crisis caused by man, it could be because of armed conflict, bad economic decisions, corruption and train or airplane accidents. This type of crises has a direct impact in deaths, human rights abuses, psychological disorders and injuries, likewise a direct impact on health workers, health facilities and barriers to get ambulances and service vehicles, by the other hand it has indirect impact in human displacement, infrastructure destruction, lack of food or healthcare and environmental degradation, also reproductive health problems, malnutrition, increased intimate partner violence, diarrheal diseases and can hamper implementation of humanitarian interventions. Venezuela is going through a humanitarian crisis due to the frequent abuse of human rights, a country where all

people who protest against the government are exposed to mistreatment and even murder.

- 2) Natural Disasters: Among the crises caused by natural disasters are earthquakes, tsunamis and volcanic eruptions, also floods, avalanches, drought, storms, or biological cause like epidemics and plagues. It has a direct impact in Infrastructure damage like houses, roads, bridges, health facilities and schools, as well as in mortality and morbidity. In relation to indirect impact it has like consequence a stunted economic growth due to lost production and reduced demand likewise the health system weakened by supply chain interruptions and lack of human resources.
- 3) Complex Emergencies: is a combination of both man-made crises and natural disasters. It has a direct impact in population displacement, excess mortality and morbidity due to violence or natural disaster, likewise it has an indirect impact on excess mortality and morbidity due to preventable communicable diseases or food shortage, economic instability, weakened health system and logistical challenges.

3.2 Inflation and causes of inflation.

Inflation is a macroeconomic variable that indicates the general increase in prices, both of goods and services in a given period, usually one year. “Inflation is based on measuring net changes in prices using Consumer’s Prices Index (CPI), it measures the price level of a selected basket containing representative products and services, normally should be between 7 and 10 items taking in two compared periods. This consumer basket represents in total the household consumption and comprises food, beverages and tobacco likewise may include other goods as clothing, furniture, household utensils, personal care, and services like transport, leisure, education, catering and accommodation” (5 p. 1).

The inflationary process has a high cost for the society, many people may suffer a little because indexing does not fully protect them, but some are more vulnerable than others. Among the groups most imperfectly protected are first “lenders, since most loans are not fully indexed, increases in inflation mean that the money that lenders receive back from borrowers are worth less than those they lent out, in the second position taxpayers because all returns to investment are taxed, including those that do nothing more than offset inflation, consequently, real after-tax returns are often negative when inflation is high, and holders of

currency, inflation also makes it expensive for people to hold currency because as prices rise, the currency loses its value” (6 p. 510), in Venezuela, both money lenders and savers were affected by inflation, since access to foreign currency was limited and there were not many purchase options.

Causes of Inflation

There are multiple factors that can cause inflation, among them are:

Demand-pull inflation: “It is the result from a rightward shift of the aggregate demand curve, greater demand pulls up the price level” (7 p. 469).

Cost-push inflation: “It is when supply is restricted but demand is not, normally it happens after hurricanes, earthquakes, natural disasters that cause a shortage of the supply of certain goods and services” (8 p. 1), another reason could be the increase in the price of raw materials or higher taxes.

Inorganic Money Issued: The theory of monetarism explains that when the government is printing out too much money to cover fiscal expenses and such money is not supported by production it will causes inflation.

Self-built Inflation: It is a situation when inflation is caused by people’s expectations of future inflation, in this case when prices rise, labor expects an increase in wages to keep up, but higher wages raises the cost of production, which raises prices of goods and services once again.

3.3 Inflation Types

Moderate Inflation: Indicates that prices increases slowly in the market, it occurs when prices are relatively stable, most countries in Europe have moderate inflation so people trust the system and start placing their money in bank accounts, both in checking accounts or saving accounts, because people know that this level of inflation will allow them to have their money worth for a long period of time. Moderate inflation is in single digits, less than 10% per month.

Galloping inflation: Indicates that market prices increase with a greater variation than moderate inflation, it could be on average between 2 or 3 digits such as 20%, 140% or 240%

in relation to a year, in these cases they try to maintain their money in a stronger currency, usually the dollar or the euro, while money loses its value quickly, people try not to have more than they need, which means they live with limited products and what is really important to the sustenance of the family.

Hyperinflation: “It happens when the inflation rate exceeds 50% per month or more” (9 p. 102), which produces uncontrolled inflation and mistrust in the national currency, countries that present hyperinflation are clearly going through an economic crisis, where the money loses its value daily, the purchasing power to buy goods and services is reduced rapidly, so the population seeks to spend the money before it reaches to buy less, in this situation the salaries increase very often due to the devaluation of the money, this type of inflation happens due to governments that finance their expenditures with inorganic money issued without any type of control, which consequently brings a greater amount of money in the money supply but the same goods and services, therefore prices rise and cause hyperinflation. Venezuela entered in hyperinflation for the first time in its history in 2017, although in previous years they had already shown high inflation rates due to bad monetary policy decisions.

3.4 Money Supply

The money supply has two main sources, “the central bank of a country is the main source of money supply in the country, this money supplied by the central bank is known as “High Power Money”. However, the central bank is not the only source of supply of money, used as a medium exchange. The second major source of money supply is the banking system of the country. Banks create money supply in the process of borrowing and lending money to the public. Money created by the commercial banks is called “credit money”. The high power money and the credit money constitute generally the most common measure (generally denoted by M1) of money supply or the total money stock of a country” (10 p. 188).

Normally all this money calling high power money, should be backed by supporting reserves, its value is guaranteed by the government which keep that this money should be backed by equal value of assets of the country, such as gold or foreign exchange reserves, however, Venezuela is a particular case, where the central bank issues money without a sufficient reserve of value to back it up.

3.5 Oil Market

Nowadays oil is one of the most appreciated commodities, due to its great utility, it serves as fuel for automobiles and the production of wheels, it is used to produce plastic objects, it is required for the electricity of houses and factories, also it is very useful for the development of the petrochemical industry. Therefore, the world is interested in dominating the oil market, it is often considered the cause of wars, it can also make nations extremely rich and its inhabitants to have a high standard of living, on the other hand, the lack of oil in a country can cause an economic collapse.

In the 19th century, the first World War occurred, which generated an extreme interest in oil, nations began to see how important oil was for their own defense, it was necessary for armaments, tanks and warships, so after that time, among the priorities of powerful nations is to ensure access to oil and its processing.

The oil market is complex, “as it is a natural resource, the reserves are not distributed according to consumption needs, which makes the oil industry an activity of global scope. This market reflect mainly transactions between subsidiaries of large multinational companies, where the mechanisms for determining oil prices have evolved towards open market forms, with various participants on the supply and demand side, including large state-owned companies, multinational companies with businesses in production and refining, as well as speculators and financial intermediaries who buy and sell contracts that do not necessarily involve physical deliveries” (11 p. 1).

At present the price of oil in the market is very volatile, which is due to the behavior of economies worldwide, in times of tensions such as possible wars the price of oil tends to rise, on the contrary when economic powers create new technologies and find oil substitutes, the price of oil begins to fall, likewise it happens when oil countries do not reach any agreement and make price cuts, currently the price of oil is dominated by supply and demand. The Venezuelan economy is highly dependent on oil prices, so any rise or fall can affect both the nation's gross domestic product and the quality of life of its citizens. Currently the Venezuelan oil market is quite affected, because of the United States sanctions and by the reduction in production due to the lack of maintenance of the oil industry, likewise oil prices have fallen because of the presence of covid-19 which has limited the air transport in many countries and land transport in different countries, causing a low demand for oil derivatives.

3.6 OPEC

In the year 1960 five oil-producing developing countries decided to create an organization which they called OPEC (Organization of the Petroleum Exporting Countries), and it works like a permanent intergovernmental organization. “OPEC born in Baghdad in September 1960 occurred at a time of transition in the international economic and political landscape, decolonization time and the birth of many new independent states in the developing world. The five founded members were Iraq, Iran, Kuwait, Saudi Arabia and Venezuela, these countries were later joined by Qatar (1960), Indonesia (1962), Libya (1962), the United Arab Emirates (1967), Algeria (1969), Nigeria(1971), Ecuador (1973), Gabon (1975), Angola (2007), Equatorial Guinea (2017), and Congo (2018)” (12 p. 1).

Nowadays the organization has a total of 14 members countries, because Indonesia decided to suspend its membership in 2016 and Qatar terminated its membership on 1 January 2019, by the other hand the organization has a Statute that stipulate that “ Any country with a substantial net export of crude petroleum, which has a fundamentally similar interest to those of Member Countries, may become a Full Member of the organization, if accepted by a majority of three-fourths of Full Members, including the concurring votes of all Founder Members”.

Related to the objective of OPEC in accordance with its Statute, which declare that the mission of the Organization of the Petroleum Countries (OPEC) is to coordinate and unify the petroleum policies of its Member Countries and ensure the stabilization of oil markets in order to secure an efficient, economic and regular supply of petroleum to consumers, a steady income to producers and a fair return on capital for those investing in the petroleum industry.

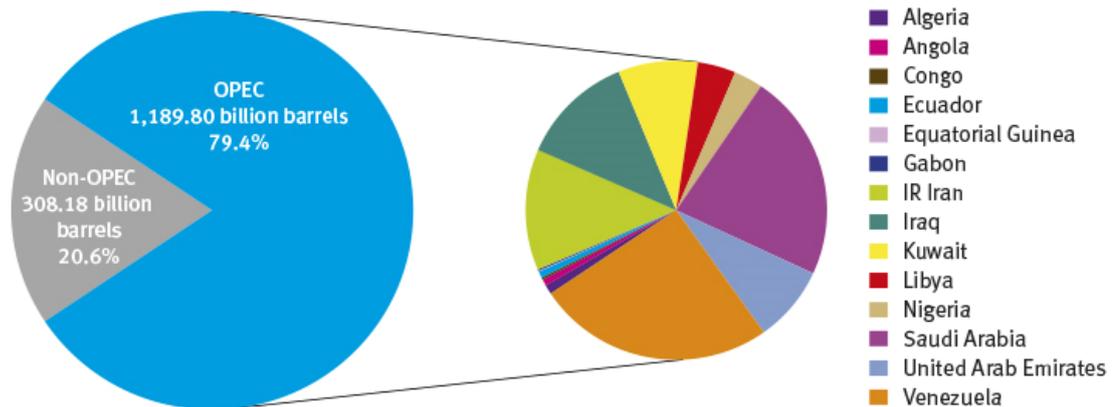
In terms of proven oil reserves, OPEC countries have an estimated 79.4%, Venezuela is in the first place, it is the country with the largest oil reserves worldwide with a quarter of 25.5%, followed of Saudi Arabia with 22.4%.

The influence of Venezuela in the organization in previous years was very important, because as we can see in the Figure 2, Venezuela is the country with the largest oil reserves in the world, so it was a privilege for the organization to have Venezuela as an active member, however due to the crisis that the country is experiencing, the production of barrels of oil has fallen to minimum levels, in addition to the sanctions imposed by the United States

preventing it from negotiating with many oil companies, all this has made Venezuela lose its opinion in OPEC, so today their participation is not very relevant as it was before.

Figure 2. OPEC proven crude oil reserves.

OPEC share of world crude oil reserves, 2018



OPEC proven crude oil reserves, at end 2018 (billion barrels, OPEC share)

Venezuela	302.81	25.5%	Kuwait	101.50	8.5%	Algeria	12.20	1.0%	Gabon	2.00	0.2%
Saudi Arabia	267.03	22.4%	UAE	97.80	8.2%	Ecuador	8.27	0.7%	Equatorial Guinea	1.10	0.1%
IR Iran	155.60	13.1%	Libya	48.36	4.1%	Angola	8.16	0.7%			
Iraq	145.02	12.2%	Nigeria	36.97	3.1%	Congo	2.98	0.3%			

Source: OPEC Annual Statistical Bulletin 2019

(URL: https://www.opec.org/opec_web/en/data_graphs/330.htm)

4. Practical Part

4.1) Oil-Venezuela Relationship

Venezuela has been linked to the oil economy for many years, however before discovering the benefits of oil, its economy was based on agricultural production, mainly coffee and cocoa, for the XVIII century Venezuela was the second largest exporter of coffee, likewise Venezuela exported cattle, sugar cane, tobacco and beef hides, but the situation changed dramatically after the oil fields found. In 1875 was discovered the first Venezuelan oil wells, but it was only a small oil production with a minimal participation in the country's economy. During the XIX century the economic development of the country pass from one sector to another sector totally different, the appearance of oil transformed the Venezuelan economy, agricultural exports began to decline in large quantities, the population began to migrate from the countryside to the oil industry where wages were higher and workers had better benefits.

By 1929 Venezuela was the second largest oil producing country and the largest oil exporter in the world, the development of the industry was incredible, the oil sector began to dominate the others economic sectors of the country. In addition, because the country did not have the technological ability to explore, exploit and refine oil, they used to give concessions to foreign companies to encourage them to discover more oil fields. In 1976 the oil industry was nationalized, then came the creation of Petroleos de Venezuela, S.A. or PDVSA, which is the Venezuelan state company of oil. Venezuela has been considered a mono-producer and mono-exporting country since its economy is based primarily on the extraction and sale of oil. Crude oil has been the main export product, therefore the main source of foreign exchange income to the country, by the other hand, more than 50% of fiscal revenues come directly from oil, which indicates that the fiscal situation depends directly on this raw material. "The oil royalty and the distribution of "countable" dividends have replaced the income tax as the main source of tax collection" (13 p. 38).

The fact of depending on oil as a major source of tax revenue inserts the country with international markets, for this reason the Venezuelan economy is vulnerable to the oil prices internationally, also when oil prices rise, the Venezuelan market tend to expand and grow, conversely when oil prices drop, the market tends to fall into a recession. The country has lived ups and downs where the common citizens has been the most affected in times of

recession. In 1998 the Venezuela citizens were not satisfied in the way in which political parties had governed, although the oil boom had contributed to the growth of the country in macro terms, there was a lot of social inequality, the political parties had been governing for their own benefit and they forgot about social welfare. On this days, Hugo Chavez presented a new social program, promising equality, equity, better living conditions for all citizens, this program was based in a project of economic transition, where it was proposed to boost the economy, new forms of relationship between the state and society, establish a humanistic economy, self-management, competitive, diversification of the economy and with the main motto Petroleum belongs to the Venezuelans. Hugo Chavez finally began his presidential term in 1999, by the time the Venezuelan economy depended largely on the international oil market, Chavez was favored by the increase in oil prices during his period, income per capita increased a lot as well in just over ten years.

Table 1. Prices of oil in USD \$ per barrel (1998-2019)

Year	Prices of Oil in dollars USD \$
1998	12,28
1999	17,44
2000	27,6
2001	23,12
2002	24,36
2003	28,1
2004	36,05
2005	50,59
2006	61
2007	69,04
2008	94,1
2009	60,86
2010	77,38
2011	107,46
2012	109,45
2013	105,87
2014	96,29
2015	49,51
2016	26,5
2017	52,51
2018	69,78
2019	63,92

Source: Statista

(URL:<https://es.statista.com/estadisticas/635114/precio-medio-del-crudo-fijado-por-la-opec/>)

In this table 1 is possible to observe the oil prices in USD \$ according to OPEC from 1998 to 2019, during the presidential term of Hugo Chavez, Venezuela had an average production of 3.3 million barrels per day and a general annual increase in oil prices, for this reason, Venezuela's oil revenue grew from \$40,524,000 million dollars per day in 1998 to \$354,618,000 million dollars per day in 2011, as we consider from 1998 to 2011 the most relevant years of Hugo Chavez.

Such revenues are an average of the reflected database, but not the real oil revenues, since there were months in 2008 when a barrel of oil cost up to 137 USD \$ per barrel, likewise it was affected by the global crisis of 2009, where oil's price dropped to 60 USD \$ per barrel.

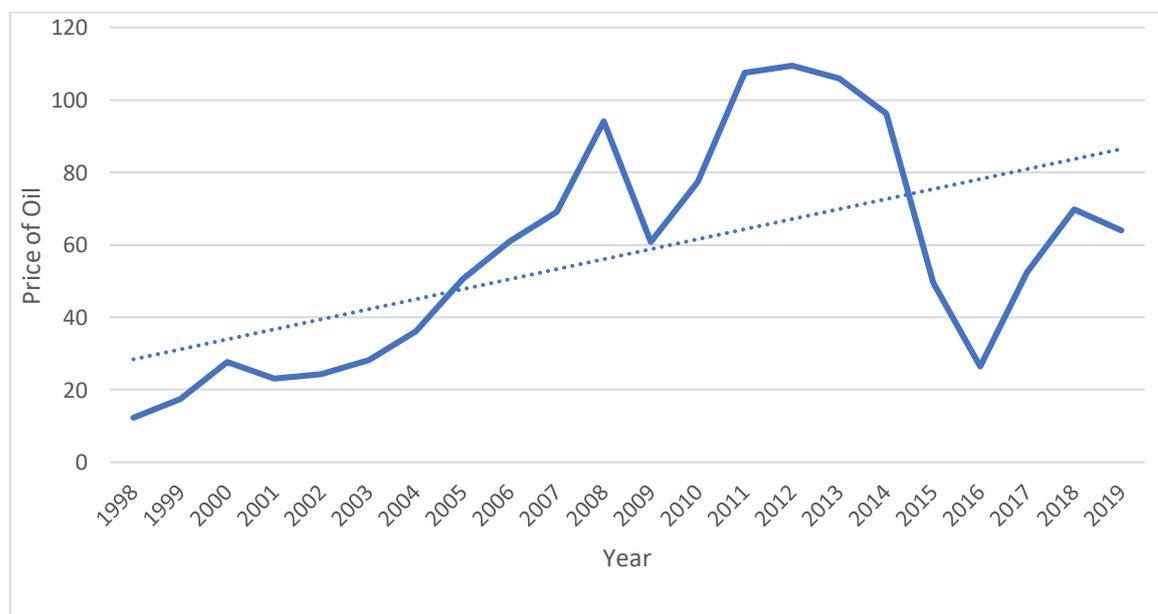
$$1998 = (12,28\$ * 3.3m) = 40.524.000\$ \quad (2)$$

$$2011 = (107.46\$ * 3.3m) = 354.618.000\$ \quad (3)$$

$$(354.618.000\$ - 40.524.000\$) / 40.524.000\$ = 7,75 * (100) = 755\% \quad (4)$$

From 1998 until 2011 the oil revenues increased 775% daily, which indicate an annual increase of 282.875% during Hugo Chavez's period.

Figure 3 Increase in oil prices in USD \$ from 1998 to 2019.



Source: Self Made according to the data obtained in Statista

(URL:<https://es.statista.com/estadisticas/635114/precio-medio-del-crudo-fijado-por-la-opec/>).

The figure 3 shows an increasing trend line in oil prices during the presidential term of Hugo Chávez, who obtained the highest monetary income in the entire history of the country, however, the graph also shows us that the price of a barrel of oil declined and reached minimum levels of 26.5 USD \$ per barrel in 2016, which resulted in a recession in the Venezuelan economy, likewise a giant fiscal deficit due to the high government spending that have been created in the last years.

Although the country had high income due to oil, it was affected by two main reasons, the first and most relevant was the mismanagement of state resources, and the second reason supported by the theory of the Dutch disease, which “refers to the problems associated with a rapid increase in the production of raw materials (like oil and gas) causing a decline in other sectors of the economy. When the raw materials run out, the economy can be in a worse position than before” (14 p. 1).

Chavez government redirected oil profits to address the recent social inequality, financing education, health, food and housing programs for a population of more than 30 million inhabitants, which significantly “reduced the poverty from 49,4% in 1999 to 27,8% in 2011” (15 p. 1), however dependence on oil increased a lot.

Although Chavez wanted to diversify the Venezuelan economy, he was always putting pressure on the private company, placing measures that did not give any incentive to invest in Venezuela such as the price control regime and expropriation, which resulted in the closure of companies nationwide and an increase in dependence on oil exports, later he promoted left policies and the socialist idea in the Latin American countries, so the country did subsidy oil by selling them at prices much lower than the international market or exchanging it for medical services and food, also creating alliances with the left countries such as Cuba, Nicaragua, Ecuador, and Bolivia in South America and relating with Russia and Iran, on the other hand it grew its external debt with China, money that was used in social expenses but part ended up in the hands of corruption . At the time Chavez neglected to invest in the maintenance of the oil facilities, which nowadays shows us the great deterioration of the company.

Oil production in Venezuela has progressively decreased in recent years for various reasons, the main reason was negligence in the maintenance and administration of the national oil industry, other reason was personnel not trained for the proper functioning of

the company, on the other hand the law of hydrocarbons that changed the terms of contracts that foreign oil companies had in Venezuela and finally the sanctions of the United States to any company that carries out transactions with the Venezuelan oil company, for all this reasons Venezuela went from producing approximately 3,300,000 barrels per day in 1999 to produce less than 1,000,000 barrels per day in recent years, which indicates a deficit in the Venezuelan economy, taking into account that a large part of fiscal expenditure are covered by oil revenues, also that more than 90% of the foreign exchange that enters to the country comes from oil.

4.2) Determinants of the crisis in Venezuela

In recent years Venezuela has been submerged in a deep crisis, with political, economic, social and humanitarian problems. This crisis is due to certain economic measures previously adopted by President Hugo Chávez. Likewise, Nicolás Maduro, the current president has been following the same measures and continue trying to maintain them despite the terrible results.

Among these measures are:

Foreign Exchange Control.

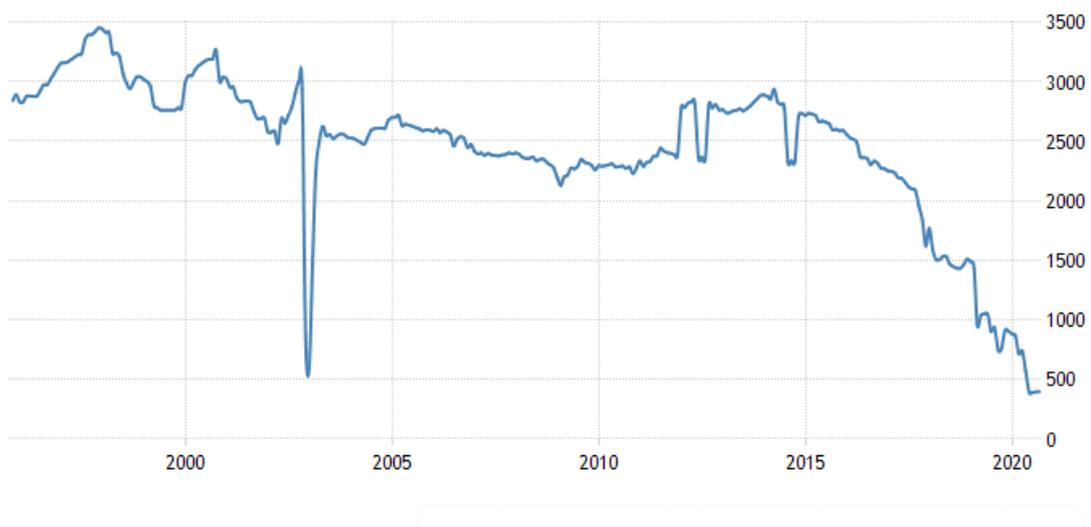
President Hugo Chavez made his first economic decision in 2003, an exchange control in order to establish a fixed rate in foreign currency compared to the national currency, in this way protect the state from a capital flight. The only way to access to foreign currency was through the government, therefore the sought to control almost everything, including the media, imports, capital movements, investments, the private sector, savings and the Venezuelan people, as all were subject to oil income due all people had to request foreign currency from the government to travel, save, invest, import and study abroad. Moreover, this economic measure artificially overvalued the Venezuelan currency for a long period of time, where national production, and investments were discouraged, on the other hand, it was a direct focus to corruption in which shell companies demanded foreign exchange from the Central Bank and then sold it on the black market, obtaining illicit profits. One of Chavez's promises was trying to not depend on oil, however this economic measure implied quite the opposite, since access to cheaper foreign currency encouraged companies to import and not to produce, in other words it was cheaper to bring the products from abroad, which

hurt a lot the domestic producer and caused de-industrialization, where the profits were greater importing basic products than producing in the country.

Dismissal of 20,000 PDVSA employees, (state company of oil).

PDVSA or petroleum of Venezuela was one of the best managed state oil company in the world until 2002, it was thanks to an agreement reached by the Venezuelan political class at the time of the nationalization of oil. They decided that the oil industry in the hands of the State would not be handled like the other public companies. It would be granted operational autonomy and internal professionalization would be respected. This ensured that it was protected from corruption that used to invade chemical companies and encourage the permanence in the country of all human capital formed by oil transnationals companies. The agreement lasted until 2002 when Chavez decided to make decisions within the state oil company, such actions culminated in two months strike and the dismissal of 20,000 employees. After 2002 PDVSA'S performance was affected, its production decreased significantly, likewise the number of occupational accidents increased. Many of the dismissed workers ended up working for oil companies in other countries, so the migration of human talent also increased, and the long-term growth of the company was not well oriented.

Figure 4. Crude Oil Production in Venezuela (2000-2020) in standard barrel of oil.



Source: TRADING ECONOMICS

(URL: <https://tradingeconomics.com/venezuela/crude-oil-production>)

The previous graph shows the daily oil production in Venezuela from 2000 to 2020, we can see that in 2000 production was approximately 3.3 million barrels of oil, then in 2002 due to the oil strike mentioned above, where 20,000 employees were dismissed, the production dropped to 500 thousand barrels of oil, then it rose again and remained but around 3.2 million barrels, the deterioration in oil production was reflected over the years, later in 2015, the production began to fall to minimum levels, even in 2019 only around 900 thousand barrels were produced.

Organic Law of Fair Prices and Profits

In October 2011 the organic law of fair prices and profits was enacted, this law was created in theory to protect the people from speculators, it was expected to have fair and stable prices for the consumer, so was created the National Superintendence for the Defense of socio-economic rights, called in Venezuela the SUNDDE, to ensure compliance, it had 3 superintendents. The law established a price control for a total of 169 products, 106 corresponded to food products while the remaining 63 to toiletries and personal hygiene products.

Although for some government supporters it seemed a good idea for others it was a catastrophe, inflation in Venezuela was not controlled and with consecutive salary increases it was impossible to maintain the price of products, so that law only promoted shortages, ruin of small and medium businesses and the disappearance of basic products, on the other hand there was the black market, where people could access to the products at much higher prices due to the shortage, therefore this law has become a mechanism to penalize work and production, while those who have good relations with the government (corruption) had benefited from the situation by multiplying their wealth, as they were the only people authorized to sell products without complying with the fixed prices set by the government.

Loss of Central Bank Autonomy

The Central Bank of Venezuela was an autonomous and independent institution as established in article 320 of the Constitution of the Bolivarian Republic of Venezuela: "The Central Bank will not be subordinated to directives of the Executive Power and may not validate or finance deficit fiscal policies" , indicates one of the paragraphs of article 320. Nevertheless, President Chavez ignored this article and since 2002 began to pressure on the Central Bank of Venezuela, requesting a billion dollars to finance agricultural projects,

although for the moment the request was not approved. In 2004, Chavez got the approval of a guarantee for PDVSA to divert a billion dollars from oil exports to finance projects in the agricultural sector, later with the reform of the law of Central Bank of Venezuela, was born the FONDEN (National Development Fund), where all the extraordinary income from oil revenues would go, that is to say that PDVSA after covering its tax contributions and operating expenses, would send the remaining money to the FONDEN, passing over the constitution and managing the nation's resources without consulting with the proper organizations.

The Autonomy of the Central Bank of Venezuela was lost, and those who work for that institution only fulfilled orders from the government, if someone opposed, it was putting their employment at risk.

In 2009 another reform was published to the law of the Central Bank of Venezuela, this reform would allow the Central Bank to buy debt securities issued by PDVSA, that is to say that the PDVSA issued debt directly to the Central Bank, receiving bolivars in exchange with which they have paid their operating expenses.

This economic measure was extremely negative for the economy of the country, the Central Bank increased the issuance of money to finance PDVSA, which has put pressure on monetary liquidity and therefore consecutive increases in inflation levels. Currently, Central Bank financing to PDVSA has increased by more than 75%.

In 2010 was another reform of the law of the Central Bank, Chavez pointed out that the Central Bank should cooperate with the executive power in the realization of the duties of the state and the nation, which contradicts the constitution. The President ordered the Central Bank to start giving credits to local governments, to the people, with very low payment percentages, so they could start forming popular companies that would allow the development of the country, without having to resort to private enterprise. Therefore, the Central Bank of Venezuela does not have the autonomy to take measures in matters of monetary policy, so it cannot reduce inflation and stabilize the country's economy.

Government Spending and monetary issuance at unsustainable levels

The state's fiscal expenditure is generally collected through the collection of taxes, but in Venezuela it has a high dependence on oil income. During the oil boom, the government of President Chavez increased government spending by 600% from 1999 to 2005, creating a

huge social plan which he called socialist missions to benefit 1,700,000 Venezuelans in terms of food, education, health and social welfare. This happened a year before the presidential elections where he was re-elected, however high oil prices began to fall, so the government entered a fiscal deficit where public spending was higher than income. The government, decided to finance its deficit through monetary issuance instead of reducing government spending, which resulted in the growth of inorganic money, since the increase in monetary liquidity is not supported by any increase in national production.

Likewise, the increase in monetary liquidity compared to the local production of goods and services was disproportionate, it produced alarming levels of inflation of two and three digits for 2015, which increased progressively until reaching 1,000,000% of inflation in 2018.

Reform of the Central Bank of Venezuela and creation of the Fonden (National Development Fund)

The National Development Fund (Fonden) was created in July 2005, theoretically it was managed by the Ministries of the popular power for economy, finance and public banking, the Ministry of planning and the Executive Vice President, but it was really controlled directly by former President Chavez.

This fund was created with the intention that Chavez did not have to request permission from the Central Bank of Venezuela to manage the resources of the nation, so he reformed the law of the Central Bank of Venezuela in 2005, from that moment the surplus income from the oil rent would pass directly to the President, thus the Central Bank of Venezuela would be a useless institution. Fonden handled more than 100,000 million dollars from oil exports, used in different projects inside and outside the country, such as the purchase of sovereign debt from Argentina, Nicaragua, Ecuador, and Bolivia, by the other hand the government invested in shares in an arms and bought two satellites. The problem is that the commercial transactions carried out by Fonden did not have transparency and everything indicates that a large part of that money was diverted to other purposes. By the other hand, the Ministry of Finance did not report the precise destiny of more than 123,000 million dollars from the FONDEN, which indicates that it has ended up in the hands of corruption.

Nationalizations and Expropriation

One of the main determinants that ended the incentive for private production and investment in Venezuela were nationalizations and expropriations, since the Constitution was not the highest authority, legal security was at risk and investing in the country was like playing roulette , that is to say, at any time the government could ruin your investment.

President Chavez after being re-elected, formalized his project as on the road to socialism, his theory was that the middle class was being exploited, so it was better to nationalize and expropriate large companies. Therefore began the wave of expropriations, CANTV (telecommunications), Caracas Electricity, Cement companies, Sidor (steel), the gold mine Las Cristinas, Sidetur, Agroislena, El Sambil among others, they were large companies which were nationalized, some were lucky enough to receive compensation but others did not receive what was agreed, as well as thousands of hectares of agricultural producer land, which in practice constituted confiscations. It was the turning point of the debacle of the Venezuelan agribusiness sector and the severe food shortages that the population has suffered for years.

All these measures had a very negative economic effects, by destroying the expectations of national and international private investment, as well as the creation of a State Capitalism, where the state was in charge on managing private enterprise, which by mismanagement and corruption led to bankruptcy.

Expropriation of the East Coast providers

The expropriations continued as part of the socialist project of Hugo Chavez, in 2009 Chavez ordered 140 expropriations to private companies on the east coast of Lake Maracaibo, which provided maintenance and transportation services to PDVSA, there was no logical reason to expropriate them, nevertheless PDVSA did not have how to pay the debts to these suppliers, so Chavez preferred to expropriate them without reason.

This arbitrary measure only accelerated the oil debacle, because without maintenance and services the company would only address the decline in production, a total catastrophe for a country that today depends on more than 90% of oil revenues.

Militarization of the economy

President Chavez was a retired military man, therefore he had good relations with the armed forces, as well as their support. As a result of this relationship, Chavez began the appointment of military personnel, active or retired in government roles. The positions they took were of ministers, ambassadors, presidents of institutes, managers of state-owned companies, as well as key areas of economic policy.

This resulted in the irrational measures that contributed to led the country to a deep crisis, the breakdown of state companies, the breakdown of private companies, shortages, all this due to inefficiency and inability of public officials in charge of the institutions, the most were military. In addition, the fact of handing over these responsibilities to the military has resulted in the abuse of power, since many military personnel no longer fulfill their job duties but instead they supervise the merchants and require them a monthly fee for each merchandise that they move from one place to another. This also translates into an increase in the final price of the products, where the final consumer is the most affected.

4.3) Hyperinflation in Venezuela

The author argue that certain government measures have caused inflation in Venezuela, which has been increasing year by year, but in recent years it has intensified even more, causing monthly hyperinflationary periods, where the nominal salary is very high but in real terms it is not enough to survive. A real example is that people in Venezuela need 5 kg of bills (national currency) to buy 1 kg of meet. Another case is the shortage of cash as a result of the devaluation of the currency, every day people need more bills to purchase a product, which implies huge long lines of people in banks to obtain a limited amount of bills, which in practice are not enough to subsist.

The main causes that led to such high inflation rates were:

The first cause was issuance of inorganic money , which means that the central bank of Venezuela issued the banknotes without any control under the support of the government, that is to say, money that was not supported by production, therefore both the monetary base and monetary liquidity increased excessively annually, based on the “theory of revenue from money creation, a different real effect from inflation involves the government’s revenue

from printing money. The government uses this income solely to finance transfers. More realistically governments use the printing press to pay for a variety of expenditures” (16 p. 295)

Table 2. Data of money supply from 1999 to 2019

Year	Money Supply in Bolivars (Billion)
1999	11,818
2000	15,805
2001	17,502
2002	20,064
2003	32,585
2004	42,862
2005	72,042
2006	124,443
2007	166,621
2008	214,609
2009	264,68
2010	327,003
2011	487,903
2012	747,905
2013	1 000,19
2014	2 001,24
2015	4 015,68
2016	10 407,21
2017	127 049,39
2018	804 950,05
2019	40 614 469,34

Source: World Bank and Central Bank of Venezuela

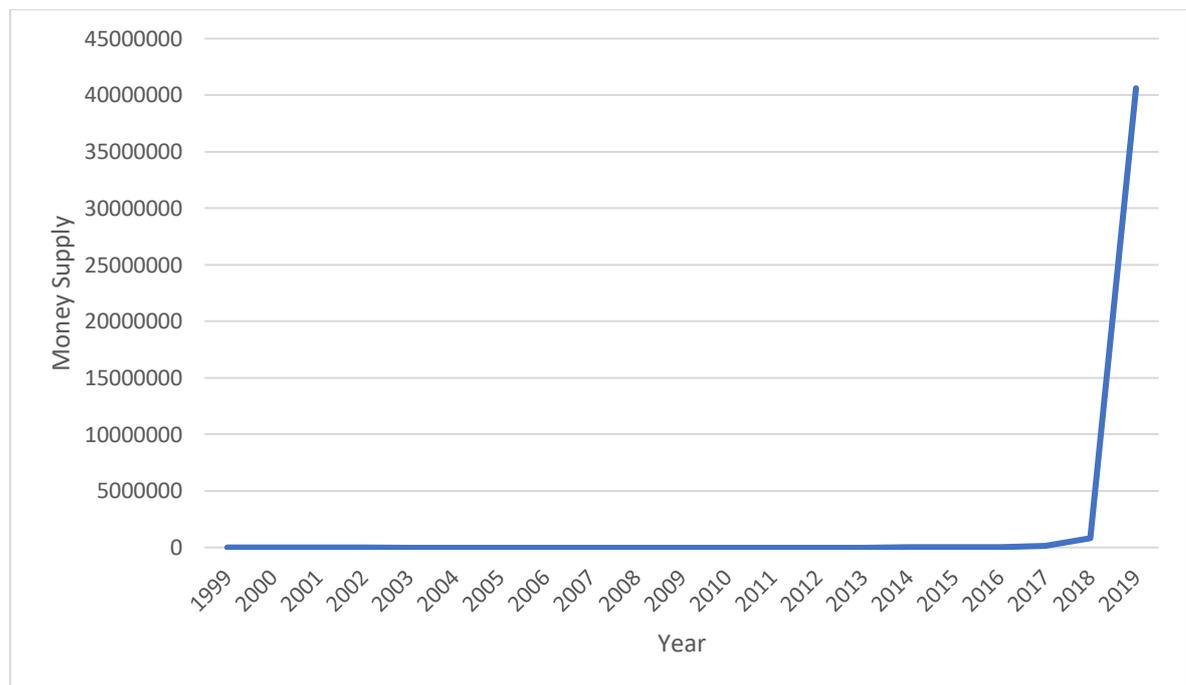
(URL: <https://data.worldbank.org/indicator/FM.LBL.BMNY.CN?locations=VE>)

(URL : <http://www.bcv.org.ve/estadisticas/liquidez-monetaria>)

In the table number 2 is possible to observe the money supply of Venezuela from 1999 to 2019, the data are set in billions of Bolivars, which is the national currency in Venezuela, we can also see that the money supply had a constant annual growth but in 2018 the rise was even greater, this due to the monetary reconversion in Venezuela, where the government eliminated 5 zeros from the national currency and injected a bigger amount of bolivars into the economy. For data collection, the monetary aggregate M2 was consider, which makes reference to “a broader definition of money, M2 includes everything in M1 (coins and currency in circulation plus checkable deposits and traveler's checks) but also adds other

types of deposits. For example, M2 includes savings deposits in banks, which are bank accounts on which you cannot write a check directly, but from which you can easily withdraw the money at an automatic teller machine or bank. Another ingredient of M2 is certificates of deposit (CDs) or time deposits, which are accounts that the depositor has committed to leaving in the bank for a certain period of time, ranging from a few months to a few years, in exchange for a higher interest rate” (17 p. 1).

Figure 5. Increase in Money Supply from 1999 to 2019 in billion bolivars



Source: Self Made according to the data obtained in the World Bank and Central Bank of Venezuela.

(URL: <https://data.worldbank.org/indicator/FM.LBL.BMNY.CN?locations=VE>)

(URL : <http://www.bcv.org.ve/estadisticas/liquidez-monetaria>)

The graph shows how the values of money supply behave over time, reflecting a higher impact in recent years. In 2017 Venezuela passed the 50% monthly inflation barrier, according to data provided by the Econometrica firm, “Venezuela in October 2017 registered an inflation of 50.6%, compared to the previous month, technically entering hyperinflation when it exceeded the 50% threshold that defines this last concept for the first time in its history” (18 p. 1).

“Liquidity also shot up, during the year 2018, the issuance of money has been 3,054%, going from 127 trillion Bolivars in December 2017 to 4.016 trillion Bolivars in August 2018. The week with the greatest expansion of the monetary mass of the country was from July 27 to August 3, when it grew 19.19%” (19 p. 1). As we can see in figure 5, in the years 2018-2019 was the highest issuance of money, likewise the hyperinflation exceeded one million percent according to a measurement of the National Assembly, controlled by the opposition, which keeps statistics in the absence of official figures.

The second cause was the continuous salary increases, another reason why general price levels increased, in the last 3 years there were at least 4 increases in the minimum wage per year, but these increases meant a higher cost for companies, which resulted in an increase in the prices of the products they sold, contributing to the inflationary process.

The third cause was mistrust in the national currency, due to limitations, lack of legal security and price control. Both legal companies and individuals did not have confidence in the national currency, so for each bolivar they obtained they went immediately to the black market in search of a store of value, whether it was Dollars, Euros, Colombian pesos, Gold and even Bitcoins, any currency was better than having Bolivars.

The fourth cause of hyperinflation was relating to speculation, since businessmen knew the effect of wage increases, the reduction in access to dollars offered by the government and an increase in the parallel dollar, they offered their products at prices much higher than the real price, this looking to preserve their profits, or at least cover costs so they could reinvest in merchandise.

4.4 Correlation between GDP-Inflation, Linear Regression analysis

“The simple linear regression model is a model with a single regressor x that has a relationship with a response y that is a straight line” (20 p. 12).

The author analyzes in detail the dependency relationship that exists between inflation and gross domestic product. This process is carried out through a linear regression analysis, where the correlation coefficient is determined, which is defined as a “convenient index of the strength of the linear relationship between two variables” (21 p. 102). This correlation

coefficient (r) has a value close to +1 or -1, which indicates whether the relationship between the variables is direct or inverse.

Likewise, the coefficient of determination r squared is also determined, as “the coefficient that indicates the percentage of the fit that has been achieved with the linear model, that is to say, when the percentage is higher, our model has a better fit to predict the behavior of the dependent variable, its value will always be between 0 and 1 and it will always be equal to the square of the correlation coefficient (r)” (22 p. 10).

The linear regression analysis was performed through the excel program, where inflation is represented by the dependent variable (Y) and gross domestic product (GDP) is represented by the variable (Xi) as an independent variable.

To determine inflation, the economic indicator consumer price index (CPI) is taken into account, which measure the annual price variation that includes food, non-alcoholic beverages, alcoholic beverages, tobacco, clothing, footwear, housing, household items, medicines, transport, communications, recreation, culture, education, hotels, cafes, restaurants and other goods and services.

On the other hand, gross domestic product (GDP) is determined by a formula that includes variables such as consumption (C), investment (I), government spending (G), and net exports (NX).

Formula:

$$\text{GDP} = C + I + G + \text{NX} \quad (5)$$

Table 3. Relationship Between GDP variable and CPI variable from 2009 to 2016

	Xi GDP Venezuela (1999- 2016)	Y CPI Venezuela (1999- 2016)
2009	-3,2	27,08
2010	-1,48	28,18
2011	4,17	26,09
2012	5,62	21,07
2013	1,34	40,63
2014	-3,89	62,17
2015	-6,22	121,73
2016	-17,04	254,94

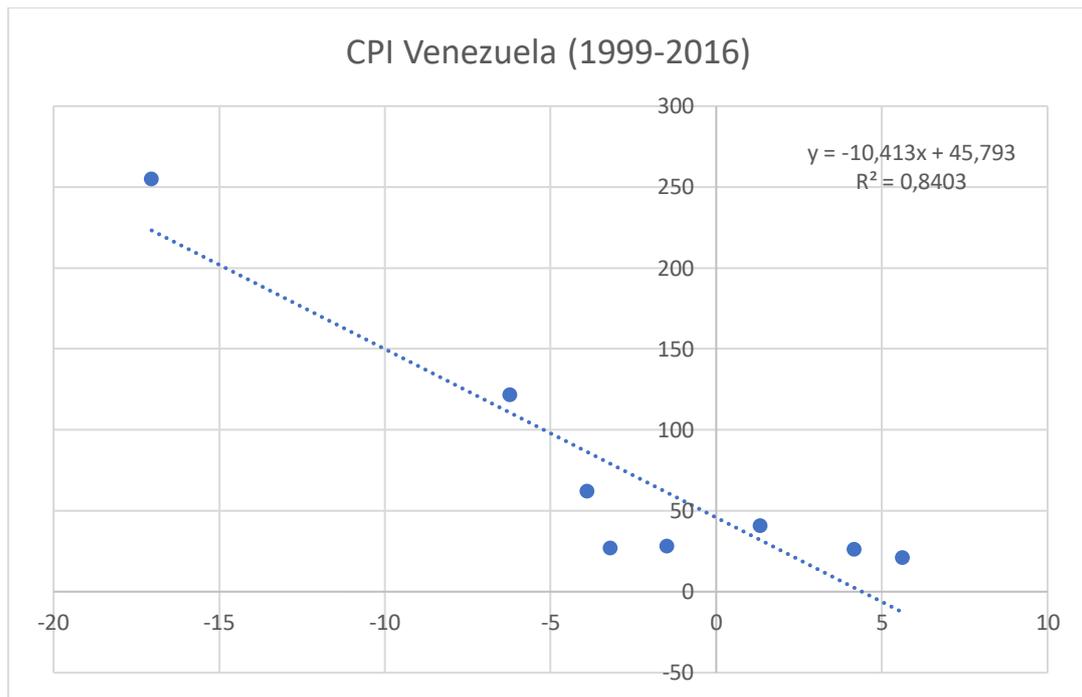
Source: World Bank and Datosmacro

(URL: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=VE>)

(URL : <https://datosmacro.expansion.com/ipc-paises/venezuela>)

The data obtained for this research was extracted from the world bank and the financial company datosmacro, eight samples were analyzed from 2009 to 2016. It is important to say that due to the absence of data it has not been possible to analyze the relationship between GDP and inflation in the most recent years. This situation is because the Central Bank of Venezuela has hidden the data in recent years. Although in 2020 it has decided to publish the data again, it does not have credibility when we compared with the reality of price variation that exists in Venezuela.

Figure 6. Linear Regression Analysis between GDP and inflation (CPI)



Source: Self Made according to the data obtained in the World Bank and datosmacro

(URL: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=VE>)

(URL : <https://datosmacro.expansion.com/ipc-paises/venezuela>)

Table 4. Results of Linear Regression Analysis

Y = -10,413x + 45,793	(6)
Correlation Coefficient	-0,916660147
R-Square	0,84
Number of Observations	8

Source: Self Made according to the data obtained in Table 3.

According to the graph and all the data analyzed by the author from 2009 to 2016, the present linear regression analysis shows us as a result a correlation coefficient equal to (-0.916660147), which indicates that there is an inverse linear relationship between gross domestic product and inflation. Therefore, we can determine that when variable X (GDP) increases by 100%, variable Y (inflation) decreases by 10,413%, or conversely when variable X (GDP) decreases by 100%, the variable Y (inflation) increases by 10,413%.

Regarding the determination coefficient (R-squared) it is 0.84, which indicates that there is a high correlation between both variables, so the regression represents a well fit.

4.5 Impact of the crisis in Latin America

The crisis that Venezuela has been experiencing for a few years has had a big impact on the entire Latin American region, if we consider that Venezuela has sold oil at subsidized prices to several countries through the Petro-Caribe program, which is a program created by Venezuela to help the most fragile Caribbean countries. These countries opted for Venezuelan oil at a lower price and with preferential credit quotas or in the form of payment that was providing food, medical services or some national product, however, the crisis in the oil country generated a reduction of more than 50% to the Petro-Caribbean program, after this in certain countries the price of fuel has increased considerably.

One of the most affected countries is Colombia, since 10 years ago Venezuelans were its best clients, even the commercial exchange of Colombia and Venezuela reached US \$ 7 billion annually, which has been drastically reduced, nowadays Venezuelans go to Colombia more looking for a job than to buy products, although there is still some kind of informal trade between the citizens of both countries.

Venezuelan migration has been another factor that generates a big impact throughout the region, around 4 million Venezuelans are distributed in Latin American countries, this has generated a bit chaos and destabilization in the region, although the economic effect in most of these countries is positive, such as the increase in GDP, the increase in the demand for goods and services, and a better job development because part of the migrants are professionals and qualified, but on the other hand negative effects have also increased in variables such as the rate of unemployment or the criminality index.

Venezuelans look for basic products in Colombia that are scarce in Venezuela, such as Oil, Flour, Rice, toilet paper, etc. In Colombia they get it at more accessible prices, and they resell it in the largest cities. Colombians seek to obtain gasoline at a more affordable price than in Colombia, considering that in Venezuela gasoline has been almost free for some years, so any border closure impacts both the Venezuelan and Colombian economies.

“The BBVA Research report about Venezuelan immigration adds that since immigrants were not employed in the best way (in activities for which they were educated or in a formal way), their positive impact was more limited in terms of GDP observed than on potential GDP. Currently, there are more than 800,000 Venezuelans in Peru, with an annual influx that reached its peak in 2018. Most of these immigrants are concentrated in Lima. The fiscal impact of Venezuelan immigration is positive, according to BBVA Research, although low in relation to the size of the Peruvian economy. Thus, on average for 2018 and 2019, the net impact is equivalent to 0.08% of GDP” (23 p. 1). BBVA Research also reveals that more than 65% of Venezuelan immigrants rent the home where they live in and share a room with two or more people, generating a positive impact on the economy.

The biggest problem of Venezuelan immigration is the increase in the unemployment rate, which causes the discontent of citizens residing in Latin America, because Venezuelan citizens used to have free and quality university education, many of these migrants are professionals and they occupy the jobs mostly in private companies, for a cheaper cost than the national citizen. “In countries like Chile, the central bank announced an unexpected reduction in interest rates, arguing that having more people available in the labor market allows the economy to grow without a rise in prices” (24 p. 1). So, we can see a positive impact on the Chilean economy, as its population increases.

In countries such as Colombia, Peru and Chile is where the majority of Venezuelans have migrated, these countries have registered an increase in GDP in recent years, due to a larger population, the demand for goods and services also increases, so the tax revenues reflect a positive increase. Although the immigration of Venezuelans could cause a collapse in the health system, this has been controlled thanks to organizations such as UNHCR (United Nations High Commissioner for Refugees), the OAS (Organization of American States), the European Union and the United States of America that has provided economic and humanitarian support to migrants in a precarious situation.

Table 5. Venezuelan migrant data from 2015 to 2019

Year	Migrants	Percentage (%)
2015	646134	-----
2016	698109	8,04%
2017	1691253	142,26%
2018	3489321	106,32%
2019	4001917	14,69%

Source: Self Made according to the data obtained in CNN

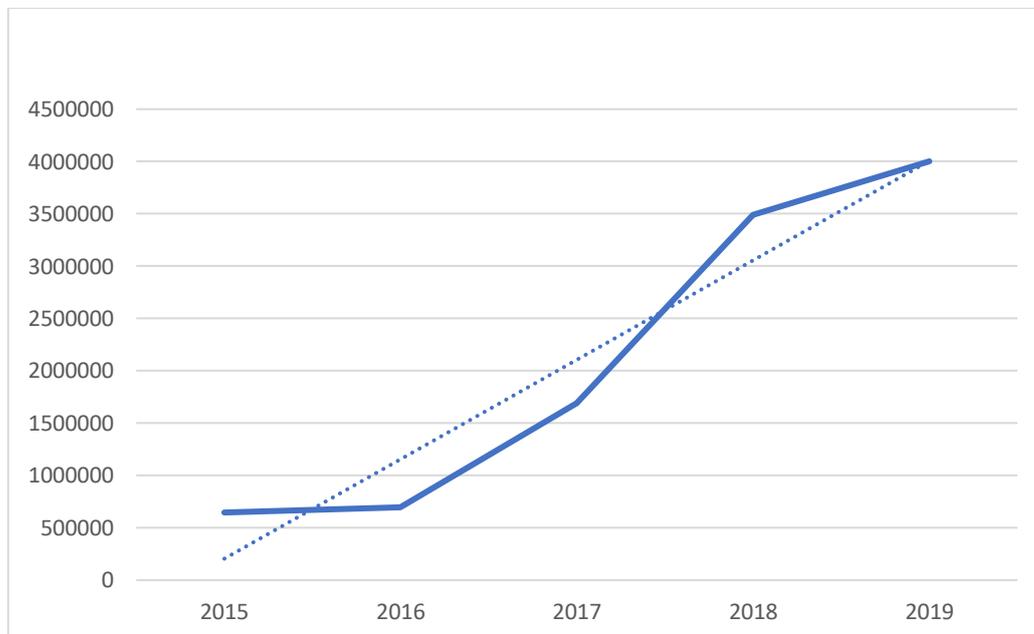
(URL:<https://cnnespanol.cnn.com/2019/06/07/mas-de-4-millones-de-migrantes-y-refugiados-venezolanos-en-el-mundo-segun-acnur/#mapacnur>).

In the table 5, we reflect the data regarding Venezuelan migration in the last 5 years, considering since 2015, and how was increasing the migration behavior each year until 2019. We calculated how migration increased in percentage, compared to the previous year, in 2016 the increase was 8.04% compared to 2015, that is to say, around 51,975 of people migrated in 2016, a low amount due to the hope that Venezuelans had thanks to the dominance of the Legislative Power in the hands of the opposition. However, trust did not last long and for the years 2017-2018 around 2.8 million of people left the country, the largest migration in the history of Venezuela and Latin America was recorded, with an increase of 142.26% in 2017 and 106.32% in 2018.

Before 2000, the Venezuelan society maintained a lower migration than many Latin American countries, this was due to the great opportunities offered by the oil country, on the contrary many Colombians, Peruvians and Chileans emigrated to Venezuela due to economic, social and political problems that their countries were living.

In the year 2019, the number of people who were migrating began to reduce, this due to two factors, the first is that nowadays most of the countries in Latin America request a visa from Venezuelans to enter their territory, which makes it difficult to regular migration process, and the second factor is the flexibility of economic policies by the government in Venezuela, which encourages some Venezuelans to stay in the country.

Figure 7. Venezuelan Migration from 2015 to 2019



Source: Self Made according to the data obtained in CNN

([URL:https://cnnespanol.cnn.com/2019/06/07/mas-de-4-millones-de-migrantes-y-refugiados-venezolanos-en-el-mundo-segun-acnur/#mapacnur](https://cnnespanol.cnn.com/2019/06/07/mas-de-4-millones-de-migrantes-y-refugiados-venezolanos-en-el-mundo-segun-acnur/#mapacnur)).

If we observe the data evaluated by the author in the figure 7, we can conclude that Venezuelan migration has increased excessively in recent years, considering that in the years 2017-2018 the increase was even higher, due to the political, economic, social and humanitarian crisis. Among the Latin American countries most requested by the Venezuelan exodus, Colombia is in the first place because it is a border state and they have very similar culture, then there is Peru which has been growing economically a lot in the last years and

thirdly Chile, which is far away but offers ease of work and the best quality of life among Latin countries.

In the year 2020 “approximately 105,000 Venezuelan migrants or refugees have returned to the Caribbean country from Colombia and 6,000 from Brazil in the context of the COVID-19 pandemic, as revealed by the Organization of American States (OAS)” (25 p. 1). Many Venezuelans have preferred to return to the country, where they at least have a place to sleep due to the lack of income because of the pandemic.

4.6 Current Venezuela 2019-2020 (PESTLE Analysis)

As the author has previously mentioned, the Venezuelan economy has gone through several stages where the recession has been the most influential, since 2015 it has been experiencing a deep crisis where inflation reduces the values of currency’s purchasing power and it has caused the biggest emigration of Venezuelans throughout their history, however in 2019 the situation has changed, this is because the State has ended with exchange control, likewise this situation has given the private sector an opportunity to recover the country's economy, that’s to say, the government has stopped expropriations and nationalizations, allows the free market without restrictions on the price of products and they has exempted from taxes all imports that are necessary for the economic functioning of the country, these measures taken by the state are part of the consequence of a country in chaos, with scarcity, without resources and without the possibility of activating the economy due to various factors, such as business mismanagement, corruption and finally sanctions imposed by the United States on any company that has commercial relations with the Venezuelan State.

Another relevant factor in the current Venezuelan economy is the use of foreign currencies in the country, due to the devaluation of the bolivar, Venezuelans have opted for other currencies such as the dollar, the euro and the Colombian peso to trade in Venezuela. Therefore, today all product prices are marked in dollars and their respective variation depending on the current rate, this phenomenon is de facto dollarization, which “is typically the rational response of economic agents to a loss of confidence in domestic currency, often resulting from episodes of inflation, currency devaluations and currency confiscation. It may also be related to the growth of underground or “unrecorded” economic activities since currency, particularly foreign currency is often the preferred medium of exchange for such transactions. De facto dollarization leads to a loss of seigniorage, thwarts the monetary

authority from pursuing inflationary finance and inhibits its effectiveness in controlling exchange rates. It also lowers the cost of tax evasion and thereby reduces the ability of the fiscal authority to command real resources from the private sector” (26 p. 2).

Today more than 50% of transactions in Venezuela are carried out in foreign currency, the US dollar is the most commercial and relevant, both in cash and in transfers through the famous US application Zelle, which records a large number of transactions made in Venezuela, another way is transfers in Panamanian banks. Although the government has allowed Venezuelans to have dollar accounts in the country's national banks, there is still not enough trust from the population.

The migration of more than 4 million people from Venezuela has resulted an increase in remittances, as many Venezuelans send money to their families to cover their basic expenses, this also gives a break to the economy, because when there is more money in the market the consumption also increase and encourages small investments in the private sector, in addition to buying and selling in dollars, indicates that profits are also in dollars, which makes the market attractive and rewards traders who have survived the hyperinflationary phenomenon.

All these factors mentioned above have slightly changed the mentality of many Venezuelans when it comes to migrating, otherwise it has created a bit of optimism in a country that seemed to have lost everything. Private companies begin to dollarize wages, the shortage ends and supermarkets are filled with products, both domestic and imported, however not all Venezuelans have the same purchasing power, the most are still poor and barely have enough to survive, that is to say, a big difference was created between social classes, we could classify it into the Venezuelan who can buy and the Venezuelan who cannot buy.

Despite the improvement of the Venezuelan economy, there are other problems that continue to hinder the quality of life in Venezuela, such as electrical failures, insecurity, and currently the gasoline shortage, which has increased due to the United States sanctions to the oil companies, which affirm that any purchase or sale with the oil company PDVSA could bring them large fines and penalties. The Venezuelan government has decided to circumvent economic sanctions by establishing alliances with countries like Iran, which is also sanctioned by the United States. Iran is the new supplier of gasoline to Venezuela, they

receive gold as part of the payment, which is one of the products discovered and illegally exploited by the current government. However, Iranian gasoline still does not cover the demand in the Venezuelan market.

The table 5 reflects a PESTLE analysis which “is a strategized framework or tool that is predominantly used by the marketers to analyze as well as monitor some of the macro environmental factors that leave behind an impactful difference on the progress of the organization” (27 p. 1).

PESTLE’S initials indicate:

P = POLITICAL

E= ECONOMIC

S= SOCIAL

T= TECHNOLOGICAL

L= LEGAL

E= ENVIRONMENTAL

In this PESTLE analysis in current Venezuela we analyze each of the macro variables and the elements that are involved in it, to determine if Venezuela is an attractive place for investors today or the details that they should take into account in the case where they want to live or invest in Venezuela.

In the political part, we evaluated:

-Political stability, government policy, tax policy, foreign trade policy, corruption, labour law, trade restrictions.

In the economic part:

-Economic growth, exchange rates, interest rates, inflation rates, unemployment rates, disposable income.

In the sociological part:

-Population growth rate, age distribution, career attitudes, lifestyle attitudes, safety emphasis, health consciousness, cultural barriers.

In the technological part:

-Technology incentives, level of innovation, automation, technological change

In the legal part:

-Employment laws, consumer protection laws, copyright and patent laws, health and safety laws, discrimination laws, antitrust laws.

In the environmental part: Climate change, environmental policies, weather, climate.

Table 6. PESTLE Analysis Venezuela 2019-2020

<p style="text-align: center;">Political</p> <ul style="list-style-type: none"> -There is no political stability -There is no democracy -Level of corruption is high - Labor laws benefit a lot the workers - There is flexibility regarding trade restrictions. -Easy to import, easy to export 	<p style="text-align: center;">Economical</p> <ul style="list-style-type: none"> -Inflation 9585.8% (2019) -Inflation October 2020: 23,8% -Use of the US dollar in commercial transactions -GDP: -23,7% (decrease) 2019 -Rate of unemployment: 8,8% -Low Salaries -High Profits
<p style="text-align: center;">Social</p> <ul style="list-style-type: none"> -Young population -Population growth (-1,8) - Working people - Level of education in decline - A lot of entrepreneurship 	<p style="text-align: center;">Technological</p> <ul style="list-style-type: none"> - Use of social media - Technological backwardness - Lack of technological maintenance
<p style="text-align: center;">Legal</p> <ul style="list-style-type: none"> - Many requirements to open and operate as a company -Not many consumers protection laws 	<p style="text-align: center;">Environmental</p> <ul style="list-style-type: none"> -Tropical weather, all year -Water accessibility depending on the location -Productive lands

Another current reality of the Venezuelan economy is the action of the State to reduce government spending until it reaches to zero-fiscal deficit, although it seems quite difficult, it is one of the State's future objective. It has also reduced the bank reserve requirement and thus avoid credits, although it continues to issue banknotes without any production support to back it up.

In 2020, the covid-19 pandemic has arrived, which has further hit the Venezuelan economy that was recovering, due to the pandemic in Venezuela, businesses open one week and the other week close, which does not allow economic to growth. In addition, oil consumption has dropped and sanctions do not allow Venezuela to trade freely, which has resulted in a serious shortage of domestic gasoline, which is substituted by Iranian gasoline although it is not enough to cover the demand. According to the International Monetary Fund, Venezuela will have a drop in GDP by 18% in 2020.

5. Conclusion

Based on the author's research on the thesis "The Venezuelan Crisis and its economic impact in Latin America" we have reached the following conclusions.

The Venezuelan economy has been going through different types of crises for a few years that have led to an economic catastrophe. First of all, a political crisis in which the current president is considered illegitimate and instability is observed in the institutions. Then and the most relevant is the economic crisis that the country is experiencing, which is caused by some decisions made in the past by President Hugo Chavez, and the continuation of bad decisions by the current president Nicolas Maduro. Among these decisions we could consider the most serious the violation of the laws of the Central Bank of Venezuela, where they have taken away their autonomy and they have used monetary policy in the wrong way.

We conclude that the Venezuelan economy is highly dependent on both oil production and international prices, also we analyzed that when a barrel of oil exceeds \$ 100 the income to Venezuela is very high and bring benefits to their citizens through social programs financing by the government but when the price of a barrel fall, the government entry to fiscal deficit where expenses are greater than revenues, this situation happens because the government increases government spending without considering the volatility of oil prices. Likewise, they decided to finance government spending by issuance of money through the Central Bank of Venezuela, money that was not supported by production which has caused as a result hyperinflation levels in recent years.

Venezuela was one of the richest countries in Latin America but now is one of the poorest, this has happened due to some determinants that contributed to the crisis in Venezuela, such as exchange control, expropriations, corruption, militarization of the economy, mismanagement of state-owned companies, laws that did not encourage investors, and misapplication of fiscal and monetary policy.

Regarding the linear regression analysis of the inflation and GDP variables, we have determined that they are highly related to a coefficient of determination (R-squared) equal to 0.84. According to the correlation coefficient equal to (-0.916660147) we can describe the inverse linear relationship among the variables, in which we observe that when GDP decreases, inflation tends to rise.

In Latin America, we can conclude that the crisis and migration from Venezuela has had a positive impact on the economy in terms of GDP, since a country has larger population it results in higher consumption and higher production, generating higher tax revenues for the state. In terms of employment and crime rates, the impact is negative, because when a country has larger population reduces the amount of available jobs, which leads to poverty and increases the crime rate.

Policies in Venezuela have changed since 2019 around the private sector, the government have given the economy a break with the opportunity to allow business work without so many restrictions, in addition, the flexibility of exchange control that allows transactions in foreign currency in Venezuela, this is an advance that encourages Venezuelans since they can save and invest in a currency that does not devalue as frequently as the bolivar, by the other hand the fact that many companies are paying in dollars and they offer very good benefits to their employees. All these measures boost the Venezuelan economy, however it will take a long time to recover, considering that a change of government is necessary for the United States to lift the sanctions that affect the country economically.

PESTLE analysis shows the relevant aspects of the country for investors or people who want to live there. Despite the crisis in Venezuela where the quality of life is extremely low, there are investment opportunities and rapid business growth. There are many markets where the demand for products is constant, remittances increase consumption and promote an economy that was not doing well. The economy is dollarizing and no longer suffer the inflationary phenomenon. In addition, the good climatic conditions and the productive lands that any company would take a lot of advantage.

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