



TR

BANDIRMA ONYEDİ EYLÜL UNIVERSITY

INSTITUTE OF SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

Master's Thesis

**THE IMPACT OF IMMIGRATION ON LABOR
MARKETS: THE VENEZUELAN CASE**

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Supervisor:

Assoc. Prof. Ufuk BİNGÖL

Bandırma 2022

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APPROVAL OF THE THESIS

The thesis that submitted by Elias Esteban SILVALECUNA under the supervision of Assoc. Prof. Dr. Ufuk Bingöl and entitled as “The Impact of Immigration on Labor Markets: The Venezuelan Case” at Bandırma Onyedi Eylül University, Institute of Social Sciences, Department of Economics, Master’s in Economics has been approved unanimously/~~by majority~~ as Master’s/~~Doctor’s~~ Degree Thesis by the examining committee during the defense on the 24th of January 2022.

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ETHICAL DECLARATION PAGE

TO

BANDIRMA ONYEDI EYLUL UNIVERSITY

INSTITUTE OF SOCIAL SCIENCIES

Upon this document, I declare that all the information in this thesis study have been obtained and presented on the base of the academic rules and ethical conduct. As required by these rules and conduct, I also declare that all the data, idea and results that do not belong to me have been fully cited and referenced (24/01/2022).

Elias Esteban SILVALECUNA

ABSTRACT

“THE IMPACT OF IMMIGRATION ON LABOR MARKETS: THE VENEZUELAN CASE”

Elias Esteban SILVALECUNA

The aim of this study is to examine the effect of Venezuelan immigrants on the Latin American Economies, particularly on labor markets. In this context, we analyze the Latin American countries, which have the highest number of Venezuelan immigrants, namely Colombia, Peru, Argentina, Ecuador, Brazil, and Chile. The analysis chapter of the study is composed of two sections. The first section investigates the impact of Venezuelans on selected countries' economies. Since the visible movement is quite new, it is not possible to relate the economies' situation with Venezuelan immigrants. In the second part of the analysis chapter, we perform a time series analysis to see the causality relationship between Venezuelan immigrants and Colombian employment for the period between 2017M01 and 2021M07. Accordingly, a unidirectional causality is obtained from Venezuelan immigrants to Colombian employment. According to findings a unidirectional Granger causality is obtained from Venezuelan migrants to employment in Colombia.

Keywords: Migration, Employment, Venezuela, Latin America, Granger Casualty Analysis

ÖZET

GÖÇÜN EMEK PİYASALARI ÜZERİNDEKİ ETKİSİ: VENEZUELA ÖRNEĞİ

Elias Esteban SILVALECUNA

Bu çalışmanın amacı Venezuela göçünün Latin Amerika ekonomileri, özellikle emek piyasaları, üzerindeki etkisini incelemektir. Söz konusu çerçevede en yüksek sayıda Venezuela göçmenine sahip olan Kolombiya, Peru, Arjantin, Ekvator, Brezilya ve Şili ekonomileri analiz edilmiştir. Çalışmanın uygulama bölümü iki kısımdan oluşmaktadır. İlk kısmı Venezuelalı göçmenlerin seçili ülke ekonomileri üzerine etkilerini araştırmaktadır. Venezuela göçmen hareketliliği görece olarak yeni olduğundan ekonomilerin mevcut durumlarını Venezuelalı göçmenlerle ilişkilendirmek mümkün olmamaktadır. Uygulama bölümünün ikinci kısmında, Venezuelalı göçmenler ve Kolombiya istihdam verileri arasındaki nedensellik ilişkisini incelemek amacı ile Zaman Serisi Analizi, 2017M01 ve 2021M07 dönemi için aylık verilere uygulanmıştır. Elde edilen bulgulara göre, Venezuelalı göçmenlerden Kolombiya istihdam verilerine doğru tek yönlü Granger nedensellik elde edilmiştir.

Anahtar Kelimeler: Göç, İstihdam, Venezuela, Latin Amerika, Granger Nedensellik Analizi

PREFACE

This thesis is submitted as a final requirement for the master's in economics degree. The research was conducted under the supervision of Assoc. Prof. Ufuk Bingöl from the Economics Faculty at Onyedi Eylül University, between February 2021 and February 2022.

Since ancient times people has migrated in search of resources and better opportunities or escaping from threatening conditions existing in their places of residence. As a Venezuelan, the inspiration that started this dissertation is based on the reality lived by the Venezuelan people. In the recent years, millions of Venezuelans have fled from the country. This situation affects several economies from the micro and macro perspectives. For those who decided to stay and for the ones who decided to migrate, this is my humble contribution.

Firstly, I want to thank to my almighty God for all the blessings and opportunities he always puts in my way. Secondly, I want to thank to my parents for their advice and unconditional love. Also, my tutor Prof. Bingöl deserves my thankfulness for all his help and guidance. Finally, I want to thank to my beloved wife Hale for her patience, love and great unconditionality. Thank you all for your unwavering support.

Elias Esteban SILVALECUNA

Bandırma - January 24th, 2022

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ABBREVIATIONS

ACF	: Autocorrelation Function
ADF	: Augmented Dickey Fuller
AIC:	: Akaike Information Criteria
AR	: Autoregressive
DANE	: Departamento Administrativo Nacional de Estadística
DF-GLS	: DF-Generalized Least Squares
ECLAC	: Economic Commission for Latin America and the Caribbean
ERSP	: Elliott-Rothenberg-Stock Unit Root Test
FPE	: Final Prediction Error
GDP	: Gross Domestic Product
GEIH	: Gran Encuesta Integrada de Hogares
HQ	: Hanna – Quinn Information Criteria
ILO	: International Labor Organization
IMF	: International Monetary Fund
IOM	: International organization for Migration
KPSS	: Kwiatkowski – Phillips – Schmidt – Shin
LM	: Lagrange Multiplier
LR	: Likelihood Ratio
MI	: Intentions for Migration
OBMigra	: Observatório das Migrações Internacionais
OVV	: Venezuelan Observatory of Violence
PP	: Phillips Perron

SC	: Schwarz Information Criteria
SES	: Socioeconomic status
UK	: United Kingdom
UN	: United Nations
US	: United States of America
V-E	: Value-Expectancy Theory
VAR	: Vector Autoregressive Model



INTRODUCTION

International migration has been an important issue for both originating and receiving countries (Coppel, Dumont, & Visco, 2001). The number of immigrated Venezuelan people has been dramatically increasing in recent years. The purpose of this dissertation is to determine the reasons of Venezuelan immigration and its impact on the economies of the other Latin American Countries. We also aim to make some recommendations for the policy-makers. Within this framework, this study is composed of three chapters.

The immigration issue is such a complex subject that there is no theory providing a satisfactory explanation (EU Commission, 2016). There are different reasons that people emigrate. A migrant simply can be an individual who migrates to another territory, or a refugee who escapes because of several issues, or a job-seeker whose motivation is economic, or a slave who compulsorily migrate (Freidenfelde, 2012). In the first chapter, initially the definition of migration is given. Following this, we focus on the factors of immigration. Afterwards, different economic theories that explain international migration such as Ravenstein's Laws of Migration, Push-Pull Theory, Classical Economic Theory, Neoclassical Economic Theory, Keynesian Theory, Dual Labor Market Theory, Value-Expectancy Theory, The New Economics of Migration Theory, Cumulative Causation Theory, Institutional Theory, World Systems Theory, and Network Theory are introduced. The chapter is concluded by the criticism of all theories.

Venezuela, officially the Bolivarian Republic of Venezuela, is located on the American continent, north of South America. Its border countries are Colombia to the West, Brazil to the South and Guyana to the East. In 1950s and 1960s, the country was among the wealthy countries in the world and had always a really good situation in Latin America. However, this bright picture started to darken since the 1990s and today there exists humanitarian issues. According to the International Organization for Migration more than 3.4 million Venezuelans have fled to other countries in the region and beyond as of 2018 (Doocy, Page, de la Hoz, Spiegel, & Beyrer, 2019). This situation indicates that, in recent years, Venezuelan immigration has turned to be a crucial problem

particularly for the neighbor and geographically closer Latin American countries. Accordingly, Venezuelan economy and the factors that force people to immigrate are examined in the second chapter.

The relationship between Venezuelan immigration and its impact on the economy of host countries are analyzed in the last chapter. Here the host country implies the Latin American Countries that have the highest number of Venezuelan communities such as Colombia, Chile, Peru, Argentina, Ecuador, and Brazil. In this context, the last chapter has two sections. In the first part, a descriptive analysis is carried out to investigate the effect of Venezuelans on the host countries' economies. For this purpose, we compare the number of Venezuelan immigrants with economic growth and unemployment rates of the countries. In the second part, we perform a time series analysis for Colombian labor sector. Employment variable is taken as proxy of the labor sector. The reason we choose Colombia as a representative country in Latin America is the highest number of Venezuelan immigrants and the availability of data. We obtain all the data from Great Integrated Household Surveys (GEIH) of Colombian National Administrative of Statistics. We finalize the study with the results and policy recommendations in the conclusion section.

CHAPTER 1

ECONOMIC DETERMINANTS OF IMMIGRATION

The immigration issue is such a complex subject that there is no theory providing a satisfactory explanation (EU Commission, 2016). For this reason, this section focuses on the economic determinants of the immigration. In this context, first, the definition of migration is given. Afterwards, different economic theories that explain international migration such as Push-Pull Theory, Neoclassical Economic Theory, New Economics of Migration Theory, Segmented Labor Market Theory, World Systems Theory, Double Labor Market Theory, Human Resource Theory, and Network Theory are introduced (Freidenfelde, 2012). The section is concluded by the criticism of all theories.

1. DEFINITION OF MIGRATION

In today's world, every country possesses so many different characteristics. The migration as a term is directly related to these differences. Migration is broadly defined as “a permanent or semipermanent change of residence” (Lee, 1966). There are two concepts in terms of migration: immigration and emigration.

The International Organization for Migration (IOM) defines immigration as “From the perspective of the country of arrival, the act of moving into a country other than one's country of nationality or usual residence, so that the country of destination effectively becomes his or her new country of usual residence.” whereas emigration is defined as “From the perspective of the country of departure, the act of moving from one's country of nationality or usual residence to another country, so that the country of destination effectively becomes his or her new country of usual residence.” (IOM, Key Migration Terms, 2021)

At this point, the definition of migrant should be given since there are several reasons to move to or leave from a country. Accordingly, various migrant definitions are provided as follows (Freidenfelde, 2012): A migrant can be

- ***an individual*** “who migrates to another territory”
- ***a refugee*** “who escapes from political/or religious prosecution”

- **a job-seeker** “who is motivated by economic reasons”
- **a slave** “whose migration is compulsory”
- **a person** “who migrates due to war or natural calamities”.

As it is seen, different motives to change the residence of an individual determine the migrant as a term. Here, the concepts of asylum-seeker and temporary protection are other two crucial terms that should be mentioned before we explain the reasons why people immigrate. According to definition of United Nations (UN), an asylum-seeker is “an individual who is seeking international protection. In countries with individualized procedures, an asylum-seeker is someone whose claim has not yet been finally decided on by the country in which the claim is submitted. Not every asylum-seeker will ultimately be recognized as a refugee, but every refugee was initially an asylum-seeker”, whereas temporary protection refers to “an arrangement or device developed by States to offer protection of a temporary nature to persons arriving *en masse* from situations of conflict or generalized violence, without prior individual status determination. Temporary protection has been mostly used in industrialized States.” (UN, n.d.)

2. IMMIGRATION FACTORS

There are different factors that push people to leave their own lands. It is explicit that these factors or reasons are different for developed and developing countries. Basically, these factors can be grouped into three as economic, sociological, and political reasons. As the conditions worsen, people are more eager to leave their own lands. De Jong & Fawcett (1981) summarize the major motivations related to migration as it is illustrated in the Table 1. Here the strongest motive to move is the economic factors. This motive mostly urges the working age group and males. Another reason is socioeconomic status (SES), particularly for developing countries. Family and friends also affect the decision positively. This factor is one of the important ones especially among women and young adults. The motive about lifestyle preferences is mostly common among retired people looking for a higher status.

Table 1. Major Motives Related to Migration

Major motive for migration categories	Direction of relationship with decision to move	Estimated			Potential migrant groups most affected
		Developing nations	Developed nations		
			Long-distance moves	Short-Distance moves	
Economic motive	Positive	Strong	Strong	Weak	Working ages, males
Social mobility/social status motive	Positive	Moderate	Moderate to weak	Weak	Young adults, lower and middle SES, some families with children
Residential satisfaction motive	Positive (with level of dissatisfaction at area of origin)	Weak	Moderate	Strong	Young families, renters
Motive to maintain community-based social and economic ties	Negative	Strong	Moderate	Moderate	Middle and older ages, clientele and capital-intensive occupational groups
Family and friends affiliation motive	Positive	Strong	Moderate	Moderate to weak	Women; occupational groups not in national labor market; young adults
Motive of attaining life-style preference	positive	Weak	Weak but increasing	Moderate to weak	Retired, higher SES

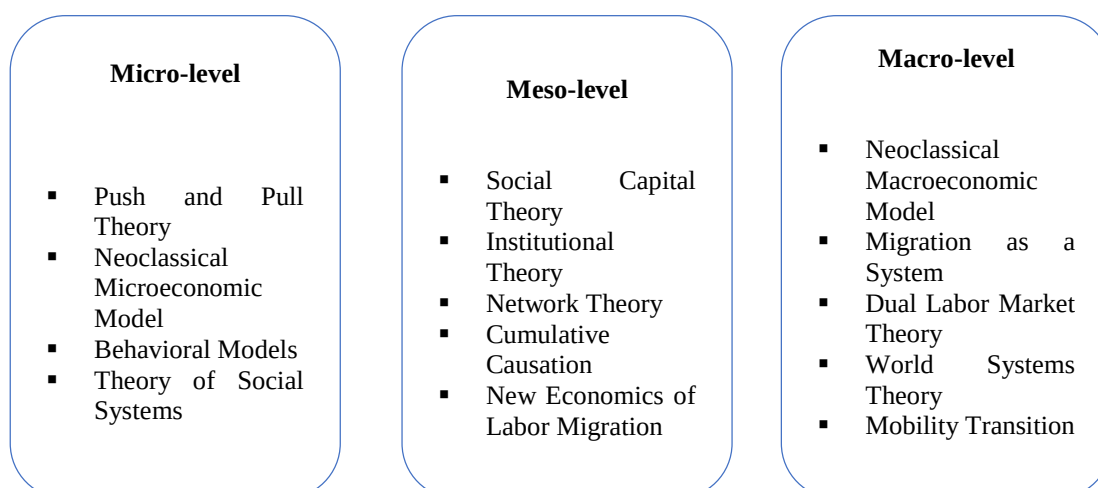
Source: De Jong & Fawcett, 1981, p. 40

The factors in the Table 1 are voluntary migration motives; however, there are involuntary migration motives that force people to move such as wars, political pressures, environmental conditions (drought, flood, fire), etc. Actually, in this context politics invade on migration through wars, deliberate relocation of ethnic minorities, and rigorous measures and controls over immigration (Tilly, 1976).

3. ECONOMIC THEORIES OF IMMIGRATION

The theories of migration can be grouped into three as micro-level, meso-level and macro-level. While micro-level theories mainly focus on individual decision-making process, macro-level theories concentrate on aggregate trends. Meso-level theories stand between these two levels (Hagen-Zanker, 2008). Table 2 illustrates all the theories according to levels they belong to.

Table 2. Theories of Migration



Source: Geçersiz kaynak belirtildi., Geçersiz kaynak belirtildi., (Hagen-Zanker, 2008), (Wickramasinghe & Wimalaratana, 2016)

All these theories can also be categorized according to the suggested disciplines, namely economic, sociologic, cultural, and geographical. Bijak (2006) summarizes all these theories offered by various disciplines as it is shown in Figure 1.

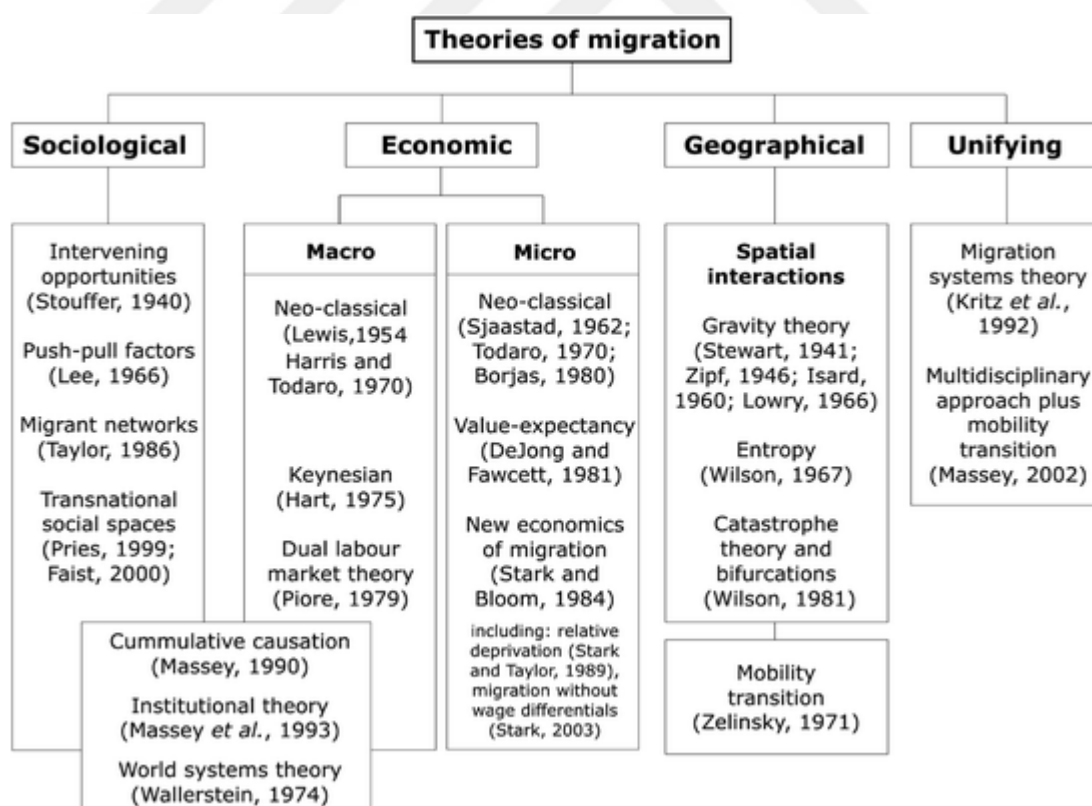


Figure 1. Theories Offered by Different Disciplines

Source: Bijak, 2006, p. 5

Accordingly, this study is focused on the economic theories of migration. However, since sociologic and economic reasons cannot be separated completely, we explain two of these theories. In this context, first Ravenstein's migration rules which form a basis for push pull theory is explained. After that we give information about push pull theory and network theory. Following the sociological theories, economic theories which are, respectively, classical theory, neoclassical theory, Keynesian theory, dual labor market theory, value expectancy and new economics of migration are discussed. Finally, cumulative causation, institutional theory and world systems theory, categorized under both sociological and economic theories are discussed.

3.1. Ravenstein's Laws of Migration

Ravenstein determined migration laws based on 1871 and 1881 United Kingdom (UK) censuses. His studies can be considered as pioneer for the immigration studies. In the second half of the 19th century, the changing conditions through the industrialization in terms of transportation networks and new job opportunities cause people to move to central Europe and North America. This indicates that people started to leave their lands and hometowns to live in better conditions. Ravenstein, in his two studies (1885, 1889) that are entitled "The Laws of Migration", introduced 7 laws. These laws are as follows (Ravenstein, 1885, 1889):

- i. ***Migration and distance:*** He claimed that the majority of the migrants only proceed in short distance. This influences the creation of a displacement of the population in the direction of the great center of commerce. The percentage of the job opportunities in the number of the natives determines the level of the migration. People migrates long distances generally by preference to one of the great centers of commerce or industry (1885, p:198,199)
- ii. ***Migration by stages:*** Through the industrialization and the improvements in the trade, rapid economic growth in terms of urbanization pulls rural population who lives relatively close toward itself. The gaps, which are left by the rural population are filled up by the migrants from more remote districts. And the population who lives close to this area fills up the gaps thus left by migrants from remote districts. So, he points that this is spread to the whole country step by step (1885, p:198,199).

iii. ***Stream and counterstream***: Migrants flow towards specific destination generates a similar flow in the opposite direction (1885, p:199)

iv. ***Urban-rural differences***: The natives of towns are less eager to migrate than the ones in rural areas (1885, p:199).

v. ***Female-male differences***: He claims that females tend to migrate more than males (1885, p:199). Also, according to him, females are predominant among short-journey migrants whereas males are predominant among long-journey migrants (1889, p:288)

vi. ***Economic motivation***: Economic conditions such as bad or oppressive laws, heavy taxation, unattractive climate, etc. cause migration flows (1889, p:286)

vii. ***Technology and migration***: Increase in the means of locomotion and development of manufactures and commerce increase the migration (1889, p:288).

3.2. Push-Pull Theory

It was first introduced by Everett Lee in 1966. In his study, which is entitled “A Theory of Migration”, he refers to Ravenstein’s work and mentions the lack of a new contribution to migration theory in terms of the reasons for migration or the assimilation of the migrant at destination after Ravenstein. He focuses on the factors that lead people to migrate and summarize them under four categories (Lee, 1966). These factors are as follows:

- I. Factors associated with the area of origin
- II. Factors associated with the area of destination
- III. Intervening obstacles
- IV. Personal factors

He illustrates these factors as it seen in Figure 2. According to this in both origin and destination, there are pushing and pulling factors. In this model, 0 indicates neutral situation, whereas (+) and (-) point to positive and negative factors respectively. Positive factors correspond to the pulling and negative factors mean the pushing. Lee mentions that the set of (+)’s and (-)’s should be defined differently for both origin and destination.

According to the theory, there is no absolute push or pull factor, which means that they are personal and relative.

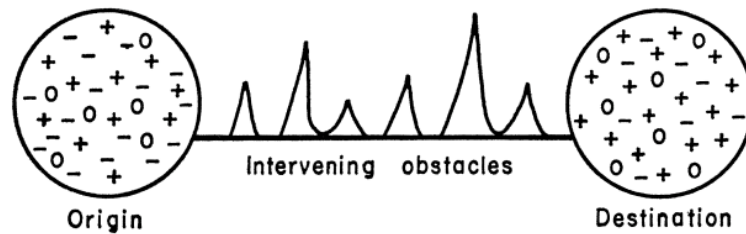


Figure 2. Origin and Destination Factors and Intervening Obstacles in Migration

Source: Lee (1966):50

Lee also says that there are two dimensions of the migration in terms of its determinants. The first one is the micro dimension that depends on the personal factors and the other one which is related to the others that can be defined as macro. Another point that Lee stresses is the intervening obstacles between the origin and destination.

3.3. Classical Economics Theory

In the classical theory, there are two crucial assumptions:

- (i) complete money wage flexibility
- (ii) zero cost assumption

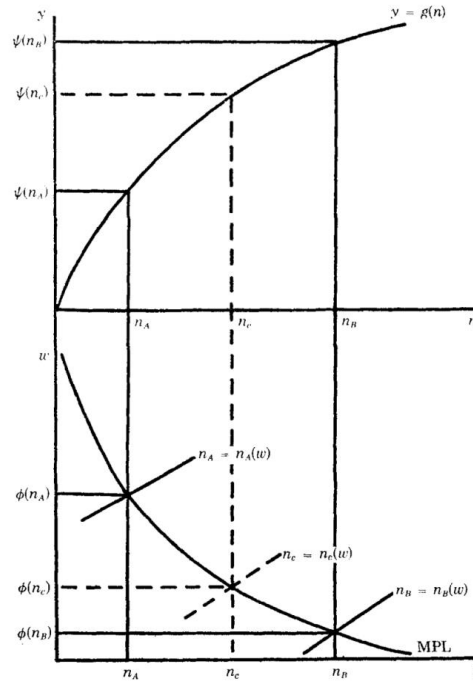


Figure 3. The Effects of Migration Process: The Classical Case

Source: Hart (1975), p. 129

The Figure 3 represents a migration process in the Classical case. It shows the labor migration from state B to state A. n and w indicate respectively the employment and wage rates. The two assumptions of Classical approach ensure that the migration process would continue until at real wage $\phi(n_c)$ where the labor demand and supply are at equilibrium, both within and between states (Hart, 1975).

3.4. Neoclassical Economics Theory

The neoclassical economics theory can be considered as the earliest and best-known theory that explains the migration issue systematically (Massey, et al., 1993). Basically, according to the approach, migration is the result of the geographical differences between labor demand and supply. In this context neoclassical economics theory contains two models, namely macroeconomic and microeconomic model. In this part, two models are explained respectively.

3.4.1. The Macroeconomic Model

According to the macroeconomic model, migrations emerge because of the geographic differences between labor demand and supply. The countries with the labor

surplus pay lower wages; however, the ones that have limited labor market compare to the capital pay high wages. These differences lead labor from the countries with low wages to the ones with high wages. As a result of these movement, the surplus disappears, and wages increase in the capital poor country whereas the wages drop in the capital rich country until the equilibrium point.

Lewis (1954) and Ranis & Fei (1961) argue that international migration is the result of the labor market disequilibrium and wage differences in both developed and developing countries. In this context, this process is the consequence of the endowment differences of labor and capital factors in rich and poor countries that causes labor market equilibrium. This leads labor from poor countries to rich ones. The forecast is that the point where the equilibrium is satisfied, it will cause return migration flows (Robinson, 2005).

3.4.2. The Microeconomic Model

Besides its macro relationships, the neoclassical theory is based on many microeconomic foundations. Its origin is to maximize expected income (utility). The migration of human capital can be considered as an investment decision (Mitze & Reinkowski, 2011). According to the theory, potential migrants make cost-benefit analysis (Massey, et al., 1993) and if the benefits are greater than the costs, they move to another country.”

The focus point in the theory is the individual. To migrate, he/she should invest in terms of moving costs, learning a new language, etc. Therefore, to take an action, the potential destination country should be worthy, which means the one with maximum earning. If the person wants to migrate illegally, he/she should run the risk of imprisonment or to be deported. Neoclassical theory assume that individuals maximize their benefits during the decision-making process.

Massey, et al. (1993) summarize the decision-making process analytically as follows:

$$ER(0) = \int_0^n [P_1(t)P_2(t)Y_d(t) - P_3(t)Y_0(t)]e^{rt}dt - C(0)$$

to zero, the decision-maker is indifference. Accordingly, the person migrates where he/she maximizes his/her earnings.

3.5. Keynesian Theory on Migration

According to Keynesian Theory, labor supply depends on money wage rate, contrary to the neoclassical theory. A new international equilibrium may not exist (Jennissen, 2003). In Figure 4, Hart (1975) illustrates the Keynesian case of

3.5. Keynesian Theory on Migration

According to Keynesian Theory, labor supply depends on money not on real wage, contrary to the neoclassical theory. A new international equilibrium may not be realized (Jennissen, 2003). In Figure 4, Hart (1975) illustrates the Keynesian case of the effect of economic migration.

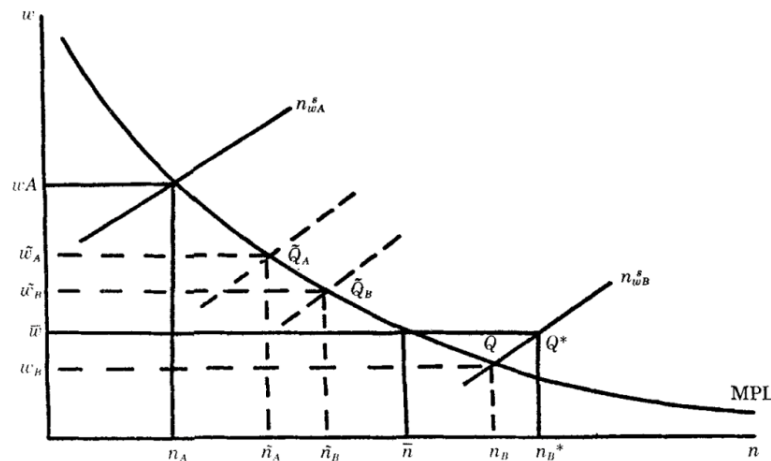


Figure 4. The Effects of Migration - Keynesian Case

Source: Hart (1975), p. 132

Accordingly, national minimum wage ($\bar{w}$) prevents state B from meeting its interregional equilibrium position at Point Q. In this situation, the equilibrium is satisfied at Q^* rather than Q. So that migration from state B to state A occurs for 2 reasons: real

wage advancement and job search (Hart, 1975). In the theory, migration is an equilibrium recovering mechanism where international migration eliminates unemployment differences rather than real wage differences (Jennissen, 2003).

3.6. Dual Labor Market Theory

This theory is focused on the developed country. Piore (1979) mentions that critical factors in understanding migration process lie in the developed area. The dual market theory focuses on the labor demand in the developed world. In developed countries the market is mostly divided into two as capital-intense primary sector and labor-intense secondary sector more explicitly. In these countries, white collar employees mostly would not like to work at blue collar workers' jobs even if they lose their jobs. In this situation, employers who cannot find workers for the unskilled works employ the migrant workers who accept even lower wages. However, these wages are higher than in their origin countries. So that more than pushing factors, pulling factors are important in this theory.

Both neoclassical and new economics models are based on more microeconomic foundations. However, dual labor market theory differs from the other two as follows (Massey, et al., 1993):

- i. International migration is based on demand by developed countries for unskilled works.
- ii. Since the migrant labor demand is a structural situation because of employment policies, international wage differences are neither necessary nor sufficient condition for the movement.
- iii. Even if the number of the migrant labor decreases, the wages wouldn't increase since it is a social and institutional issue.
- iv. In case the number of migrants increases, the wages might decline.
- v. Local governments cannot avoid the international movement. The only way to prevent migration is to change the global economic policies.

3.7. Value-Expectancy (V-E) Theory

This theory is proposed by De Jong & Fawcett (1981). According to them the common core of the value expectancy theory is described by Crawford (1973:54) as

“despite differences in terminology, the expectancy X value behavior theorists all propose that the strength of a tendency to act in a certain way depends on the expectancy that the act will be followed by a given consequence (or goal) and the value of that consequence (or goal) to the individual”

The fundamental elements of the model are goals (values, objectives) and expectancies (subjective probabilities). Accordingly, migration can be formalized as follows:

$$MI = \sum_i V_i E_i$$

The equation implies that the strength of the intentions for migration (MI) is a function of the sum of the value expectancy products. De Jong & Fawcett (1981) summarizes values and goals related to migration as it is shown in Figure 5.

General values/goals	Indicators of values/goals
WEALTH	• Having a high income; stable income • Having economic security in old age • Being able to afford basic needs; some luxuries • Having access to welfare payments and other economic benefits
STATUS	• Having a prestigious job • Being looked up to in the community • Obtaining good education • Having power and influence
COMFORT	• Having an “easy” job • Living in a pleasant community • Having ample leisure time • Having comfortable housing
STIMULATION	• Having fun and excitement • Doing new things • Being able to meet a variety of people • Keeping active and busy
AUTONOMY	• Being economically independent • Being free to say and do what you want • Having privacy • Being on your own
AFFILIATION	• Living near family, friends • Being part of a group/community • Having a lot of friends • Being with spouse/prospective spouse
MORALITY	• Leading virtuous life • Being able to practice religion • Exposing children to good influences • Living in a community with favorable moral climate

Figure 5. Values and Goals Related to Migration

Source: De Jong & Fawcett (1981), p. 50

By taking into consideration the values and expectancies, the person decides to stay or move. De Jong & Fawcett (1981) explains all this process in Figure 6.

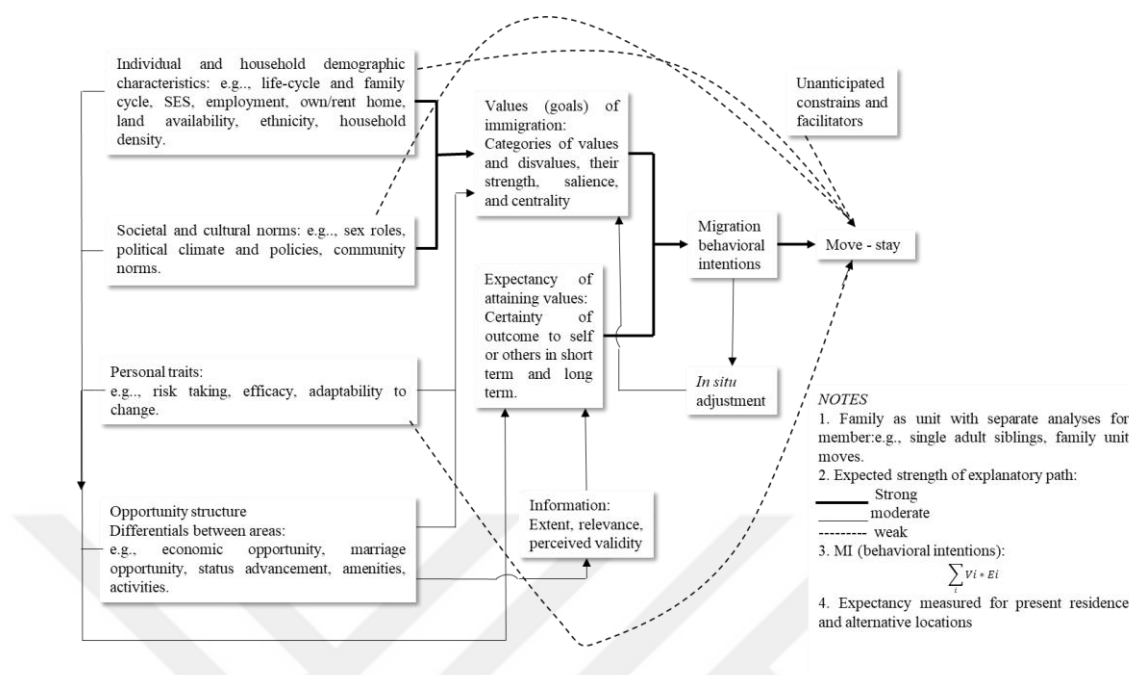


Figure 6. A Value-Expectancy-Based Model of Migration Decision-Making Behavior

Source: De Jong & Fawcett (1981), p. 54

3.8. The New Economics of Migration Theory

Neoclassical models consider only the individual (migrant) him/herself as an economic agent. Neoclassical theory claims that the person makes the decision only by taking into consideration his/her benefits and accepting all the other things equal. This means that any other factor such as family does not play a role on this decision.

Stark & Bloom (1985) contend that decisions on migration are jointly made by the individual and by some other non-migrant groups, particularly household member, and the family. Costs and returns are shared with non-migrants which play a crucial role on the decision. According to new theory, migration of one or more members from a family increase the income and income diversity, which means an assurance for the family. This theory also explains why the family members who has relatively higher income act regarding to migration. The relatively poor members cannot risk their income to migrate so they stay at their own lands and the ones who can afford the costs migrate. Therefore, some members can be in the local economy, while some work in the foreign labor markets where the conditions are better. In case the local economy collapses, the ones outside can support the rest of the family, and this contributes to the local economy.

For instance, according to the Taylor's (1987) empirical study findings, Mexico-US migration generates positive net economic benefits for village economies in Mexico.

This theory argues that wage differences are not the only incentives to migrate. So that migration does not necessarily stop when wage differences are eliminated. This process may continue if the origin country is absent, imperfect, or in equilibria (Massey, et al., 1993).

The new economics of migration theory can be summarized as follows:

- i. Migration research should be based on family, household, or other related actors, not only on the autonomous individual.
- ii. Wage differences are not the only incentive for the international movement. Even if the wages are the same in both countries, risk diversity in a family can be a motivation to migrate.
- iii. Migration movements may contribute to the local economy when there is capital shortage.
- iv. Even though the wage differences are eliminated, international movement may not stop if the disequilibrium or inequality in different markets continues in the sending country.
- v. If the lower-income families don't benefit from government policies, the willingness to migrate may increase.

3.9. Cumulative Causation Theory

The concept of cumulative causation is first introduced by Myrdal (1957) as "circular and cumulative causation" and reintroduced by Massey (1990). The theory focuses on social network dynamics (Fussell, 2010).

The theory explains how the number of leaving migrants raises over time as the first person who provides social capital to his environment in the origin country. So that this creates an effect on the people who wants to migrate. Therefore, as it is seen, it leads to the cumulative causation of migration (Massey D. S., 1990). This theory could be grouped under the System Theory and/or Network Theory (Wickramasinghe & Wimalaratana, 2016).

3.10. Institutional Theory

According to the Institutional theory, migrant networks continue themselves through institutionalization, however, at the same time, they are affected by the exogenous factors such as changes in the labor market. The theory assumes that some other factors such as private institutions and voluntary organizations who support the migrant movements also influence the migration process.

In this context, international migration creates new legal and illegal industries such as human trafficking, transportation, etc. These institutions generally operate beyond government control and the governments have difficulties to regulate them (Massey, et al., 1993).

3.11. World Systems Theory

It is first introduced by Wallerstein in 1974. The theory sees the migration as a natural consequence of economic globalization (Wallerstein, 1974) and it follows the dynamics of the market. So that it is the natural outcome of capitalism. Wallerstein argues that the reason of the international migration is not the dual market structure in national economies but expanding the global market since the sixteenth century. According to the theory, when the capital networks in the center starts to infiltrate to peripheral economies, the community there proceeds to migrate. Eventually the control of the raw materials and labor pass from the peripheral countries to the central ones.

The theory stems from Marxist political economy and emphasizes the unequal economic and political power distribution of the global economy (Castles & Miller, 1998).

In conclusion the theory is based on the following principals (Massey, et al., 1993; Jennisen, 2007):

- i. International migration is a natural outcome of the globalization in the developing countries.
- ii. By the penetration of capitalism to peripheral countries, while the big companies survive, small and medium size enterprises disappear. Therefore, the people who lose their jobs migrate to city centers or abroad.

- iii. The penetration of capitalist world to peripheral countries is a natural process. The search for cheaper labor force by capitalist environment increases the international migration.
- iv. International labor flow has a negative effect on the flow of international goods and capital.
- v. To prevent international migration, the only way is the government control on foreign investments and multinational companies' financial activities.
- vi. To protect the cross-border investments, capitalist economies produce refugee movements when there is a failure through political and military interventions. This is another factor that feeds the international migration.
- vii. There is a causal relationship between trade of weaker economies with advanced economies and economic stagnation, resulting in deterioration of living conditions.

3.12. Migrant Network Theory

Massey, et al. (1993) define migrant networks as “sets of international ties that connect migrants, former migrants, and nonimmigrants in origin and destination areas through ties of kinship, friendship, and shared community origin.” According to Taylor (2006) international migration decisions depend on what other people do. The migrant behavior is also affected by the networks created through close environment, particularly family. These kinds of networks decline the economic costs and risks that a migrant could face.

The principles of Network Theory can be summarized as follows:

- i. Migrant networks keep alive the willingness to migrate through incentives.
- ii. The wage differences between two potential destinations lose its significance since the migrant networks reduce the costs and risk. Mostly, when the migrant has a connection in the destination country, he/she feels more comfortable and adapt easier.
- iii. The connections at the destination country serve as current information channel about the opportunities and regulations for the potential migrants.

- iv. Once the network among migrants set, it is difficult for governments to control it.
- v. Reunification policies strengthen more than migrant relation networks since they give special rights to family members in the origin country.
- vi. As the migrant relation networks tighten, the socio-economic reasons of migration start to become indistinct.

4. CRITISIZM OF THE THEORIES

The field of migration studies various aspects of migration. Some of these include the origins of the movement, its directionality and continuity, and its utilization by immigrant labor. There are various theories that deal with these topics. Developing a theory that explains the various aspects of migration is the ultimate goal of any research project. Most studies that deal with migration research are typically not focused on theoretical advancement.

There are things that one can find in all of the theories and it's far that they count on that migration is continually generated from bad financial situation countries to wealthy nations and that they don't make any difference among nations of starting place or among host nations, or the various migrants themselves. Additionally, assuming on this manner that all the migrants represent homogeneous groups with homogeneous characteristics. Of course, there are specific criticisms for every theory in terms of their flaws. For example, a few criticisms related to some of the migration theories are shown as follows:

The pull-push theory does not seem to sufficiently consider or refer to the different historical, social, cultural, or political concepts. It does not explain why one place is more successful as a destination than another and it also assumes that the migrant can have access to reliable information about the destination. Regarding to the classic or neoclassical economy, the model does not give a chance for another explanation but the economic one, and it cannot explain the reason why there are countries sharing similar characteristics while they show differences related to their migration rates.

The new economics of migration theory focuses on the circumstances that force people to move from their places of origin, while all the weight of the migratory project

is put in the family. The return of the person who migrates is also assumed, while it is not the reality in most of the cases. In addition, the world systems theory assumes that the only cause to explain migration is structural inequality, and it doesn't take into account any other. In any case, this is not a proposed theory to explain migratory movements. And finally, the migrant network theory vaguely clarifies why there is more migration towards those places where there are already people from the same place of origin. It does not explain why a person can decide to start a journey to an unknown place with the certainty that everybody will be a stranger.

As mentioned at the beginning of this chapter, there is no theory that can explain migratory flows. And while it is true that human beings have migrated since ancient times, it is also true that the reasons that move them constantly change, and new ones appear. This creates the need for advanced and detailed studies on the subject.

CHAPTER 2

VENEZUELAN ECONOMY AND IMMIGRATION

Venezuela is a country with a short immigration tradition, and it could be easy to imagine that it is common to find people abroad who think the country is one of the richest in the world. At some point we could agree with some of these ideas, but the truth is that Venezuela is not a rich country at all. In this nation, there can be found amazing quantities of natural and mineral resources, great people with lots of potential, an extraordinary geopolitical location. However, it is sadly rated as one of the poorest countries with leading criminality rates, a low economic development, and an impressive exodus of its inhabitants, among other issues. It could be thought as if there was a war conflict going on there since war conditions could only explain such a disastrous situation. The explanation in the end is not that simple. In Venezuela, there exist different and various factors that together make this answer difficult to find out. These circumstances can obviously be classified as political, social and economic factors. But to link them in order to find any logical outcome is not an easy task, in fact it is a phenomenon without precedents.

It is a fact that there are political and economic problems in every country, and it doesn't necessarily mean that millions of people will fly away leaving everything behind at any cost. However, in Venezuela it is exactly what has been happening and to understand the situation, it is necessary to evaluate multiple factors. In any case, every story should be told from the beginning even though an end wouldn't be foreseeable in the immediate future for Venezuela.

In this context, this section first gives information about Venezuela and evolution of migration. After that we focus on the main reasons that cause people to move other countries.

1. VENEZUELA AND ITS MIGRATION HISTORY

The Bolivarian Republic of Venezuela is located on the northern cost of South America, and it has a territorial extension of 916,445 square kilometers. According to

the World Bank data, its population is estimated as 28,435,943 people in 2020. Figure 7 demonstrates the population trend in Venezuela for the years between 1990 and 2020. Venezuela shares borders with Colombia, Brazil, and Guyana. The northern border of the country is defined by the Caribbean Sea.

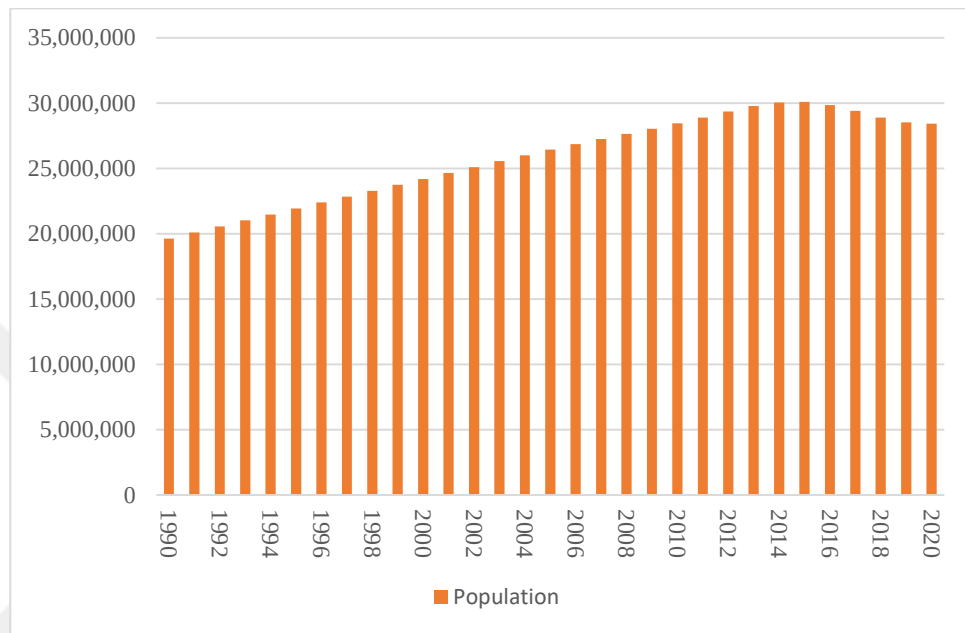


Figure 7. Population in Venezuela

Source: Author's own construction by using the data from (The World Bank, 2021)

In 1522 this territory was occupied by the Spanish Empire, and this continued until 1830 when it gained its full sovereignty as a country. However, after the independence war the country was devastated, and its population decimated. During the 19th century José Antonio Páez promoted and during his presidency there was a Canarian immigration to Venezuela particularly in the 1830s. In 1840, Agustín Codazzi encouraged a German immigration. Despite of the new immigration policies implemented the flow of immigrants was very poor. The period between 1830 and 1920 was characterized by instability, accompanied by constant uprisings and civil wars. There was no real economic development (Alvarez de Flores, 2006/2007).

In 1920, oil was discovered and at the same time its exploitation began. This generated a change in the demographic behavior and first foreign companies were established promoting immigration from abroad. Oil became the main source of income for the country transforming the model of traditional rural society into urban modern. In

the period from 1945 until the end of the sixties, Venezuela kept changing its immigration pattern. A good number of European people arrived fleeing from war conflicts or other social, economic, and political issues. The greatest attraction they found in Venezuela was stability, the absence of conflicts and the development process at all levels. Between the 1960s and the 1970s, the number of South American immigrants, especially Colombians, became attracted for the great opportunities generated by oil, which increased the possibility of obtaining higher income than in their native country. Between 1973 and 1983, oil prices rose and produced prosperity in Venezuela. At the same time there were political crises and military dictatorships in Bolivia, Chile, Argentina, and Uruguay. In these countries, the quality of employment was impaired, which stimulated the migration of qualified people to Venezuela. Up to that moment, the migratory behavior of Venezuelans was not considered significant. Although mobility to other countries could be observed, its character was not definitive. The usual reason, for example, was to go to another country to receive technical training or academic education, and then return to contribute to the development of the country (Vargas Ribas, 2018).

In 1983, Venezuela experienced an economic crisis after the oil prices fall. Following the years of prosperity, Venezuelans had to face scarcity of goods and services, currency devaluation, instability, and uncertainty. However, from the 1980s on, Venezuela took an important turn in its migratory patterns, the country was experiencing a political and economic crisis that had a negative impact on the migrant movements from abroad, the return of some foreigners residing in Venezuela, and subsequently promoted the immigration of Venezuelans, affected by the effects of the economic recession and social decomposition, which increased in the following decade. Until then, international Venezuelan immigration was reduced to study trips and return, and some sporadic cases that had to do with individual circumstances, but they are statistically insignificant (Castillo Crasto & Reguant Álvarez, 2017).

In 1994 there was a financial crash that triggered the distrust in the future of Venezuela and promoted the decision for many Venezuelans to emigrate from the country to be able to protect their capital.

Hugo Chavez was elected as president in 1999. Consequently, the departure of a part of the population was accentuated and, in parallel, an unprecedented immigration

process began. That is, the emigration of Venezuelans coexists with immigration led by the revolutionary government to attract of original Cuban, Syrian, Russian and Chinese citizens who occupied important positions in different areas of the country (Paez, 2017), (Perez & Phelan, 2018).

In the 21st century, the regime has promoted another type of immigration, more associated with interest of the governing party, coming from countries whose regimes make them allies: Cuba, China and Middle Eastern countries. The opacity of the information, which is not exclusive to this area, prevents asserting with certainty the real number of citizens of those countries that today live in Venezuela. In the case of the Cubans, it is estimated to be in the tens of thousands (Paez, 2014).

In the 2000s Venezuela began with deficiencies and emigration of all type, including engineers, scientists, technicians, academicians, health professionals, businessmen and athletes. This period is considered the turning point, which serves to explain the Venezuelan migration process, which will have a considerable growth with respect to the previous stage (Vargas Ribas, 2018).

Chavez ruled the country from 1999 to 2013 when he died, and those periods are mostly characterized by political ideologization, the imposition of an exchange control that lasts until the present, a false war against capitalism, expropriations, a crisis of governance, economic and development policies that were never implemented, the deterioration of the productive apparatus and infrastructure, corruption, persecution and exclusion, homicides, impunity, drug trafficking and insecurity, which encouraged the process of immigration.

Immediately after Chavez died, Nicolas Maduro took the power. Maduro continued and deepened the same political model. His government has by far proven to be incapable to apply policies to assure not even a slight quality life improvement but on the contrary high rates of unemployment, hyperinflation, poverty, shortages, crime, and violence. Moreover, the country with the biggest proven oil reserves in the world has not been extracting it since 2020 when the last oil rig stopped. Nowadays Venezuela has unbelievably been importing fuel.

The unavoidable end for a social disaster has evolved at some stage in the dire economic situations Venezuela has long past into because of a steep decline in oil charges meaning the hydrocarbon area manufacturing debts for ninety-six percentage of its exports. The existing condition has significantly contributed to a dramatic drop in imports that make up maximum of the client items withinside the country, significantly shrinking meals staples, starting from persistent shortages to full-scale scarcity, main to life-threatening absence of remedies for chronically and terminally sick patients. These are the results of a central authority coverage that favors paying off its money owed earlier than responding to the country's simple needs. (Puerta Riera, 2018).

During the second decade of socialism in the 21st century, a great number of people have left the country looking for opportunities that they could only imagine if they stayed at home. Currently, Venezuela is a country of broken families and citizens who have suffered without exception due to a multidimensional problem at all levels of society. This is why it becomes impossible to attribute the causes of immigration to specific factors or individuals.

Since 2013, when the economic situation deteriorated and the internal political confrontation became more acute as the country slid into autocratic rule, the number of Venezuelans leaving the country increased. Their social profile also changed: now the exodus goes beyond the middle class to include the less wealthy (Vivas Peñalver & Paez, 2017).

In conclusion, the answer for the question regarding why Venezuelans decide to emigrate is the combination of the perspective of improvement with bad conditions of the situation that they lived in their country of origin. In the interviews with Venezuelans, people mostly mention the search for new opportunities, their poor living conditions, the disastrous economic situation, and the insecurity (Castillo Crasto & Reguant Álvarez, 2017).

2. THE FACTORS OF VENEZUELAN EMIGRATION

The factors why Venezuelans emigrate could be groups into two as economic and social reasons. In this part of the study, we initially investigate the economic factors and

give information about the main indicators of the country. Following the economic factors, we focus on the social factors particularly criminality and violence.

2.1. Economic Factors

In this section, we primarily examine the main economic indicators, respectively GDP growth, unemployment, inflation, interest rates, exchange rates, current account balance, and government budget. In addition to indicators, poverty and scarcity are discussed in this part.

2.1.1 GDP Growth

Gross Domestic Product (GDP) measures the total value of all final goods and services that are produced within the borders of the country in a one-year period (Colander, 2013, p. 141) and GDP growth refers to increase in the real GDP. GDP growth rates fluctuates in Venezuela as it is seen Figure 8. All the data after 2018 are the estimate values of IMF.

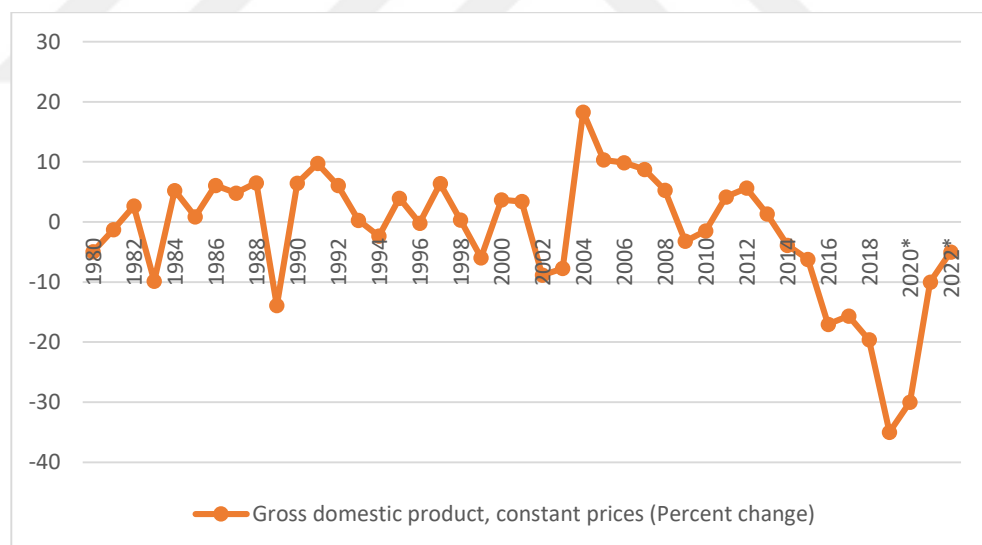


Figure 8. Gross Domestic Product, constant prices (percentage change)

Source: Author's own construction by using IMF data

Since 2012, Venezuela is in recession and as of 2014 it has only negative growth rate. In 2019 the country experienced the most severe negative growth rate by – 35%. It can be said that a contracted economy is one the main reasons that people leave the country.

2.1.2. Unemployment

Unemployment in Venezuela has been a growing problem for decades and has been accentuated in recent years. The economic recession drives unemployment due to business closures and reduced production. Therefore, there are fewer jobs available.

This is coupled with dismissals due to political discrimination, reduction of personnel in the centralized and decentralized administration, massive dismissals in state companies, autonomous institutes and regional development agencies. Another phenomenon that appears as a consequence is the excessive increase in the number of people who become part of the informal economy. In the end the government past from being a supervisory state to a monopoly state.

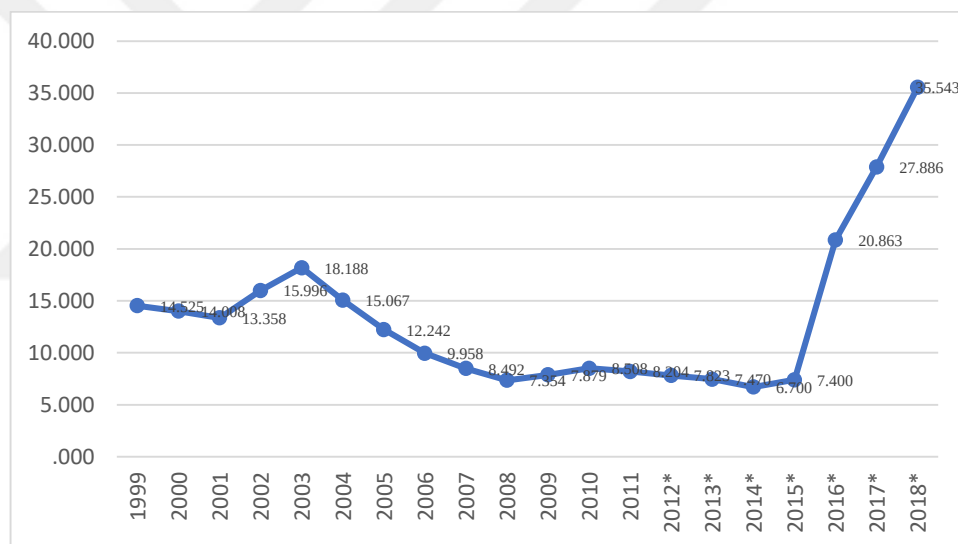


Figure 9. Unemployment Rate in Venezuela

Source: Author's own construction by using the data of (International Monetary Fund, 2021)

* indicates estimation

As it is seen Figure 9, according to IMF database unemployment rates jumped to 35,5% in 2018. All the data after 2011 is estimation and there is no available data after 2018 about unemployment rate. Statistics differ in different databases, for instance according to Economic Commission for Latin America and the Caribbean (ECLAC) / International Labor Organization (ILO) report, average annual national open unemployment rate in 2018 is 6,8% (ECLAC/ILO, 2020, p. 50). However, in this report also there is no available data for Venezuela after 2018.

The reason of the unavailability of the data could be the size of the informal sector. According to Ramoni Perazzi et al (2017), 47.8% of the employment of workers seeking jobs is informal for the years between 2012 and 2013 (Figure 10). Although there is no official data, it is well known that this percentage is much higher nowadays.

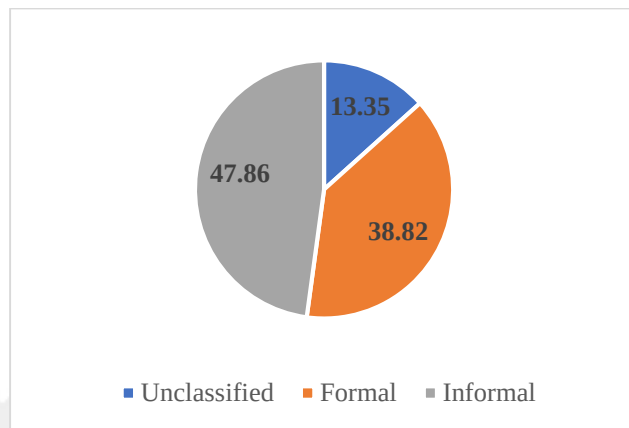


Figure 10. Formal and Informal Sector Employment of Workers Seeking Jobs in 2012-2013

Source: (Ramoni Perazzi, Orlandoni Merli, Prasad Sinha, Torres Rivas, & Zambrano, 2017, p. 247)

In Bloomberg news page the situation in Venezuela is compared to a civil war situation (Biller & Lava, 2019). The Figure 11 shows how Venezuela is experiencing a war economy and how it affects the unemployment rates.

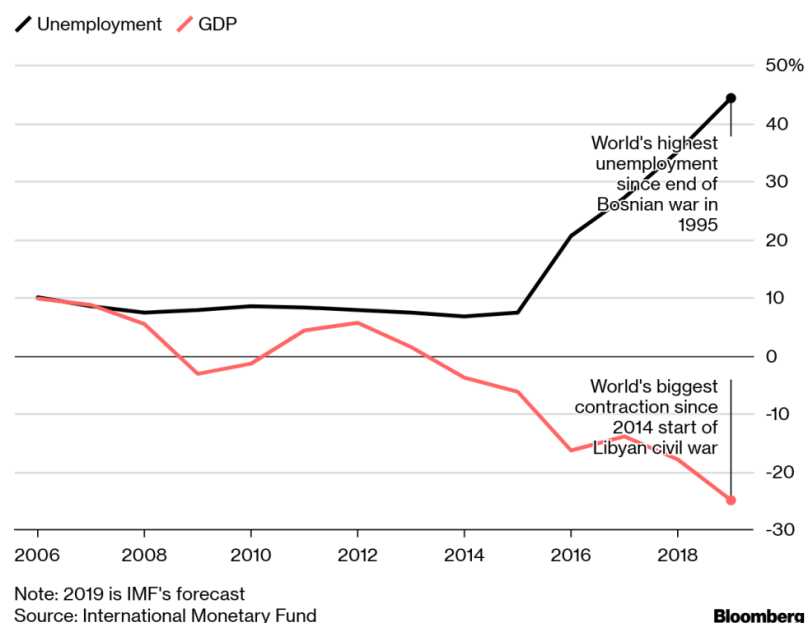


Figure 11. Venezuela's economy as a wartime economy

Source: (Biller & Lava, 2019)

For the people who want to progress and build a future, the lack of opportunities in Venezuela force them to look for new alternatives to earn money to satisfy their minimum needs. That means to emigrate or to find out a source of income at any cost. For others it means to survive outside the law.

Regrettably, to find trustable official statistics for the recent years is very problematic. According to the news of El Nacional, Venezuela registers an unemployment rate of 58.3% in 2020 and so far in 2021, representing the highest figure in the world. The manufacturing sector is the most affected, since in 1999 there were 11,138 industries, but that figure fell into free fall and in 2020 there were only 2,121 operating, while from 600,000 businesses that were last year, only 2,000 remain. It should be noted that the Venezuelan crisis is even reflected in the fact that the few companies that are in operation do so at only 30% of their capacity (El Nacional, 2021).

2.1.3. Inflation

Inflation as a serious issue started particularly after 2014. The hyperinflation in Venezuela is much more severe than the similar countries who experienced hyperinflation before such as Zimbabwe. Inflation rate in 2018 reached to 65,374%. Since it is hard to demonstrate inflation rate time series data in just one graph, we use log linear scale in the Figure 12. This situation depreciated Venezuelan currency (Bolívar). It should be mentioned that Venezuela removed 14 zero from its currency in last 13 years¹. Today, there is a high dollarization in the country. Although the use of dollar is forbidden, practically the value of everything is determined through dollars. Therefore, people who earn Bolívars cannot survive and the incentive to flee from the country increases.

¹ 2008: three zeros eliminated, 2018: five zeros, 2021: 6 zeros

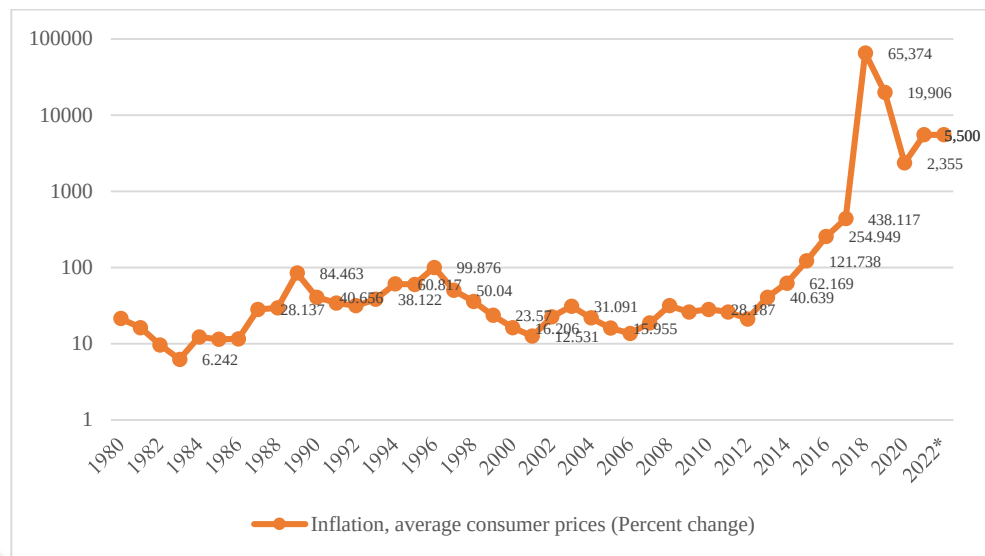


Figure 12. Inflation Rates in Venezuela (log-linear scale)

Source: Author's construction by using the data of (International Monetary Fund, 2021)

2.1.4. Financial statistics

According to the exchange rate classification made by IMF, Venezuela is not grouped in any of the exchange rate arrangements. In the annual report 2021, it is classified in “other managed arrangements” and as a monetary framework, it is also grouped under “other”. So, there is no separate legal tender, no currency board, no conventional peg, no stabilized arrangement, no crawling peg, no crawl-like arrangement, or no pegged exchange rate within horizontal bands. There is also no exchange rate anchor, no monetary aggregate target, or no inflation targeting framework. IMF reports that Venezuela is one of the several countries who adopted new methods for calculating their official exchange rate during 2019-20 (International Monetary Fund. Monetary and Capital Markets Department, 2021).

In Venezuela, the government has control on foreign currency, specifically on American dollars. Due to the wrong policies, inflation increases exponentially as it is mentioned before and most of the goods consumed in the country are imported. Therefore, more people want to buy dollars. The supply is limited, and it creates the parallel market. As inflation increases and the national currency loses its value more people want to buy dollars. They simply don't trust their Bolivar value, so they buy dollars to keep their money. However, the dollar supply of the parallel market is also limited. So as the demand

increases, the selling price does as well (DolarToday, n.d.). It should be mentioned that only the government has access to dollars in official way and sadly the government manages the parallel market through corrupted networks. In that way they buy cheap and sell expensive. Figure 13 illustrates the bolivar/dolar exchange rate in parallel market and official market. Monitor and DolarToday demonstrate the rates in parallel market whereas Central Bank of Venezuela shows the official rates.

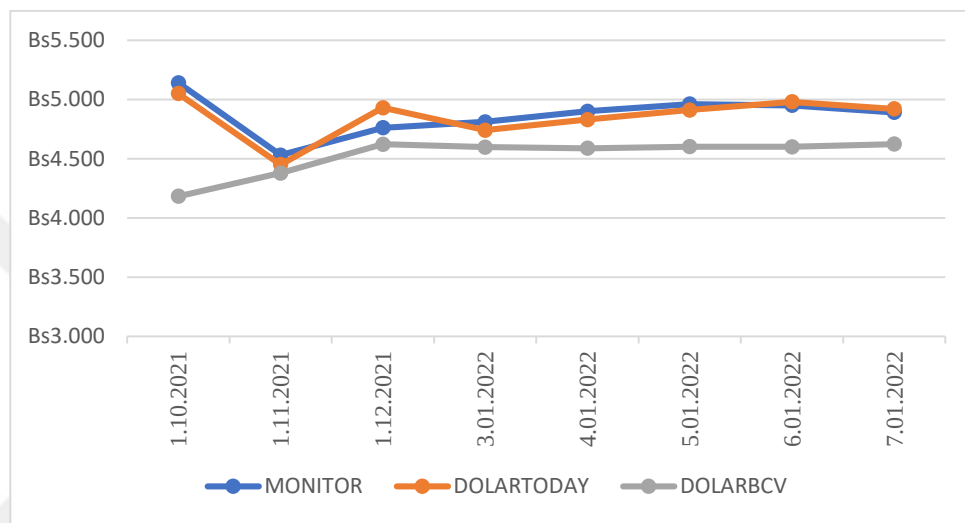


Figure 13. Bs/Dollar Exchange Rate in Parallel Markets and Official Market in Venezuela

Source: Author's own construction by using the data of (Banco Central de Venezuela (BCV), n.d.), (Monitor Dolar Vzla, n.d.), (Dolar Today, tarih yok)

Figure 14 depicts the interest rates of biggest banks in Venezuela. In 2000s, interest rates are lower than 1990s. However, the dynamics inside the country prevent us to make a proper comment about the financial system.

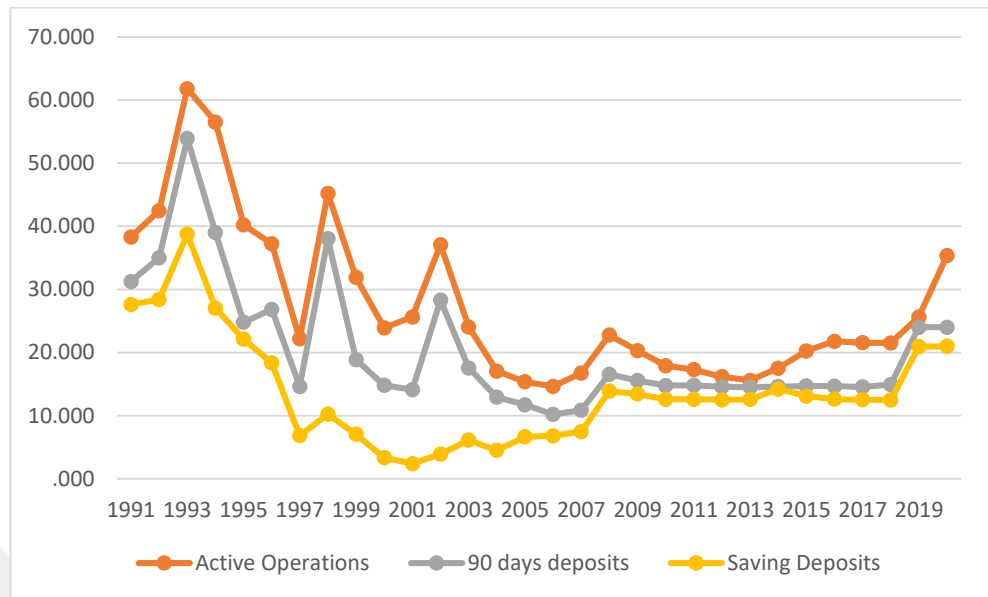


Figure 14. Interest Rates

Source: Author's own construction (Banco Central de Venezuela, n.d.)

As it seen, all these financial instabilities are also an important factor to encourage people to leave their own country.

2.1.5. International Trade

Venezuela is a country that mainly exports crude petroleum. However, crude oil production in Venezuela decreased in years. In the mid of 2020, the production almost stopped (Figure 15).



Figure 15. Crude Oil Production in Venezuela between 2012 and 2022 (1000 barrels per day).

Source: (Trading Economics, n.d.)

This situation reflected in total exports, in 2020 the percentage change in volume of exports of goods and services was -48.13%. The increase in imported goods is another reason for the hyperinflation and instability. The current situation is another factor that affects people to emigrate.

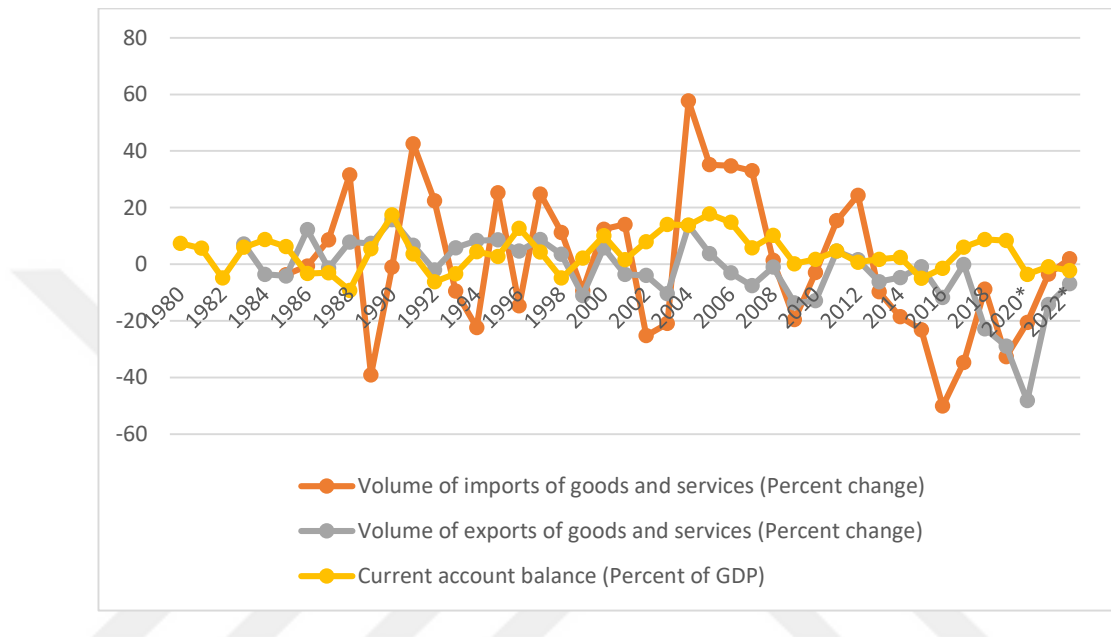


Figure 16. International Trade

Source: Author's own construction by using the data of (International Monetary Fund, 2021)

2.1.6. Government Budget

Government expenditure has been more than government revenue since 2006 (Figure 17). Particularly, as a result of populist policies, government expenditures increased considerably, which ended up with hyperinflation. Sadly, implemented expandatory policies has never been enough to keep its own citizens since economic and social standards has been worsened.

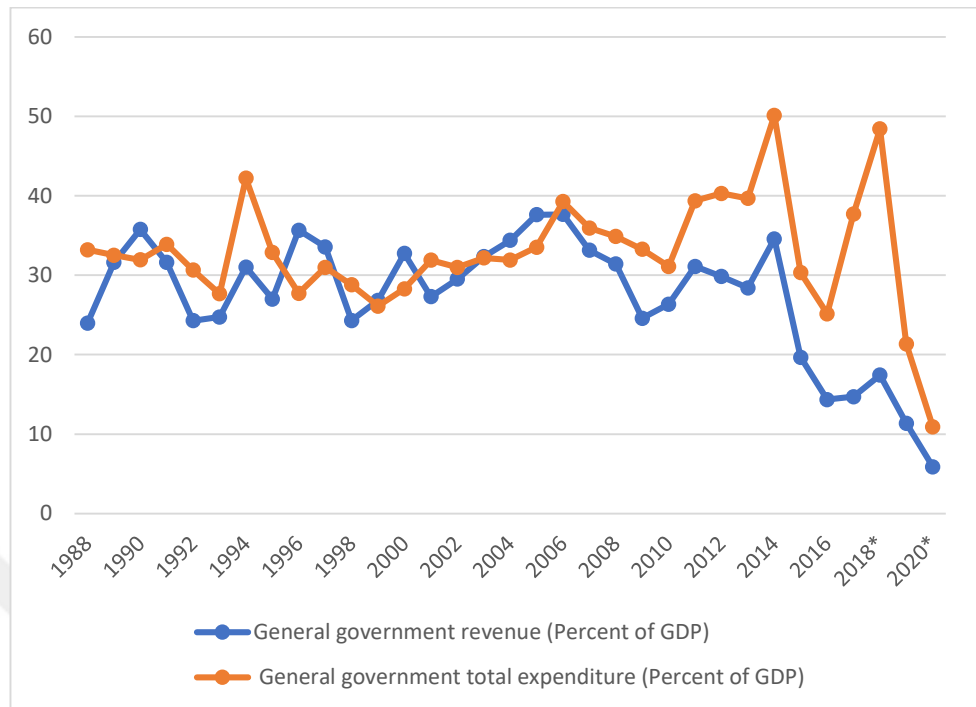


Figure 17. Government Budget in Venezuela

Source: Author's own construction by using the data of (International Monetary Fund, 2021)

2.1.7. Poverty

According to World Bank data in 2015 that is the last available data, 33,1% of the population lived below the national poverty line (Figure 18). However, it is well known that Venezuela in the last five years contracted 60 percent, which generated a humanitarian crisis. In the country, nowadays around a percentage of between 80 and 90 % of the population lives in levels of extreme poverty, health problems and the humanitarian crisis (Werner, 2020).

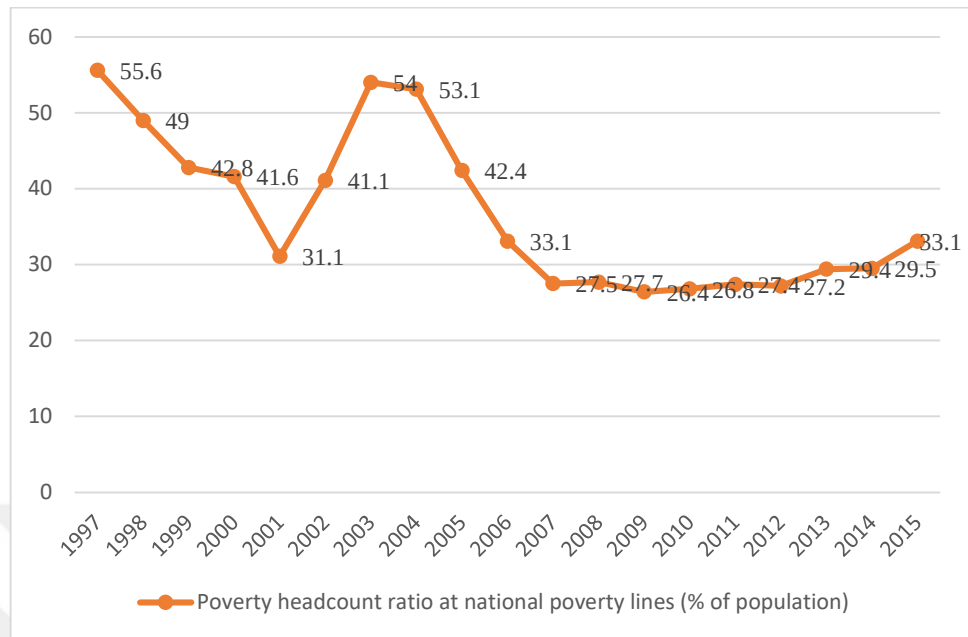


Figure 18. Poverty headcount ratio at national poverty lines (% of population) - Venezuela, RB

Source: (The World Bank, 2022)

As it is mentioned before, there is an extreme dollarization in the country that causes every product to be priced through dollar. However, people do not earn in dollars. The Figure 19 demonstrates the monthly minimum wages in selected Latin American countries. In Venezuela, the equivalence of monthly minimum wage was \$1 in 2021. It recently increased to around \$2,18 in 2022 (Bloomberg, 2022)), which people can buy only a kilo cheese and a liter of milk (Mercado Libre, 2022). These surviving conditions are one of the main reasons that force people to try finding ways to flee from Venezuela.

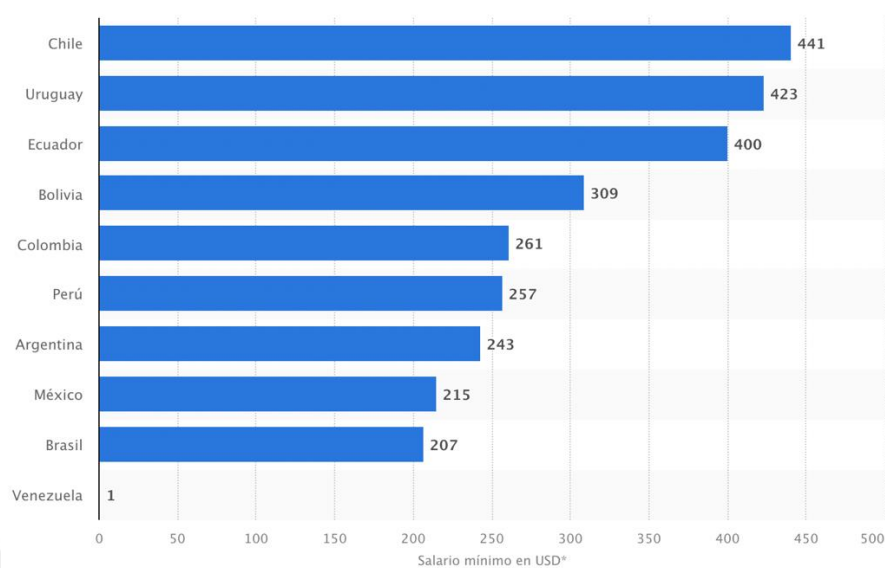


Figure 19. Monthly Minimum Wage in Selected Latin American Countries (in dollars)

Source: (Statista, 2021)

2.1.7. Shortages

In Venezuela, the concept of scarcity took hold and developed from the measures taken by the Venezuelan governments such as exchange control, price controls, factories closings, expropriations, corruption, lack of investment and development. The Venezuelan economy has historically depended mostly on oil. Therefore, most of the products, even the basic ones, have been imported. With the fall in oil prices and the embezzlement of the national currency, it has become very difficult to satisfy the internal needs.

Most of the food industry in Venezuela belongs to the government, which has been noted for its managerial incompetence. The low-income people spend several hours a day to get the basic supplies for their family group every day. It is so that queuing has become a paid job. There are mafias that control the distribution, smuggling or hoarding of food and basic products. This keeps people trying to figure out where is a particular good going to be sold in town. However, it's not just basic products that are in short supply. It is also difficult to find medicines, prostheses, medical equipment, machinery spare parts, stationery, electronic technology, fuels and lubricants, electrical power, water, cement, rods, and finally, almost anything that is necessary. According to El Pais

news, Venezuelan Pharmaceutical Federation (La Federación Farmacéutica Venezolana) estimated that eight of every ten medicines were not available in 2018 (El Pais, 2018)

This situation has become so serious that it forced to declare a humanitarian crisis in Venezuela and moved many organizations around the world to try to help the Venezuelan people.

2.2. Social Factors

The main social factor in Venezuela for people to emigrate is crime and violence. There are different criminal organizations. One of these groups is called “Los Colectivos” (collectives). They were civilians supposedly trained and armed to protect and defend the process and the revolution during Chavez government. Their original objective was to control the civilians in case of protests. However, it turned to a situation that many of them conduct kidnapping, attacks against individuals, extortion, drug trafficking and assassinations. According to a survey (La II Encuesta) conducted for 3500 households, people think that government is responsible of the organized crime by selling weapons to “los Colectivos” to so called control the prisons (Cardona, 2016, p. 69)

Another criminal organization is called “Pranato” (Bartolomé, 2017). A “pran” is a Prison Kingpin. They are criminals who rule in a state and direct most of the criminal activities in the region where the prison is assigned. They have power, money and weapons and can decide who can work, who has to pay and how much, who has to work for them and who must die. There are unofficial versions linking them to the government.

One could think about where the army, navy, air force, national guards, police, and special armed forces of the country are. The situation is unfortunately pretty complex. Not only they are allied with the regime, but they are also subject to US sanctions due to their involvement in human rights violations and illegal activities, which have been carried out by the government. Since some of the military's officials have been issued with arrest warrants, the regime's supporters are thinking of ways to stay in power (Puerta Riera M. , 2017, p. 177).

In the meantime, the citizens have to deal with the insecurity and violence every day. There are other criminal groups and gangs, paramilitary groups, guerilla, narcs and

freelance criminals all around the country. What reveals a permanent state of survival for all the decent people who represent the defenseless majority.

Despite of the censorship imposed by the government in terms of crime and violence, still multiple local and foreign agencies manage to follow as close as possible the Venezuelan reality. As it is seen in the Figure 20, the rise in homicide rates has been growing up almost in every year of the revolutionary process. There are important years that are not shown in the graphic but still the unofficial numbers are scary.

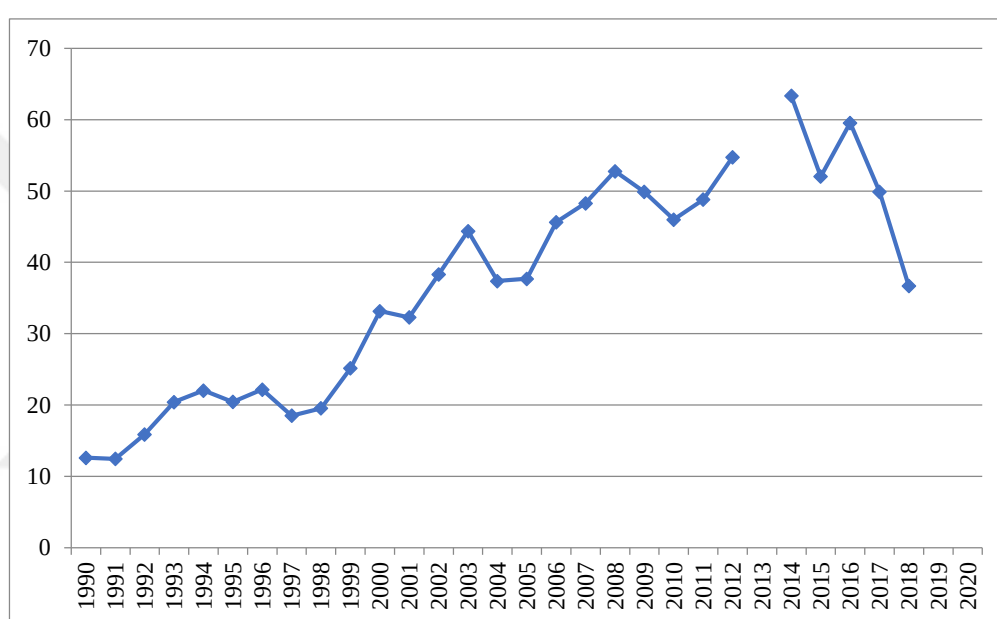


Figure 20. Intentional homicides (per 100,000 people) in Venezuela

Source 1 (The World Bank, 2021)

According to the Venezuelan Observatory of Violence (OVV) in 2020 two epidemics hit the country, the COVID-19 and the violence. During this year, violence was 11 times more lethal than the virus. This year closes with an estimate of at least 11,891 deaths and a rate of 45.6 violent deaths per 100,000 inhabitants. In 2020, there were 4,153 homicides committed by criminals, for a rate of 15.9 victims per 100,000 inhabitants. There were 4,231 deaths classified by the authorities as resistance to authority, with a rate of 16.2 victims per 100,000 inhabitants. And it is estimated that there were at least 3,507 deaths of undetermined intent, and 13.4 victims per 100,000 inhabitants (Observatorio Venezolano de Violencia - OVV, 2020). Furthermore,

according to Statista, among the most dangerous ten cities in the world, Venezuela has two cities (Figure 21).

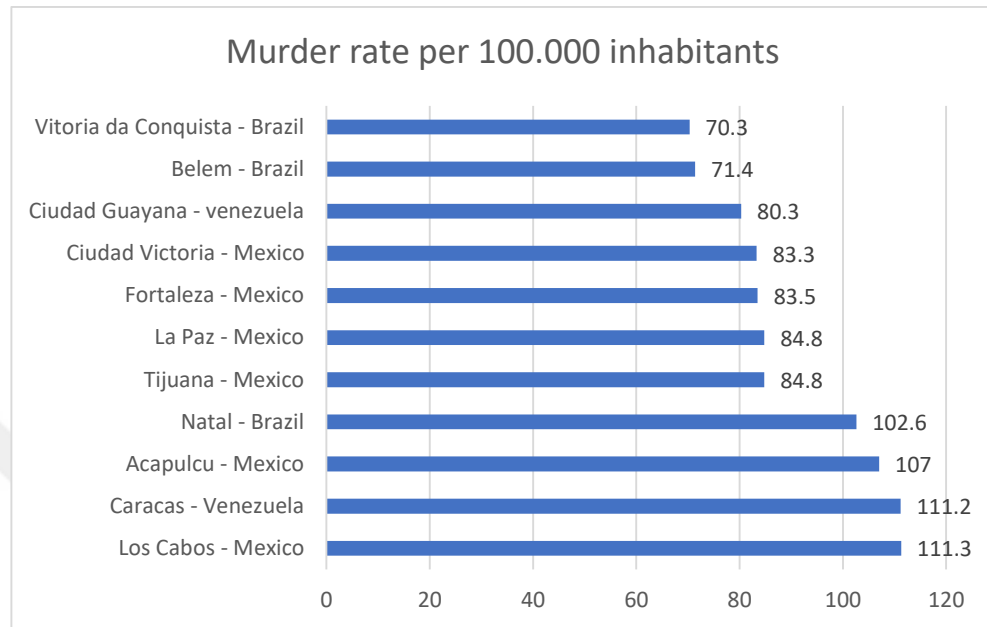


Figure 21. The Most Dangerous Ten Cities in the World in 2020

Source: (Statista, 2022)

All these high criminality rates and consequently the feeling of living in an unsafe place are additional and critical motives for people to flee from the country. (Téllez Acosta, 2018) carried out an analysis of the hypothetical relationship between going to another country or staying in Venezuela by age group. According to his findings, 36.4% of the population between 18-24 years old opts for the first option, while 25.5% between 25-44 years support the same decision.

CHAPTER 3

VENEZUELAN IMMIGRANTS AND THE ECONOMY OF NEIGHBOR COUNTRIES

Venezuela is the country with the highest migration statistics in Latin America. Figure 22 demonstrates the number of migrants in South America by 2019. Actually, the migration issue is valid for most of the South American countries. However, it is much more severe than other countries in Venezuela. As it is seen in the Figure, Colombia, Brazil, Peru and Ecuador have high number of outflows. Most of the studies reveal that people mostly move to the developed countries. Nevertheless, although many South American people other than Venezuelans leave from their own country, vast number of Venezuelans emigrates to these countries.

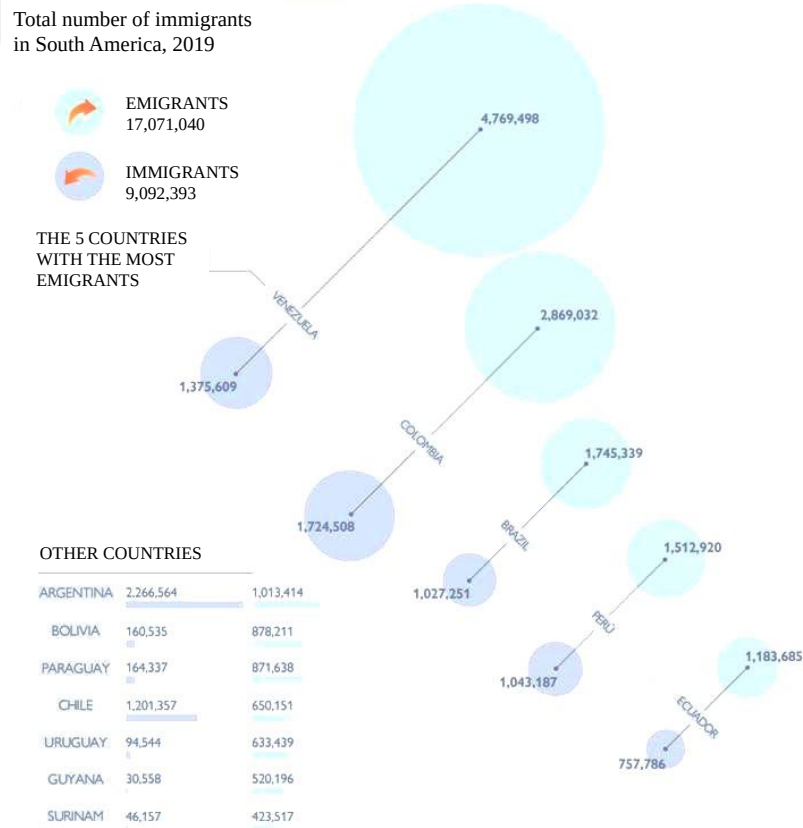


Figure 22. The Number of Migrants in South America in 2019

Source: IOM-GMDAC (2020)

The reasons that push Venezuelan people to emigrate are given in the section 2 in detail. By the middle of 2019, the number of Venezuelans who left country surpassed 4,000,000. The large majority emigrates to neighboring countries such as Colombia, Peru, Ecuador, Argentina, Chile, and Brazil. An increasing number of people has also been moving to countries in Central America, the Caribbean and Spain (IOM, World Migration Report 2020, 2019). Table 3 demonstrates the number of Venezuelan immigrants in neighbor countries. As it is seen, the majority of Venezuelans move to Colombia, followed by Peru and Chile.

Table 3. The Number of Venezuelan Immigrants in Neighbor Countries

Year	Argentina	Brazil	Chile	Colombia	Ecuador	Peru
1990	1,981	1,220	2,349	33,123	2,549	2,019
1995	2,290	1,694	3,197	35,162	3,120	2,021
2000	2,600	2,167	4,044	37,200	3,691	2,362
2005	1,918	2,524	6,070	37,137	4,357	2,794
2010	1,236	2,844	8,095	43,511	6,120	3,504
2015	1,240	3,425	54,787	48,714	8,901	4,129
2019	91,315	3,857	109,798	1,048,714	8,763	602,595

Source: (UN, 2019)

Within this framework, in this section, we first focus on the relationship between Venezuelan immigration and the main economic indicators in the neighboring countries economies, respectively Colombia, Peru, Chile, Argentina, Ecuador, and Brazil. As it is mentioned before, most of Venezuelans immigrate to Colombia, mainly because of the easier access to the country. It can be said that the migration process from Venezuela to Colombia in terms of an issue started a bit earlier than other countries. Therefore, this is one of the reasons that Colombia has more available data than other countries. In this context, secondly, we make a time series analysis about the effect of Venezuelan immigrants on Colombian labor sector as a representative country of Latin America.

1. DESCRIPTIVE ANALYSIS OF THE RELATIONSHIP BETWEEN VENEZUELAN IMMIGRANTS AND THE ECONOMIES OF NEIGHBORING COUNTRIES

This part of the study makes a descriptive analysis of Venezuelan immigrants and the main economic indicators in Colombia, Peru, Chile, Argentina, Ecuador and Brazil. Since the main effects of migrants are seen in the labor sector, unemployment rates and GDP growth rates are taken as proxy of main indicators. Inevitably, although many Venezuelans emigrate by legal procedures, there are so many doing it by illegal ways, which affect the labor sector directly. However, the lack of unofficial/illegal immigration data requires us to analyze merely with official statistics.

1.1. Colombia

Colombia is located at the west border of Venezuela. It is the first target country for many Venezuelans because of its easy access. Figure 23 shows the Venezuelan arrival flows, GDP growth rate and unemployment rate in Colombia for the years between 2012 and 2020. The primary vertical axis represents the number of Venezuelans whereas the secondary vertical axis depicts the percentage rate of GDP growth and unemployment.

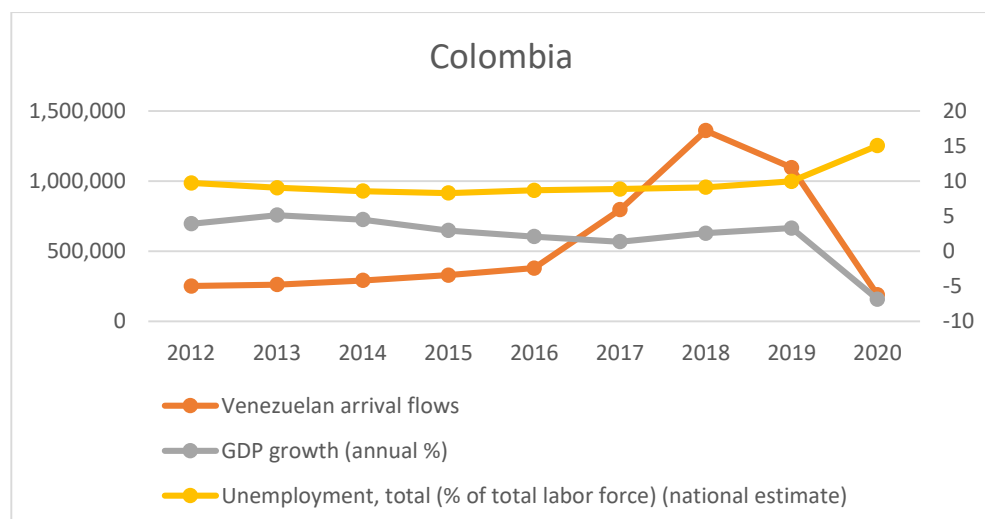


Figure 23. Venezuelans & Selected Economic Indicators in Colombia

Source: Author's own construction by using the data of (*Migracion Ministerio de Relaciones Exteriores, 2021*), (*The World Bank, 2021*)

As it is observed in the Figure 23, there is a sharp increase in the number of Venezuelans after 2016. In 2017, the number escalated to 796,234 from 378,965 in 2016. In the following two years the numbers went up over a million. The unemployment rate fluctuates between 8.3% and 9.96% whereas GDP growth rates between 1.36% and 5.13% for the years from 2012 to 2019. When it comes to the year 2020, all the data could be considered as biased due to the Covid19 pandemic. Since the borders were closed for a long time and adverse conditions in all over the world were experienced, the number of Venezuelans dropped, the economy shrunk from 3.28% to -6.85% whereas the unemployment rate rose from 9.96% to 15.04% in 2020.

1.2. Peru

Peru is the second Latin American country of destination where Venezuelans immigrants move. However, although the statistics are high, Venezuelans are the third immigrant community after Chileans and U.S. citizens according to National Immigration Superintendency of Peru (Superintendencia Nacional De Migraciones).

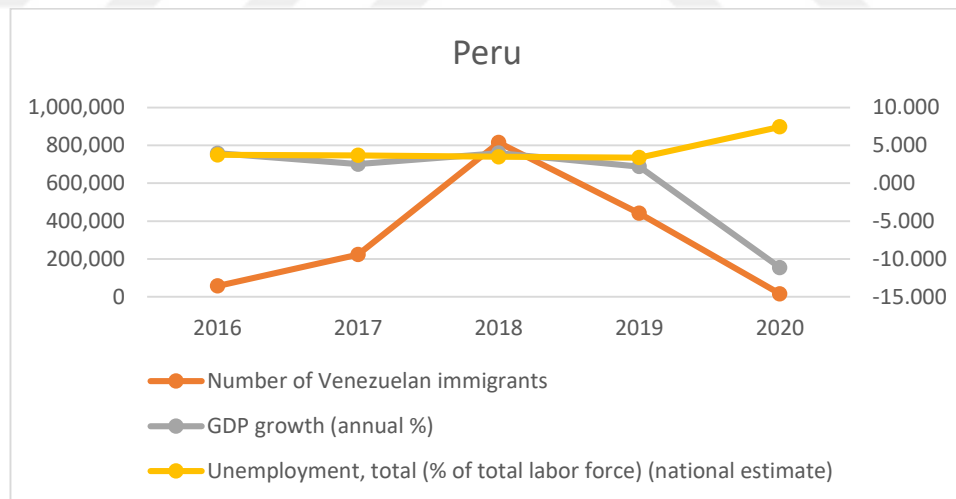


Figure 24. Venezuelans & Selected Economic Indicators in Peru

Source: Author's own construction by using the data of Superintendencia Nacional De Migraciones (2021), The World Bank (2021).

Figure 24 demonstrates the number of Venezuelan immigrants on the primary vertical axis whereas GDP growth and unemployment rates on the secondary vertical axis. The data do not let us to perform an empirical analysis for Peru. However, since the

number of Venezuelans decreased in the last two years and Venezuelans are on the third order among the immigrant community, one cannot directly relate the unemployment in Peru and GDP growth. Peru is also a country with a negative growth rate in 2020 parallel to most of the countries under the effect of Covid19 pandemic.

1.3. Chile

The number of Venezuelans in Chile increased in the last 4 years more than in the previous ones. Figure 25 visualizes the percentage of visas given by Chilean government between the years 2017 and 2021. As it is seen, Venezuelans have the biggest share with 31%. This percentage increased to 40% between 2018 and 2021.

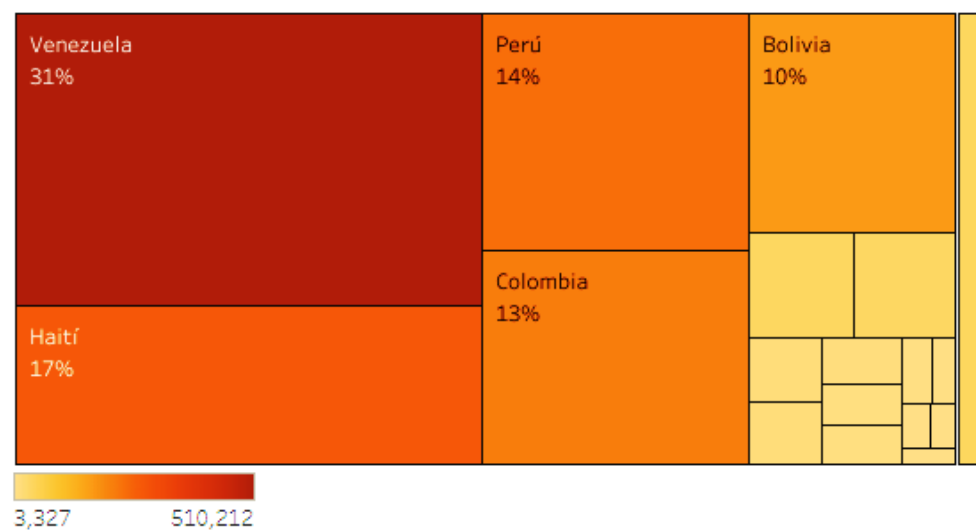


Figure 25. Visas Given by Peru for the years between 2017 and 2021

Source: (El Departamento de Extranjería y Migración, 2021)

The primary vertical axis in Figure 26 illustrates the number of Venezuelan permanent stays granted whereas the secondary vertical axis depicts the GDP growth rate and unemployment rate. The number of Venezuelans in Chile changed between the range of 139 and 669 from the year 2000 to 2014. The significant change in Venezuelan immigrants started as of 2015.

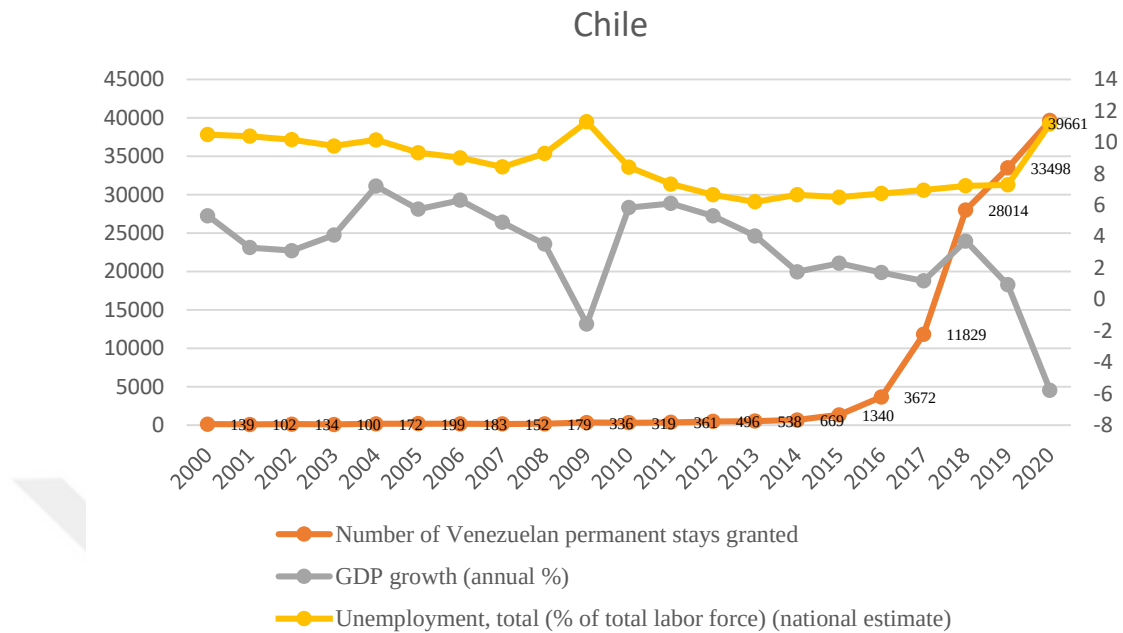


Figure 26. Venezuelans & Selected Economic Indicators in Chile

Source: Author's own construction by using the data of (*El Departamento de Extranjería y Migración, 2021*), (*The World Bank, 2021*)

The unemployment rate in Chile rises from 6.51% to 11.18% between 2015 and 2020. However, this increase cannot be connected to Venezuelan immigrants because of the insufficient number of data. Chilean GDP growth rate also fluctuates in time. With the global effect of Covid19, there was a negative growth rate in 2020.

1.4. Argentina

The number of Venezuelan immigrants has been increasing in Argentina nowadays. According to Ministry of Internal Affairs in Argentina, in 2009, 31.8% of immigrants are Venezuelans as it is seen Table 4 whereas this statistic was 0,67% for the years between 2011 and 2015.

Table 4. The Number of Residence Permits in Argentina by Nationality

	Permanent	Temporary	Total Residence Permit			Permanent	Temporary	Total Residence Permit	
Venezuelan	9,844	60,687	70,531	31.8%	Uruguayan	131	1,425	2,735	1.2%
Paraguayan	25,442	21,949	47,391	21.4%	Chinese	146	844	2,304	1.0%
Bolivian	18,724	18,479	37,203	16.8%	US citizen	427	1,434	1,861	0.8%
Colombian	6,021	11,671	17,692	8.0%	Spanish	425	1,139	1,564	0.7%
Peruvian	8,216	8,422	16,638	7.5%	Mexican	371	1,122	1,493	0.7%
Brazilian	751	1,062	8,572	3.9%	French	151	694	845	0.4%
Chilean	1,361	1,807	3,168	1.4%	Italian	187	598	785	0.4%
Ecuadorian	109	1,917	3,007	1.4%	Others	2,036	4,067	6,103	2.8%

Source: Ministerio del Interior (2018)

As the number of Venezuelan immigrants increase particularly after 2015, unemployment in Argentina also goes up (Figure 27); however, it cannot be said that immigrants cause of unemployment since there is not enough data.

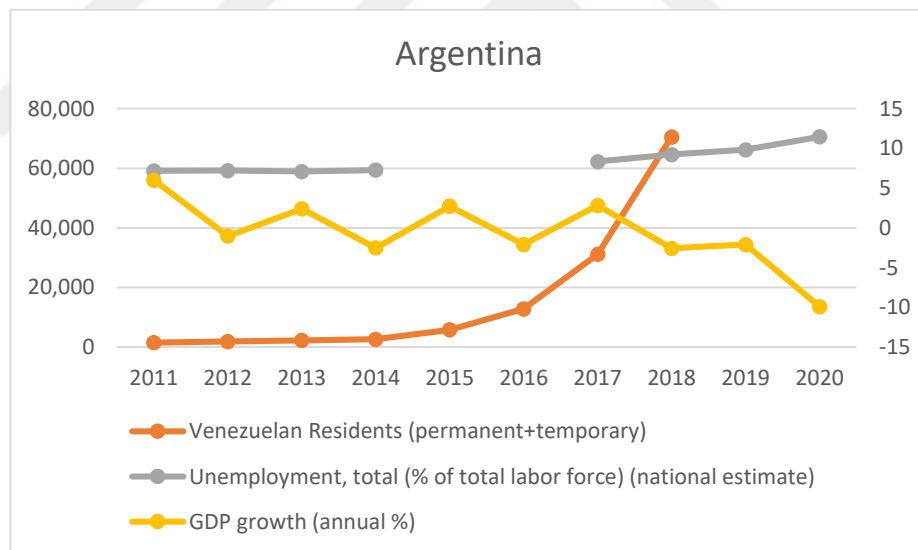


Figure 27. Venezuelans & Selected Economic Indicators in Argentina

Source: Author's own construction by using the data of *Ministerio del Interior (n.d.)*, *The World Bank (2021)*

1.5. Ecuador

In Ecuador, the number of Venezuelan decreased after 2014 on the contrary of other countries. In the Figure 28, the primary vertical axis represents the number of

Venezuelans who entered to Ecuador whereas the secondary vertical axis shows the unemployment and GDP growth rates.

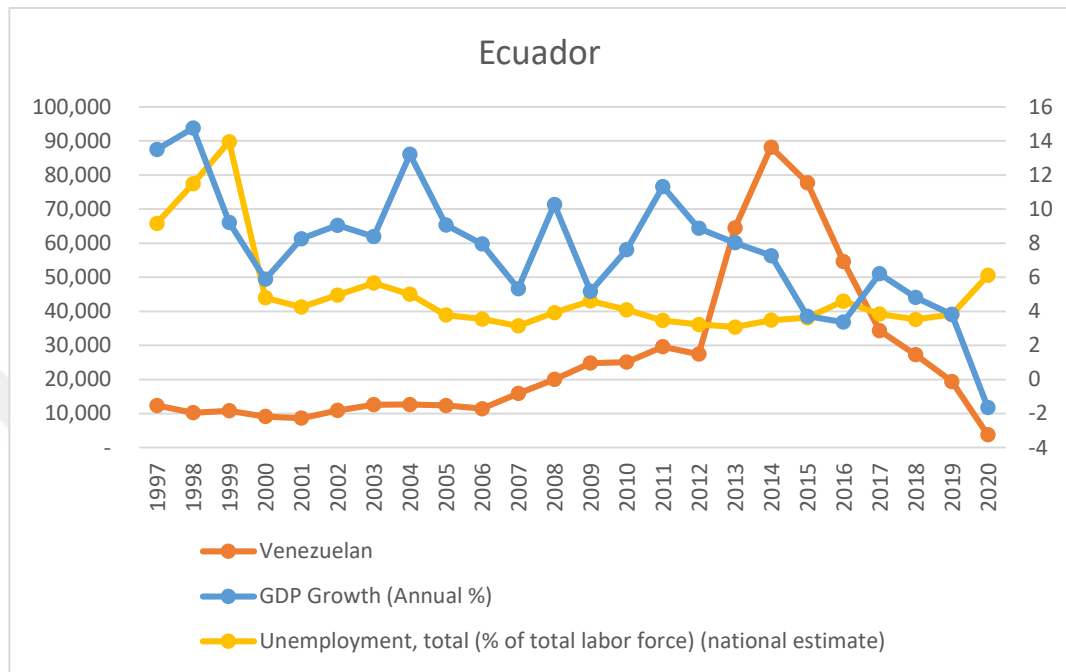


Figure 28. Venezuelans & Selected Economic Indicators in Ecuador

Source: Author's own construction by using the data of Instituto Nacional de Estadística y Censos (2021), The World Bank (2021)

The decreasing number of Venezuelan immigrants as it is seen in Figure 28 renders insignificant to comment about the relationship between the variables. Furthermore, Venezuelan immigrants form only 2.6% of all foreigner community in Ecuador in 2020 (Figure 29).

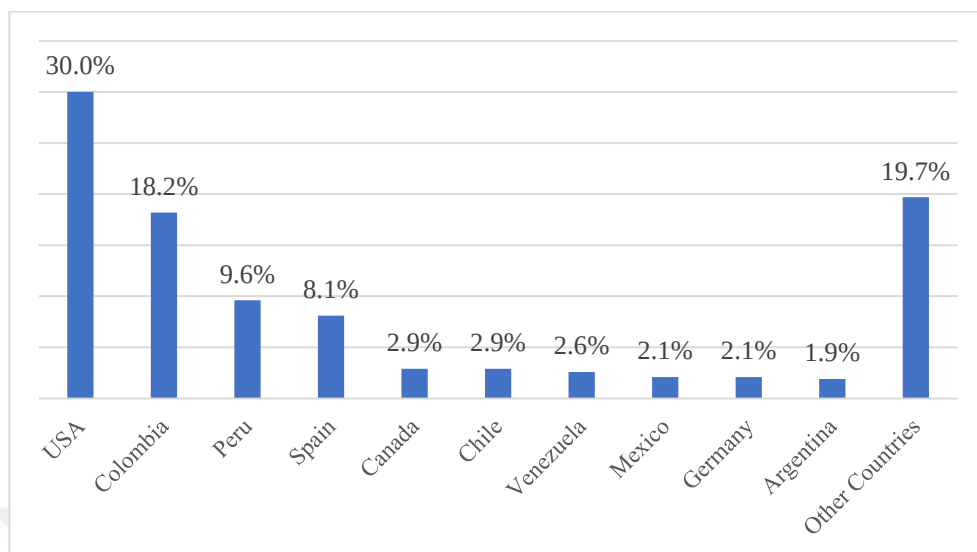


Figure 29. The Percentage of Foreign Entries to Ecuador According to Nationality (2020)

Source: Instituto Nacional de Estadística y Censos (2021)

1.6. Brazil

Brazil has a border by the south of Venezuela, and it is one of the main hubs for Venezuelans to flee. Particularly in the recent years, the number of Venezuelans both legal and illegal ways have increased. Figure 30 demonstrate the number of requests for refugee recognition of Venezuelans on the primary vertical axis, GDP growth and unemployment rate on the secondary vertical axis. Refugee status requests reached to 61391 with its highest level in 2018. This number declined sharply in 2020, when the Covid19 pandemic started.

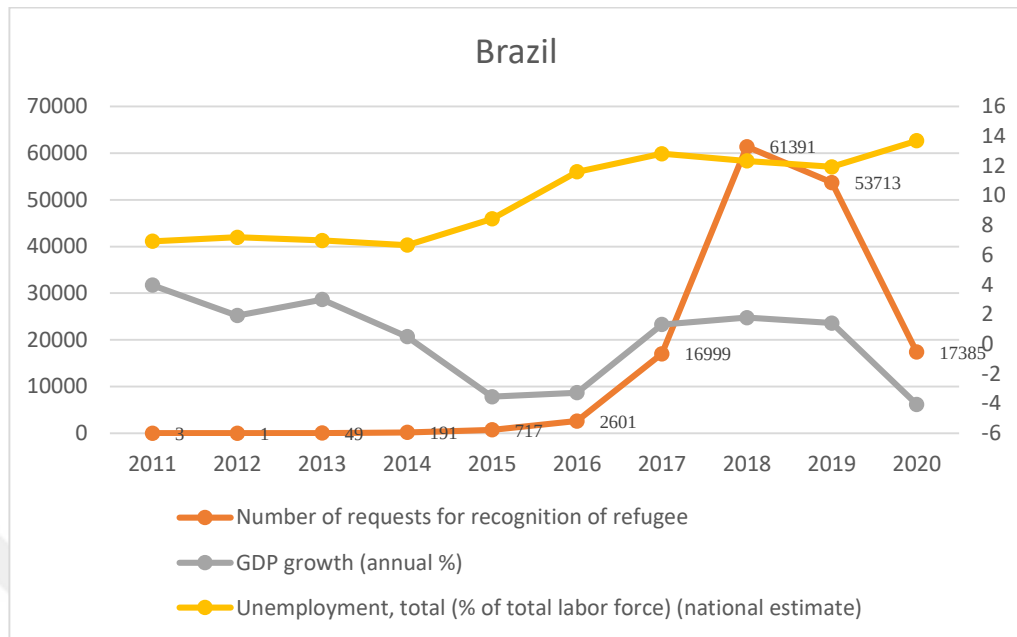


Figure 30. Venezuelans & Selected Economic Indicators in Brazil

Source: Author's own construction by using the data of (Cavalcanti, de Oliveira, & Silva, 2021, s. 88), (The World Bank, 2021)

Unemployment rate in Brazil increased from 6.92% in 2011 to 13.69% in 2020 and GDP growth dropped from 3.97% to -4.05. However, as it is seen in the Figure 30, GDP growth fluctuates over time and the negative effect of the pandemic is obvious.

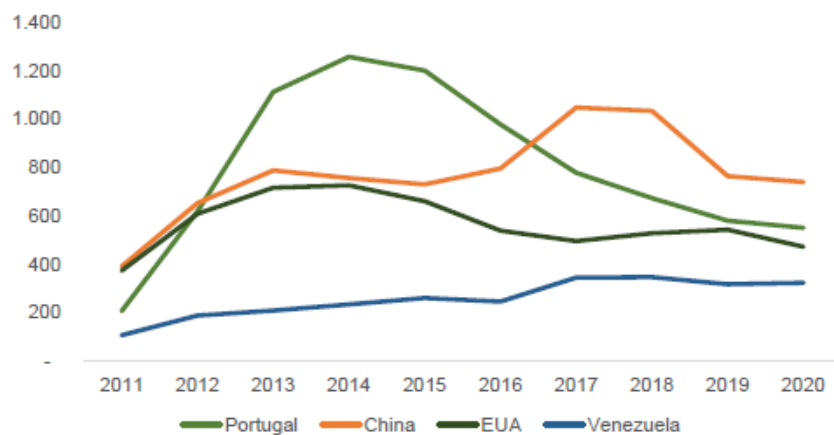


Figure 31. Number of employment contracts of immigrant workers in the formal labor market on demand from local employers by selected countries of origin and year of employment

Source: Cavalcanti, de Oliveira, & Silva, 2021

Besides the refugee numbers, in the formal labor market Venezuelans are the fourth demanded immigrants after Portuguese, Chinese and US citizens according to the International Immigration Observation (OBMigra - Observatório das Migrações Internacionais) portal of Ministry of Justice and Public Safety (Figure 31).

2. THE CAUSAL RELATIONSHIP BETWEEN VENEZUELAN IMMIGRANTS AND COLOMBIAN LABOR MARKET

The aim of the second part of this section is to analyze the causal relationship between Venezuelan immigrants and employment in Colombia, which has the highest number of Venezuelan immigrants in Latin America. In this context, we first review the literature, then give a brief information about the methods we employed. Finally, we introduce the data and present the findings.

2.1. Literature

There is a vast literature about the effect of immigrants on the labor market. However most of the studies about the immigration are the ones from developing or under-developed countries to developed countries (Venturini & Villosio, 2006; Brücker & Jahn, 2009; Basso, D'Amuri, & Peri, 2019). When it comes to the migration between developing countries, the picture changes. The biggest reason to move to another developing country is the distance in terms of accessibility. Most of the migrants travel to neighbor or closer countries where people has relatively higher living standards because the poor financial conditions they live in their own countries. Since the severe situation in Venezuela has been getting worse, the number of people who leave the country increases. Inevitably, the majority of these people pass to the neighbor countries.

In the world, the Syrian movement to Turkey as neighbor country is an important example for this situation. There are several research that investigate the economic effects of Syrian immigrants on Turkey. For instance, Tanrikulu (2021) claims that Syrian migrants have positive impact on overall Turkish economy. However, in terms of local and informal unemployment, the findings reveal the positive direction. Bahcekapili and Cetin (2015) also have the similar results about regional unemployment and contend that particularly unskilled workers are affected negatively. Fakih and Ibrahim (2016) carry

out an analysis about Syrian refugee crisis in Jordan and obtain no significant effect on labor market. Findings of Cengiz and Tekguc (2021) about low-skilled workers are analogous to other studies whereas they claim a positive impact on high-skilled workers. Sub-Saharan Africa is another region that receives so many refugees. The findings about the effect on labor markets mostly depend on the country, gender, and the formality/informality (Macharia, 2003; Ruiz & Vargas-Silva, 2015; Sparreboom, Mertens & Berger, 2019).

As it is mentioned before, in the Venezuela case, the neighbor country is Colombia. This is also the reason why the effects of Venezuelan migrants in Colombia are studied most comparatively than other Latin American countries (Ordóñez & Arcos, 2019; Santamaria, 2020; Caruso, Gomez Canon, & Mueller, 2021; Mesa-Guerra & Ramírez-Tobón, 2021).

Some of these papers study the effect of Venezuelan immigration on the real wages. Most of them found that Venezuelan migration flow causes a decrease on the real wages particularly in the short term (Peñaloza Pacheco, 2019; Valencia, Angarita, Santaella, & de Castro, 2020). Valencia et al (2020) obtained that in the medium term, skilled workers perform higher labor returns.

There are some studies that investigate the relationship between unemployment and Venezuelan immigration by using regression model. Most of these studies are dissertations. According to these research, Venezuelan immigration increases the unemployment rates in Colombia (Torrijos Garzón & Gómez Villamizar, 2019; Bustos Cholo, 2020).

In this research thesis, we analyze the causal relationship between Venezuelan immigration and unemployment rate in Colombia by using time series analysis techniques.

2.2. Analysis

In this section we investigate the causal relationship between the number of Venezuelans and unemployment in Colombia. In this context, we first describe the methodology then introduce the data and the results.

2.2.1 Methodology

In the analysis part of the study, we perform a time series analysis. We first build a vector auto aggressive (VAR) model. VAR models analyze the interaction of variables and requires the stationarity of variables. Because of this, primarily stationarity of variables should be investigated. A time series is stationary if its mean and variance remain same overtime. There are three ways to test stationarity:

- i. graphical analysis
- ii. autocorrelation function (ACF) and correlogram
- iii. unit root tests.

To analyze the existence of unit root is a widely used method to check the stationarity. In this context, we use the unit root tests in this study. To detect the unit root, the following steps are used through an AR(1) process:

$$Y_t = \phi_1 Y_{t-1} + \varepsilon_t, \quad \varepsilon_t \sim (0, \sigma^2), \quad (-1 \leq \phi_1 \leq 1)$$

ϕ_1 gives information about the structure of the structural shocks. Accordingly.

if $|\phi_1| \geq 1$, the series contains unit root and the effect of shocks are permanent so that the series is not stationary,

if $|\phi_1| = 0$, the shock is permanent, so the system is affected, which means it is not stationary,

if $|\phi_1| < 1$, the series does not contain unit root, the effect of shocks are temporarily, which refer that the series is stationary.

In the unit root tests, the hypothesis is as follows:

$$H_0: \phi_1 = 1$$

$$H_a: \phi_1 < 1$$

According to this, if the null hypothesis fails, the series is stationary. In practice the hypothesis of $\rho = \phi - 1 = 0$ is tested instead of $\phi = 1$:

$$Y_t = \phi_1 Y_{t-1} + \varepsilon_t$$

$$Y_t - Y_{t-1} = \phi_1 Y_{t-1} - Y_{t-1} + \varepsilon_t$$

$$\Delta Y_t = (\phi_1 - 1)Y_{t-1} + \varepsilon_t$$

Thus,

$$H_0: \rho = 1$$

$$H_a: \rho < 1$$

Therefore, if the null hypothesis is false, this means there is no unit root and the series is stationary.

To investigate if there is unit root or not, Dickey Fuller, Augmented Dickey Fuller (ADG), Phillips Perron (PP), NG Perron, DF-Generalized Least Squares (DF-GLS), Elliott-Rothenberg-Stock Unit Root Test (ERSP), and Kwiatkowski – Phillips – Schmidt – Shin (KPSS) tests are widely used. In this study ADF, PP, KPSS and NG-Perron tests are employed. As it is seen there are so many units root tests. The reason that lies under this is the size and the power of these tests (Gujarati, 2004, p. 819).

A VAR(p) model relates a multivariate time series with its past observations and past observations of other variables in the system (Eric, 2021). For a K-dimensional multiple time series, VAR(p) process is formulized as follows (Lütkepohl, New Introduction To Multiple Time Series Analysis, 2006, s. 69):

$$Y_t = v + A_1 Y_{t-1} + \dots + A_p Y_{t-p} + \varepsilon_t$$

where $v = (v_1, v_2, \dots, v_k)'$ is a $(K \times 1)$ vector of intercept terms, A_i are $(K \times K)$ coefficient matrices and ε_t is white noise, and p implies the lag, which means a shift in the time base back by a given number of observations (Bose, Hravnak, & Sereika, 2017).

In a VAR(p) model, the requirements shown below should be examined:

- i. Lag length selection: It is one of the most important steps to build a VAR model. Sequential Modified LR Test Statistic, Final Prediction Error, Akaike Information Criteria, Schwarz Information Criteria and Hannan-Quinn Information Criteria are widely used methods to determine lag length.
- ii. Stability of the system: To check the stability of the system, characteristic roots of the coefficient matrix A_i are investigated. If all the roots are within the unit circle, this means the system is stable.
- iii. Residual serial correlation: Residuals in the VAR model should not have serial correlation. The most common method to test it is LM test.
- iv. Heteroskedasticity: In a VAR model, variance should not vary over time. The tool mostly employed to check heteroskedasticity is the White test.

After meeting all the conditions, impulse response analysis, variance decomposition and Granger casualty analysis can be performed.

Granger causality investigate the direction of casualty between two related variables (Granger, 1969). The Granger causality relationship between variables of x and y question how much of the current y data could be explained by its past values and then investigate if the adding lagged values of x could improve the explanation. In this study bivariate regression model is performed (Eviews, 2021):

$$y_t = \alpha_0 + \alpha_1 y_{t-1} + \dots + \alpha_l y_{t-l} + \beta_1 x_{t-1} + \dots + \beta_l x_{t-l} + \varepsilon_t$$

$$x_t = \alpha_0 + \alpha_1 x_{t-1} + \dots + \alpha_l x_{t-l} + \beta_1 y_{t-1} + \dots + \beta_l y_{t-l} + u_t$$

where l implies lag length. The null hypothesis is $H_0 = \beta_1 = \dots = \beta_l = 0$, which indicates x does not Granger cause of y in the first regression and y does not x in the second one.

The aim of the impulse response analysis is to observe the progress of the variables in response to a unit shock. In this sense Granger causality may not give the whole story about the interactions among the variables (Lütkepohl, New Introduction To Multiple Time Series Analysis, 2006, s. 51)

Variance decomposition is also a specific tool for interpreting the relationships among variables that presented by VAR model (Lütkepohl, 2010, p. 369).

2.2.2. Data and Results

To apply the analysis, we use the number of Venezuelan immigrants and employed people in Columbia. We obtain the both data from Great Integrated Household Surveys (Gran Encuesta Integrada de Hogares – GEIH) of Colombian National Administrative Department of Statistics (Departamento Administrativo Nacional de Estadística - DANE, 2021). In the analysis, we use the logarithm of the variables ($\log(\text{ven})$: logarithm of the number of Venezuelans, $\log(\text{emp})$: number of employed people in Colombia). The sample period is from 2017M1 to 2021M06 on monthly basis. Since the movement from Venezuela to Colombia started to be more visible as of 2017, the mentioned year is chosen as the beginning year. All the analyses are carried out in Eviews 12 Student Version.

To build the standard Vector Autoregressive (VAR) Model, we first investigate if the series are stationary or not. In this context, we perform Augmented Dickey-Fuller (ADF), Phillips-Perron (PP), Kwiatkowski-Phillips-Schmidt-Shin (KPSS) and Ng-Perron Unit Root tests. The test results are given in Table 5.

Table 5. Unit Root Test Results

Variables	ADF	PP	KPSS	Ng_Perron				Remarks
				MZa	MZt	MSB	MPT	
log(ven)	Level	Level	Level	Level	Level	Level	Level	I(1)
	-2.550793(2) ^c	-2.491974[11] ^b	0.246163[5] ^b	0.63112(2) ^c	0.74922(2) ^c	1.18713(2) ^c	88.1464(2) ^c	
	1st difference	1st difference	1st difference	1st difference	1st difference	1st difference	1st difference	
	-10.18968(1) ^{b*}	-8.728550[2] ^{a*}	0.409589[11] ^{c*}	66.3880(1) ^{c*}	-5.74344(1) ^{c*}	0.08651(1) ^{c*}	0.40955(1) ^{c*}	
log(emp)	Level	Level	Level	Level	Level	Level	Level	I(1)
	-2.175424(0) ^c	-2.326768[3] ^c	0.501641[5] ^c	8.38736(0) ^{c*}	-2.0293(0) ^{c**}	0.24195(0) ^{c**}	2.99228(0) ^{c**}	
	1st difference	1st difference	1st difference	1st difference	1st difference	1st difference	1st difference	
	-7.386219(0) ^{a*}	-7.386424[1] ^{a*}	0.05045[1] ^{c*}	25.9756(0) ^{c*}	-3.60386(0) ^{c*}	0.13874(0) ^{c*}	0.94319(0) ^{c*}	

Source: Author's own calculations

Note: The numbers in parentheses (.) and square brackets [.] shows respectively the lag lengths that are determined by SIC in ADF test and the bandwidths determined by Bartlett Kernell estimation method using Newey-West in PP, KPSS and NG-Perron tests. a: means that regression include neither constant term nor trend; b: regression includes both constant term and trend; c: regression includes constant term. *, **, ***; implies 1%, 5% and 10% significance level respectively.

According to the unit root test results, log(ven) and log(emp) variables are first order stationary. To choose the appropriate leg length for the VAR model we employ the information criteria (Table 6). LR, AIC and HQ criteria select the optimum lag as 3, whereas FPE and AIC choose it as 5. Since we have monthly data, the optimum lag length is taken as 5 in this VAR model.

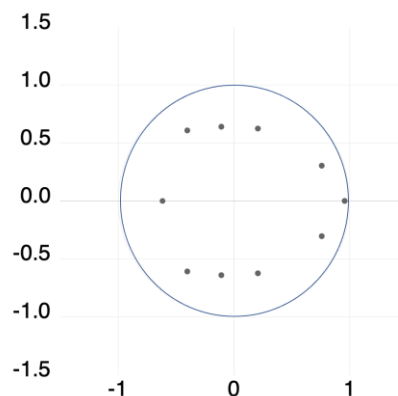
Table 6. VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	36,122330	NA	0,000675	-1,624873	-1,542127	-1.594543
1	85,704600	92,081360	7,71E-05	-3,795457	-3,547219	-3,704468
2	94,043260	14,691930	6,28E-05	-4,002060	-3,588329	3,850411
3	102,430400	14.536460*	5,04E-03	-4,226911	-3.647688*	-4.014603*
4	105,430400	4,188267	5,40E-05	-4,163352	-3,418637	-3.890385
5	111,273300	8,625221	5,01E-05*	-4,251109*	-3,340901	-3.917482
6	112,863700	2,196211	5,71E-05	-4,136364	3,060664	-3.742078
7	117,173600	5,541220	5,77E-05	4,151126	-2,909933	-3.696180
8	120,004100	3,369608	6,30E-05	4,095434	-2,688749	-3.579828
9	124,756400	5,204897	6,34E-05	-4,131258	2,559080	-3.554993
10	125,432800	0,676412	7,86E-05	-3,972992	-2,235322	-3.336067
11	127,180600	1,581310	9,40E-05	-3,865742	-1,962580	-3.168158
12	129,244000	1,670412	0.000113	-3,773526	-1,704871	-3.015282

Source: Author's own calculations

Note: * displays lag order selected by the information criterion. LR: Sequential Modified LR Test Statistic, FPE: Final Prediction Error, AIC: Akaike Information Criteria, SC: Schwarz Information Criteria, HQ: Hannan-Quinn Information Criteria.

In this context we set our model as VAR(5). First of a VAR model should satisfy the stability condition. To test this, inverse roots are investigated and as it is seen in Figure 32, inverse roots lies inside the unit circle, which indicate that VAR(5) model satisfies the stability condition.

**Figure 32. Inverse Roots of AR Characteristic Polynomial**

Source: Author's own calculations

LM Autocorrelation test indicate that there is no serial correlation whereas White Heteroskedasticity test implies to no heteroskedasticity since the Prob values greater than 0,05.

Table 7. Serial Correlation & Heteroskedasticity Tests

VAR Seral Correlation LM Test Results						White Heteroskedasticity Test Results		
	LM	Prob				Joint test:		
1	1,431676	0,8387	5	4,552603	0,3364	Chi-sq	df	Prob
2	4,263758	0,3715	6	2,008688	0,7342	66,27419	60	0,1931
3	2,031835	0,7299	7	2,327345	0,6758			
4	2,881748	0,5778	8	0,570696	0,9663			

Source: Authors' own calculations

After the prerequisites are satisfied, we examine the impulse-response functions, Variance Decomposition Analysis and Granger-Causality Analysis.

Response of L_EMP to L_VEN Innovation

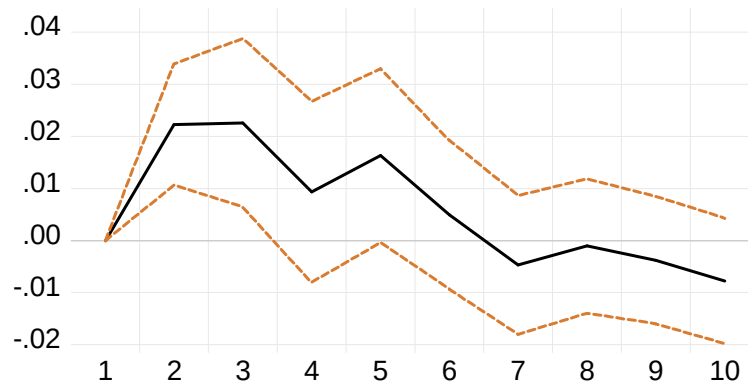


Figure 33. Response of Employment to Venezuelans

Source: Author's own calculations

Figure 33 illustrates that the response of the number of employed people in Colombia to the number of Venezuelan people in Colombia. Accordingly, one standard deviation shock in the number of Venezuelans affects the employment in Columbia positively in the second and the third periods.

Table 8. Variance Decomposition of L_EMP

Period	S.E.	L_EMP	L_VEN
1	0.034730	100.00000	0.00000
2	0.051087	81.04437	18.95563
3	0.062271	74.09874	25.90126
4	0.065571	74.60449	25.39551
5	0.069521	71.91099	28.08901
6	0.070029	71.82168	28.17832
7	0.070186	71.50141	28.49859
8	0.070218	71.50437	28.49563
9	0.070412	71.37418	28.62582
10	0.071066	70.70110	29.29890

Source: Author's own calculations

Variance Decomposition results in Table 8 indicate that in the first period 100% of the prediction error variance of the employment variable is described by itself, whereas 81% by itself and 18,9% by the number of Venezuelans in the second period. This percentage increases to almost 30% in the tenth period.

In our empirical part we finally analyzed the Granger causality between the variables.

Table 9. Granger Causality Results

Null Hypothesis:	Obs	F-Statistics	Prob
L_VEN does not Granger Cause L_EMP	49	6.08858	0.0003
L_EMP does not Granger Cause L_VEN		0.28072	0.9208

Source: Author's own calculations

According to findings, we obtain a unidirectional causality from the number of Venezuelan people who live in Colombia to the employment. This means that Venezuelan immigrants are the Granger cause of the employment in Colombia.

CONCLUSION

The immigration issue is one of the widely studied topics in economics, as well as other social sciences. Most of the time, international migration is discussed. There are different economic, sociological, and geographical theories trying to explain the factors that cause people to change their country of origin.

Several studies focus on the migration from developing countries to developed countries. However economic and social conditions also make people to move or basically escape to other developing countries. In the Venezuelan case both situations exist. Some people who have comparatively better financial situation or more education level move to United States or Europe particularly to Spain because of the language. Other group moves to other Latin American countries. In that case, the busiest hub is Columbia because of the easy access. There are so many people who fled from the country under very tough conditions.

Venezuela was among the wealthiest countries in the world in the 1950s and 1960s. Its situation had always been in good conditions in Latin America, so that it had been mostly a receiver country until 1990s. Venezuelan people emigrated mostly because of education or simply for good job opportunities and the majority turned back home to serve to their own country. However as of 1990s the picture started to change. The implemented wrong policies brought Venezuela to a disastrous country. IOM reports that more than four million Venezuelans have fled to other countries as of 2019 including many professionals.

This situation has turned to be a big issue for other countries. In that case, since mostly educated and people with better financial conditions move to Europe and the US, Venezuelan migration do not seem like an issue in these countries. However, when it comes to neighboring countries this changes, since the numbers and the status of people considerably change. In this context most affected country is Colombia because of the easy access. According to UN, in 2019 more than a million Venezuelan immigrants lived in Colombia.

Argentina, Brazil, Chile, Ecuador, and Peru are the other Latin American countries with Venezuelan immigrants. However, the lack of data regrettably makes it very difficult to carry out an econometric analysis for these countries. Among these five countries, in Ecuador, Venezuelan immigrants form just 2.6% of all immigrants. In Peru and Brazil, although Venezuelans are very crowded, they are not in the first order as foreign community.

When we analyze the relationship with the host countries' economies, considering it also with COVID-19 pandemic, it is impossible to arrive to a conclusion. In this context, since only Colombia has available data, we analyze the causality relationship between Venezuelan immigrants and the employment in Colombia for the period between 2017M01 and 2021M06. We chose 2017 as a beginning year for the study because the visible movement started as of that year. According to our findings, a unidirectional causality from Venezuelan immigrants to the employment in Colombia is obtained. Therefore, on the contrary to the belief of most of the people, migrants have a positive effect on employment in Colombia. In that case, this finding is consistent with some of the literature, which claim that immigrants reduce unemployment (Howard, 2020).

It should be mentioned that illegal migrants are not considered in this study. their effect on the economy and social life should also be investigated separately. It is believed that these findings could be valid for all other Latin American countries. Hence, policymakers should implement some policies to integrate the immigrant labor force to their economy to turn the situation into their favor.

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