Venezuela and the International Crisis

Diego Mansilla

9.1 Introduction

This chapter attempts to explore the effects of the international crisis of 2008–2009 on the Venezuelan economy. Venezuela is the fourth biggest Latin-American economy, with 7% of the region's GDP. It follows the region's giants (Brazil, Mexico and Argentina) and accounts for 8% of regional exports due to sales of petroleum and its derivates, which are practically its only exports and the core of its economy.

Before the outbreak of the international crisis, Venezuela was expanding at annual growth rates above the average in Latin America and taking advantage of the improved exchange terms. In those years, the country was displaying an historical economic growth path, low indebtedness, increasing the international reserves, and achieving a generalized improvement on income distribution and social indicators. However, Venezuela was one of the countries in the region where the international crisis hit the hardest. Not only was the decrease of its GDP in 2009 higher than the Latin America average (with a 5.8% yearly decrease in the fourth trimester of 2009), but in 2010, it was the only country in the region that was not able to recover from it. Only in 2011 was the economy able to recuperate the growth path, ending with six consecutive quarters of recession. But it could never regain the lost momentum.

It's noteworthy that this economy, which was strengthened and benefited by the international evolution of prices, has suffered more significantly than the economies of the region that were affected by the exchange terms. This is true especially if we consider that even during the recession years, Venezuela has continued to be among the countries with higher improvement in terms of trade.

Venezuela is well known as an oil-producing country, and a big part of its economic, fiscal, and commercial structure depends on hydrocarbon production. In 2013, the country had 20% of the world's petroleum reserves, the highest reserve since it surpassed Saudi Arabia in 2010 (OPEC, Anual Statistical Bulletin 2014). These growing stocks, reinforced with the *Faja Petrolífera del Orinoco*¹ (Orinoco heavy oil belt) in 2007, represent almost 300 years of extraction at current levels, and they show the power that Venezuela has in the global energy market. *Petróleos de Venezuela S.A.* (PDVSA), a 100% government-owned company, which was created after the nationalization of the petroleum during the 1970s, has monopoly control of Venezuelan petroleum.

The significance of its petroleum in the Venezuelan economy is so large that it gets officially calculated as the participation of the oil-sector in GDP (25.5% en 2012).² The international oil rent Venezuela earned in 2011 reached US\$ 78,000 million, of which 66% has been contributed to the treasury.³ In 2013, petroleum-related contributions represented 46% of the Venezuelan government income (12% of GDP). As a counterpoint, the agricultural sector is significantly underdeveloped, to the point of having to import much of the food consumed in the country; the manufacturing sector is also underdeveloped, except in the fields directly related to the petroleum industry.

In the second half of 2008, the American financial and banking crisis broke out and spread out to the rest of the world. Consequently, the world market shrank and significant financial flows were withdrawn from the peripheral countries, the access to credit in financial market was interrupted, and the price of the basic products collapsed. This is how in just six months, the international price of the petroleum drop almost 70%, reaching US\$ 41 in December of 2008. The Venezuelan barrel reached an average of US\$ 124 in July 2008 and just US\$ 31.6 in December of that year, a 71% decline.

In addition, as a consequence of the downturn in activities due to the crisis, world demand was reduced for the first time since 1983 (mainly in the United States, the recipient of almost 70% of the exports of crude petroleum from Venezuela). To answer to lower demand and stop the tendency of prices to drop, OPEC made drastic cuts in the members' crude oil production allocations, in order to reduce the supply. This resulted in a negative effect on the foreign trade of Venezuela, which had to reduce the quantities of petroleum exports in order to comply with the OPEC agreements. The result was the drastic collapse of Venezuelan exports by 40% in 2009, although, with the drop of the imports, it managed to maintain the current account surplus when most of the region got into large deficit.

The recovery of the crisis in the second half of 2009 reached values similar to those that existed in 2007. Despite similar prices to the ones registered during the previous expansion, the Venezuelan economy continued to deteriorate, showing the evolution of prices was not the only explanation for crisis. Notwithstanding, the Venezuelan economy has ever recovered the previous levels of growth. The increase in GDP achieved since 2011 was slightly less than before the crisis; the external situation worsened, with a deficit in the balance of payments, an outflow of reserves, and the increase of external debt. This new stage has also interrupted social and distribution improvements.

In order to understand the reasons why the international crisis has hit the Venezuelan economy, we should refer to its particular productive structure and its social and political features, with petroleum as its locus. After an overview of the situation of the Venezuelan economy when the crisis started, we will analyze the internal effects of the crisis in the third section, detailing the evolution of the main macroeconomic variables and the key sectors of the economy. Finally, we end the chapter by presenting our main conclusions.

9.2 Economy and History of Venezuela

The economy of Venezuela could be characterized as a rentier-State model,⁴ in which the abundance of the hydrocarbon contributes to shape an unbalanced structure. As some authors put it, Venezuela suffers from "oil intoxication" (Ominami, 1984; Baptista, 2010). Even though the country is the most industrialized country in the Organization of Petroleum Exporters Countries (OPEC), hydrocarbons are almost its only export product, which shows a strong specialization within world commerce and the international job division.

The petroleum industry (and its derivatives) act as an export enclave, with only few relationships upstream and downstream, allocating most of its production outside the country. As happens with other major oil exporters, Venezuela has the capacity to grab most of the generated rent. However, the country does not have the sole decision-making power about its main product. Venezuela is a founding member of OPEC, a cartel of petroleum exporters that agrees on exports fees for each of its members in order to manage prices. As a result, sometimes the country is doubly conditioned in its sectorial politics. In the face of a change in international prices, a stipulated reduction in production allocations means a downfall in the main economic activity of the country.

The rentier-State model in Venezuela has been deepened since the beginning of the twenty-first century because of two key facts. One was exponential price increases for petroleum since 2001 without considering the expansion before the crisis of 2008, something that is known as "the third petroleum shock" (the only one without a war conflict). Between December of 2001 and December of 2006, the WTI (West Texas Intermidiate) has doubled, and during 2007, the price increased by 47%. The second key fact is the arrival to power of Hugo Chávez in February of 1999. His government applied an economical model that increased dependency on hydrocarbons, but also created a series of mechanisms that reallocated the income from the petroleum sector.

Since 1958, Venezuela's modern democracy of the "Pacto de Punto Fijo" (Fixed Point Pact) came about in the governments of the "Acción Democrática" and COPEI parties. The income from petroleum funded industrialization and import substitution strategy without generating valuable social transformations, and instead contributed to growing economic and social inequality. Since 1973, the increase in oil prices has multiplied the government's income, and within a few years, foreign exchange and tax income tripled. These allowed broadening and deepening industrialization policies and some social improvements, but they vanished during the 1980s and 1990s with the arrival of the neoliberal programs of opening and privatization.

By the end of the 1990s, social indicators in Venezuela were showing this country as the most unequal in the region, with a poverty rate above 50% of the population, a per capita income 35% lower than in 1970, an economy in crisis, and an external debt of 25% of its GDP. Venezuelans strongly rejected politicians and felt indifference with the democratic process and the traditional parties. In this context, Hugo Chávez, launched the *Movimiento Quinta República* (Movement of the Fifth Republic). Previously, he had attempted an armed insurgency in 1992 in opposition to the government's neoliberal politics and lack of representation by the *Punto Fijo*, launched the *Movimiento Quinta República* (Movement of the Fifth Republic). His campaign was based on a national and popular government and a strong rejection of neoliberalism. Although traditional parties joined forces to impede his triumph, Chávez won the general election with 56% of the votes and assumed the presidency of Venezuela in 1999.

The first phase of Hugo Chávez's government can be classified as state reorganization and institutional reforms, including of the constitution (approved by 72% of the electorate), but the government made no significant transformations to the social or productive structure. In November of 2001, the "Ley Habilitante" (Enabling Law) was approved, which granted extraordinary authority to the president to pass decrees with theforce of law. The most important of the 50 laws issued under this regime was the Ley Orgánica de Hidrocarburos (Organic Hydrocarbon Law), which was instituted in January 2002.

This law ruled that the state-owed PDVSA had operating control and majority shareholding in all primary activities of the petroleum sector, and it also transformed the tax structure of hydrocarbons.⁵ In addition, a strong state intervention was applied to both PDVSA and its subsidiaries, in order to control their operations and generate a remittance of dividends. Until then, the state petroleum company, while maintaining a formal dependency with the executive power, had significant freedom of action.⁶

Given these changes, strong social and political confrontations emerged, leading in April of 2002 to a *coup d'etat* and a lockout that paralyzed PDVSA for more than 60 days. According to the company, the oil strike had a cost of about 8 billion dollars, with a decline in GDP of 24% in the first quarter of 2003 (the oil sector GDP fell 40%), increasing poverty and unemployment. This process was finally over in 2004 when Chávez won outright in the recall referendum and regained final control of the petroleum policy.

Since 2003, government reforms were deepened and radicalized, starting a new stage in Venezuelan economic history, "twenty-firstcentury socialism." It began with an aggressive nationalization campaign in strategic sectors (electricity, telecommunications, steel, cement, banks, etc.), putting back in the hands of the state companies that had been privatized before 1999. Partnerships with foreign companies and oil fields in the *Faja del Orinoco* were nationalized, as well as those with most oil suppliers, in order to vertically control the petroleum production industry.⁷ During those years, social policies were reformulated by the universality principle, and public spending significantly increased, especially in social spending, which reached a high record in 2007.⁸ The main goal was the redistribution of rising petroleum revenues. The social plan was articulated through the *Misiones* (missions), special units created to respond directly to different social problems without money passing through the national treasury. In addition, various funds were created, such as the *Fondo para el Desarrollo Económico y Social del País* (Fund for Economic and Social Development—FONDEN). Between 2004 and 2013, PDVSA contributed US\$ 123.200 million to the *Misiones* and US\$ 78.416 million to the investment funds. These funds and *Misiones* have been criticized as mechanisms to generate significant public expenditures without the control of the national budget, providing little information and transparency.

One major structural problem of the Venezuelan economy that the Chavez administration did not resolve was inflation, partly due to the rentier-State model and the "oil intoxication." Beginning in 1999, in just three years, prices increased less than 15%, and had reached 32% in 2008, due to the increase in the international prices of raw materials and food.

Moreover, structural capital flight deepened with the arrival of Chavez, political events, and the increased availability of dollars in the country. To fight this, and to limit the outflow of currency that pushed the price of the Bolivar after the political crisis of 2002, implementing a system of exchange control and limiting imports and transfers abroad. The *Comisión de Administración de Divisas* (Currency Administration Commission—CADIVI) took control of currency purchase activities. However, this did not stop capital outflows and resulted in a development of a "parallel dollar" system, in which the price of the dollar was several times higher than the official currency. In 2015, this system was amended with the creation of the *Sistema Marginal de Divisas* (marginal currencies system), with an official value 27 times higher than the regulated value (but still less than the informal trading).

9.3 The Economy of Venezuela during the Chavez Period and the Impact of the International Crisis

By studying the main economic variables of the Venezuelan economy, we can observe clearly the effect of different political stages (figure 9.1). The 1990s ended with a decreasing tendency on GDP, which was not modified by the arrival of Chavez government. On the contrary, the crisis deepened, and the GDP fell 16% from 2001 to 2003 as a consequence of internal political events. After reforms were implemented, Venezuela maintained a surprising annual average



Figure 9.1 Venezuela's real trend GDP and GDP components. *Source:* BCV / Author.

growth of 10.4%, the fastest period of growth since 1948. These transformations and the expansion of public and private consumption during those years were mainly a result of the distribution of the national income from oil, which allowed a sustained growth period that was only interrupted in 2008 by the international crisis.

After the commodities bubble popped, the Venezuelan economy experienced a new crisis with deep contraction in exports. The recession of 2009–2010 produced a decrease of 4.6% of GDP. However, by 2011, the cycle of economic decline had ended, and Venezuela started growing again, but at a slower rate (3.7%).

Total consumption rates (both public and private sectors included) stayed almost constant into the 2003 crisis. Since then, this rate has increased constantly until 2008 (13.2% annual average growth with a higher rate than current GDP levels in those years). This process was led by private consumption, which exhibited higher average growth rate than public consumption (13.9% against 10.6%). The 2008 crisis did not reduce total consumption, due to an increased in public spending (4% between 2008 and 2010), whereas private consumption levels showed strong recovery signs after economic growth bounced back, but at a slower pace than in previous years.

Gross fixed capital formation (GFCF) shows a different dynamic than the one registered by consumption. First, it was severely affected by the events that took place in 2003, when it reached minimum levels (decreasing 50% in two years, only 16% of that year's GDP). From the recovery period, investment levels increased at significantly high rates, ending at 35% of GDP in 2007. Since the international crisis of 2008, despite the deep recession that affected the Venezuelan economy until 2010, the level of GFCF remained at higher levels than during the 1990s. In 2013, due to the recovery of economic growth, GFCF explains 32% of GDP.

The important recovery experienced after 2003 was, in fact, a change of the structural tendency that maintained the Venezuelan economy. Analyzing the evolution of the real per capita GDP, we can observe that Venezuela was in a deep stagnation cycle from 1984 to 2002 (figure 9.2). During those almost 20 years, per capita GDP was in a tight range, with a clear bearish trend since 1992. Between the maximum and minimum level, there was only a 7% range relative to the average value, and in 2001, GDP per capita was at the same level as in 1972. Finally, recession associated with the 2002–2003 crisis marked an historic low. After that, the variable exhibits a rising trend until the end of the period under analysis (figure 9.2).



Figure 9.2 Venezuela's real per capita GDP (in millions of Bolívares). *Source:* BCV/Author.

A study by Bello and Ayala (2004) shows that the structural stagnation the Venezuelan economy underwent until the beginning of the twentieth century reached maximum values between 1974 and 1981.⁹ However, after 2003, the current stagnation tendency was broken. Since then, the Venezuelan economy registered a radical change in its growing dynamic, reaching a historical maximum in 2008, only surpassed during the 1970s, when the oil price boom took place. But this latest change, unless the previous ones, was accompanied by significant improvements in income distribution indicators. In this period, the per capita GDP grew at a surprising annual rate of 9%.¹⁰ The effects of the international crisis reduced product per capita; in 2010, reaching a new minimum that was still higher than the maximum value registered in the previous period (and 39% higher than the 2003 value). While it is certain that most of the growth registered between 2003 and 2008 is explained by the increased rent of the oil sector, the



Figure 9.3 Venezuela's GDP—distribution by sector. *Source:* BCV/Author.

estimation of the nonoil per capita GDP also shows a surprising rise (62% between 2008 and 2003).

Venezuela's productive structure is a reflection of the factors mentioned in the previous sections. Dominated by the primary sector (30.4% of the GDP to 2012^{11}), it responds fundamentally to the evolution of oil-related activities. The manufacturing industry represents only 13.3%, of which the petroleum refinement represents 0.9% points.¹² Within the services sector, wholesale and retail trade and construction are the most relevant activities (figure 9.3).

Comparing the GDP structure between 1997 and 2012, a significant change is visible in the GDP participation of mining and quarry activity (mostly oil). This is exclusively related to higher relative prices (the implicit growth of the price index for the oil industry doubled the industry price index, even when the growth was less than international prices). The oil extraction level, however, decreased during the same period. In 2006, before the international crisis, it reached 31.3% of GDP. Industry participation, on the other hand, decreased almost 10% on GDP since 1997 which indicates that economic reforms did not achieve great success in Venezuela's industrialization process.

9.3.1 Macroeconomic Effects of the Crisis

The most important contagion factor of the international crisis of 2008 for Venezuela was in international trade. More precisely, the crisis affected the oil market because of the changes in international prices as a consequence of speculative movements in commodities markets, as well as the significant impact on international oil demand brought by the economic recession.

An analysis of quarterly Venezuelan GDP evolution notes that 2008 barely shows a decrease in the growth rate, which had been stable since 2004. In 2009, on the contrary, a sharp fall took place, reaching a 5.8% year-to-year contraction in the last quarter. By 2010, GDP contraction was stopped in the second semester, but only in 2011 was growth finally visible again. A preliminary conclusion shows that recession lasted 6 consecutive quarters, making Venezuela the country that suffered the most adverse consequences of the international crisis within the region (figure 9.4).

To understand the reason for the negative GDP trend that Venezuela showed after 2008, it is necessary to differentiate between oil-related GDP and the rest of the economy. Oil activity entered a crisis phase by the fourth quarter of 2008, followed by a 10% annual fall in the third quarter of 2009 due to the total collapse of oil prices. After that, even



Figure 9.4 Venezuela's year-to-year GDP growth. *Source:* BCV.

once Venezuela had overcome the recession at the beginning of 2010, annual growth never reached over 2% again. As will be explained in following chapters, this low growth rate does not come from pricing problems (which are higher than before the crisis), but it has its origins in the lower export volumes because of coordinated limitations of oil output by OPEC agreements, responding to lower demand and a very stable trend of oil output since 2009.

This sharp decline in the oil industry had a significant impact on the rest of the economy in two ways. On the one hand, lower petroleum economic activity reduced domestic demand directly. On the other hand, lower fiscal income also pushed local economic activity and general demand lower. Since the second half of 2008, non-oil related GDP started a massive crash in its growth rate and experienced a contraction phase in 2009. The fall in oilrelated GDP was followed by the energy crisis of 2009, caused by a severe drought, limitations of imported inputs and products due to a shortage in international reserves, and a drop in public spending. All these factors pushed aggregate demand levels down. In the fourth quarter of 2009, the economy reached its worst moments during the crisis with a 5.8% year-to-year decline. In 2011, growth finally recovered at a 5% annual rate, but at a declining annual growth rate to 2% in 2013. A study of non-oil related GDP shows that the impact of the crisis was not homogeneous in all the sectors of the Venezuelan economy. Wholesale and retail trade were the activities with the highest contraction, reaching -13% between 2008 and 2009. Both sectors suffered a strong contraction in the oil-industry demand, followed by a decline in consumption levels, import limitations, and an energy crisis. Even though the growth rate in the public sector lowered to the point of stagnation, it never reached a contraction phase. Construction growth lagged behind the rest of the economy growth rate, decreasing from 2009, but exiting recession in the second half of 2011.

The fall in oil prices after the second half of 2008, and the decrease in the volume of exports damaged fiscal health considerably. In Venezuela, fiscal income is mostly based in oil activity (57% in 2007) plus indirect income. Thus, a drop in exports strongly reduced the main source of income for the government. In March 2009, a budget reform was approved, lowering the expected price of oil from US\$ 60 to US\$ 40 with a lower estimated output. Public spending was cut to only an increase of 7.5% in 2009, when in 2008, it was 38%. But in real terms, the public spending cut reached 16%. At the same time, value- added tax was lifted from 9% to 12% in order to compensate for lower oil income. Also, increasing debt emissions and cutting unnecessary expenses were some of the actions taken by the government. Minimum wage was increased as well in two phases of 10% each (this meant, however, a lower real purchasing power, since this increases did not compensate the impact of 2008 inflation level). Nevertheless, the decrease in spending was lower than that in revenue levels, so the central government deficit increased, reaching 5% of GDP (with a primary deficit of 3.7% of GDP).

These spending cuts and tax increase measures ended up by deepening the recession that had been brought on by the global crisis, rather than helping the economy to overcome its effects. Despite the different tools available to act countercyclically, and in opposition of the rest of the countries of the region, these few measures deepened the fiscal and domestic demand crisis. The comparison carried out by ECLAC (2010) brought striking results, showing that while countries of the region deployed a package of heterogeneous and fiscally expansive measures, Venezuela only took minor pro-cyclical actions. Some studies hold that these recessionary policies were the main cause of the strong impact that the international crisis had in Venezuela.¹³

After the decline in exports, the Venezuelan government decided to implement restrictions on imports to maintain the trade surplus, both through trade measures and by means of further rationing foreign currency by CADIVI. Since the majority of Venezuelan imports are intermediate goods, these measures contributed to lower domestic production and deepened the crisis.

Also as a response to the effects of the crisis, Chavez deepened reforms through the nationalization of several strategic companies, particularly banks and industrial companies highly related to the value chain of the oil industry. Politically, a referendum for the amendment of the 1999 constitution was launched successfully. This allowed indefinite re-election of all who were elected to public office, which was approved by 54 % of the votes.

9.3.2 Primary Sector

As mentioned before, Venezuela's economic structure is dominated by the primary sector, specifically petroleum extraction, since both agricultural activities and mining operations have a relatively low participation in total GDP (both account for only 5.9% of the GDP). Agriculture's participation is reduced to the point that in the official statistics of GDP by sector published by the Central Bank of Venezuela, it appears as "others" along with "restaurants and private hotels" and "public diverse activities."¹⁴ This low participation reflects the poor development of food production, taking into consideration the potential of natural resources in Venezuela, which results in an output level that is not enough to cover the demand of the population, forcing significant imports of food. 2013 saw the country's highest historical participation in imports: 22.5% of which were food or products for the food industry (about \$10.159 million dollars' worth), mainly beef, milk, wheat, corn and rice.

To reduce the cost of food, especially for the most humble sectors, Venezuela's government implemented the *Misiones*, programs used to provide the nutritional bill with oil income. In 2004, the Misión Alimentación, which finances the Mercal (*Mercado de Alimentos*, meaning food market) was implemented; one of the most important missions, its main objective has been to sell essential food products (like oil, rice, or powdered milk) at subsidized prices. Also, in the early 2008, two subsidiaries of PDVSA were created to increase State intervention and petroleum financing in the food sector (Agricultural PDVSA and the Venezuelan food producer and distributor—PDVAL is its acronym in Spanish). Such programs were rapidly extended to large segments of the population The impact of the international crisis in the agricultural sector was mainly recorded in the significant increase in the cost of food imports following the expansion in commodities prices, which led to a reduction in the access to food. After the commodity prices rally started, food imports in Venezuela increased by 98% in 2008 (about 4,760 million dollars), which explained the entire rise of that year's imports. The country's dependence on imported food provoked domestic prices to follow international price trends, and a huge rise in internal food prices took place after August 2007. According to the Consumer Price Index, the annual growth rate of food and beverage prices began to be systematically above the general index. The peak in inflation rates was in September 2008, with an annual price increase of 36%, while foods and beverages showed a growth of 53%.

In addition to the effects of the international crisis, during 2009 the agricultural sector suffered an important drought as a result of an "El Niño" stream that severely affected the region that year¹⁵. In cereals, for example, the year 2009 showed a sharp decline in quantities harvested (-12% on rice, -34% on corn compared to 2008). The lowest local production combined with the increase of international prices raises domestic prices and imports even more, causing a decrease in food intake levels. Even for an economy accustomed to high inflation rates, the increases registered after the international crisis modified the internal structure of relative prices, punishing the poorest sectors. In response to this, some plans to increase agricultural production and regulate imports were carried out (such as the case of the bailout of Argentina's dairy company, SanCor, which paid their credit of the Bank of Economic and Social Development of Venezuela with exports of powdered milk).

Given the importance of the hydrocarbon sector in the Venezuelan economy, we need to observe the evolution of its characteristics and importance on the world market to assess the impact of the international crisis. We mentioned that Venezuela has the world's largest oil reserves and the eighth largest natural gas reserve worldwide, despite not having significant development in natural gas production. However, most Venezuelan oil is of low quality because of its high sulfur content and high density, so it must receive special treatment in order to provide products (especially the lightest and more profitable, such as naphtha). Because of this, the price of Venezuela's oil is inferior to referential international prices (WTI, Brent or the OPEC basket itself). Besides, it has few opportunities to operate in shortterm markets, as it has to work with specific refineries through longrange contracts. This tendency was increased in recent years due to the beginning of mass production of the Orinoco Heavy Oil Belt, in which extra-heavy oils predominate¹⁶. While in 2002, the Venezuelan oil extraction had 25° API¹⁷ of gravity in average, by 2011, 20.6° API average oil was obtained and has decreased even more in the following years, since the heavy and extra-heavy oil extracted increased from 48% to 58% in 2013.

As mentioned before, despite the central role of petroleum in the Venezuelan economy, its domestic evolution is far from relying solely on internal variables. The importance of Venezuela in the OPEC and in the worldwide petroleum market makes production levels to be subject to the cartel regulations regarding supply volumes set for each member country, especially in times of great variations in international prices.

These restrictions became more relevant after the arrival of Chavez's government. By that time, the international oil price was close to its historically lowest level as a consequence of the crisis in Southeast Asia that had begun in 1998, in addition to a rise in extraction quotas that OPEC decided on that same year. Although Venezuela was one of the founding members of OPEC, under previous governments, it had systematically violated the stipulated extraction volume, weakening the pressure power of the cartel. The Chavez government instead opted to strengthen the organization, respecting the extraction reduction agreements and including other relevant producer countries outside of OPEC, like Mexico and Norway. The oil extraction cuts and the international political events made international oil prices increase constantly from that minimum level.

Thus, the fulfillment of the established production allocations, combined with the decline of the older fields that were not replaced by new investments, made Venezuela go from extracting 3.7 billion barrels per day to a level that has not surpassed 3 billion barrels over the last decade. Nevertheless, the lack of recovery in the extraction levels prior to the crisis shows that Venezuela's oil extraction decline was not caused just by OPEC production allocations (since the organization increased extraction levels in 2012), but it is also rooted in the lack of productive investment from PDVSA.¹⁸ This is true especially if we consider that Venezuela needs heavy investment in order to be able to dispose of its reserves.¹⁹

As shown in figure 9.5, while the Venezuelan barrel price in 2009 experienced a sharp drop from the previous year, the average annual value was similar to the price in 2006–2007, before the international

crisis started. After 2011, Venezuelan export prices greatly exceeded the peak of 2008, a record high up to then. However, the extraction and export volumes never reached previous levels.

To understand the evolution of oil extraction and exporting in Venezuela during the last decade, we should take into account the measures taken by OPEC following the collapse of international prices in late 2008, and the decrease in international oil demand. In 2008, OPEC had to make three successive cuts in production quotas that were established for each member country in order to reduce supply. With these maneuvers, about 5 million barrels per day were withdrawn from the market (16% of the production allocations established in 2007).

In spite of that, during 2009, prices returned to pre-crisis levels. The fulfillment of production restrictions caused the near-paralysis of the Venezuelan oil industry, sunk to levels of extraction only experienced during the petroleum strike in 2002. As shown in figure 9.5, since 2008, the crude extraction in Venezuela dropped by 10% (from 3.2 to 2.9 million barrels per day), which caused a 13% drop in exports (from 2.2 to 1.9 million barrels per day), even though the average price of the basket of Venezuelan exports remains close to US\$ 100 per barrel.



Figure 9.5 Evolution of extraction and export of petroleum in venezuela, value of export barrel.

Source: BCV, PDVSA, PODE.

The need to restrict oil supply after OPEC resolutions, and the lower level of foreign currency income—resulting from lower export volumes—had a negative effect on oil investments, especially riskier ones, such as drilling exploration wells. From 25 exploratory wells drilled in 2008 to search for new oil and gas reserves, they dropped sharply to 8 in 2009 and only 6 in 2010. These figures are even lower than the 13 recorded in 2003 during the oil strike. As an indicator of the restriction to the expansion of oil extraction, PDVSA currently has only 4% of its oil reserves developed (meaning in condition to be extracted with existing facilities and infrastructure). This again indicates that Venezuela could increase its extraction without violating OPEC regulations, but it suffers from the maturity of its main fields and the lack of investment in development, even in times of prosperity.

9.3.3 Industrial Sector

As we mentioned before, the industrial sector explains a reduced portion of the Venezuelan GDP, and it has been shrinking in the last few years. In previous periods of oil bonanza, there were attempts to increase the value of industrial activities on GDP. In the 1970s, for example, the oil rent was channeled to develop a heavy industry system, and PDVSA was created, with the state as a single shareholder, to operate the established oil monopoly. The investments were focused on the production of basic supplies, such as steel, aluminum, chemist and petro-chemist. In this way, the State generated an industrial structure both "upstream" and "downstream" of the central oil production.

Nowadays, the significant increase of foreign currency, earned by growing oil income, is not channeled into deeper industrialization. In 2012, the participation of the manufacturing industry on GDP was only 13.3%, 41% less than its participation on 1997 (22.5%).²⁰ This is a consequence of a virtual impasse in the manufacturing sector: between 1997 and 2012, the average growth of industrial GDP in real terms was only 0.5%. Moreover, when analyzing the internal structure of the Venezuelan industry, the latest available data shows that by 2006,²¹ the most important industrial activity was petroleum refining (8.8%), followed by the iron and steel industry, (7.4%), milling products (5.4%), then precious metals products and non-ferrous (5.2%), and production and processing of meat (5.1%). This shows that the Venezuelan industry was concentrated in activities directly related to primary resources, linked to agricultural products (34.9%)

of sectorial value-added is mainly milling, production, and processing of meat and bakery products) and mining products (24.2%, led by petroleum refining, industry iron and steel, precious metal products and non-ferrous). Of the remaining 40.9%, the most important activities are the manufacture of chemicals, printing and publishing activities, and furniture. it's important to point out that this description of the industrial structure is highly dependent on the variable relative prices of the Venezuelan economy, and they are not good instruments by which to obtain a realistic picture of the real industrial structure. As mentioned above, measurements at current prices end up deeply underestimating the participation of the Venezuelan refining industry and the national product.

Another relevant feature of Venezuelan industry is that manufacturing activities show a weak complementarity and coordination, with a large portion of imported intermediate supplies.²² The most dynamic and innovative industries (such as those involving chemical and pharmaceutical, the manufacture of machinery and automobiles, etc.) represent barely 16.8% of industrial GDP. Also, these activities make no real efforts in R&D in the country, which explains why they have a low proportion of value-added relative to GDP, while this indicator is led by activities such as development of soft drinks or textiles and rubber.

Both petroleum refining, which is included within the oil GDP in statistics, and supply-producers for the oil industry sectors (as steel industry, steel mills, etc.) strongly depend on the decisions and evolution of the hydrocarbon sector. This means that with decreases in mining, or investments such as those seen during the crisis of 2009– 2010, these sectors present a drop in production (for lack of supplies or demand). Nevertheless, these being large scale and expensive stops processes, production modifications are usually milder than in the rest of the industry.

Refining activity is a state monopoly, and the six existing complexes in Venezuela are owned by PDVSA. It should be observed that, given the characteristics of Venezuelan oil and the international expansion policy developed to evade government controls by the "meritocracy" who ran the state oil company up to 2003, PDVSA has most of its refining capacity overseas (1,519 million barrels per day versus 1,303 inside the country). Most of the refining capacity abroad comes from CITGO, its US subsidiary, while also counting on minority stakes in refineries in the Caribbean (part of the Petrocaribe agreement) and Europe. Except in times of great crisis like 2003 and 2009, the activity of Venezuelan refineries usually remains close to 80% of installed capacity utilization. In 2009, the processed crude fell off 5% because of the severe sector crisis, keeping only 74% utilization. Also, the lower fuel production was reflected in a drop in export volumes (the external sale of gasoline and vehicular naphtha declined 33%), since the domestic consumption remained relatively constant.

Analyzing the annual change in GDP value in constant currency, we can see that manufactures began to suffer the effects of the international crisis by year 2009, entering 2010 with a 9% decline in two years (figure 9.6). In 2011, manufacturing returned to moderate growth, but without recovering pre-crisis levels. Analyzing the main activities, we discovered that food and beverage continued to expand in 2009, with a drop of 8% in 2010. However, the main capital-intensive activities, such as the refining and metal-bearing industries, have much deeper drops (reaching an annual 30% decline) as a result of both the international crisis effects and the energy crisis caused by the drought.

A similar evolution is observed in the use of the industrial installed capacity (table 9.1). In 2006–2008, the average use within the industrial sector was 60.4%, with a slight decrease in 2008. Since 2009, a clear downward trend is observed in the use of installed capacity,



Figure 9.6 Evolution of gross value of production at constant prices in Venezuela. *Source*: INE 2012 and 2013. 2007 = 100.

										_
2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
55.7	58.5	60.6	61.1	59.5	54.7	52.9	55.6	57.6	54.7	-

 Table 9.1
 Use of installed capacity—industrial sector in Venezuela (in %)

Source: Survey of Economic Situation, Conindustria.



Figure 9.7 Manufacturing industry jobs in Venezuela.

reaching its minimum level in 2010 with a drop of 13% in just 2 years, a similar level to the one recorded during the oil strike of 2003. After 2 years of recovery, in 2013, use of installed capacity returned to the levels seen during the 2009 crisis.

Another way to analyze the role of industry in the Venezuelan economy and the impact of the international crisis is to look at its importance as an employer. In this sense, we can also observe a loss of relevance in the manufacturing sector (figure 9.7). While in 1989, the industry employed 16.8% of workers (both registered and informal), by 1999, its share had fallen to 13.5% and to barely 11.3% in the second half of 2013 (reaching a minimum of 10.8% in the second quarter of 2012). Industrial participation increases in total employment were recorded only between 2004 and 2007 and in 2013. Since 2007, the number of workers employed in the industry remains almost constant at around 1.4 million jobs.

As shown in figure 9.7, the international crisis and the lack of electricity caused by drought had repercussions in the industrial employment since the second half of 2009, although a loss of jobs had already been registered in 2008. Between the first semester of 2009 and the first of 2011 (the lowest point of the crisis), more than 58,000 industrial jobs were lost, even when total employment increased by 175,000 jobs in the same period. Only by 2013 was it possible to recover the level of jobs in the industrial sector that were missed by the international crisis. In terms of participation, however, industrial employment remains at very low levels.

9.3.4 External Sector

The external sector is heavily influenced by the oil-dependent, rentier-State arrangement of the Venezuelan economy. As mentioned, almost all merchandise exports are petroleum products, both crude oil and fuel (96% of total exports in 2013, reaching a peak of 93.6 billion dollars in 2012). The main export market is the United States, on which Venezuela concentrated 40% of its crude exports in 2013. During the last few years, however, Venezuela has made significant progress in diversifying export markets by reaching commercial agreements with India and China. Their two economies received 36% of total oil exports in 2013, while in 2008, they had represented barely 4%. The opening of new markets for oil exports was very important in order to compensate for lower exports to the United States, which has reduced its purchases from Venezuela by 50% in the last six years.

By contrast, the agreements and alliance proposals with Mercosur members and the Caribbean countries failed to achieve large sale volumes. Since the arrival of Chavez to power, Venezuela adopted an active policy to deepen the economic and political relations with other peripheral countries, and especially those in Latin America. In many cases, PDVSA was used as a mechanism to provide economic benefits to strengthen political and diplomatic relations, while helping the aim to diversify oil exports.²³ Venezuela runs only 11% of its oil exports to Latin America and the Caribbean (which is similar to the 1999 figure) although it concentrates 73% in Cuba, Nicaragua, Jamaica, Dominican Republic and Uruguay, as a result of political agreements and the PETROCARIBE initiative.

Risings international oil prices since 2001 allowed a sustained increase in exports, despite the impasse and even a slight setback on exported quantities. From 1999 to 2013, oil exports increased more than 5 times, accompanying the rise in prices (the OPEC basket index was multipled by six in that period).²⁴ This led to an even deeper concentration of exports, and the necessity to become increasingly dependent on oil sales. As a result, from 1999 to 2013, non-oil exports declined from 20% to just 4%.

A peculiarity of the Venezuelan economy (it is a feature shared with others countries with an oil-rentier model) is that the majority of the exports are conducted through state-owned enterprises. Since the 2008 oil reform, the public sector directly controls all the oil exports. In addition, with the nationalization of enterprises considered strategic, the state ownership of the chain of supplies in the oil industry was completed, increasing the state's involvement in non-oil exports. Thus, by 2012, the public sector handled 98.4% of total exports.

The aforementioned increase in international oil prices that allowed a steady increase of exports²⁵ permitted Venezuela to maintain the current account surplus (The last year with a deficit was 1998, when oil prices were at a historically low level). Figure 9.8 shows that since 2003, the export growth accelerated, reaching about 95,000 million in 2008 (an increase of nearly 2.5 times in five years). Nevertheless, the current account balance barely increased 1.7 times in the same period, since imports were quadrupled, reaching 51.500 million dollars in 2008. Most of the new imports were intermediate goods,



Figure 9.8 Current account evolution in Venezuela (in US million \$). *Source:* BCV.

followed by final consumption articles, mechanical appliances, machinery and electrical equipment, and motor vehicles, followed by meat and milk.

With the drop in international oil prices in 2009, after the speculative bubble in commodities and the cuts in oil production decided upon by OPEC, Venezuelan exports declined significantly from the record 2008 level. Nevertheless, the amount exported that year (\$57.600 million dollars) was only exceeded in three times (from 2006 to 2008), following the rise of international prices.²⁶ In response to minor exports, the government implemented a plan for regulation and protection of national production that strongly limited imports. This limitation came from CADIVI's higher restrictions on the deliverv of currency, and the implementation of trade taxes. This program lowered imports 20% on inter-annual and was deepened in 2010. The main accounts to reduce imports were the same that increased the most during the oil bonanza. The significant decline in imports in a context of poor export performance contributed to a current account surplus of about \$2.250 million dollars in 2009. Although this surplus is the lowest recorded since 2001, by 2009, almost all of Latin America experienced current account deficit, being surpassed only by Argentina. The effect of the decline in foreign trade was so great that it affected the opening degree of the Venezuelan economy, declining from 51.8% of GDP in 2008 to barely 38.5% in 2009.27

As for the capital account, 2009 saw a reduction in the deficit recorded in previous years. This deficit was not even lowered because of the strong impact of the nationalization of companies in strategic sectors that was executed that year. The drop in foreign direct investment explains the 26% capital deficit. However, unlike other years trade surplus was not enough to compensate for capital account deficit, so the balance of payments became negative (3% of GDP) after several years of sustained increases in reserves (figure 9.9). Over the last decade, only 2007 has registered a negative balance of payments result (2.5% of GDP).

The comparison of this point with the rest of Latin America shows how strongly the impact of the international crisis was on the Venezuelan economy. According to ECLAC, only three other Latin American countries showed negative results on their balance of payments, and for an amount that, all three deficits added, barely represent one-third of the Venezuelan deficit. Although the trade surplus recovered in a few years, reaching 24,000 million in 2011, capital account deficit (and "errors and omissions," which is usually used as



Figure 9.9 Evolution of international reserves and external debt in Venezuela. *Source:* BCV. In millions dollars and %.

an indicator of capital flight) had the balance of payments still showing a significant deficit.

With the outbreak of the crisis, the capitals flight grew more serious. According to various estimates, in 1999, Venezuelans had more than US\$ 70,000 million in capital abroad. Thus, residents outside their country accumulated two dollars per one dollar of external debt (Medina Smith, 2005). According to official data from the Central Bank of Venezuela, from 1999 to 2013, the private sector deposits abroad increased by 138 billion dollars at an average annual rate of 14.7%. This should be seen as a minimum value of capital flight.

The deterioration in external accounts since 2008—as a result of weak exports and capital account deficit—brought along a drop in international reserves and an increase in public debt. However, in the case of Venezuela, these variables have not such significant effects as in other peripheral economies, due to the state's extraordinary ability to generate and arrogate foreign currency incomes. In the case of international reserves of the Central Bank of Venezuela (BCV), while it fell by 30% between 2008 and 2010, it barely declined in relative terms, both regarding the GDP (from 13% to 12%) and imports (from 82% to 76%). In addition, \$30.332 million in reserves in 2010 equal the level recorded in 2005 and double the reserves from 1999. This includes the Venezuela Investment Fund (FIV) and the Macroeconomic Stabilization Fund (FIEM), but leaves out the FONDEN (legally, a corporation), which accumulated contributions to 2011 for US\$ 81.400 million from equal parts PDVSA²⁸ and the BCV. Since then,

the international reserves level tended to remain relatively stable up to 2013, when it dropped significantly, just above \$20 million.

In this context, total external debt increased by 58% between 2008 and 2010, reaching US\$ 84 million. This was pushed by the public debt, which grew by 91%, while the private debt decreased. In relation to the product, this means the end of the debt reduction process that had been recorded since 2003, rising from 17% in 2008 to a maximum of 35% in 2010, and decreasing below 30% by 2013. While this is a significant increase, it does not become a significant burden, due to previous low levels of debt. Debt service, however, barely reaches 15% of exports and 44% of the trade balance.

9.3.5 Employment and Income Distribution

Despite being rich in natural resources, Venezuela has historically shown extreme levels of inequality and poverty. During the 1990s, these levels deepened as a result of the policies of structural adjustment, liberalization, privatization and labor reforms promoted by international organizations. While in 1990, 34% of households lived in poverty, 7 years later, the number had increased to 55.6% of households in poverty (and 60.9% of people), with indigence levels reaching 25%.

While poverty levels have declined since then, the 2002 crisis made poverty rise again, reaching 54% of households in 2003, this time accompanied by a significant increase in unemployment (which reached 19% of workers). Since then, the process of economic growth has had a positive impact on these variables, and poverty and unemployment decreased steadily throughout Chavez's administration. In 2013, poverty rates remained at 29.4% of households (and 34% of the population), which is similar to the levels at the beginning of the 1990s. Unemployment that year stood at 8.1%, maintaining the level of workers living in poverty.²⁹

Regarding the Human Development Index, or HDI, major improvements have been seen. According to the United Nations Development Program (UNDP), the HDI improved from 0.662 in 2000 to 0.748 in 2012, placing Venezuela in 71st place as a High Development country. According to INE, the values are slightly higher, with the country reaching an HDI of 0.771 in 2012. This ranking was due to a significant improvement in most social indicators; to name a few: between 1990 and 2011, illiteracy fell from 9.3% to 4.9%, infant mortality fell between 2003 and 2011 from 18.5 to 15.3 per thousand, life expectancy at birth increased between 2004 and 2013 from 73 to 74.7 years, and the population over 60 years old with pension coverage rose from 16% in 1998 to 43% in 2009.³⁰

Another important social improvement of the Chavez process is observed in income distribution indicators. The Gini indicator was 0.47 in 1999 and reduced to 0.40 in 2012, with an improvement of 14% (figure 9.10). As a result, Venezuela's economy ranked second behind Uruguay for equitable distribution in Latin America in 2012.³¹

As can be seen in the evolution of major social indicators series on figure 9.10, the international crisis did not have strong effects on these variables. Although a slight increase in the unemployment rate is recorded (which rose from 7.5% in 2009 to 8.8% in 2010), the greatest impact can be found in how the crisis meant a stop to the constant decline in poverty recorded since 2004. After 2007, households below the poverty line remained at 27% (with a slightly higher 29% in 2013). This contrasts with the effect of the 2002 crisis, and the oil strike was much more important, with a general increase in poverty and unemployment indicators.

Delving into the social effects of the 2008 crisis, we must consider that the strong state intervention helped to avoid a rise in unemployment levels. While within the private sector more than 30,000 jobs were lost in 2009, the public sector provided a 100,000 jobs increase in that year. Although these numbers are influenced by the



Figure 9.10 Social indicators of poverty, unemployment and the Gini coefficient in Venezuela.

Source: INE and ECLAC.

nationalizations carried out that year, the net increase in employment was exclusively a result of the state's effort. Since then, the participation of the public sector has increased year after year, until it reached 20% of employees (vs. 14% in 2002).

The decrease in tax revenues experienced in the crisis and the subsequent reduction of public spending led to a drop in investment in social expenses. In 2007–2008, public social spending represented 20.6% of GDP; it was reduced to 17% in 2009–2010. Despite economic recovery in 2011–2012, social spending represented only 15.4% of GDP by 2012. Notice that in spite of this value remaining low for the *chavista* period, it is still 40% higher than the average recorded in the 1990s.

As for remuneration, the average real wage shows a downward trend, mainly due to inflation. Between 2007 and 2013, the price index increased by 5 times the initial level, causing a drop in real wages of 17% (figure 9.11). In contrast, the minimum wage established by decree maintains a more favorable outcome with a real decrease of 3% (when until 2012 it showed an increase of 4%). Taking a wider range of time for the analysis period, the trend remains. From 2000 to 2011, while wages lost purchasing power against rising prices, the minimum wage showed a significant increase in real terms.³² This



Figure 9.11 Real wage and price index in Venezuela. *Source:* INE and BCV 2007 = 100.

increase, established in 2009, stopped the drop in real minimum wage, unlike the average salary, which continued to fall until 2010.

9.4 Conclusions

In this chapter, we have done a brief review of the specific characteristics of the Venezuelan economy, its production structure, and the effects on it of the international crisis of 2008–2009. Despite being situated in a strong position, in the middle of a process of economic and social expansion, the 2008 crisis hit Venezuela hard, making it one of the most affected countries in Latin America. The drop in GDP (-5%) was greater than in other countries in the region. This declining trend continued in 2010, even when other economies had recovered their growth path.

To understand this reaction to the external sector, we had to take into account the rentier aspects of the Venezuelan accumulation regime, and the burden of having the main global oil reserves and being a major exporter of oil and fuels. Petroleum in Venezuela is considered low- quality oil because of its high sulfur content and high density, features that have increased since the development of the Orinoco Oil Belt. This is why PDVSA can't operate in the short-term market but depends on reaching agreements with refineries specifically prepared for its oil and receiving a lower value than the international price.

The hydrocarbons work for Venezuela as an export enclave dependent on the ups and downs of the international market, having weak linkages with the internal production complex (except for a network of industrial inputs suppliers supported by its own oil revenues). Not only the oil industry, but also Venezuelan exports and imports, the domestic availability of foreign exchange and state financing, and the economy as a whole depend heavily on the mood of the market.

The hydrocarbons market (and commodities in general) were among those most affected by the great volatility of the 2008–2009 crisis. 2008 began with a marked increase in global fuel prices, a result of the massive inflow of speculative capital from the use of financial derivatives. Fuel prices reached historic highs, beating even previous crisis levels that had been fueled by armed conflicts and blockades.³³ However, in the second half of 2008, the bubble burst, unleashing the financial and banking crisis in the United States, affecting both the financial market and international commerce, and causing prices of basic inputs to plunge. Given this scenario, OPEC made several adjustments, cutting production to protect international prices in a context of flagging demand. For a country as dependent on the oil industry as Venezuela is, this triggered an inevitable crisis. In addition to lower prices, the regulation of extraction quotas prompted a decline in exports, and therefore a productive adjustment both commercially and financially. While prices have recovered since 2010—reaching an even higher annual average from 2011 to 2013 than in 2008, the historic recordholder—extraction activity continued to decline. Thus, in a country with a highly dependent non-oil sector, no dynamism, and enthusiasm for foreign currency income for oil, an oil crisis in times of favorable terms of trade appeared senseless.

It has been argued that Venezuela's oil boom was wasted, but this argument usually does not take into account the scope of social, political and economic developments since Chavez assumed power. After a few years of "administrative reorganization," which included a constitutional reform, Chavez's government began to change the oil structure from 2001. A radical change was carried out in the concession system in force, by which PDVSA gained operational control and a participation majority in oil industry. These measures led to strong social and political conflicts that culminated in a *coup d'etat* in April 2002 and an oil strike in PDVSA later that year, which caused the national GDP to plummet 24%.

Strengthened by overcoming these conflicts, in 2003, Chavez's administration began to carry out major reforms in the economic and social structure of Venezuela, with oil income redistribution as the axis. Since then, not only has economic growth recovered, but also the structural tendency to stagnation that once held the Venezuelan economy changed, with high growth rates and expansion of GDP per capita. But unlike other processes of growth thanks to the tailwind of the international market, Venezuela made great strides in reducing poverty and the historic inequality that had characterized it. Measured by the Human Development Index or any social indicator (literacy, malnutrition, infant mortality, etc.) this was an undeniable social development process, attached to a major reduction in levels of inequality, thanks to high social spending and the *Misiones*, tools used for the distribution of oil revenues.

However, we must recognize that this growth model intensified the dependence of the Venezuelan economy on the international hydrocarbons market. While on previous occasions the abundance of foreign exchange was used to create certain industrial structures, currently the burden of the petroleum sector has increased to over 28% of GDP. On the other hand, the manufacturing industry lost half of its stake in the GDP, representing only 13%, while decreasing its importance in total employment. Venezuela's main industry is oil refining, followed by the iron and steel industries. These means that the GDP is totally dependent on oil production activities, which were created by the state in earlier industrializing processes, and depend on having oil revenues.

The increasing dependence on hydrocarbons is most evident in the external sector. Oil exports multiplied with the growth of international prices experienced since 1999, gaining share in exports exceeding 80% at the beginning of the Chavez government to 96% of foreign sales in 2013. Simultaneously, because of nationalization and changes in oil regulations, the Venezuelan state had total control over the petroleum and complementary industrial activities; the public sector came to control 98% of exports. Therefore, the Venezuelan state is practically the only agent that has access to genuine currency through the export of hydrocarbons.

Briefly, these were the main characteristics of the expansion process prevailing in Venezuela at the outbreak of the international financial crisis. The main contagion factor was, as mentioned before, commercial, and more specifically, through the hydrocarbons market. While a record of exports was reached in the sector in 2008, in 2009, exports fell considerably (almost 40% in one year). Despite this significant drop, foreign sales had very high values in historical terms. Like other countries in the region, the result was a fall in international reserves and debt growth. However, the outer strength that Venezuela had before the crisis allowed it to rapidly overcome its problems. As a consequence of the restrictions on exports, the decline in international demand, and the sharp drop in prices, the oil industry was seriously affected, reaching an annual drop of -10% in 2009. For its part, the public sector, with most of its revenue depending on the oil industry, reformulated expansionary plans of government spending and higher taxes without being able to avoid falling into fiscal deficit.

Venezuela's process of economic and social growth since 2003 was based on the recovery and redistribution of international oil rents. Although great advances were made in the social sector, breaking the structural trap that prevented per capita growth for decades, it is important to point out that it took place at a time of high and rising international oil prices, and the structural changes made in economic and social matters failed (if they ever tried) to decrease the participation of hydrocarbons in the Venezuelan economy. During the last years, oil dependency in terms of GDP, exports, state funding, and social policy was increased, resulting in deindustrialization and greater participation for the primary sector of the economy. As was shown, the sharp fall in production that Venezuela's economy suffered in 2009 and 2010 was mainly due to the effects of the international crisis on the oil industry.

Notes

- 1. Currently known as "Faja Petrolífera del Orinoco Hugo Chávez Frias."
- 2. This includes the extraction of hydrocarbon and refining services. Unless stated to the contrary, for the calculation of the GDP, it has been included the net taxes on the products and services of financial intermediary measured indirectly.
- 3. MPPPyM. Petróleo y Otros Datos Estadísticos (2013). The Ministerio del Poder Popular de Petróleo y Minería (Ministry of Popular Power of Petroleum and Mining) considers appropriate International oil rent as the operating surplus of the oil industry that exceeds the "normal."
- 4. As important indicator of international rent obtained by Venezuela, note that in 2013 the Export Reference Basket was US\$ 98 per barrel, when the extraction cost from PDVSA was US\$ 11.
- 5. Mommer (2002) and Rodríguez Araque (2002).
- 6. Boué (2002, 2004).
- 7. Nonetheless, the weight of the public sector in the economy did not change significantly. From 2003 to 2013, the share of public sector in non-petro-leum product declined from 18.6% to 17.8%.
- 8. Aponte Blank (2012).
- 9. See Bello and Ayala (2004).
- 10. This means that growth rate would duplicate GDP per capita in only 10 years.
- 11. 2013 GDP in constant currency data not available.
- 12. It is remarkable that refinery activity participation both in GDP and industrial index is very low (about 7% of industry GDP). These factors undermine the preconception of centrality of refining in the Venezuelan industrial complex. This can be explained by the relative price structure of fuel in Venezuela which under a strong policy of subsidized prices, refinery activity participation tends to get under-calculated. Fuel in Venezuela has artificially low prices both in terms of currencies as well as compared to other products. A clear indicator is that PDVSA lost US\$ 16 per barrel used for local consumption in 2011.As a comparison, in Argentina for the year 2004, oil refinery GDP participation was very similar (1.3% vs. 1.4% Venezuela). However, measured in volumes Venezuela refineries produced twice Argentina output but according to national statistics of both countries, its Venezuelan Gross Production Value was only 10% higher while Argentina Added Value was

39% higher. If Venezuela would keep the same refined oil—added value ratio, refineries-related GDP would also increase 143% reaching a 3.4% of national GDP and 18% of the industrial sector. As a consequence of the increase in international fuel prices (not reflected in Venezuelan economy), the weight of Venezuelan refineries would be even more underestimated in the following years. Additionally it must be take in consideration that Argentina also had a policy of subsidized oil prices, lower to international levels but with solid profitability. On the contrary, PDVSA was losing 10 US\$ per barrel at the comparison year.

- 13. Vera (2011).
- 14. Oddly, "Minery" and "Electricity and Water" do seem to be discriminated although counting with an evenlower GDP participation (under 1%).
- 15. Although the mentioned decrease in food production, due to the low relevance of agriculture in the Venezuelan economy, the greatest effect of the drought of 2009–2010 was on the electric power generation. Most of Venezuela's electrical structure depends on hydroelectric generation so the descent of the Caroni River to historical minimum produced an energy crisis that brought along blackouts and the need for implementing saving plans that reduced industrial and business consumption.
- 16. The increased extraction in the Orinoco Belt made the use of large quantities of "light" petroleum necessary for its mixing. This demand is greater than the light petroleum output available in Venezuela so in 2014 light oil had to be imported, despite being a leading oil exporter.
- 17. The API gravity is an international scale for measuring the density of the crude oil made by the American Petroleum Institute. The lower the indicator, the denser and heavier the crude. MPPPyM, PODE (2011).
- 18. This diagnosis is seen even following the Venezuelan statistics since international data (both BP Petroleum Company and OPEC) show an even bigger decrease in Venezuelan extraction.
- 19. In addition to the mentioned increasing weight in the extraction of heavy and extra heavy oil, with higher cost and requests for investment, productivity of each Venezuelan well is far from that obtained by other OPEC countries. While in Saudi Arabia each oil well has an average of 2,800 barrels per day and in Angola is 1,100 barrels per day, in Venezuela barely reaches 190 barrels.
- 20. It should be noticed that, as mentioned before, the relative Venezuelan prices underestimate the product and added value of the refining industry and therefore the industry after the rising of international price.
- 21. The last data available is from 2007 (BCV MIP 2007). However it was not used in this analysis as we found significant differences attributable to changes in relative prices. This is how in 2007 the Petroleum Refining represents only 2.8% of GDP industry and it is placed fifteenth of the industrial activities, which is not a correct description of the Venezuelan structure, because of the fall of 62% in sectorial Added Value. This drop was caused by the maintenance of domestic sale prices (in nominal terms, meaning a drop in relative prices) despite the growth of international price which led to increased intermediate sector demand. Since 2008, the surplus decreases

in such a way that by 2011 more than half of the Added Value come from Salaries, which is not consistent with the condition Intensive Capital Activity (INE 2013 includes the Manufacturing of Chemical Products).

- 22. Velásquez et al. (2012).
- 23. For more details see Mansilla (2008).
- 24. It's not possible to compare the price of Venezuelan oil included in the OPEC basket since in 2005 "Tía Juana Light" was replaced by "BCF-17" and in 2009 the "Merey" oil was chosen. By having different qualities and API degrees, the differential relative to other prices, as OPEC basket itself, or spot price as WTI is variable, preventing an accurate analysis of price increase.
- 25. It should be clarified that the estimates of oil extraction and exports change significantly according to the source, which leads to a complexity that must be taken into account in the analysis. For example, there are important differences between the official data from PDVSA and the statistics of OPEC, with the registered discrepancies reaching 20% of Venezuelan exports. Since 2007 (the last year in which both statistics matched), OPEC indicates lower Venezuelan exports by 0.4 million barrels of crude oil per day. Valuing these minor exports by the price of a representative barrel of Venezuela, it represents about 57 billion dollars in last five years, an amount equivalent to one year's total imports.
- 26. The average earned \$ 57 of crude and sub-products per barrel exported in 2009 were 46% higher than the average 2003–2006 (PODE, 2009–2010).
- 27. ECLAC, Statistical Yearbook for Latin America and the Caribbean.
- 28. Besides the usual contributions, PDVSA contributed in 2008 and 2011 to the Special Contribution on Extraordinary Prices in the International Hydrocarbon Market and the Special Contribution on Extraordinary Prices and Exorbitant Prices in the International Hydrocarbon Market, respectively; tools used to fund the social investment with the extraordinary international income.
- 29. It should be clarified that there are proposes on methodological problems in measuring unemployment, such as the effect of the missions in unemployment and the activity or the shortest period of job search revealed by the survey.
- 30. Aponte Blank, 2012 and Integrated System of Social Indicators of Venezuela (SISOV).
- 31. ECLAC, Statistical Yearbook for Latin America and the Caribbean 2013.
- 32. Boada and Mayorca (2011).
- 33. To understand the weight of this fictitious demand, even in 2012 with the regulations that were imposed after the crisis, the speculative purchases increased five times the real oil sales.

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