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ISSUES IN VENEZUELAN
MONETARY AND
ECONOMIC REFORM

María Belén Wu

Johns Hopkins Institute for Applied Economics,
Global Health, and Study of Business Enterprise



Issues in Venezuelan Monetary and Economic Reform

By María Belén Wu

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About the Series

The Studies in Applied Economics series is under the general direction of Professor Steve H. Hanke, Co-Director of the Institute for Applied Economics, Global Health and the Study of Business Enterprise (hanke@jhu.edu). The authors are mainly students at The Johns Hopkins University in Baltimore. Some performed their work as research assistants at the Institute.

About the Author

María Belén Wu is a junior at Johns Hopkins University double majoring in International Studies and Economics. She wrote this paper during her time as an undergraduate researcher for the Institute of Applied Economics, Global Health, and Study of Business Enterprise. María Belén is a BA/MA candidate with the Johns Hopkins School of Advanced International Studies and will graduate in 2019 with an MA in China Studies and International Finance.

Abstract

This paper analyzes the historical background and current conditions relating to Venezuela's economic crisis, focusing on its monetary and financial aspects. It aims to assist in making recommendations for appropriate monetary reforms, such as the establishment of an orthodox currency board or official dollarization. The paper addresses critical questions concerning such monetary reforms, as well as complementary economic reforms that would improve Venezuela's troubled economy in the near future.

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Keywords: Currency board, dollarization, monetary reform, Venezuela

JEL codes: E42, P21

Since their independence, Latin American countries have displayed a common fervor for populist socialism. Whether it is a residue of three centuries of European imperial rule, or simply a fondness for charismatic leaders – and an extraordinary talent for producing them – the widespread formula of clientelism and cronyism disguised as socialism has proven to have devastating consequences for the continent’s economic, social and political development.

Nowhere is this phenomenon displayed more clearly at present than in the Bolivarian Republic of Venezuela. The country is suffering its worst humanitarian and economic crisis in history, which calls for an urgent solution. This paper analyzes the historical background and current conditions relating to the crisis, focusing on its monetary and financial aspects. It aims to assist in making recommendations for appropriate monetary reforms, such as the establishment of an orthodox currency board or official dollarization. The paper addresses critical questions concerning such reforms, as well as complementary economic reforms that would improve Venezuela’s troubled economy in the near future.

I. Prelude to Socialism

“The Devil’s Excrement”

Venezuela has the largest oil reserves in the world. From 1917 onward, oil revenues have grown significantly in relevance in the country’s national accounts. Oil exports began to displace other commodity exports in a typical manifestation of what would later be called “Dutch disease,” as Venezuelan oil exports produced sharp inflows of foreign currency, leading to the appreciation of the bolívar, resulting in the loss of competitiveness of traditional exports such as cash crops. Thus, increasing dependence on oil was accompanied by a gradual contraction of other sectors of the economy. By 1926, oil had displaced coffee as the country’s most valuable export commodity and biggest revenue generator; by 1929, it was providing 76 percent of the country’s export earnings and half of government revenues (Boué 1993: 179).

The detrimental effects of dependence on oil on the Venezuelan economy went unnoticed for a long time. Little to nothing was done to diversify domestic industry using oil revenues until the 1950s, when import substitution economic policies only exacerbated the dominance of oil exports. Subsequently, the extra oil revenue from the 1973 oil shock was used to launch great public projects in the hopes of an industrial takeoff and a boost to output in the public sector, but state-owned enterprises constantly underperformed and instead contributed to a sizeable proportion of the increase in Venezuelan external debt (Boué 1993: 185). Moreover, the volatility of oil income clashed with ongoing public projects, pushing government expenditure up at times of low revenues, which further piled up Venezuelan debt (Naím 1993: 22). Despite these conspicuous economic problems, it was easy to turn a blind eye when Venezuela’s income per capita was still comparable to that of Western European countries.

Former oil minister Pérez Alfonzo accurately termed oil “the devil’s excrement,” in accord with his grim predictions for Venezuela under the illusion of economic development generated by oil revenue. Meanwhile, complacency continued.

Collapse of the Bolívar

Rising oil prices in the 1970s (see Figure 1) brought wild speculation in Venezuela. State agencies and private enterprises continuously contracted massive amounts of loans in an unregulated, corrupt banking system (González 2014: 41) in the naïve belief of an everlasting boom. As oil prices eventually collapsed in the 1980s, the bubble burst and Venezuela suffered a banking crisis followed by a deep recession.

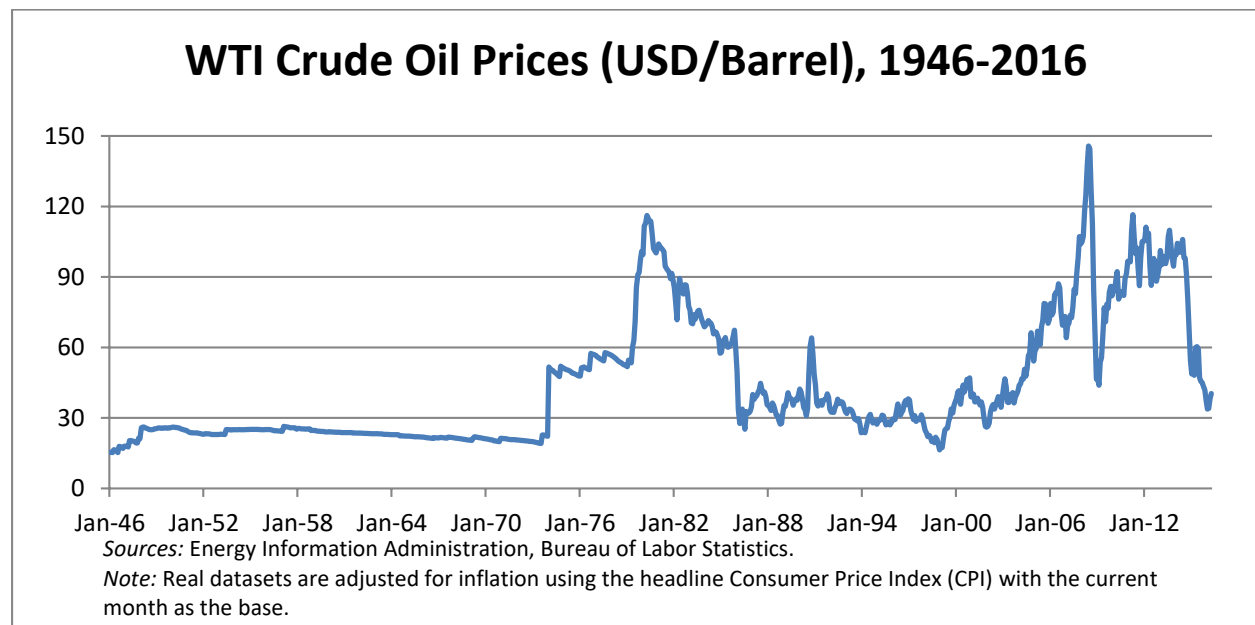


Figure 1

The banking crisis brought with it a currency crisis, as the Venezuelan bolívar suffered its first major devaluation, of nearly 100 percent,¹ on the so-called Black Friday of February 18, 1983. As a response, the government of president Luis Herrera Campins established a currency control agency for the first time ever, the Régimen de Cambio Diferencial (RECADI). RECADI aimed to restrain the free distribution of oil wealth and instituted a complicated four-tier exchange rate system with fixed preferential rates for “essential” transactions and floating rates for other transactions. This system lasted until 1989, at which point the bolívar to dollar exchange rate had increased from 4.3 Bs. to 39.6 Bs., and accumulated annual inflation had reached 520 percent. The bolívar has never recovered to its pre-crisis levels and has suffered continuous, ever larger devaluations.

However, instead of serving as a cautionary tale against currency controls, the RECADI years seemed to have set a precedent for future Venezuelan leaders. The motivation behind this

¹ Here and subsequently I use the Latin American way of speaking about devaluations, in which the pre-devaluation exchange rate is the base of calculation, so a change from 5 bolívars to 10 bolívars per dollar is a devaluation of 100 percent. In the U.S. way of speaking, the post-devaluation exchange rate is the base of calculation, so the devaluation is 50 percent.

policy is the system's high profitability for the economic and political elite. From 1983 to 1989, a reported \$60 billion in foreign reserves were misappropriated through the RECADI system, twice the amount of Venezuela's external debt during that period. With a budget of \$28.3 billion, RECADI granted \$43.5 billion in foreign exchange permits. This generated \$15.2 billion of direct fraud in addition to the indirect fraud resulting from reselling the preferential dollars at higher market rates. Amazingly, no prosecution was sought after the fact. To this day, RECADI still provides one of the most spectacular examples of corruption in all of Latin America (Cordeiro 2016: 13).

It was under these circumstances that the Bolivarian Revolution came to life; it was also under the same circumstances that the Revolution failed.

II. Economic Decline Under Socialism

Hugo Chávez: Socialist for the 21st Century

Economic conditions in Venezuela worsened significantly in the 1980s and 1990s. Balance of payment deficits occurred every year between 1986 and 1989 due to the falling oil prices of the mid-1980s. They were also symptomatic of the bolívar's overvalued exchange rate under the RECADI system, and resulted in dwindling international reserves (Naím 1993: 36). Then came the 1994 Mexican peso crisis, which took another toll on the already weakened economy. In his attempt to apply a series of austerity measures imposed by the International Monetary Fund, Rafael Caldera, Chávez's predecessor, implemented devaluations and privatizations that disproportionately hurt the lower class. Unemployment and underemployment had increased, and almost half of the workers were employed in the informal sector. Annual inflation reached a high of 103 percent in 1996, according to the IMF *World Economic Outlook*; minimum salaries did not cover basic needs; and per capita income fell dramatically. According to the United Nations, the number of people living below acceptable living standards in the country ranged between 65 to 70 percent (González 2014: 66).

In the meantime, the Bolivarian Revolution Movement was rising to prominence. The Movement was initially a military clandestine group within the Venezuelan army that attempted a series of unsuccessful coups d'état in 1992. The group then gradually morphed into a political organization as their leader's electoral success became more likely, Chávez being the only candidate untainted from involvement in the country's economic turmoil. On February 2, 1999, 56.2 percent of the Venezuelan population elected Hugo Chávez Frías as the new president of Venezuela.

Chávez was without doubt a charismatic leader who appealed to the lower and middle classes, deploying the Bolivarian discourse to perfection. He identified the shared enemies of the nation, namely the corrupt elitist politicians who preceded him, and more important, the United States – the imperial power that had supposedly kept Venezuela under its thumb all along.

Chávez positioned himself as the successor to Simón Bolívar, the father and liberator of the nation. Just as Bolívar had achieved freedom from the Spanish, Chávez would free Venezuela from the United States. He offered the promise of an authentic democracy, a rejection of neoliberalism, an egalitarian redistribution of oil revenues, recognition of women and minorities' rights, and a military that served the people (González 2014: 68). This was the start of the Bolivarian Revolution.

But the Bolivarian Revolution was not always a socialist revolution. On gaining power in 1999, Chávez signaled continuity to the international financial community by retaining Rafael Caldera's finance minister, Maritza Eizaguirre. The currency controls were also kept untouched, and there was no great change in fiscal policy regulations. Despite the strong emphasis Chávez placed on social rights and entitlements, his initial economic policies were still orthodox and somewhat rightist (Cannon 2014: 80).

It was not until 2001 that the revolution took a left turn, when the government introduced a series of radical laws on land reform, oil policy and fishing. The reforms led the political opposition to attempt a coup in 2002 (tacitly supported by the United States), an oil strike from 2002 to 2003, and a recall referendum in 2004. The ultimate failures of these attempts to unseat Chávez in turn discredited the opposition and strengthened Chavist support.

Meanwhile, Chávez revamped social policy in 2003 with the introduction of Bolivarian Missions, a series of social welfare, social justice, anti-poverty, educational, and military recruiting programs. Worker cooperatives were also introduced into the production process, and the government began expropriating companies and handing them over to workers. In January 2005, Chávez officially announced that Venezuela would move towards a new "socialism for the twenty-first century."

Twenty-first-century socialism would be based on humanism and solidarity, and it would transcend capitalism as well as the statism of twentieth-century socialism. The crucial problem of Chávez's vision was the disproportionate amount of ideological content compared to actual programmatic content (Cannon 2014: 81), thus allowing an enormous degree of economic mismanagement.

To begin with, the government greatly increased state control over oil revenues. While Petróleos de Venezuela (PdVSA) had been a state-owned enterprise since 1976, the firm was subject to a substantial amount of private-sector management. The oil strike in 2003 led by the Venezuelan opposition provided the ideal pretext to replace PdVSA's upper and middle levels of management, as well as approximately 18,000 workers who had participated in the strike. In addition, the government transformed PdVSA's existing service agreements with smaller oil companies into joint ventures with majority PdVSA stakes, and ultimately transformed the joint ventures into PdVSA-controlled projects, evidently expanding government custody of oil wealth. As a result of these steps and rising oil prices in the 2000s (see Figure 1), state revenue from oil increased from \$6 billion in 1999 to \$25 billion by 2005. Put another way, it increased

from 5.79 percent of GDP in 1998 to 15.89 percent of GDP by the end of 2006 (Cannon 2014: 84).

The higher revenue partly went to increase international reserves from 2003-2007 (See Figure 2), but most of it was used as government expenditure, in order to fund the poverty reduction programs such as the Bolivarian Missions. The limited – and likely unreliable – government statistics show major improvements in access to food, housing, education and health. However, a study using the “synthetic control” method contends that Chávez’s policies did not have a significant impact on socioeconomic development. In fact, compared to the control, per capita income fell dramatically in Venezuela. The study also found that while poverty, health and inequality outcomes all improved during the Chávez administration, these outcomes also improved in each of the corresponding control cases, thus the improvements cannot be attributed to Chavismo (Grier and Maynard 2015: 1). These findings cast serious doubt on the effectiveness of the expensive social policies of the Bolivarian Revolution (see Figure 3), policies that led to the government printing ever-larger sums of money, resulting in the continuous devaluation of the bolívar.

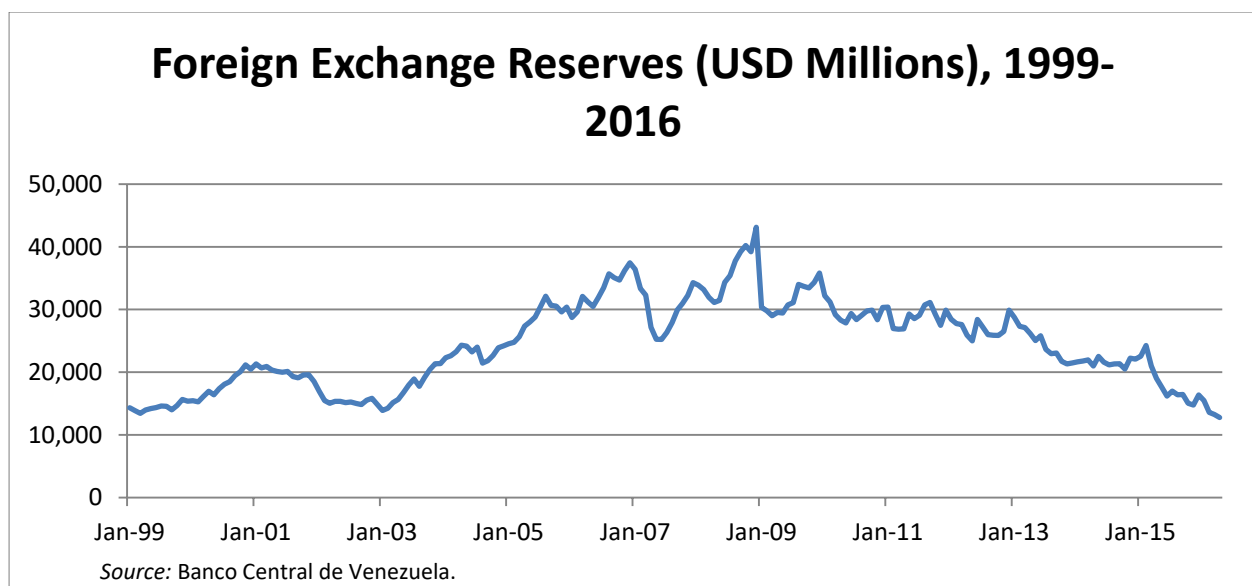


Figure 2

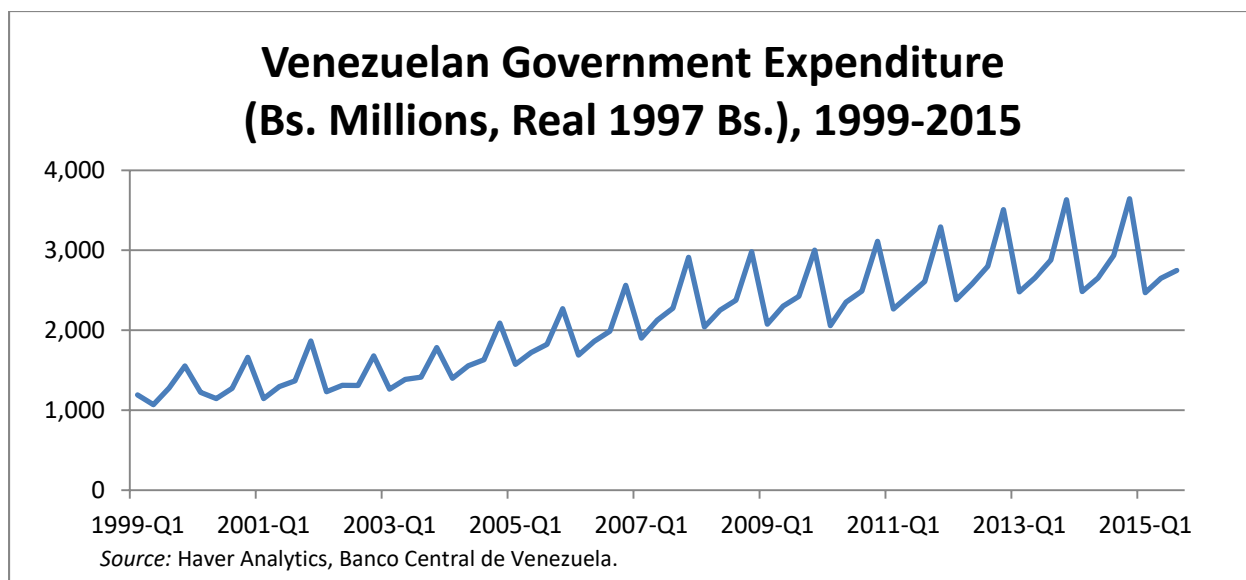


Figure 3

Indeed, the monetary policies that accompanied social programs had the most devastating effect on the Venezuelan economy. In 2003, Chávez installed price controls for essential consumer products, which increased supply shortages from an average of 5 percent to 22.2 percent in 2013, the last record published by the central bank. Currently, in 2016, the shortage of products in the basic household consumption basket has quadrupled and stands at 41.3 percent, according to the nongovernmental Center of Social Analysis and Documentation of the Venezuelan Federation of Teachers. Price controls aggravated the situation for the domestic agricultural and manufacturing sectors, which were already weakened by Dutch disease in the early oil boom years. As a result, food imports rose dramatically in order to reduce shortages.

In addition to this, a new currency control agency was also introduced in 2003, the Comisión de Administración de Divisas (CADIVI). The new exchange rate was set to 1,600 Bs. per dollar. This rate was introduced after the political instability of the early 2000s as a measure to reduce capital flight by placing currency limits on individuals. However, its immediate consequence was the emergence of a currency black market, fuelled in part by the reliance on imports that required payments in foreign currency. (See Figure 4, which is in terms of the bolívar fuerte introduced in 2008, equal to 1,000 old bolívares.)

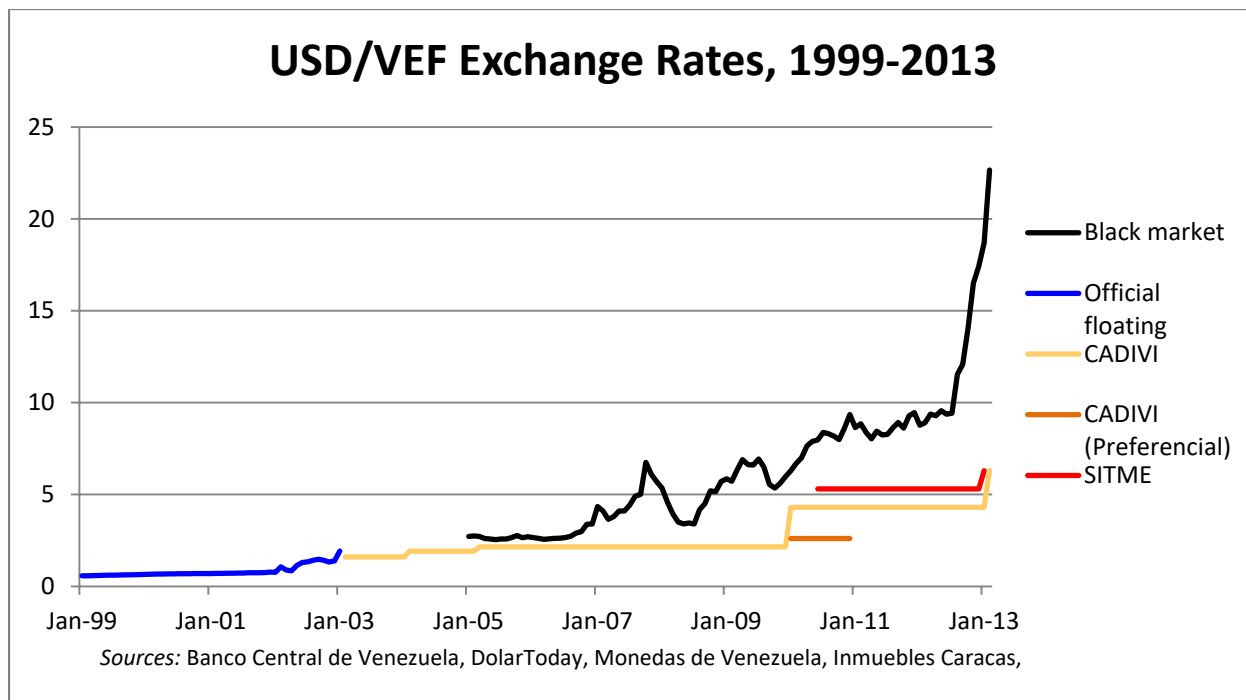


Figure 4

A vicious circle was created, whereby currency controls pushed up import prices to black market rates, which were in turn reflected in higher consumer prices. Nevertheless, due to the price controls in place, many firms were forced to sell their products below the cost of production, resulting in insufficient revenues to continue production. Ultimately, the policies that were meant to help reduce poverty backfired by aggravating supply shortages, producing record levels of inflation, and generating massive levels of debt.

Figures 5 and 6 below show that the public external debt accumulated during the Chávez administration (1999-2013) was roughly equal to 30 percent of Venezuela's total debt and 75 percent of the external debt alone.

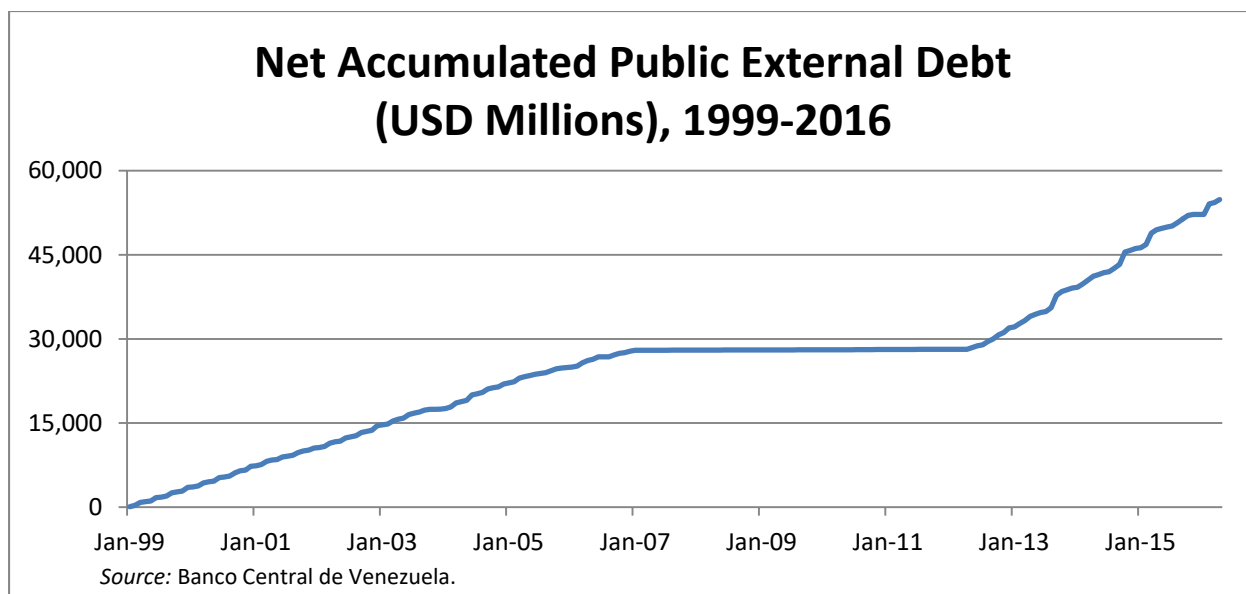


Figure 5

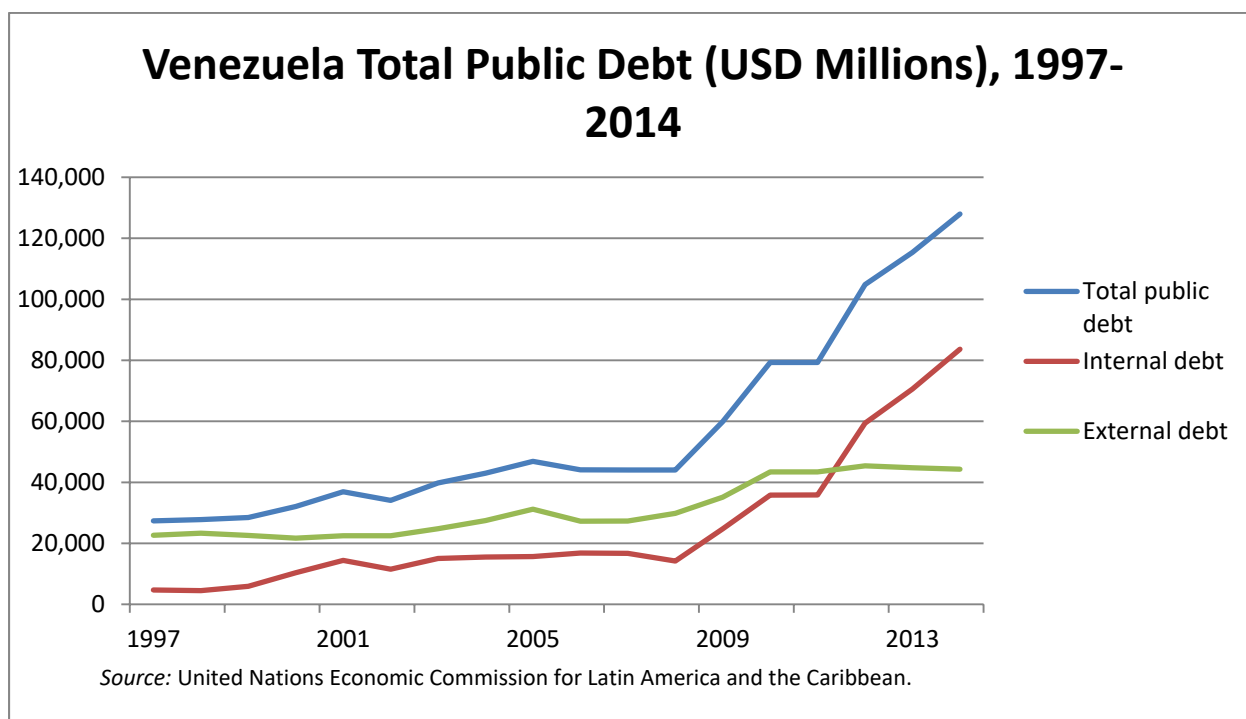


Figure 6

Figures 7 and 8 below show the exponential increase in Venezuela's monetary base as well as in official CPI inflation, generated via money printing. The devaluation of bolívar occurred with such speed and momentum that in January 2008 the government decided to create a new currency, the bolívar fuerte, by eliminating three zeros from the old currency. Clearly, this did not eliminate the core problem. According to Hanke and Krus' (2013) "Inflation by the Decades:

2000s” report, Venezuela stood at number 7 in the world inflation ranking for 2000-2009, with a cumulative inflation rate of 567.7 percent, and this period was only the beginning of the crisis.

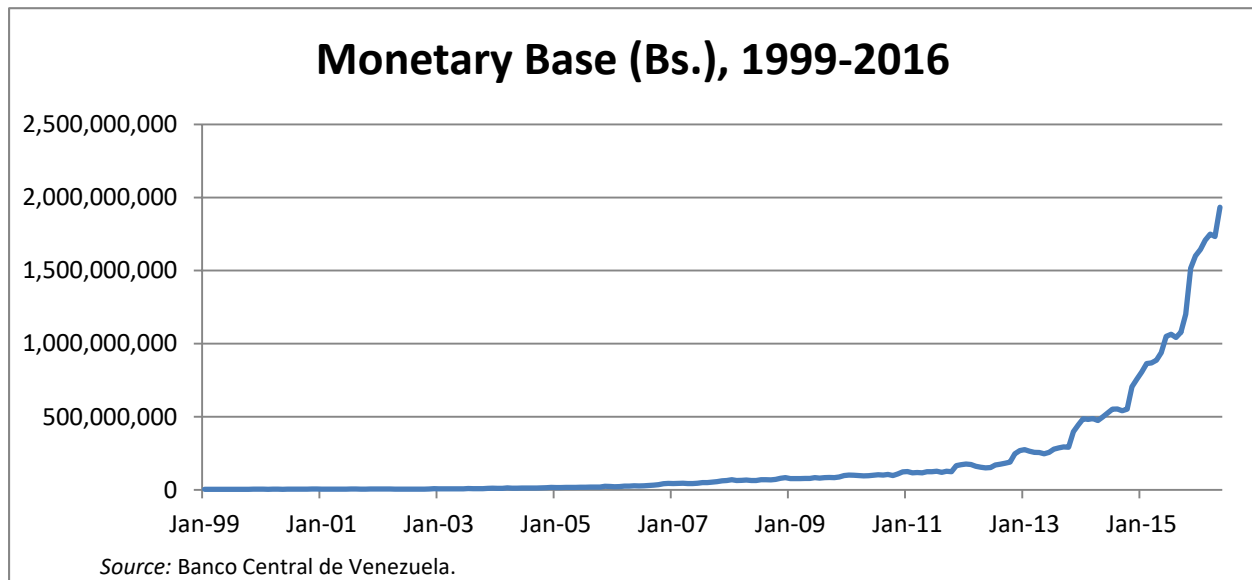


Figure 7

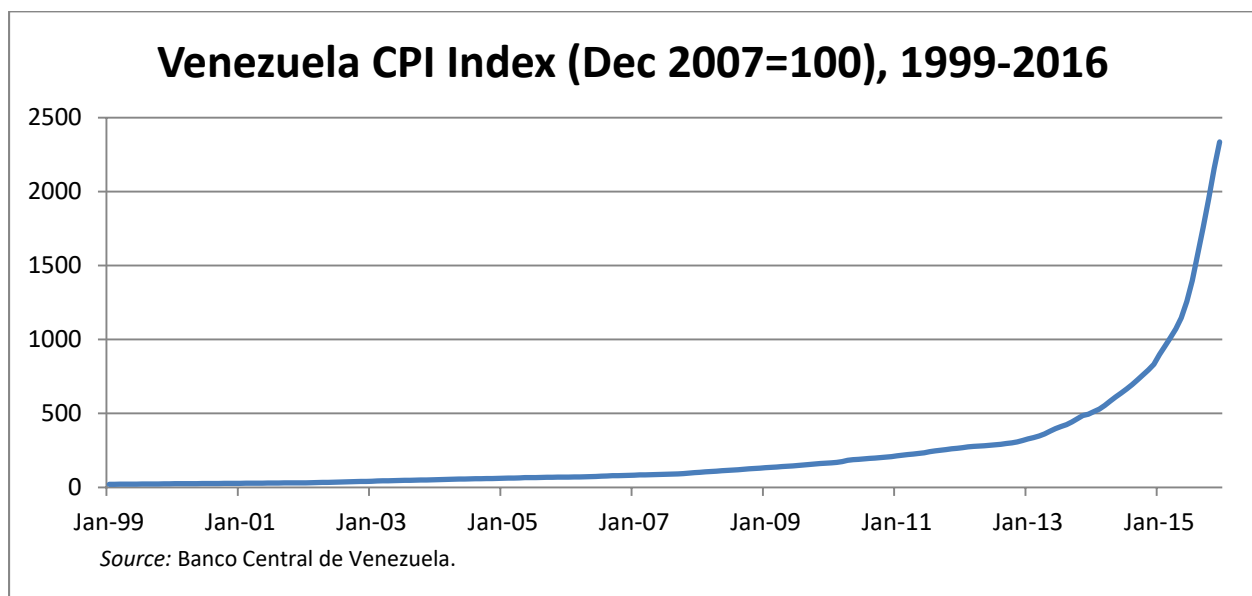


Figure 8

Nicolás Maduro and the Failure of the Bolivarian Revolution

Chávez was re-elected in 2013 but was unable to take office due to severe illness. He named his vice president, Nicolás Maduro, as his successor and new leader of the Bolivarian Revolution. Chávez died on March 5, 2013,² and Maduro was elected president on April 14, 2013.

Maduro inherited a Venezuela in deep crisis, and yet he hardly changed any of the policies from his predecessor's flawed ideology. What Maduro did do was create an over-complicated myriad of exchange rate systems, all of which failed to reflect the market value of the bolívar and exacerbated its depreciation. Moreover, one of the primary purposes of employing exchange rate controls is to prevent capital flight. However, the level of Venezuelan foreign reserves had remained relatively stable until 2015 (see Figure 2), which casts doubt on both Chávez and Maduro's motives for implementing an exchange rate control and further suggests private interest in the misappropriation of Venezuelan money.

The Sistema Complementario de Administración de Divisas (SICAD), a foreign currency auction system with the aim of activating legal currency trade between Venezuelan citizens and attempting to reduce black market trade, was created in March 2013. SICAD II was then added in February 2014; it extended the system to Venezuelan nationals at a higher rate. At the same time, the CADIVI currency control agency became part of the Centro Nacional de Comercio Exterior (CENCOEX), creating a multi-tier exchange rate system. When these measures failed to curb black market currency trade, the government added the Sistema Marginal de Divisas (SIMADI) in 2015, where the price of the dollar was supposed to be determined by market supply and demand. However, SIMADI operated as a pegged exchange rate system. In 2016, all previous systems were replaced by a new dual exchange rate, offering a preferential and a floating rate, the Protegido (DIPRO) and the Complementario (DICOM), similar to Campins' RECADI and Chávez's CADIVI systems. As Figure 9 shows, the disparity between the black market and the most important official rate reached an all-time high of 82 percent in March 2016.

² There are suspicions that he died earlier but that his death was not revealed for some weeks.

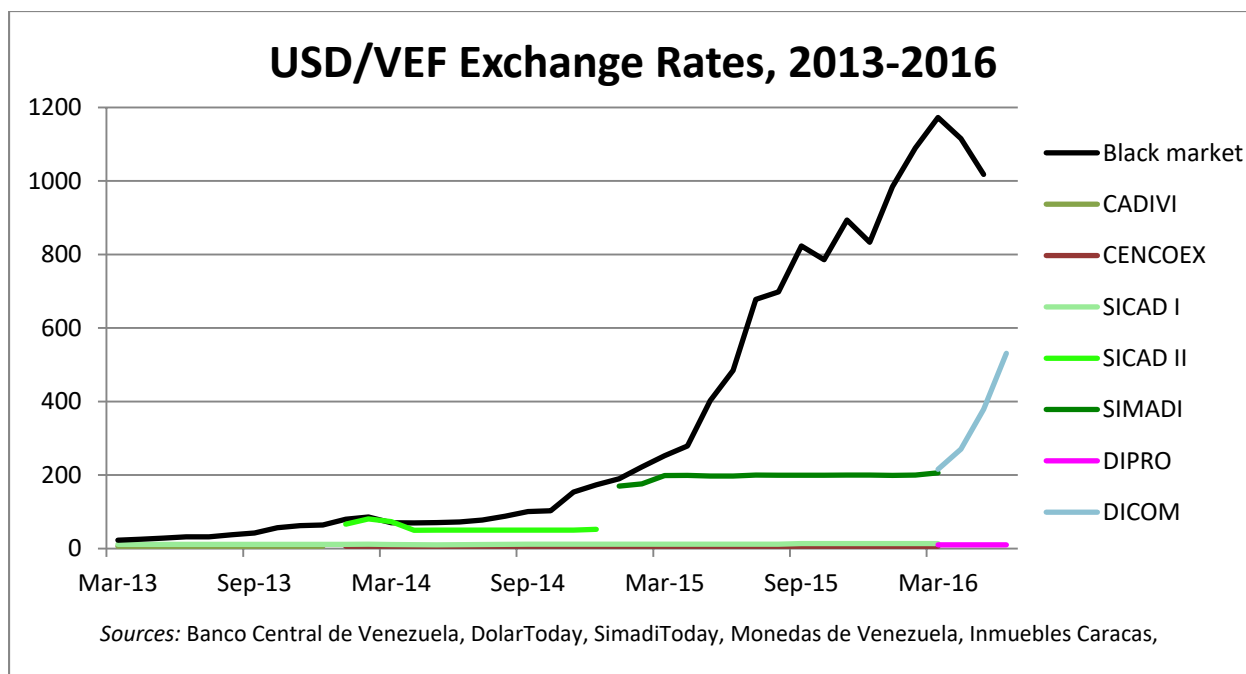


Figure 9

History repeated itself when oil prices collapsed again in mid-2014 and dropped to a low of \$33.79 in January 2016 (see Figure 1). The story popularized in the media that the drop in oil prices triggered Venezuela's economic and humanitarian crisis is highly misleading. The warning signs had been there all along, and the government had chosen to ignore them. Even when oil prices were hovering around \$100 per barrel in 2013, inflation was skyrocketing, chronic shortages of goods were common, external debt was soaring, and Venezuelan GDP had already begun to decline in real bolívars, not to mention its dismal dollar value (See Figure 10). The fall in oil prices only exacerbated the situation, in addition to harsh environmental conditions like droughts caused by El Niño phenomenon, which resulted in electricity and water supply shortages.

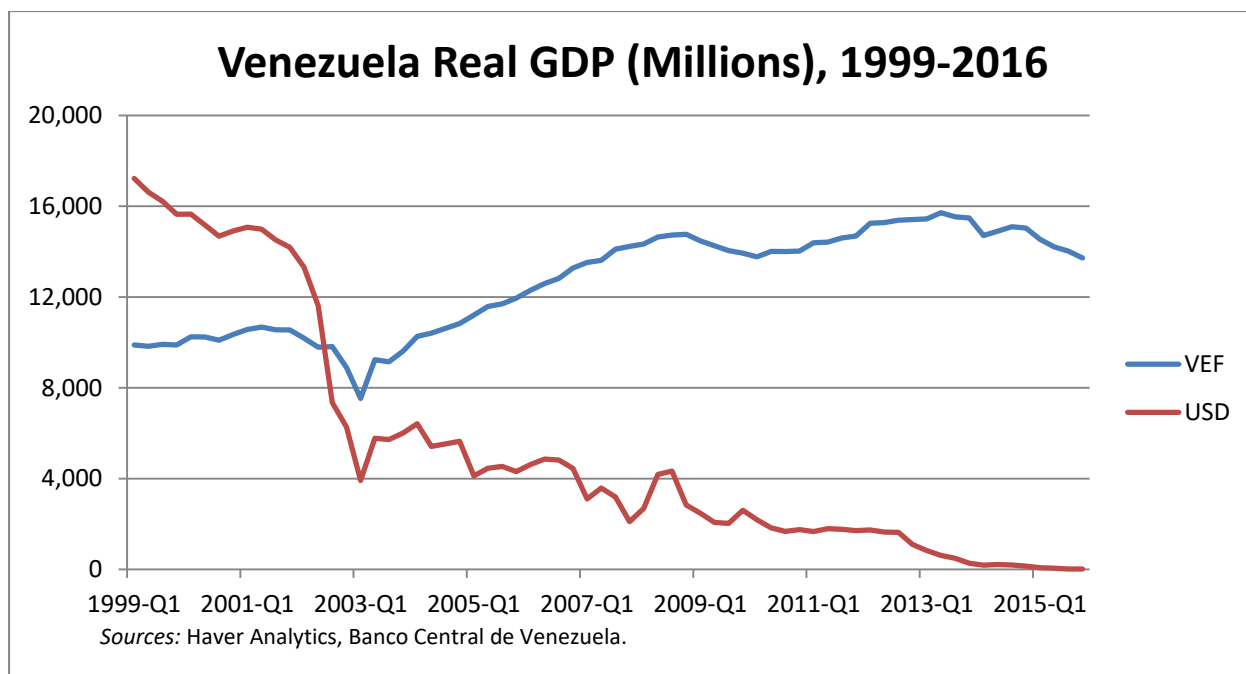


Figure 10

At present, most foreign investors have fled the market as the value of the bolívar continues to drop and dollars have become harder to obtain. Multinational corporate giants such as Kimberly-Clark, Procter & Gamble, Johnson & Johnson, and Mondelez have opted to remove Venezuela from their global operations to avoid a direct impact on the overall company's bottom line, further intensifying shortages. Coca-Cola has stopped production due to the lack of cane sugar, and McDonald's has halted production of Big Macs due to a bread shortage. While the stock market shows high nominal growth in recent years (see Figure 11), there has been a spectacular fall in the dollar value of stocks from their peak (see Figure 12). Even so, some investors continue to use the stock market as a vehicle to hedge against the rapid currency devaluation, since the prevailing thinking is that it is better to hold stocks than bolívares.

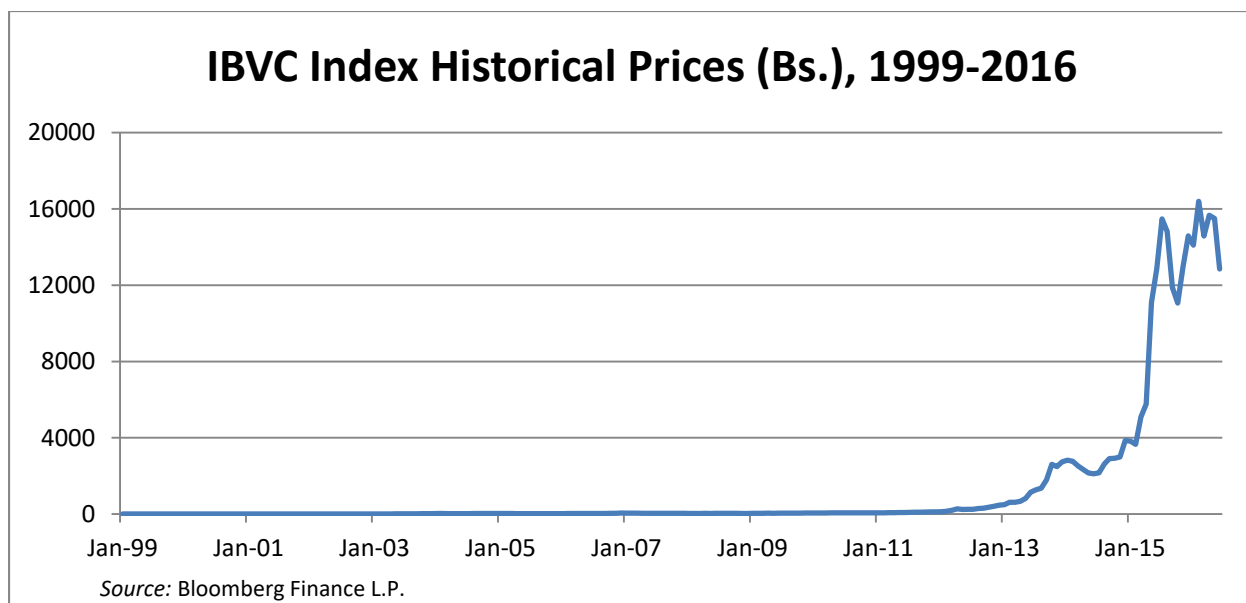


Figure 11

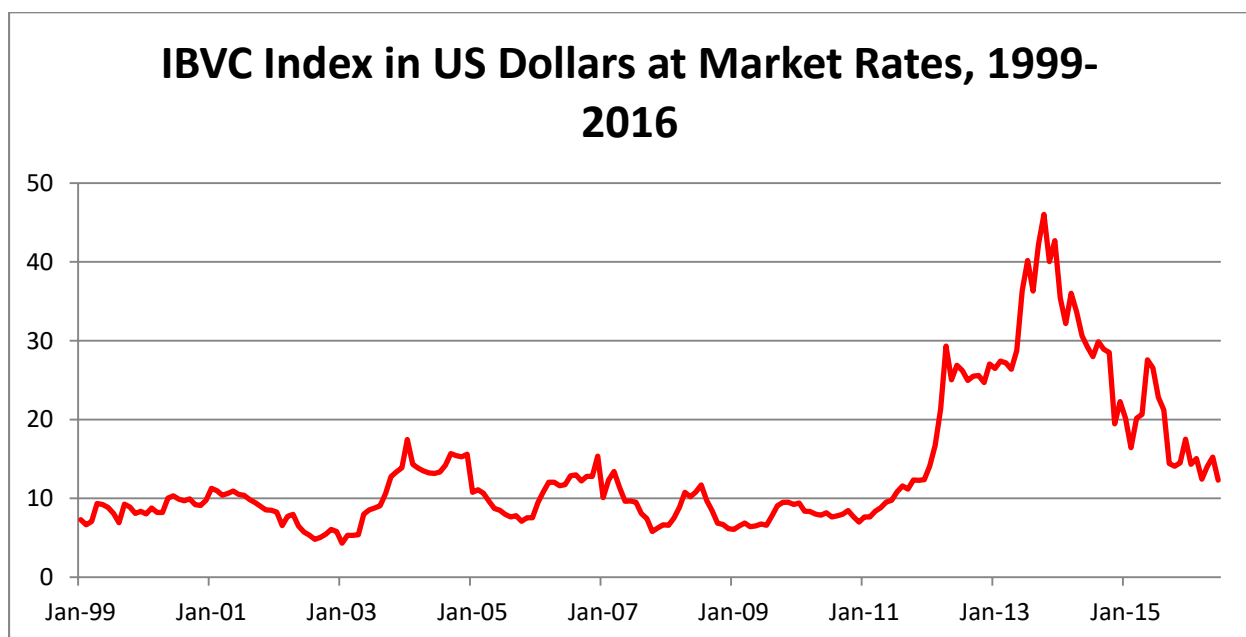


Figure 12

The same applies to Venezuelan bank deposits, which have skyrocketed in nominal terms, but have however plummeted in US dollar terms, reflecting the loss of value of the bolívar (see Figure 13 and 14).

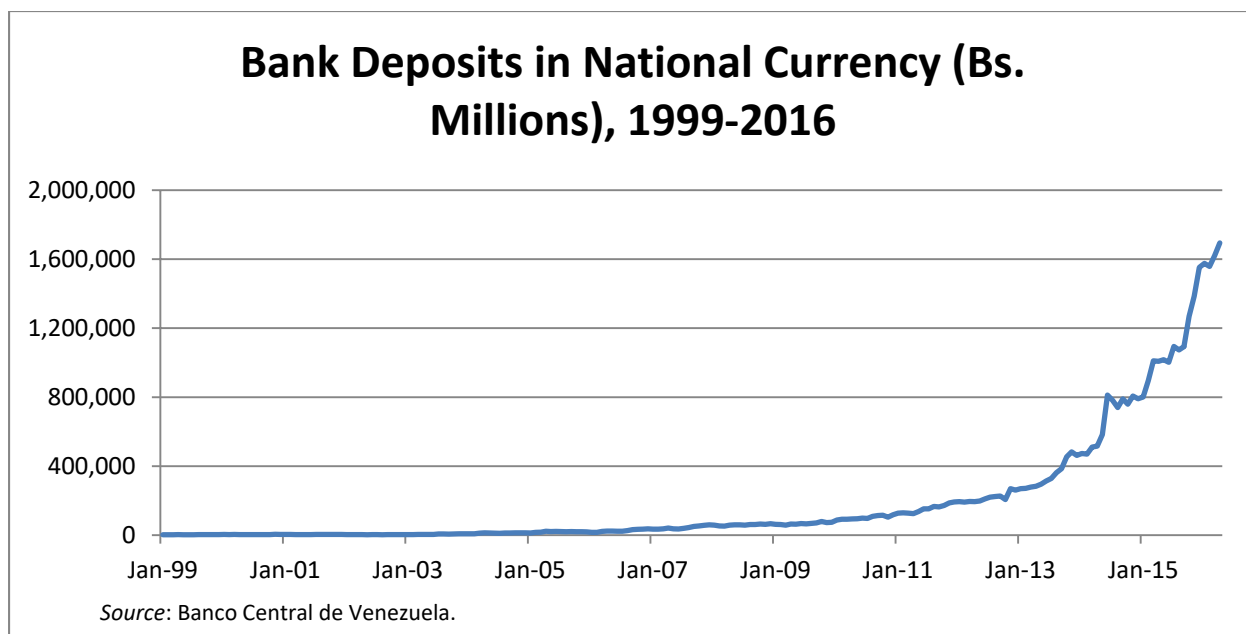


Figure 13

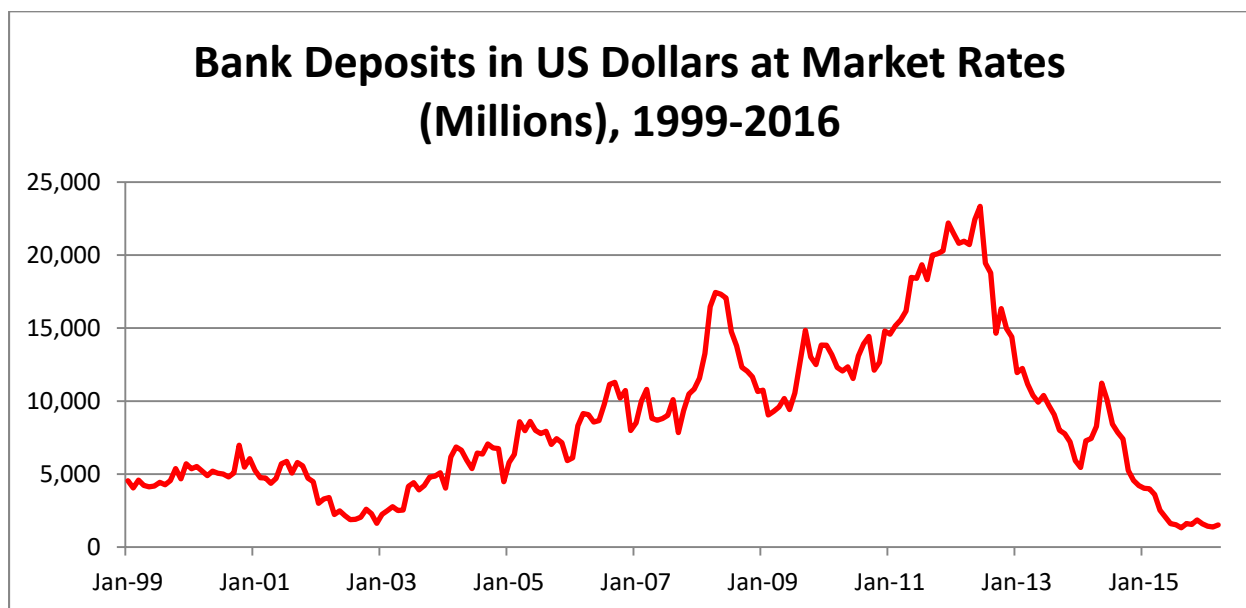


Figure 14

The loss of value can also be illustrated by the stark contrast between the real inflation rate experienced over the last three years and the banks' deposit rates. Figure 15 below shows monthly year-on-year implied inflation calculations based on purchasing power parity of the bolívar versus the dollar, in comparison to official inflation. At its peak in July 2015, inflation reached 809.1 percent, and it remains the highest inflation rate in the world. Meanwhile, Figure 16 shows Venezuela's monthly bank deposit rates, which have remained mostly unchanged from 2010 onwards, at approximately 15 percent. This once again emphasizes the dramatic fall

in value of bank deposits and the decapitalization of Venezuelan wealth, as inflation eats away at people's savings.

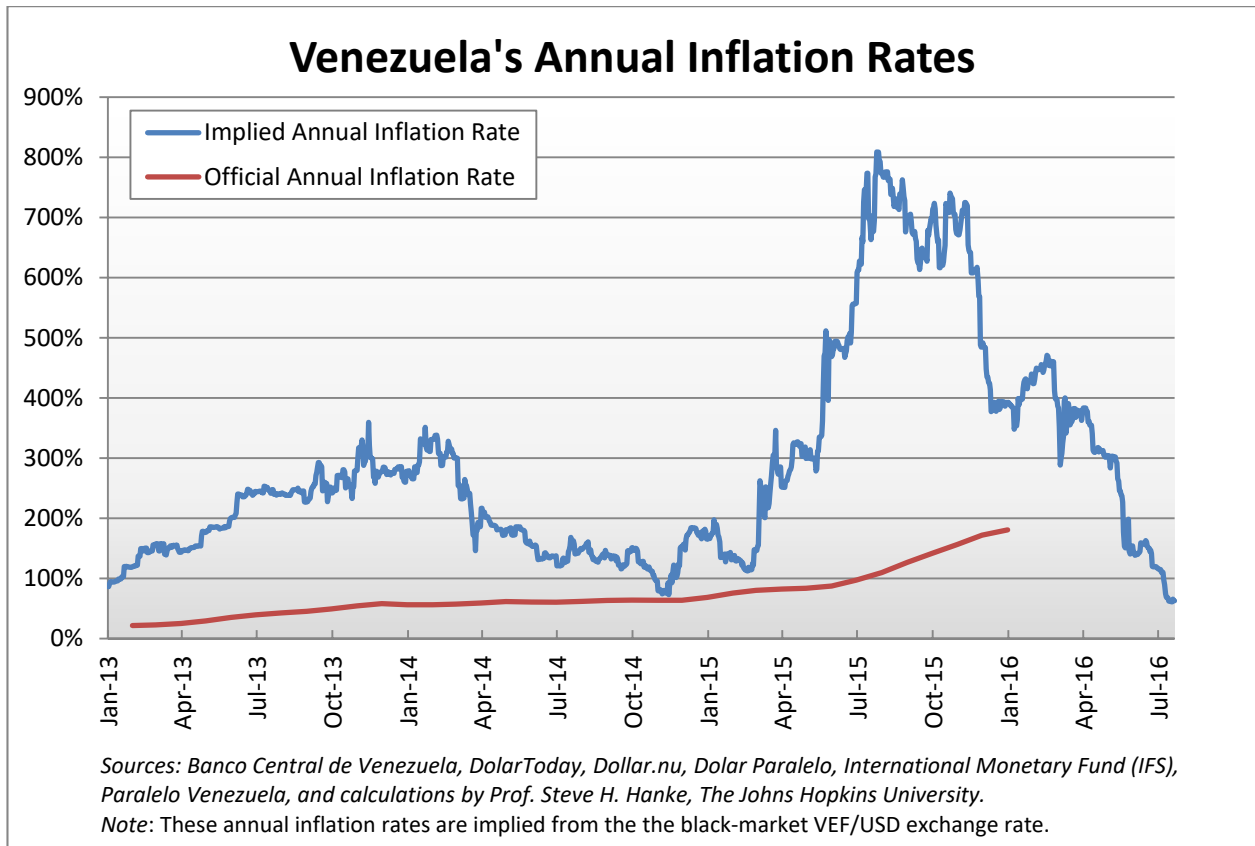


Figure 15

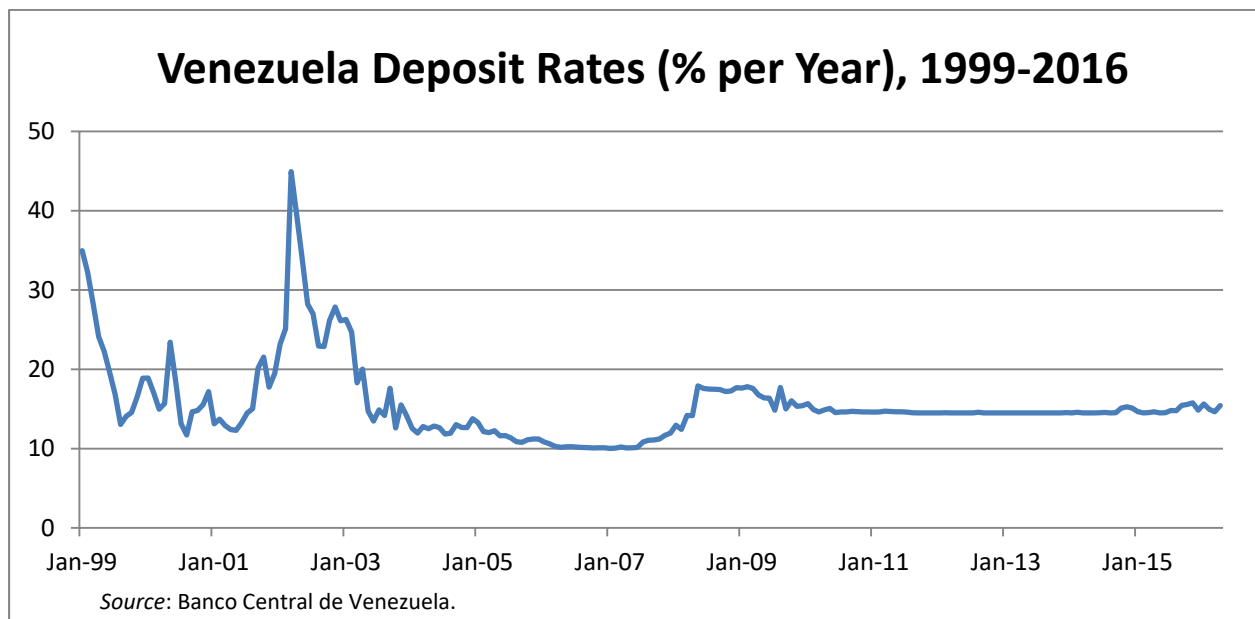


Figure 16

Not only does Venezuela have the highest inflation rate in the world, but it also holds the record for the highest crime rate. Food riots, protests and mass lootings of stores are increasingly common. “Bachaquerismo,”³ the resale of price-controlled goods at black-market prices – arbitrage at its finest – has become a profession. About 72 percent of monthly wages are being spent just to buy food, according to the Center of Social Analysis and Documentation of the Venezuelan Federation of Teachers. In April, it found that a family would need the equivalent of 16 minimum-wage salaries to properly feed itself. Besides, a public health crisis has erupted from the lack of medical supplies, water and electricity. According to a government report, the rate of death for newborns increased more than a hundredfold in public hospitals run by the Health Ministry, from 0.02 percent in 2012 to just over 2 percent in 2015; the rate of death among new mothers in those hospitals increased by almost five times in the same period.

On January 14, 2016, Maduro declared a state of emergency for 60 days that has since been extended three times. He accused the business elite of boycotting the economy, as well as the United States of plotting a coup against Venezuela. The decree has given the military and local committee powers to distribute and sell food, and also allows the government to take control of basic goods and services. Consequently, in the midst of Venezuela’s biggest humanitarian crisis, the government is now implementing a food rationing system whereby loyalists are given food and opponents are deprived of access. Though 63.6 percent of Venezuelans say Maduro should quit this year or be removed via a recall referendum, Maduro was able to block the referendum by manipulating the National Electoral Council into declaring 600,000 of the votes invalid. On September 1, 2016, the political opposition successfully organized a large-scale anti-Maduro march in Caracas, which brought together close to a million people from all social classes and backgrounds. The rally ignited hopes that the electoral authorities will be pressured into allowing the launch of a second petition needed to trigger the recall referendum before the end of the year.

Whether or not Maduro remains in power, the crisis requires a solution now. The clientelistic state model and socialist policies that relied heavily on oil revenues, as well as the anti-neoliberal manifestations of import substitution, currency controls and price controls have failed altogether. The Bolivarian Revolution has failed.

III. A Key To Economic Growth: Monetary Reform

Mundell’s “Impossible Trinity”

The “Impossible Trinity” is a trilemma in international economics often attributed to Nobel laureate Robert Mundell, though it had also been identified by some earlier writers. It states that it is impossible to simultaneously achieve the three monetary policy objectives of a) a fixed exchange rate, b) international capital mobility, and c) monetary autonomy. Instead, the monetary authority can pursue fully at most two of the three policies at the same time.

³ The word comes from the *bachaco*, a Venezuelan ant species. It implies that arbitrageurs are like ants, whose movement of grains of food from one place to another is individually tiny but collectively significant.

Venezuela, like most Latin American countries before 1990, had a pegged but adjustable exchange rate regime. While the regime was usually associated with exchange rate stability and an open capital account to attract foreign investment, Venezuela's currency controls prohibited the open flow of international capital, and after Black Friday in 1983, exchange rate stability became a relic. Therefore, all that is left for Venezuela is its monetary policy autonomy. But what good is monetary policy autonomy in an environment of rampant corruption, poor economic management and government intervention?

The experience of a number of former socialist countries suggests that a key to Venezuela's reform lies in forsaking monetary policy autonomy and in turn gaining a stable, fixed exchange rate and international capital mobility. The first step is to dispose of the current monetary authority, the Banco Central de Venezuela (BCV). In this paper, we discuss two alternative monetary systems that will potentially improve Venezuela's economy both in the short run and the long run.

Central Banks vs. Currency Boards

Central banking is the most widely used monetary system in the world, whereby a central bank constitutes the ultimate authority with the power to enact discretionary monetary policy via a range of policy tools to try to reach certain economic targets. Central banking spread across Europe in the nineteenth century with the expansion of the international gold standard, and was eventually embraced by most peripheral countries in Asia, Africa and Latin America and the Caribbean in order to join the process of international financial integration.

Thus, alternative monetary regimes, including the currency board system, are not of common knowledge and misconceptions about them are frequent. A currency board is a monetary institution whose only mandate is to control the supply of banknotes and coins (and, if they exist, reserve deposits) in an economy.

Unlike a central bank, an orthodox currency board is a strictly rule-bound institution, making it an ideal system for countries where the rule of law is weak and there is a tendency of political corruption. First, a currency board must have a 100 percent backing of the monetary base in foreign reserves, usually in the form of government issued securities with a ceiling of 110 percent, and must be fully convertible into the reserve currency on demand. Second, a currency board maintains a permanently fixed exchange rate with the reserve currency, for which it in turn sacrifices monetary policy autonomy, as described in Mundell's trinity. Third, a currency board cannot serve as a "lender of last resort" to the government – imposing desperately needed fiscal discipline – nor does it regulate reserve requirements for commercial banks.

Several currency boards and currency board-like systems have been implemented in the past. Some of the most notable recent examples are Hong Kong, Estonia, Lithuania, Bulgaria, and Argentina. This last one merits some attention when discussing the establishment of a currency board in Venezuela, as an example of the failure of an unorthodox currency board.

After experiencing years of high inflation, Argentina sanctioned the Convertibility Law in 1991 in order to establish the so-called “convertibility system,” adopting a fixed exchange rate of 1 Argentine peso per US dollar. The system deviated from an orthodox currency board in essential ways that were stipulated in the Convertibility Law. Most notably, the law only required the central bank’s monetary liabilities to be covered by a minimum of 100 percent in gross dollar-denominated assets (Hanke and Schuler 1999: 406). When reserves exceed the minimum requirement, monetary authorities have the freedom to engage in currency sterilization via open market operations. While most unorthodox currency boards are similarly lax about sterilization, the Argentine case stands out for its monetary policy hyperactivity. The central bank’s balance sheets reflected frequent and significant currency sterilization measures, which resulted in extremely high volatility of the central bank’s net domestic asset position (Hanke 2002: 211). In addition, the Convertibility Law allowed the central bank to continue financing government deficits, regulating the banking sector, and acting as a lender of last resort, all of which undermined confidence and credibility in the system’s functionality and contributed to its dismantling in 2001.

The critical lessons for Venezuela from the Argentine experience are the dangers of regulatory loopholes. This issue is even more relevant in Venezuela, where the central bank and other monetary institutions such as the currency control boards are regularly subject to unsound government intervention. In fact, in 1995-6 there was a major debate about installing a currency board system, when Prof. Steve Hanke was appointed as Rafael Caldera’s adviser. However, Caldera, under great pressure from the BCV and Venezuela’s political elite, chose not to adopt the currency board system. The main pushback from the politicians was that they were unwilling to be shackled by the discipline resulting from a currency board system. It becomes clear that in order to guarantee the optimal performance of a currency board, the BCV must cease to exist in its present form and new laws should be drafted for the establishment of an orthodox currency board and clearly prohibit any form of political interference in its operations.

Establishing an Orthodox Currency Board in Venezuela

To undertake monetary reform in Venezuela through a currency board, the first stage of the process would be to convert the existing central bank into a currency board. First, all functions of the central bank other than supplying the monetary base should be delegated to other administrative bodies. In the case of Venezuela, this can be the Ministerio del Poder Popular para la Banca y Finanzas. Commercial banks could operate the payments system and provide mutual deposit insurance protection (Hanke and Schuler 2015: 46).

Second, there should be a brief period of free-floating exchange rates for the domestic currency, which will indicate an appropriate exchange rate between the reserve currency and the domestic currency that can later become fixed (Hanke and Schuler 2015: 46). For instance, in the case of Bulgaria in 1997, after the announcement of the implementation of a currency board, the monetary base was frozen and the lev was floated for 30 days. After this period, the lev was fixed at the resulting rate against the German mark. However, considering the current

state of crisis in Venezuela, this step could be omitted for a faster transition, as the black market exchange rates already provide a good indicator for a future fixed exchange rate under the currency board; more precisely, the average rate achieved in the last 90 days would under current conditions be suitable.

At the same time, the government should announce its choice of reserve currency and the date it will fix the exchange rate. This would prevent excessive currency depreciation due to uncertainty, and the announcement of a currency board system itself would probably push the black market rate down by a significant amount, as was the case of Indonesia, where the rupiah soared by 28 percent against the dollar in February 1998 with the announcement of a currency board (Hanke 2007). Still, official inflation will inevitably rise, presumably to the levels indicated by the implied inflation rate (see Figure 15). This figure would then decrease drastically as the currency board was established and began its operations, allowing inflation rate to converge towards the anchor country's rate.

The choice of reserve currency for Venezuela is obvious. Being a petro-economy, most of Venezuela's foreign currency transactions are made in U.S. dollars. Realistically, shock asymmetry with the United States should not be a priority concern in Venezuela's decision-making, simply because Venezuela bears no shock symmetries with any stable advanced economy. Even so, the dollar would represent a better choice than the euro or the yen since the United States is Venezuela's largest trading partner.

An additional step in Venezuela's case would entail the replacement of all BCV personnel as a sign of full commitment to the new monetary system. Ideally, this would take place swiftly if the administration were to fall into the hands of the opposition, which would also result in the substitution of most current government officials. Additional actions to increase the central bank's transparency could involve publishing weekly or even daily statistics and balance sheets, or requiring the BCV to fully back any further increases in the monetary base with foreign reserves (Hanke and Schuler 2015: 46).

The next step would be to convert some of the required reserves of commercial banks into currency board notes and coins or into foreign securities at the banks' disposition. This step would eliminate the deposit liabilities of the central bank (Hanke and Schuler 2015: 46). In addition, the BCV keeps excess reserves from universal and commercial banks, investment banks, savings and loan institutions, mortgage banks, and financial leasing companies (see Figure 17). To prevent extra inflation, these could be converted into government bonds instead of currency board notes and coins. Despite being deep in crisis, Venezuela has kept a surprisingly disciplined commitment in meeting its billions of dollars worth of international debt obligations. This good record of repayment has contributed to an unexpected rally in Venezuelan bonds, especially since the recent rebound in oil prices. Prices for benchmark debt due in 2027 increased from a record low of 33 cents in the dollar in February to 46 cents in June. While the decision to prioritize foreign lenders as the population starves is highly controversial, it will contribute to faster economic rebound if there is a debt restructuring.

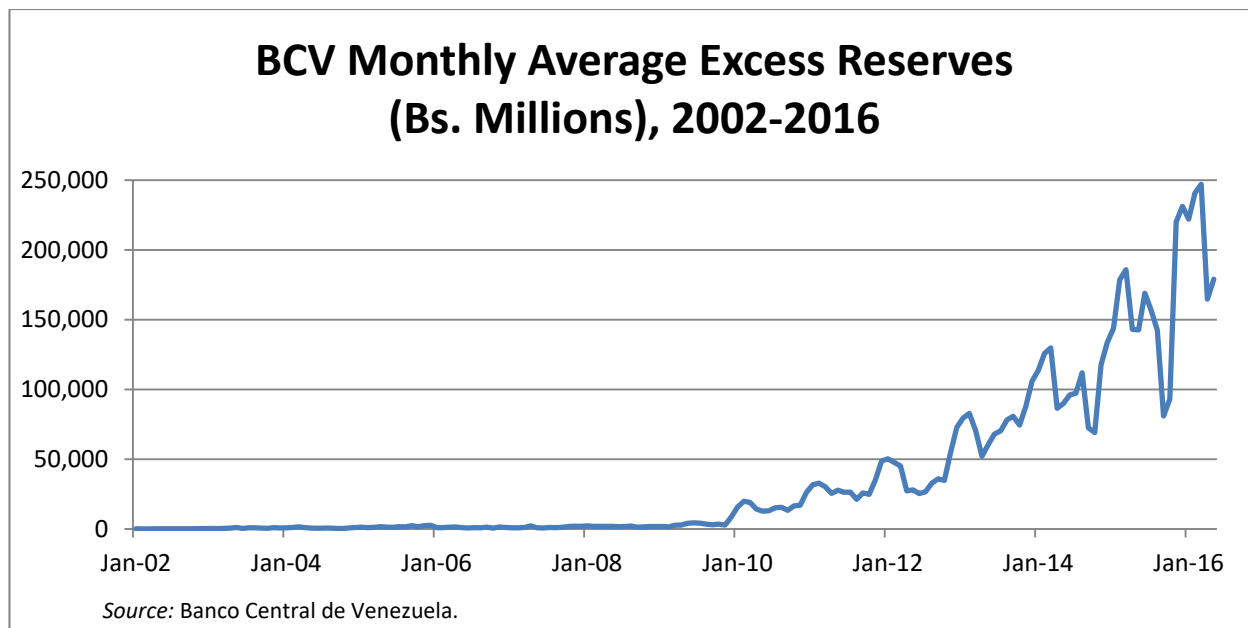


Figure 17

The next step in establishing the currency board would be to fix the exchange rate with the reserve currency, by which point the government must have ensured that foreign reserves for currency board notes and coins in circulation equal 100 percent. Fortunately, as Figures 18 and 19 show, Venezuela already meets this requirement, and is above the 110 percent ceiling at both the highest official exchange rate (DICOM) and the black market exchange rate. The ratio would probably decrease in the case that the bolívar gained back some value after the currency board announcement. However, as the black market ratio currently exceeds 800 percent, this might indicate that a lower exchange rate than the black market rate is suitable to adopt as the currency board fixed rate.

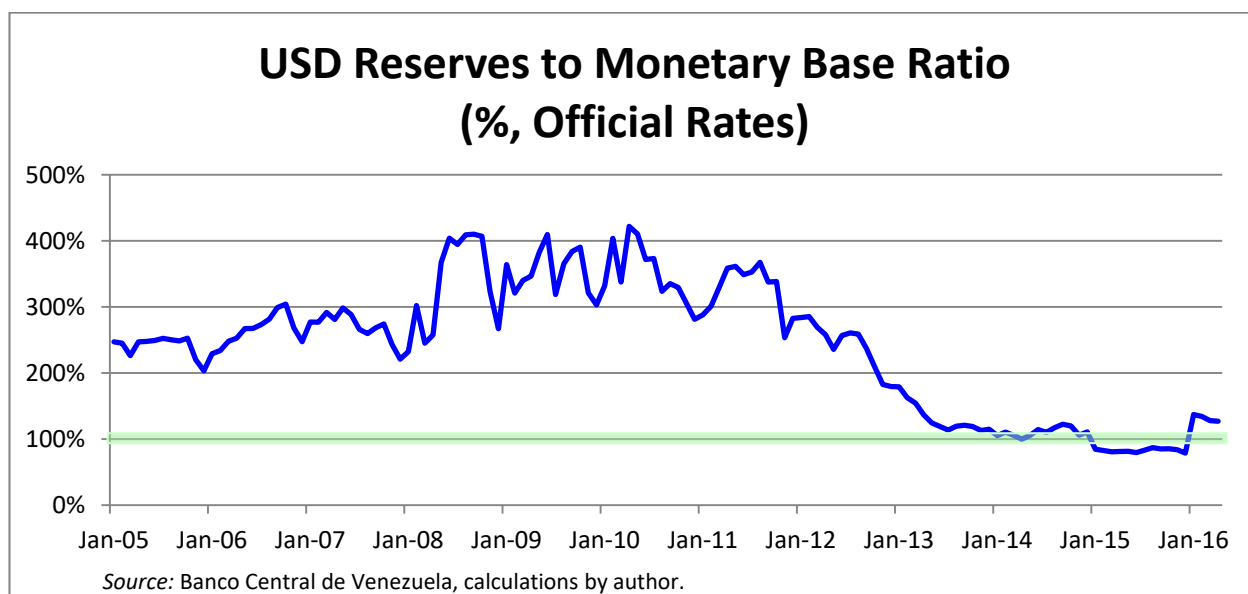


Figure 18

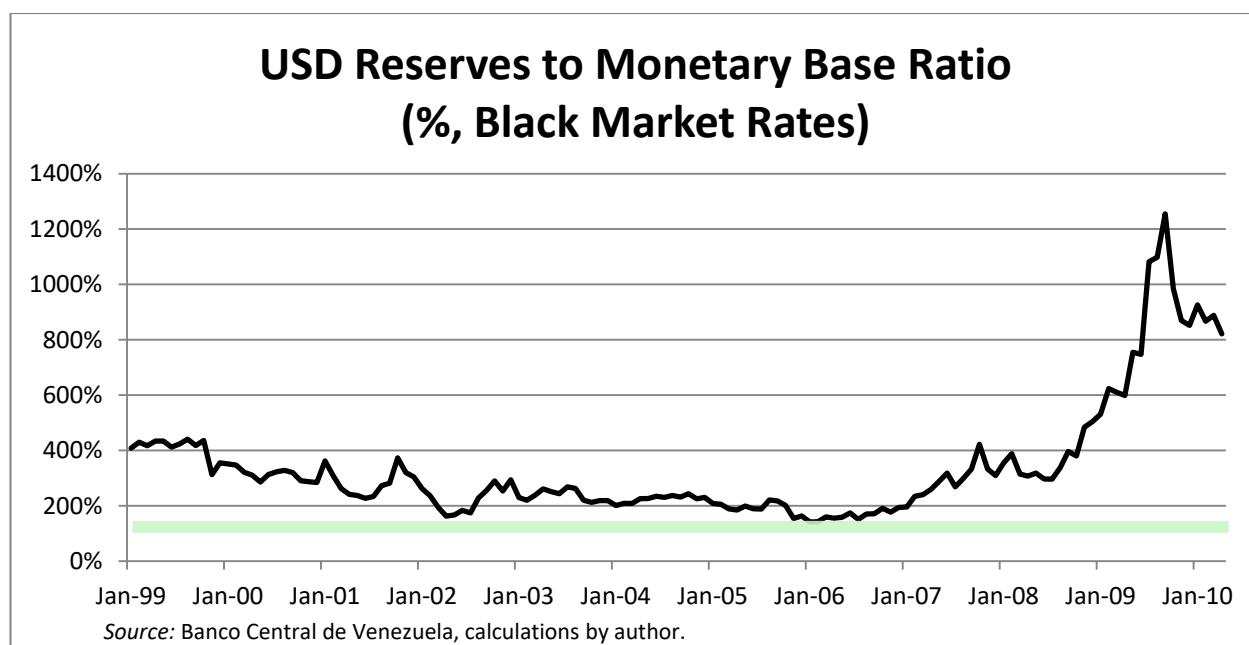


Figure 19

The final step in the process would be to transfer the remaining assets and liabilities of the central bank to the currency board and open the currency board for business. By then, the currency board would have replaced the BCV as the issuer of domestic notes and coins, and would assume all remaining assets and liabilities of the central bank (Hanke and Schuler 2015:48). Experience indicates that a currency board system could be established in as little as 30 days; the faster, the better.

Bolívar vs. Dollar

Some believe that the bolívar is already too far gone to be rescued. Venezuelan economist and author José Luis Cordeiro ([1998] 2016) even proclaims a “second death of Bolívar” in his book advocating dollarization, or as he calls it, the democratization of money.

There are several reasons why dollarization is a more adequate option than a currency board system in Venezuela. To begin with, there are fewer steps, less bureaucracy and very small costs involved in dollarizing an economy. Ecuador’s dollarization cost around \$800 million, a tiny fraction of the billions of dollars that have been smuggled through Venezuela’s fraudulent exchange rate systems (Cordeiro 2016: xvii). Additionally, the credibility of the currency would no longer be an issue, which would greatly reduce the country risk premium and interest rates, as currency risk would be completely eliminated. Furthermore, dollarization would serve the interest of the Venezuelan people by privatizing foreign reserves and distributing them to the population, so that consumers would finally be able to fully take advantage of the perceived superiority of the dollar (Hanke 1999: 407-8). Lastly, dollarization provides the same monetary austerity measures as a currency board, by preventing lender of last resort activities, irresponsible money printing and high inflation.

Venezuela has already begun considering dollarization as a way to salvage the economy. The government has taken steps in the auto industry, where it has recently reached a deal with Fiat Chrysler Automobiles NV, General Motors Co. and Toyota Motor Corp. by allowing them to sell output in dollars. Auto parts will also be paid for in dollars and assembly will take place in Venezuela. Production lines should resume in August.

The auto industry aside, the reality is that the entire nation is informally dollarized through the black market. No Venezuelan would prefer holding bolívares over dollars. However, the popular saying “wages climb up the stairs while prices go up in the elevator” describes the frustrations of earning a living in bolívares and spending in dollar prices (Cordeiro 2016: 18).

Dollarization in Venezuela and Lessons from Ecuador

Normally, dollarization can take one of two paths: unilateral dollarization, which can occur without a treaty; or a limited treaty with the U.S. government under which Venezuela could retain some of the seignorage it would otherwise lose from dollarization. The latter would allow Venezuelan banks to gain access to the Federal Reserve System as a source of liquidity (Hanke and Schuler 1999: 412-3). In the interest of reforms taking effect rapidly, Venezuela would be better off choosing unilateral dollarization and forgoing seignorage. Furthermore, the absence of the U.S. Federal Reserve as a lender of last resort is in line with the objective of monetary discipline.

As soon as the government announces its decision to dollarize, the BCV can stop issuing bolívares at any time, and simply call in all bolivar-denominated liabilities and give out the equivalent value in dollars (Hanke 2003). The ratio of domestic currency liabilities to foreign reserves indicated on the BCV's April balance sheet suggests an appropriate exchange rate would be as low as 9.55 bolívares per dollar for these transactions (see accompanying spreadsheets), although other considerations, discussed below, suggest a more depreciated rate.

To discourage future governments from reintroducing the bolívar or any other domestic currency, the bolívar should be abolished as legal tender and the BCV's power to issue currency should be repealed. These are essential measures in Venezuela's case, given the remarkable history of economic and political manipulation.

More important, if Venezuela truly wishes for successful dollarization, it should look to Ecuador's experience. Ecuador is similar to Venezuela in many aspects; it is also a Latin American oil exporter, and adopted the Chavismo ideology under the leadership of Rafael Correa. Before dollarization, Ecuador's now extinct currency, the sucre, was subject to rapid depreciation just like the bolívar. The sucre traded at 6,825 per dollar at the end of 1998, and by the end of 1999 the sucre-dollar rate was 20,243. During the first week of January 2000, the sucre rate soared to 28,000 per dollar (Hanke 2015: 4). Dollarization on January 9 at 25,000 sucres per dollar created immediate stability and a large positive confidence shock in Ecuador. As a simple comparison, Figure 20 shows the comparison between Ecuador and Venezuela's

real GDP, converted into dollars, shortly before and since Ecuador's dollarization. The difference is staggering.

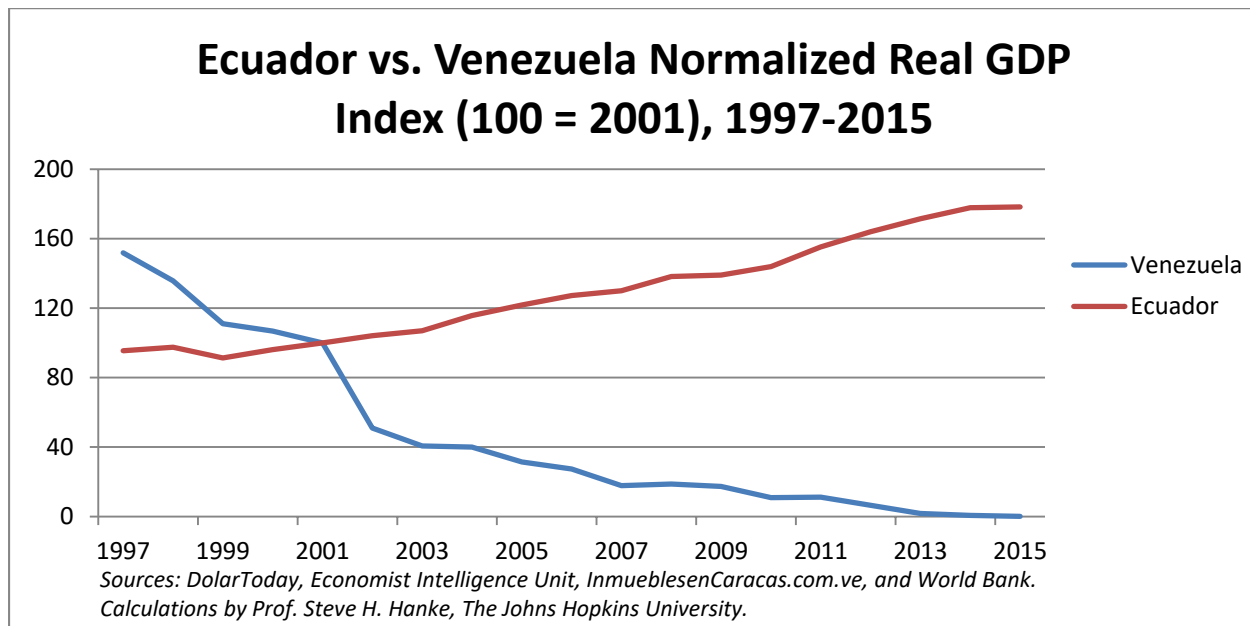


Figure 20

In addition, Ecuador's inflation rate declined from a high of 96.09 percent in 2000 to an all-time low of 2.41 percent in 2005, and has been steady at single-digit figures ever since (see Figure 21). A similar rapid drop in inflation over a span of no more than five years could be achieved in Venezuela, if dollarization is implemented.

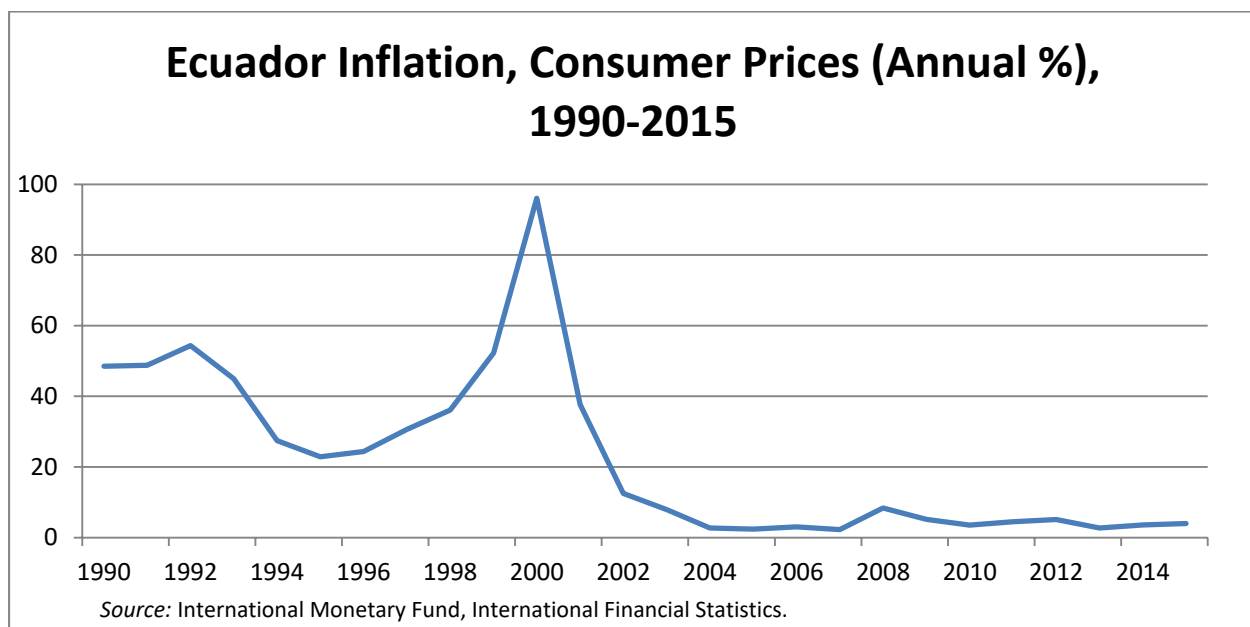


Figure 21

In addition, it is important to note that Ecuador deliberately chose an undervalued exchange rate of 25,000 per dollar, whereas 20,000 would have been feasible and possibly even 15,000. Other things equal, a rate of 20,000 per dollar would have resulted in a price level expressed in sucres that was only 80 percent of the actual price level once adjustment through inflation had occurred. Therefore, if we judge the price level in sucres to have caught up once inflation dropped to within 3 percentage points of the U.S. level, the total rise in prices between the announcement of dollarization and the price level catching up to the devaluation was 5 years, with inflation of 96, 38, 12, 8, and 3 percent respectively. The price level at the end of that period would be $1.96 \times 1.38 \times 1.12 \times 1.03 = 3.12$ times the pre-dollarization level. A crude estimate of the effect of an exchange rate of 20,000 is that inflation would have been only 80 percent (0.8) as much, giving inflation of approximately 77, 30, 10, and 6 percent, meaning that approximate inflation convergence with the U.S. would have occurred a year earlier, and the price level at the end of the period would have been only 2.68 times the pre-dollarization level.

Therefore, Venezuela should set its dollarization rate based on free market exchange rates, instead of choosing an undervalued rate in order to avoid an inflationary burst. Essentially, it is easier to adjust to a one-shot burst of inflation than to endure the depression that can occur if the exchange rate is too depreciated and have to rely on falling prices to equalize local purchasing power with purchasing power in the rest of the world.

Another issue is the adjustment of interest rates when converting from the high-inflation bolívar to the low-inflation dollar. Keeping interest rates the same in nominal terms would bankrupt borrowers, since they expect to pay back in depreciating bolívares and not stable dollars. What is needed is an interest rate conversion, or *desagio* as it has been called in some Latin American cases. In the case of Ecuador, the Ley del Desagio sanctioned in 2000 adjusted interest rates using the following formula:

$$NR = [CC * (1 + CR)] * 100$$

Where:

NR = New rate

CC = Conversion coefficient (0.659 for lending rates and 0.743 for deposit rates)

CR = Contract rate

Based on this, the lending rate was initially set at 16.82 percent and the deposit rate at 9.35 percent. A similar approach to *desagio* could be implemented in Venezuela, where a reference rate is picked and all other rates are adjusted in relation to it. For example, suppose that there is fairly free-market rate of 300 percent a year for certain loans in bolívares. Suppose the comparable rate in dollars for borrowers of the same quality (in the US or in a Latin American country that allows loans in dollars) is 5 percent. Then the interest rate conversion would be to divide all bolívar rates by 60, so $300/60 = 5$. Other loans of 400 percent and 500 percent would become $400/60$ and $500/60$ in dollars. Alternatively, there could be another system such that a base rate is chosen and bolívar loans of certain classes are assessed as having an additional risk factor of X percent depending on the class, which is tacked onto the base rate. The details should not make a big difference overall, because the maturity of most loans is probably short

and they will reset in dollars after dollarization. However, to avoid bankruptcies because of the details of the conversion, there should probably be some ceiling to the conversion interest rate, whereas new loans in dollars should face no interest rate ceiling. This is outlined in Art. 7 of Ecuador's Ley del Desagio, which states that existing loans at the time of dollarization could preserve the original contract rate, so long as it did not exceed the stipulated new lending rate, and the negotiated capital would be converted to dollars after a certain date at the predetermined sucre-to-dollar fixed rate.

Ecuador's state of affairs since dollarization has been far from perfect. Even though the rule of law has been embraced in the monetary sphere, it has been ignored elsewhere. The Banco Central del Ecuador continues to exist as an institution without a clear rationale, and the government has failed to make the most out of dollarization due to the lack of financial integration and reforms, continuing to overregulate the banking system. Not surprisingly, the 2014 Index of Economic Freedom categorized Ecuador as "mostly unfree," ranking 159 out of 178 countries (Hanke 2015: 9).

Therefore, Venezuela must learn from Ecuador's mistakes and accompany its monetary reform with the necessary economic reforms.

IV. Economic Reforms to Complement Monetary Reform

Lifting Controls

Lifting currency controls is an essential precondition for establishing a currency board system, while with dollarization it ceases to be an issue at all. In contrast, lifting price controls is not a technical prerequisite for the enactment of either monetary reform. However, failure to do so would inevitably compromise the entire reform effort.

Under the Chavist economic policies, price controls have been a major source of the current inflationary and supply shortage problems. Controlled-price – or as the government calls them, "fair price" – goods are supplied by the state-run supermarket chain, Mercados de Alimentos C.A., commonly known as Mercal. This system was introduced as part of the 2003 anti-poverty Bolivarian Mission, Misión Mercal. Mercal's astonishingly low controlled prices have hardly been adjusted ever since to account for inflation. In 2013, the Superintendencia de Precios Justos was created with the passage of the Ley Orgánica de Precios Justos, with the purpose of standardizing and adjusting controlled prices throughout the country. Even with the slightly higher adjusted prices, a total of 12 billion bolívares were destined to food subsidies in 2013, 40 percent more than two years ago.

To this day, around 17 products are still selling at controlled prices that are 62 percent below market prices, and have not been revised since 2009. Such a high level of subsidy is clearly unsustainable and contributes to the vicious circle of extravagant government expenditure, inflation and shortages. Therefore, lifting price controls should be prioritized and implemented alongside monetary reforms.

Below is a list of Venezuela's original standardized controlled prices for basic food products after the ratification of the Ley Orgánica de Precios Justos, in comparison to estimates of black market (free market) prices of the same goods. Some of these prices have been adjusted since in order to reflect growing inflation. For additional prices, see the accompanying spreadsheets.

Table 1: Original PVJusto (Fair Prices) List, January-June 2014

Product	Bolívar (Bs.)	Black market price estimates (Bs.)
Sugar (1kg)	12.00	12,210.48
Coffee (1kg)	46.60	47,417.36
Chicken (1kg)	43.00	43,754.22
Rice (1kg)	9.50	9,666.63
Bottled water (1l)	12.59	12,810.83
Fruit jam (110g)	9.96	10,134.70
Milk (900ml)	18.00	18,315.72
Powdered milk (1kg)	70.00	71,227.80

Source: Superintendencia de Precios Justos.

Another clear demonstration of the failure of price controls to achieve their purpose can be seen in the price comparison of Venezuelan staple goods and services before and after the implementation of Chavist economic policies. The table below provides a clear contrast between the cost of living in the pre- and post-Chávez period, and highlights the remarkably inferior growth of the minimum wage relative to the price level.

Table 2: The Venezuelan “hyperinflation”

Item	Apr-74	Apr-98	Inflation 1974-1998	Apr-16	Inflation 1974-2016
Cheese arepa	1.00	800	799,00%	1,000,000	99,999,900%
Small refreshment	0.25	150	599,00%	250,000	99,999,900%
Small coffee	0.25	100	399,00%	250,000	99,999,900%
Cigarettes	1.00	500	499,00%	800,000	79,999,900%
Toronto	0.13	60	47,900%	100,000	79,999,900%
Small beer	1.00	300	29,900%	350,000	34,999,900%
Bus	0.25	100	39,900%	50,000	19,999,900%
Movie ticket	5.00	2,000	39,900%	800,000	15,999,900%
<i>El Universal</i> newspaper	0.75	200	26,567%	100,000	13,333,233%
Minimum wage	450.00	100,000	22122%	11,577,810	2572747%

Source: Cordeiro, José Luis ([1998] 2016). Translation by author.

On July 10, 2016, the Venezuelan government temporarily reopened the border with Colombia to allow Venezuelans to buy scarce basic goods in the neighboring country. The table below shows some current Venezuelan controlled prices in comparison to Colombian prices, as well as calculations of Venezuela's market prices in bolívares and dollars, which represent estimates of

Venezuelan prices after lifting price controls and implementing a currency board or dollarization.

Table 3: Venezuelan vs. Colombian Prices, July 2016⁴

	Venezuela controlled prices (bolívares)	Colombia market prices (pesos)	Venezuela market prices (bolívares)	Colombia market prices (US dollars)	Venezuela market prices (US dollars)*
Corn flour (1kg)	190.00	2,700.00	1,080.00	0.91	15.98
Wheat flour (1kg)	390.00	2,200.00	880.00	0.75	13.02
White rice (1kg)	120.00	3,000.00	1,200.00	1.02	17.76
Sugar (1kg)	76.00	3,400.00	1,360.00	1.15	20.13
Soybean oil (1l)	58.00	5,500.00	2,200.00	1.86	32.56
Butter (500g)	318.30	2,000.00	800.00	0.68	11.84
Pasta (1kg)	15.00	2,600.00	1,040.00	0.88	15.39
Corn (1kg)	96.50	1,500.00	600.00	0.51	8.88
Beans (1kg)	200.00	2,700.00	1,080.00	0.91	15.98

Sources: Superintendencia de Precios Justos, Ministerio del Poder Popular para la Alimentación, El Nacional Web, XE Currency Converter.

In addition, the current black market rate is likely much more depreciated than the rate that would exist in a unified foreign exchange market without exchange controls. By lifting price controls and freeing the exchange rate at the same time, market forces will very likely lower the free floating rate from current black market levels to possibly as low as a rate of 1 dollar = 67.57 bolívares after a brief adjustment period (see accompanying spreadsheets). However, the rate implied by mechanically using dollar reserves to provide 100 percent backing for the currency seems too strong because the central bank holds some reserves that in a currency board or dollarized system would be held by individual persons or companies, especially PdVSA, rather than be centralized. Therefore, it is appropriate to predict that the new exchange rate would be somewhat above 67.57 bolívares per dollar.

This lower rate will contribute to create a stronger new currency if a currency board is implemented. In a currency board, there is only one fixed price in the system – the exchange rate. While this anchors inflation, all other prices should be free and flexible, ensuring that all relative prices in the economy are true indicators of both absolute and relative values.

Furthermore, in order to accommodate to Venezuela's tradition of socialist policies, a middle ground can be reached whereby the government can still devote a limited amount of its budget

⁴ Prices calculated at the following exchange rates:

USD/VEF Official 07/24/16 = 10

USD/COP Official 07/24/16 = 2951.25

VEF/COP Black Market Jun-16 = 2.5

* Calculated using USD/VEF black market lower bound estimate of 1USD = 67.57VEF

towards subsidized goods. The government can then, for instance, allow everyone who has a government-issued electronic shopping card (the Tarjeta de Abastecimiento Seguro that was inaugurated in 2014 to register Mercal users and provide special discounts) to buy a certain amount of each product per month at the subsidized price, but impose no barriers on sales at market prices. This will both satisfy the government's leftist discourse and allow free market price adjustment.

Privatization

Next, as a measure to reduce the costs of goods and services and enhance Venezuela's competitiveness, state-owned enterprises should be privatized, particularly in the energy sector. The privatization of PdVSA would dramatically increase efficiency, productivity and minimize corruption. The enforcement of private property rights directly link the consequences of the use of private assets and their owners' wealth, thereby incentivizing private owners to monitor the behavior of private enterprise managers and employees, ensuring cost-effective production that meets public demands (Hanke 1987: 976). Privatization of the oil sector should be comprehensive, including current producing oil fields, potential fields and all transportation, storage and refining operations. (Hanke 2015: 13) Additionally, the aforementioned government-manipulated "joint ventures" with other Venezuelan oil firms should be dissolved in order to avoid an oligopoly. Increased revenues from privatization should be directed towards liquidating Venezuela's debt.

Since privatization can be a lengthy process, while PdVSA continues to operate as a state-owned enterprise, the additional oil revenues from raising gasoline prices from the current controlled prices to the cost of production would generate a significant source of income to ameliorate the government's deficit. According to *The Wall Street Journal's* "Barrel Breakdown," producing a barrel of oil and gas in Venezuela currently costs roughly US\$7.94, while one liter of gasoline retails at 6 bolívars, 60 U.S. cents at the highly overvalued official exchange rate but less than 1 cent at the black market rate. Despite an aggressive 6000 percent price increase in February 2016, Venezuela still has the cheapest fuel in the world, and this is a luxury that Venezuelans cannot afford.

Despite holding the world's largest oil reserves, 298 billion barrels, Venezuela's output has been declining in the past two years because of lower investment in its costly heavy crude reservoirs. Production was 2.37 million barrels a day in February, a drop of 90,000 barrels a day compared to its 2014 average, according to the International Energy Agency (see Figure 22).

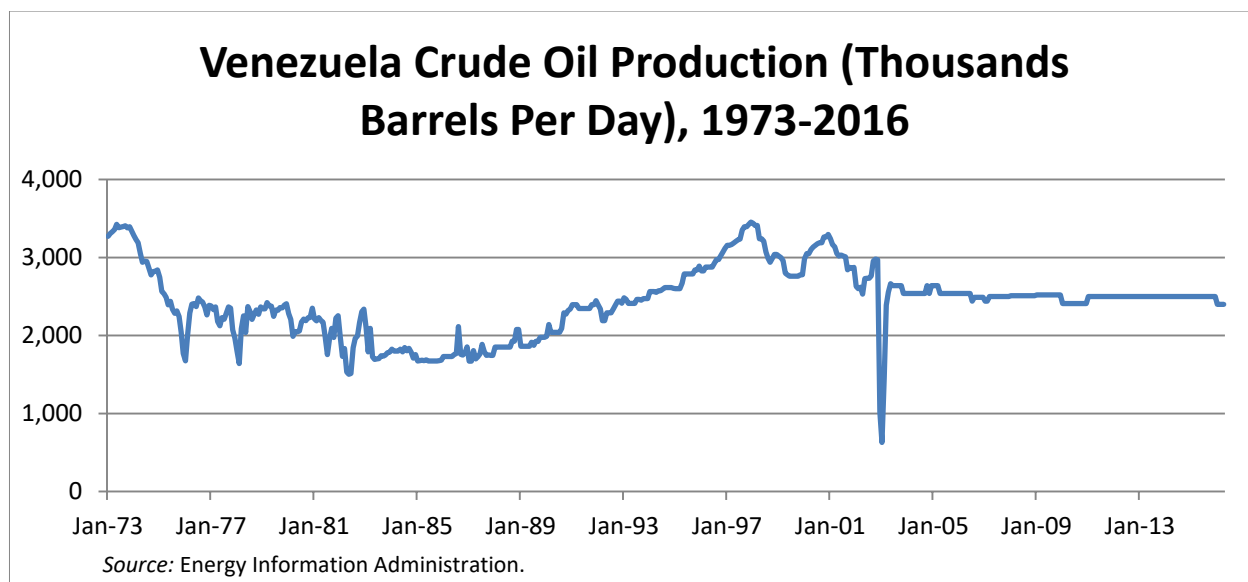


Figure 22

The government could be earning an additional US\$5.67 per barrel of oil produced, in addition to the already elevated taxes that represent 37.9 percent of barrel cost (US\$10.48). Even given the present lower output, the government could be earning US\$13,608,000 more per day if gasoline prices were raised to production costs. This would contribute US\$ 4,966,920,000 a year towards repaying Venezuelan debt, reducing taxes, or providing subsidies for the poorest Venezuelans (see Figures 5 and 6), and this amount will potentially increase as PdVSA privatization occurs and as oil prices continue their gradual recovery.

Fiscal Transparency

Finally, monetary and fiscal reform must go hand in hand. The Venezuelan government should be subject to a fiscal reform in order to ensure transparency. This is easier said than done. Ideally, such a fiscal reform would require the government to publish a national set of accounts, which would include a balance sheet of its assets and liabilities and an accrual-based annual operating statement of income and expenses. These financial statements would be required to meet International Accounting Standards and they would be subject to an independent audit (Hanke 2015: 11).

As mentioned previously, a big advantage of the currency board system is that it imposes fiscal discipline, by eradicating “lender of last resort” activities and central bank credit to the fiscal authorities and state-owned enterprises. This would put an end to the Venezuelan government’s rampant fraud and expenditure.

V. Conclusion

The extensive evidence provided in this paper unravels the causes of Venezuela’s current economic crisis, beginning a century ago with the increasing dependence on oil exports and

prevalent corruption, to the present day collapse of the Bolivarian Revolution and the various economic failures of the populist socialist state. The monetary reforms of an orthodox currency board system and dollarization both represent efficient and feasible solutions for Venezuela. On the one hand, they address the problem of political intervention and inflation by imposing monetary discipline and rule-based monetary policy. On the other hand, they restore credibility and investor confidence by lowering exchange rate risk and interest rates. Finally, it is necessary to ensure that monetary reforms are accompanied by complementary structural reforms, in order to prevent the collapse of the newly established system. It is up to Venezuela whether to let the bolívar perish, or perish with the bolívar.

*El que manda debe oír aunque sean las más duras verdades y, después de oídas,
Debe aprovecharse de ellas para corregir los males que produzcan los errores.*

*Mis últimos votos son por la felicidad de la patria.
Si mi muerte contribuye para que cesen los partidos, y se consolide la unión,
Yo bajaré tranquilo al sepulcro.*

*He who leads must listen to even the hardest truths, and after listening,
He must right the wrongs that lead to errors.*

*My last vows are for my homeland's happiness.
If my death may help cease divisions and consolidate the union,
I will rest quietly in my grave.*

Simón Bolívar

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