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Money supply is endogenous and the Venezuelan hyperinflation is a monetary phenomenon

During the last years, Venezuela has experimented both a deep economic crisis and hyperinflation. The US economic blockade and the internal economic crisis has played a main role in the sharp fall of the output levels. But regarding hyperinflation, it must be analyzed as the result of the expansionary policies adopted by the government and the Central Bank in a context of currency overvaluation.

In this research, I show the mechanisms that enabled this hyperinflation, which continues today, and explain how the approach to the Venezuelan hyperinflation as a 'monetary phenomenon' is fully consistent with the hypothesis of the endogenous supply of money.

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Introduction

The endogenous character of money supply (hereafter, MSE), currently defended by several heterodox currents, is a central point of the theories that reject the supposed neutrality of money. M cannot is not just an element injected *ex-post* to economic exchanges in order to give them a nominal veil. On the contrary, money is the protagonist of the unstable process of accumulation that takes place in the economy of a country, from the beginning – when it acts as a means to finance production - to the end, when firms seek a monetary profit for their sales.

Assuming the endogenous character of money supply therefore means accepting the idea that money supply is not limited by a pre-determined stock but rather that it adapts to demand. Therefore, in contrast to approaches such as the monetarist one, according to which, the injection of money brings inflation in the long term, the MSE associates the variation of the quantity of money with changes in the output level.

From this, it follows the idea that inflation should not be considered as a simple result of the increase of money supply, but rather that price levels rise under different conditions linked to the spheres of production and circulation. Based on this principle, several theories have developed different explanations on the possible causes of inflation, among which, we find: the proximity to full-employment levels, distributive struggles, different sectorial productivity ratios, dependence on imports… (e.g; Keynes, 1936; Kalecki, 1954; Carlin and Soskice, 1990; Corden and Neary 1982; Bresser-Pereira et al. 2014)

During the last two years, a phenomenon of hyperinflation has been hitting the Venezuelan economy. In this paper, we intend to use this empirical case to show how, under some conditions, inflation can also be interpreted as a consequence of the monetary issue, without having to reject the MSE hypothesis.

To this end, we intend to show the possible limits that the binomial 'monetary issue – output increase' presents. The recent case of Venezuela illustrates how economic policies that hinder the growth capacity of a country, combined with a massive money-issue that lacks the possibility of being reabsorbed, can trigger inflation levels. In the Venezuelan economy, these two conditions occurred for two main reasons: first, due to the lack of competitiveness of the Venezuelan economy which was, in turn, the result of an exaggeratedly overvalued official exchange rate; and second, due to the 'money printing' policy adopted to finance both the

official state and the parastatal spending. This study focuses on the extraordinary credit given to *Petróleos de Venezuela* (PDVSA), the national oil company.

The analysis is divided into two sections. Firstly, we review the main theoretical contributions to the debate on the relationship between the nature of money supply and inflation. Secondly, the case of Venezuela is presented, focusing on the main elements that allows us to understand the origins of hyperinflation.

1. Money issue and inflation: a literature review

The success of the monetarist current in the late 1970s and early 1980s was contested right from the outset by different approaches. One of those replies, with a great subsequent development, has been the post-Keynesian one. In this sense, a crucial point on the Post-Keynesian view is the endogenous nature of money: that is to say, the idea that the emission of money is associated with investment and, therefore, with the level of economic activity of a country. This assumption is a first step to dismantle the oversimplified interpretation that money, in the long term, only determines the level of prices.

However, the EMS is not a sufficient condition to break up with the monetarist interpretation of inflation. If a stable and convergent output level is assumed, it is still consistent to think that money injections may cause inflation; whether this injection is determined exogenously or endogenously is irrelevant.

The MSE breaks with monetarist theses insofar as it assumes, as a general rule, the existence of a link between variations on the amount of money and changes in the output level. However, determining the possible flaws of this link would allow us to understand better the specific inflationary phenomena as a result of monetary issue but without falling into monetarist theses or even erroneous monetary policies recipes that would imperil capital accumulation.

For this better understanding, it is necessary to analyze the EMS nature and then identify the possible limits on credit-led growth in capitalist economies.

1.1 Credit, the endogenous and decentralized form of monetary issue

Moore (1988, p.384) briefly explains the main implications of the endogenous character of money: "An endogenous money supply simply denotes that the money supply is determined by market forces. Central banks are able to administer the level of short-term interest rates exogenously within a substantial range. This will obviously affect the quantity of credit and money demanded, and so the behaviour of money growth."

His first statement refers to the decentralized nature of monetary creation among economic – and mainly private – agents. Banks, on the basis of their risk and profitability forecasts, grant new deposits to credit demanders - mainly private firms -, subject to certain repayment conditions.

From the second statement it can be assumed that the monetary authority - Central Banks - try to influence, but in no case can determine, the amount of money issued. Even in the case of a highly restrictive policy, for example, when the level of obligatory reserves are increased, the monetary issue will still remain endogenous, to the extent that it will be finally determined by the relationship between commercial banks and economic agents (Ülgen, 1994, p. 49).

It is not the purpose of this research to review the debates between horizontalists and structuralists, about the capacity of central banks to reactivate the different levels of credit demand (Moore, 1988; Niggle, 1989; Bindseil and König, 2013; Culham and King, 2013). In any case, the consensus around the impossibility to control the amount of money by the central authority implies an essential criticism to Friedman's proposal of establishing a constant growth rate of the monetary mass, in order to fight back inflation.

However, with more or less success, the monetary authority still has some options at hand, like its capacity to determine short-term interest rates, to try to condition the money market and some other macroeconomic variables. Among these variables we find inflation, which no longer appears as a simple result of the increase in the monetary mass, but rather as a phenomenon derived from the several conditions in which an economy develops. This principle has been crucial in the reconfiguration of central bank strategies around the so-called 'inflation targeting' (e.g.; Bernanke and Mishkin 1997; Svensson, 1999; Bernanke et al. 1999, Taylor 2000, Mishkin, 2000), as well as to the development of the Taylor rule (Taylor, 1993, 1995, 1999).

Paul Volcker gave one of the clearests example of the difference between the implications that the exogenous and endogenous money supply theories have on the economies. In an interview in April 2000, he spoke of the 'practical monetarism' to which he – as the chairman of the federal Reserve – subjected the US economy in order to lower the high levels of inflation the country was experiencing in the late 1970s and early 1980s. He explained that, one thing was the way in which he presented to the public the problem of high inflation and, quite another, were the tools and benchmarks he counted on to confront it.

"It always seemed to me that there is a kind of common sense view that inflation is too much money chasing too few goods. You could oversimplify it and say that inflation is just a monetary phenomenon. There are decades, hundreds of years, of economic thinking relating the money supply to inflation, and people to some extent have that in their bones. So I did think we could explain what we had to do to stop inflation better that way than simply by saying that we've got to raise interest rates. It was also true that we had no other good benchmark for how much to raise interest rates in the midst of a volatile inflationary situation." (Samuelson and Barnett, 2007, p.178-179).

1.2 Endogenous money and growth

Opposed to the 'exogenous' vision, the EMS theory therefore implies a rethinking of the role played by money in the accumulation process that takes place in capitalist economies. Money is key for all the activities it takes part (Minsky, 1982; Moore, 1988); from the initial financing to the final reimbursement of credit, as well as during its circulation among different agents. However, this does not entail, *per se*, a rupture with the general postulates that monetarism makes about the origins of inflation. If the hypothesis of a long-term output level of equilibrium is accepted, it can be assumed that injections of money, either exogenous or endogenous, generally end up provoking proportional increases in the level of prices.

Milton Friedman himself (1970), in response to Kaldor, recognized the possibility of an inverted causality between the amount of money and the level of income, but this did not invalidate his postulates: "there are influences running from income to the quantity of money, as Professor Kaldor asserts but, equally clearly, there are strong influences running from the quantity of money to income". In relation to the nature of the money supply, in a hard answer given to Davidson two years later (Friedman, 1972, p.931,n.16), he clarified that his analysis did not exclude the possibility that it might be endogenous: "My general framework does not

assume an exogenous money supply in any relevant sense. One simplified model, used for a special purpose, takes money supply to be exogenous. I have done work on the factors determining the money supply and have encouraged much work by others on this subject."

In this sense, the contribution made by Knut Wicksell in 1898, but later recovered by the New Neoclassical Synthesis in its justification of the 'inflation targeting' strategy, is also revealing (see, for instance, Woodford, 2003; McCallum, 2005). Wicksell identified the market interest rate as the main banking instrument, assuming thus that money supply adapted to different levels of demand. A correct management of the market interest rate would then be the one that could balance it with the *natura*l interest rate; being the natural rate in turn, the one that guaranteed price stability. Therefore, in the face of an increase in prices, the market rate should be increased by seeking to return to its natural rate; on the contrary, if prices went down, then banks should lower the effective interest rate.

Perez-Caldentey (2002) also points out something similar about the structuralist theory, which in principle opposes to monetarist postulates. According to this approach (Sunkel, 1957; Oliveira; Canavese, 1983), inflation does not have a monetary origin but a one derived within the economic structure of a country. The basic causes of inflation would be given by "structural limitations, rigidities or inflexibilities of the economic system" (Sunkel, 1957, p.323; author's translation). Changes in demand factors or supply conditions would cause an alteration in relative prices; however, given the downward price rigidity, a relative adjustment first takes place, which increases the prices of certain commodities or factors of production, and consequently, the average price level as a whole. The EMS thus, becomes fundamental to understand how the quantity of money adapts to the new nominal output level, thus validating the relative change in prices. As in Wicksell, the structuralists' contributions to the monetary theory confirm that it is not enough to adopt the EMS approach to break with the monetarist postulate, according to which, more money, as a general rule, implies higher price levels in the long run.

An alternative explanation to the possible inflationary effect implies understanding that money supply is endogenous, but also that the output level is not stable and must be stimulated; credit is one fundamental element for that stimulation. However, it also means understanding the conditions under which this association between credit and growth can be diluted or even broken.

With this objective in mind, it is convenient to indicate that, in the dynamics of the endogenous creation process of money, a factor just as important as the money issue is its

reimbursement to banking firms. In this sense, Lavoie (1987, p.68-69) distinguishes two moments in the financing of production. The first stage, the 'initial financing', corresponds to the initial demand of funds from firms to banks for the payment of work, inputs and other costs associated with the planned production process. The second stage is referred to final or definitive financing and "involves the reflux of circulatory money to business enterprises." (Renaud, 2000, p.287). This reflux, in the form of sales, issuance of debt or securities, is a necessary step for the cancellation of credit within the banking system.

These two stages are repeated in each credit-financed investment project. Therefore, the positive association of 'monetary issue – output increase' does not have a 'once-and-for-all' effect on the economy; on the contrary, this association is followed by its analogue 'output sale - money destruction'. This association involves the social validation of the investment through the sale of the production (if it is the case) and the monetary destruction via reimbursement of the initial credit. Thus, the way to sustain a given level of output over time, is to achieve a continued chaining of these processes of 'monetary creation-output increase', and their subsequent 'output sale - money destruction (or other ways of achieving the final financing stage)'.

Having understood the nature of this continuous, decentralized and repeated association, we must now ask ourselves about the conditions under which this process can be completely distorted or altered in the economy as a whole, that is, when in the face of monetary injections via credit, the increases in the output level get smaller, or null. In these cases, it should be expected that the monetary injection will eventually increase the level of prices. In this research, we take account of two conditioning factors that can provoke this effect in capitalist economies: one, the very shortcomings to expand the level of accumulation economies suffer, and, two, the lack of capacity by the banking system to absorb the money issued in the initial financing.

The first condition has already been briefly described by Keynes in his general theory. According to him, the positive effects on the output level that more money into the economy could lead to are limited by a possible situation of full employment. This interpretation laid the foundations for all later literature on the Phillips curve (Phillips, 1956). In simplified form, Keynes (2018[1936], p.216) summarized: "So long as there is unemployment, employment will change in the same proportion as the quantity of money; and when there is full employment, prices will change in the same proportion as the quantity of money". Later, he nuanced(ibid, p. 270): "When a further increase in the quantity of effective demand produces no further

increase in output and entirely spends itself on an increase in the cost-unit fully proportionate to the increase in effective demand, we have reached a condition which might be appropriately designated as one of true inflation. Up to this point, the effect of monetary expansion is entirely a question of degree, and there is no previous point at which we can draw a definite line and declare that conditions of inflation have set in. Every previous increase in the quantity of money is likely, in so far as it increases effective demand, to spend itself partly in increasing the cost-unit and partly in increasing output."

Other interpretations on the limitations of the potential growth of a country can be found in classical literature. However, in contrast to Keynes, for the classical political economists the problem does not lie on the level of employment but on profitability (Ricardo 1951[1817], p.120-122; Marx, 1885; Shaikh, 2016, 567). In this sense, and from a classical perspective, Shaikh (ibid. p.695) points out, that the level of sustainable accumulation in an economy would be limited by its levels of profitability. Therefore, whenever the former grew over the latter, increases in the general level of prices should be expected. That way, according to Shaikh, it is possible to explain the stagflation in the 70s and 80s without using any monetarist thesis; since the average profitability reached historic low levels, investment levels were high enough to push the inflation up, but not strong enough to grant high growth levels and full employment.

The second condition we have mentioned is the lack of capacity to reabsorb liquidity by the banking system. Among private firms, this increase of liquidity could be caused by the lack of social validation of a large volume of investment – that is to say, by their incapacity to sale their production - and, consequently, by their bankruptcy (Messori and Zazzaro, 2005)[1]. But it can also occur because of an exceptional public deficit.

In the case of the Venezuelan economy in recent years, both conditions have been seen. Hence, a capacity for potential growth undermined by an overvalued exchange rate has coexisted with a huge credit issue, in the form of payments, not so much for government purposes but to finance parastatal companies. All of this, must be said, without any type of mechanism of absorption of liquidity foreseen by the government.

[1] Messori and Zazzaro (2005) explain that this increase of liquidity can feed the monetary profits of other firms.

2. Venezuela's hyperinflation

In a conservative estimate, we could say that Venezuela has, at least been dragging typical characteristics of a developing rentier economy for the last five decades. Without doubt, it has been a typical case of an economy strongly dependent on the production and export of a raw material, (in this case oil) with numerous unsuccessful attempts to diversify their internal production, combined with strong inequalities and high inflation figures. With respect to the latter, the range has moved between 10% and a peak of 100% annually (in 1996), according to IMF data.

A glance at the economic literature will surely provide us with the most diverse reasons to explain this combination of elements in a single country: from possible negative effects of capital inflows in developing countries, to the Dutch disease, to the consequences of very heterogeneous productive sectors or underdeveloped fiscal systems (e.g. Sunkel, 1957; Corden and Neary 1982; Wallerstein, 2011; Bresser-Pereira et al. 2014)

In any case, we do not want to focus this study on the current period, but on the period where inflation and hyperinflation experienced a rebound that began in 2015 and resulted in peaks in the price levels greater than 200% per month. A factor to consider as a potential cause of inflation has been the USA sanctions imposed on the country (Curcio, 2018; Garzón, 2018). However, although it has a decisive influence on the potential growth of the Venezuelan economy, as well as on its access to international liquidity (Sutherland, 2019), we will not consider it a factor that provokes hyperinflation on its own. In fact, a review of price increases in those countries sanctioned by the United States or European countries in the last ten years, shows us, that those with the highest inflation levels are still far from the figures suffered in the Caribbean country (see Table 1).

The reason for the record rise in prices must be sought in the growing and disproportionate net monetary issuance experienced in the country, a lecture shared by authors from heterogeneous approaches (Sutherland, 2018, Lugo, 2018; Astarita, 2018). More specifically, it must be sought in the policies adopted to finance the public oil company, PDVSA, in a context of difficult revitalization of national productive activity.

2.1 PDVSA, a para-State

The public company Petróleos de Venezuela (PDVSA) is the backbone of the Venezuelan economy. It will be also the blackbone of this section. Firstly, because of its key role played on the national economy. Secondly, because hyperinflation is caused by the rising net credit by the Venezuelan Central bank (BCV) to this firm.

Table 1: Inflation in some sanctioned countries (2008-2017)

	Average of inflation 2008-2017	Peak of inflation	Year of the peak
South Sudan	36,47	262,26	2016
Sudan	21,05	34,90	2013
Ukraine	17,58	38,88	2015
Iran, Islamic Rep.	14,84	35,57	2013
Congo, Dem. Rep.	14,37	43,07	2017
Yemen, Rep.	12,74	23,62	2010
Zimbabwe	12,54	95,41	2009
Russian Federation	9,69	24,81	2011
Lebanon	4,09	10,29	2009
Cote d'Ivoire	2,89	3,91	2014
Iraq	2,89	30,18	2008
Cuba	2,68	4,33	2016
Libya	0,64	21,83	2008

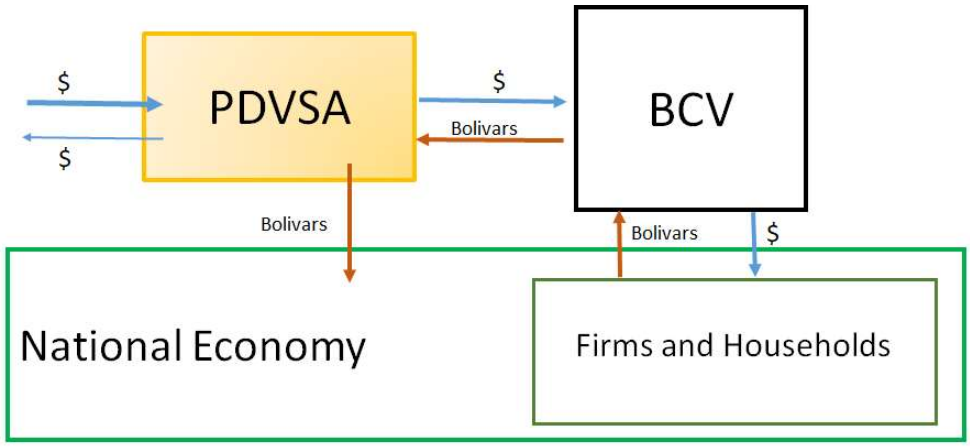
Source: Own elaboration from IMF data

The sale of oil abroad by this company constitutes almost the only source of foreign currency in the country for the last decade, sometimes bordering on 95% of total exports. In addition, the company has expanded its functions to become a parallel state providing different services in the country: education, health, pensions, food distribution, sports federations… Therefore everything concerning this company has become of crucial importance for the country.

Taking into account that gasoline is practically given away in the country, we must highlight the fact that, PDVSA does not have a stable source of income in bolivars to finance the large expenses in which they incur, due to its numerous functions. However, in exchange of the exported oil, it does have access to those dollars that companies and other agents in the country look for, in order to pay their imports and other types of operations abroad. Therefore, PDVSA exchanges its dollars for bolivars in return with these agents.

Since 2002-2003, this dollar-bolivar exchange has been carried out throughout an official agent; in this case, the BCV - or an agency in charge - exchanges the foreign currency that PDVSA obtains in the international market, for bolivars from national companies and individuals, which in turn, have to justify a supposedly efficient purpose. At the same time, these bolivars are transferred to PDVSA to cover its expenses - see Figure 1.

Figure 1: The official exchange mechanism in Venezuela until its liberalization in 2018



Source: Own elaboration

As part of this capital-control system, the exchange rate of the bolivar is decided by the BCV itself. Until 2018, the nominal exchange rate combined periods of complete rigidity (sometimes with the same exchange rate for more than four years) with sudden devaluations. Despite the possible virtues that can be attributed to it - at least until 2007-2008 - [2], this

[2] This control allowed, at least from its inception until 2007-2008, to triple the BCV's level of reserves, finance social missions, provide a broad strata of society with acceptable levels of consumption and even to create reserve funds for the industrialization of the national economy and to cushion unfavorable circumstances.

mechanism was burdened from almost its beginning by two problems that were aggravated with the time:

- The allocation of foreign currency, officially conditioned to uses of public interest, was instead de facto, oriented to private savings or appropriated by mafias close to the foreign exchange administration bodies.

- Also, although domestic price inflation had fallen from a range of 40% to 100% per annum in the 1980s and 1990s, to around 20% in the decade 2001-2010, it remained higher than in the rest of the world. By maintaining a fixed nominal official exchange rate for long periods, the country lost competitiveness.

All of this was accompanied by a selective and uncoordinated price control policy that ruined any attempt to revitalize the national economy, as well as, by the chaotic expropriation and abandonment of companies of all kinds: energy, food, cement, raw materials …(Dugan and Profaizer, 2007) As a twofold result, profitability forecasts worsened and the demand for dollars for importing and saving uses rose.

An alternative to this deterioration could have been the progressive devaluation of the exchange rate of the bolivar. The main argument against such measure was, that a devaluated currency would have inflated the price of imports. That said, a progressive devaluation would have had less harmful effects than the sudden and abrupt devaluations that the government, after all, was forced to carry out after months or years of fixed exchange rate. Moreover, the gradualness of such devaluation would have avoided the continuous loss of competitiveness caused by inflation in the Venezuelan economy.

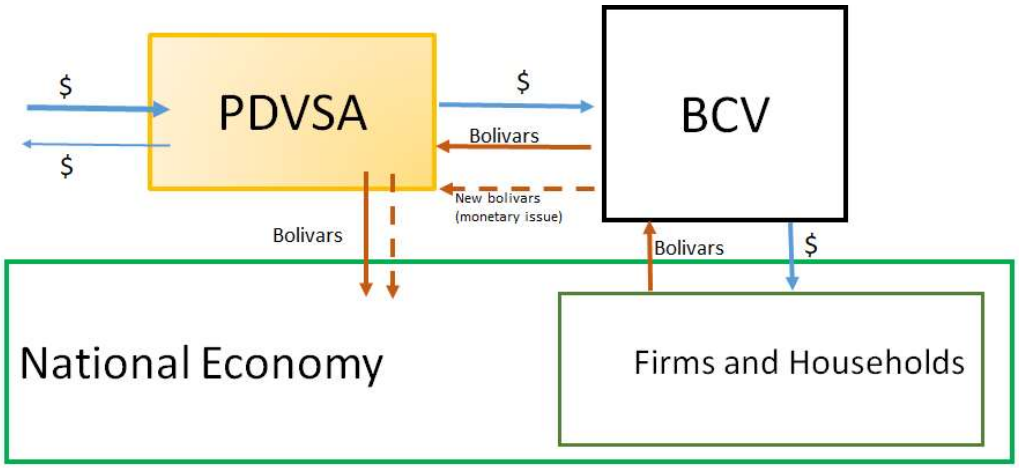
Regarding PDVSA, such devaluation would have allowed it to balance its accounts: the more the national currency was devaluated, the more bolivars for every oil dollar PDVSA would have exchanged. That way, the company would have obtained more bolivars to pay its growing costs.

To sum up, we must point out that the maintained overvaluation of the bolivar, together with the fall of foreign exchange inflows, after the sharp fall of oil prices in 2018, lead to greater dollar-demanding queues at the central bank. Such dynamics had implications on three dimensions: on PDVSA’s accounts, on the emergence of an unofficial exchange rate and on inflation levels.

Regarding the first one, the overvaluation led to the impossibility for PDVSA to cover its expenditures with the few bolivars it exchanged for its dollars. Since 2010, the technical

solution to cover the internal costs gap of PDVSA was given by the BCV throughout monetary issuing. That is what we observe in the transition from Figure 1 to Figure 2, which shows an inflationary effect in PDVSA's bolivar expenditures, but no increase in incoming dollars. The difference between the bolivars that PDVSA receives from the same national economy - in exchange for its dollars - and what it actually requires for its expenses has been covered by new credits issued by the BCV.

Figure 2: The official exchange mechanism with monetary issue by the BCV



Source: Own elaboration

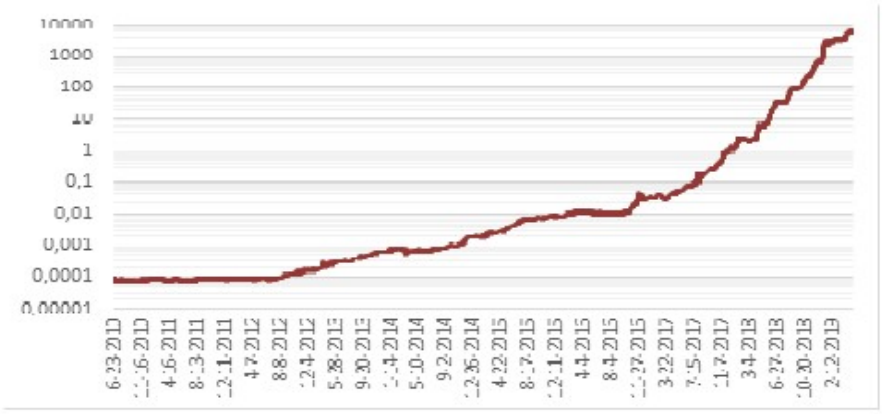
This financing method has led to a growing ruin for the public company. Moreover, in addition to the lack of income it used to obtain from the subsidy given to purchase gasoline[3], we must add the increasing indebtedness the company experienced in bolivars with the BCV and in dollars with the rest of the world. From 2007 to 2014, the consolidated debt of the company passed from 1.6 to 46 billion dollars (PDVSA, 2007; 2013).

At the same time, the unsatisfied dollar demand led to the boom of a parallel market, with a bolivar exchange rate much more depreciated than the official one (see Figure 3). The widening gap between the 'parallel' bolivar and the official bolivar, reflected an increasing demand for dollars in exchange for an exponentially growing liquidity in bolivars.

[3] In 2013 the energy minister counted the losses in this section at 12.5 billion dollars per year (Ramirez, 2013)

This extra amount of bolivars lies at the origin of the unprecedented inflation levels. (see Figure 4). This cost covering method with new credits, has worsened mainly since mid-2018, just when hyperinflation reached its peak. An institution as the BCV, which regulates and grants credit to the national economy, can give us valuable information in the accounting carried out in the last few years. A quick observation allows us to verify two interesting facts. Firstly, with the worsening of inflation, the relative share of the monetary base in liquidity has grown steadily, reaching peaks of 80%. This can be explained, as Wray (2015) does, by the strong demand for cash agents have for their immediate spending, especially when prices are constantly rising. Second, we can see how the estimated inflation evolves in a similar way to liquidity (M2) and the monetary base.

Figure 3: Parallel dollar market 2010-2019 (vertical axis in logarithmic scale)

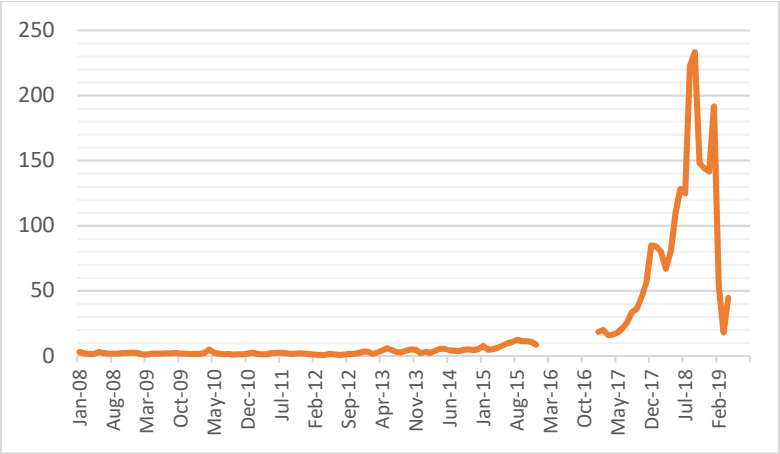


Own elaboration from www.dolartoday.com

To this phenomenon it could be answered that increases in the latter may be a consequence, not a cause, of the increase in inflation. However, in that case, the inflation would have increased proportionally the other elements of the monetary base. Nevertheless, it should be noted that in the period 2010-2017, at least 50% or 100% of the total monthly increase in the monetary base was, in turn, due exclusively to the oil company's debt increase with the central bank. By the end-2018, in fact, this debt already amounted to 78 times the sum of deposits that banks and other agents in the country had in the BCV, plus the circulating coins and notes. In short, unlike other agents in the economy - including the public ones - PDVSA has been resorting to increasing volumes of credit without any mechanism to repay it. In an economy

without the capacity to grow, the continuous injection of money in disproportionate amounts has finally led to increases in the level of prices.

Figure 4: Monthly inflation levels in percentage (2008-2019)



Source: From 2008 to 2015, Banca central de Venezuela.

From 2017:, Asamblea Nacional de Venezuela. Unavailable data for 2016 but it was estimate around 500% per year.

2.2. A new monetary policy since 2018.

Since 2018, with record levels of inflation, significant reforms have been implemented at different levels. On the one hand, price controls have been relaxed, implicitly admitting that in a capitalist economy, where prices double every month, makes any attempt to freeze prices of certain goods for long periods, almost impossible. On the other hand, the Government began to gradually devalue the official exchange rate and has almost completely liberalized it since March 2019.

The latter policy has led to the progressive depreciation of the currency and has reduced the dependence of PDVSA on new credit issuances by the BCV. Even so, PDVSA continues to be highly deficient and still uses BCV credits via monetary creation to cover its expenses; however it does so at a much lower pace. As a direct result, inflation levels have stabilized around 30-60% per month by the second half of 2019.

This devaluation has also allowed the official exchange rate to converge around the de facto rate of the parallel market. This measure has allowed the national economy to recover its potential growth by improving its competitiveness.

More striking is the increase of the reserve requirement, to be respected by commercial banks, that the central government imposes. This ratio has increased in the second half of 2018 and has done it again, more drastically, at the beginning of 2019, reaching a 100% marginal reserve ratio. By hampering the issue of new loans by the banking system, the BCV tries to reduce the number of new bolivars that flow into the national economy through the banking system. However, the most probable result of this policy is the worsening of growth levels and the persistence of inflation.

Venezuela is far from its level of full capacity utilization - its GDP has fallen 53% since 2018, according to official data - and from the level of full employment. However, the lack of conditions for capital accumulation prevents resources, and work, from being fully employed. In this context, and despite the improvement in its competitive position, the two conditions mentioned above that result in high inflation levels, continue to be met: the impossibility of maintaining high levels of growth and the lack of mechanisms to absorb much of the liquidity injected.

According to our interpretation, the solution to stagnation and hyperinflation in the country comes not through the adoption of tight monetary policies, but by ensuring growth conditions, while at the same time, ensuring tools to absorb the liquidity provided to PDVSA. In this sense, and far from being originals, two tools are proposed here that might allow the social missions in which PDVSA invests, to remain, but without soaring its deficit: First we propose the gradual rise in the price of gasoline and second, the implementation of a solid and progressive fiscal system, which could multiply the public income.

Conclusion

Assuming the endogenous character of the money supply does not imply an automatic rejection on the idea that monetary issue may generate inflation. In fact, other approaches which recognize the EMS, reach similar conclusions to the monetarist postulate: in the long term, an increase in the monetary mass ends up increasing the level of prices.

Therefore, in order to advance in an alternative but consistent explanation on the possible effects that changes in the monetary mass have on inflation, a previous understanding is required on the relation between endogenous monetary creation and variations of the output

level. The latter condition implies recognizing the fact that this relationship, in certain circumstances, can diminish or even cease to exist.

Venezuela is a case that helps us understand two key circumstances studied in this paper; limits to the output growth capacity and the lack of liquidity-absorption mechanisms.

Firstly; there are no fiscal mechanisms strong enough to absorb all the liquidity issued by means of new credit. Secondly, its exchange rate policy until 2018 has led to an overvaluation that made it impossible to face the competitiveness of the foreign market. This situation has eased with the end of the long and fixed, nominal exchange rates periods.

Finally, assuming that monetary creation can cause inflation under certain circumstances, does not justify any kind of ultrarestrictive monetary policy that ultimately hinders private access to credit. This only accentuates the limits to growth capacity, without solving the problem of the lack of liquidity absorption mechanisms.

In the case of Venezuela, the rise in legal banking reserves requirement, implemented by the government in 2019, may indirectly bring some control over total liquidity. However, this is done mainly at the cost of reducing the output level. If we add to this, the continuous net and disproportionate issuance of money to finance PDVSA, there is nothing to suggest that conditions have been restored to expect either an economic recovery or price stability.

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