

## Innovation and Productivity: a restricted Venezuela

Venezuela's GDP per capita has fallen by 38.6% since 2013 and is at the same level as it was in 1953. In these past 64 years, in which Venezuelans have not become richer, the OECD countries have increased their income per capita by 181.1%, the Chinese by 3491,4%, and our peers in Latin America, such as Brazil, Chile, Colombia, and Argentina are wealthier by 216,1%, 294,3%, 240,0%, and 81,1%, respectively.

That being so, the questions that need to be asked are: Why do some countries grow more than others? and What are the specific reasons that have restricted Venezuela from progressing over the past 64 years?

One way of evaluating the causes of economic growth (or lack thereof) is by performing development accounting estimates, in which economic growth is compared to the growth of factors of production, to estimate the relative influence of each of those factors. To broaden the study and encompass a group of countries, a cross-country analysis can be performed, in which the levels of factors of production are compared with income levels by country.

Using this technique, Hsieh and Klenow (2010) estimated that between 10% to 30% of the differences in the levels of GDP per capita among countries are explained by differences in their human capital, 20% by differences in their level of physical capital, and between 50% and 70% by differences in their Total Factor Productivity (TFP). According to subsequent estimates by Restuccia (2013), Latin America presents similar conditions. After reviewing these studies, we could consider TFP as the most important variable for achieving higher income levels.

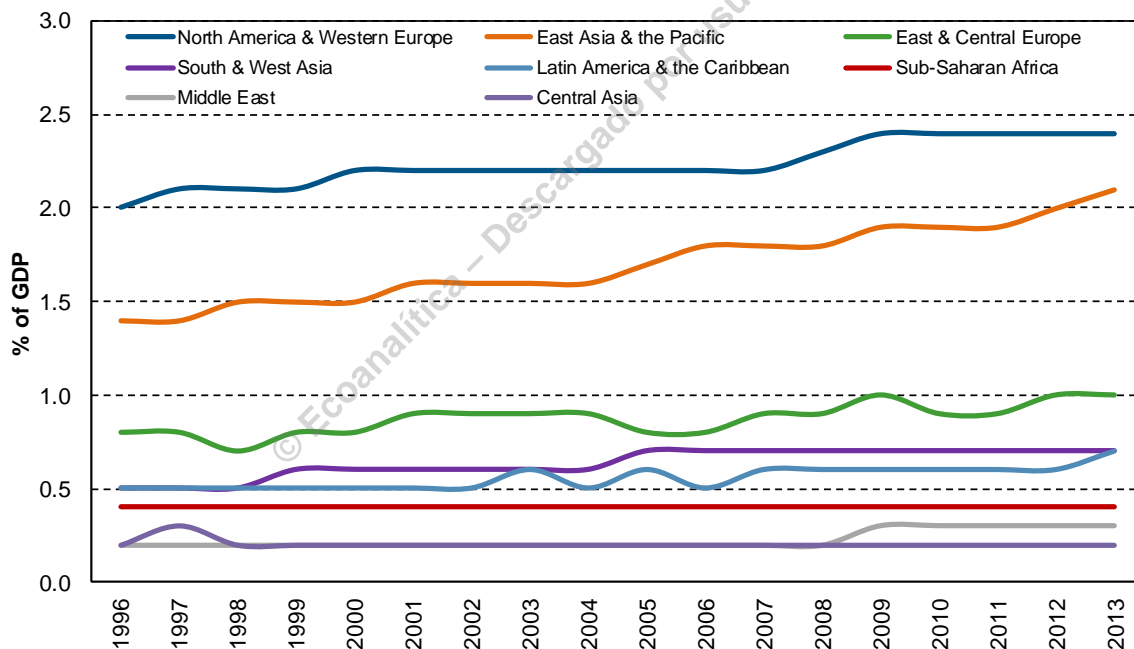
### Innovation and TFP.

Just as some economists have attempted to break down the determining factors in the level of income, others have broken down the determining factors of TFP. Lichtenberg (1993) estimated that the differences in TFP levels among developing countries are explained by differences in their levels of investment in research and development (R&D).

Later, Reikard (2011) discovered that around 40% of the increase in TFP since the end of WWII is explained by investment in R&D.

If we expect lower-income countries to converge to the levels of more developed countries, then they should be investing more in R&D to achieve bigger increments in their TFP levels, and subsequently achieve higher income in the long term. But, according to figures published by UNESCO, low-income countries systematically invest less in innovation, both in nominal terms and relative to the size of their GDP, than wealthier countries. Furthermore, investment in innovation as a percentage of GDP in developed countries, such as members of the OECD or China, has increased substantially over time, whereas investment in R&D in regions such as Sub-Saharan Africa, Central Asia, the Arab countries, and Latin America seem to have stuck in time.

### R&D Investment



Source: Unesco.

Given this situation, in which the wealthiest countries are taking more measures to ensure their future growth, it is even more important to understand the causes that restrict investment in R&D in low-income countries.

To answer this question, we conducted a series of econometric models that processed the microdata of more than 64,000 companies in 75 low-income countries.

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First, we calculated whether the correlation observed in the literature between TFP and investment in innovation was still true for low-income countries. Then, we analyzed how different restrictions affect the probability of a company to invest in innovation in low-income countries. After that, the analysis was broken down into 3 enterprise subpopulations based on their size. Finally, we reviewed how Venezuela ranked in terms of estimated priority restrictions.

### The model.

The first model<sup>1</sup> evaluates the correlation between TFP and four variables associated with the process of innovation. TFP was converted to a logarithmic scale to evaluate the impact of the independent variables on TFP in percentage terms.

Strangely enough, a significant correlation between innovation in products or services and TFP was not found, so it seems that putting a new product on the market will not necessarily result in increased production or, in this case, in higher sales<sup>2</sup>.

However, a positive significant correlation between TFP and process innovation, with more than 99% confidence, was observed. On average, the model shows that companies that innovate in their production process are 6.45% more productive than those who don't.<sup>3</sup>

Dependent Variable: Total Factor Productivity's Logarithm

Independent Variables	Correlation Coefficient	P-value	Interpretation
Product or Service Innovation	-0.0078336	0.753	non-significant
Process Innovation	0.0645694	0.009	6.45% if occurs
Investment in Innovation	0.1393052	0.000	13.93% if occurs
Country Innovation Investment Index	-0.0103694	0.000	(36.67%) 1 SD*

Control Variables: Age, Size, Employee Type Proportions, Economic Capital, Specialization.

Sample: Only Low Income Countries, following World Bank standards.

Survey linear regression, Adjusted by enterprise weight and strata. Using a constant.

Sources: World Bank Enterprise Survey. Own estimates.

\*Standard Deviation.

<sup>1</sup> Arcay (2017). *Innovación y Productividad: Estimando las restricciones vinculantes a la inversión en innovación en los países menos desarrollados.*

<sup>2</sup> Since we worked with a measurement of TFP-Sales

<sup>3</sup> By innovation in processes we mean any innovation in product manufacturing methods or offer of services, any improvement in distribution logistics or improvements in any activity that is ancillary to the production process in the broad sense of the term, such as accounting, marketing, administration, and so on.

Evidently, if TFP is the residue of output growth that is not explained by production factor growth, then any improvement or innovation in a production process should be reflected as an improvement in TFP.

As for investment in innovation, the model's results show that, on average, the enterprises that were surveyed and invested in innovation in their previous fiscal period had 13.9% higher productivity than those who didn't.

This finding reinforces the previous results in the literature from developed countries and, proves that even in the poorest countries investment in innovation is significantly relevant for TFP.

On the other hand, the model's results show that if a higher proportion of a country's enterprises invest in R&D, then they will generate market forces that will lower the TFP-Sales of the rest, at least in the short term, and will pressure them to either innovate or loose productivity. Essentially, a company that is in an environment where (by one standard deviation) more companies invest in innovation, is subject to greater level of competition that will reduce its TFP-Sales by 36.7% on average.

### Restrictions on R&D investment.

Once the importance of investment in innovation in terms of TFP and the importance of TFP in economic growth had been established, we proceeded to estimate the correlation between the main restrictions on innovation, according to the literature, and the probability or propensity of a company to invest in innovation.

According to Lundvall, et al. (2009), companies' decisions to invest in innovation and, therefore, a country's aggregate innovation are determined by a series of factors that make up what they call a National Innovation System (NIS).

The factors that have an influence on a NIS can be summed up in six categories: Social Institutions, Macroeconomic Regulation, Financial System, Education System, Market Conditions, and Provision of Services. In the model we included nine proxies of these factors<sup>4</sup>, and we estimated how the occurrence of a dichotomic restriction or variation in a continuous restriction by one standard deviation influences, on average, the probability of a company to invest in innovation, using a logit econometric model.

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<sup>4</sup> Some measured dichotomically and others measured continuously.

Dependent Variable: Innovation Investment.

Independent Variables	Correlation Coefficient	P-value	Interpretation
Access to banking	-0.9689466	0.001	(22.49%) Prob. If not
Employee education	-0.9324781	0.000	(8.36%) Prob. 1 SD*
Access to credit	-0.5249212	0.000	(12.83%) Prob. If not
Loss by electricity faults	-0.0144659	0.016	(4.82%) Prob. 1 SD*
Water insufficiency	-0.1470712	0.064	(3.67%) Prob. If insuf.*
Political instability index	-0.2289754	0.272	non-significant
Time dedicated to bureaucracy	-0.0021870	0.515	non-significant
Informal competition	-0.0480599	0.670	non-significant
Exposure to corruption	-0.0162840	0.895	non-significant

Control Variables: Age, Size, Employee Type Proportions, Economic Capital, Specialization.

Sample: Only Low Income Countries, following World Bank standards.

Survey linear regression, Adjusted by enterprise weight and strata. Using a constant.

Sources: World Bank Enterprise Survey. Own estimates.

\*Standard Deviation.

The model shows a significantly negative correlation, with more than 99% of confidence, between the variables associated with the financial system and the education system, and the probability of a company to invest in innovation. Moreover, we found that both proxies associated with factors related to the provision of public services are significant, at least 93% of confidence. As for the remaining factors, there is not sufficient evidence to say that they significantly restrict the propensity of companies, on average, to invest in innovation.

Specifically, we found that the companies that don't have access to a bank account have, on average, a 22.49% lower probability of investing than those that do. As for enterprises with no access to credit, they are 12.83% less likely to invest in innovation.

The main cause for this high restriction is that investments in innovations are medium or long-term decisions, and companies that don't have access to finance are restricted to using only the resources they have available in the short term. They have trouble maximizing their long-term benefits because of liquidity restrictions, and not only solvency restrictions.<sup>5</sup>

Regarding human capital, the model shows that a lower proportion of employees with high school education is significantly associated with 8.36% lower probabilities of investing in R&D, for each standard deviation from the mean, on average.

<sup>5</sup> Shafir and Mullainathan (2013). Scarcity: Why Having Too Little Means So Much.

In the case of service provision, a higher level of losses caused by electrical failures of one standard deviation is associated with 4.82% lower probabilities of investing in R&D. Similarly, an enterprise with water insufficiency issues has, on average, 3.67% lower probabilities than the average company that doesn't have those issues.

### Size matters.

However, not all enterprises face the same restrictions. In fact, the determinants of innovation in small companies are different than those faced by medium-sized or large companies. Hence, we decomposed the analysis of restrictions into 3 subpopulations by size.<sup>6</sup> Our results point to focalized problems that policymakers could solve for each subpopulation, and in some specific cases, they show problems that the State has cause for some subpopulation.

In broad strokes, 4 new significant restrictions that were indistinguishable when analyzing the average company show up in the de-aggregated results. They are (i) informal competition, (ii) exposure to corruption, (iii) excessive bureaucracy, and (iv) political instability. The following table shows the restrictions that were found to be significant in each of the 3 cases. The ones highlighted in red are significant with at least 99% confidence, and the rest with at least 90%, as demonstrated by its P-value.

Dependent Variable: Innovation Investment.

Size	Independent Variables	Correlation Coefficient	P-value	Interpretation
Small	Access to banking	-2.0010	0.000	(38.09%) Prob. If not
	Employee education	-0.9866	0.003	(9.30%) Prob. 1 SD*
	Informal competition	-0.4464	0.040	(10.98%) Prob. If there is
Medium	Employee education	-1.0147	0.000	(8.69%) Prob. 1 SD*
	Access to credit	-0.5985	0.000	(14.53%) Prob. If not
	Exposure to corruption	-0.3740	0.034	(9.24%) Prob. If there is
	Loss by electricity faults	-0.0217	0.035	(6.99%) Prob. 1 SD*
	Time dedicated to bureaucracy	-0.0117	0.076	(5.05%) Prob. 1 SD*
Large	Employee education	-1.2882	0.001	(8.69%) Prob. 1 SD*
	Political instability index	-1.2316	0.014	(24.31%) Prob. 1 SD*
	Access to credit	-0.6427	0.009	(15.54%) Prob. If not

Control Variables: Age, Size, Employee Type Proportions, Economic Capital, Specialization.

Sample: Only Low Income Countries, following World Bank standards.

Survey linear regression, Adjusted by enterprise weight and strata. Using a constant.

Sources: World Bank Enterprise Survey. Own estimates.

\*Standard Deviation.

<sup>6</sup> Small (from 5 to 19 employees), medium (from 20 to 99), and large (100 or more).

For small companies, informal competition seems to be a significant restriction, at a level of confidence of 96%. On average, small enterprises that suffer from informal competition have a 10.98% lower propensity to invest in R&D than their counterparts.

On another note, its remarkable how insignificant a small company's access to finance appears to be as a restriction to its innovation investment decisions; while access to a bank account seems to be their biggest restriction (38.1% lower probabilities). Small companies' financial issues are a step back from the rest, hence, controlling for access to banking diminishes the effect of credit in the model.

The case for medium-sized enterprises is quite the opposite. Access to banking is not a significant restriction, while not having access to credit is associated with 14.5% lower probabilities of investing in innovation. Additionally, for this subpopulation the State's capacities start to become a real restriction. They significantly suffer the consequences of corruption and excessive bureaucracy, and are affected by inefficiencies in the provision of basic services like water and electricity.

The simple fact of being exposed to corruption in any of its facets, is directly associated with a 9.2% lower probability of investing in R&D, for the average medium-sized company. Regarding bureaucracy, an average medium-sized firm in which their top executives dedicate a standard deviation higher than the mean of their time to addressing bureaucratic paperwork or have meetings with regulators or bureaucrats, has 5% lower probabilities of investing in R&D.

Large companies are a whole new case to study, because their decisions respond to political restrictions. In contrast with small and medium-sized companies, the average large firm doesn't face significant restrictions associated with informality, bank access, corruption, or bureaucracy. Their innovation investment decisions significantly ponder their perception of political instability.

For large firms, innovation investments are long-term projects that require substantial amounts of resources, and their success highly depends on public policy decisions to be taken in the future when their investment is capitalized. Hence, these companies significantly take into consideration the perceived level of certainty over future public policy, and a context of uncertainty of just one standard deviation higher from the mean is associated with a 24.3% lower propensity to invest. This could have substantial implications over their future TFP, and thus, the TFP of a sizable portion of the formal sector in low income economies.

### Venezuela and its straitjacket.

The implications of these findings are definitely not a minor thing for Venezuela. The correlation between the aforementioned restrictions and R&D investment, and of R&D investment and TFP, is valid for enterprises in the poorest countries. These countries have the worst NIS. Thus, even at this margin, restrictions are significant. The list of countries in the sample is limited to 37 from Africa, 18 Asians, 11 Latin Americans or Caribbean, 4 Europeans, and 5 from Oceania and the Pacific.

When we evaluate Venezuelan conditions in each category, the picture isn't pretty. At **Ecoanalítica** we estimate that the credit portfolio of the entire financial system in Venezuela (converted into USD at the parallel rate) has shrunk 96.8% in the past 5 years, and only represents USD 1.16 billion. Data from the World Bank's Doing Business Index 2018 ranks Venezuela at 122<sup>nd</sup> of 190 regarding access to finance, and calculates our Distance to Frontier (DTF) at the 40<sup>th</sup> percentile.

Regarding the education level of the workforce (the only restriction that affects all firms homogeneously irrespective of their size), we couldn't find sufficient data because the Venezuelan government only publishes data on how many kids were promoted to the next grade. We can't know how many effectively graduate each year after completing their whole courses, or how many of them have emigrated and no longer form part of the labor force, or even what is the average Venezuelan score in international tests.<sup>7</sup>

However, reports from the Center of Cultural and Educational Investigations (CISE in Spanish) show that "for each 40 minutes of class, less than 15 are dedicated to activities that are directly related with learning, on average". The root of this phenomenon is a 40% teacher deficit, caused in turn by low wages, lack of pedagogic materials, a decaying infrastructure, and limitations on teacher promotions.<sup>8</sup> On the other hand, we can infer that the fall of financing to the educational system of 84.7% in real terms from 2010 to 2018 could have had substantial repercussions on the supply of adequate public education.

The continuous failure of the electric and water supply system is a fact that even the government has recognized. Lack of investment and maintenance of electrical plants has caused intermittent crises and resulted in shutdowns and rationing in the whole country, including the capital and our main industrial zones in the countryside. The Doing Business Index 2018 ranks Venezuela as 186<sup>th</sup> from 190 in access to electricity.

<sup>7</sup> Because the government banned the PISA test.

<sup>8</sup> Kauefati, A. (2015). ¿Qué se sabe de la calidad de la educación venezolana? IESA.

Even though the executive doesn't publish any data about it, the causes of our insufficient water provision, and continuous rationing is so evident, that water from broken pipes flows through the streets freely for long periods of time before being repaired, causing holes in the driveways through sedimentation.

According to the newest data that the National Statistics Institute published (January 2016), 46.4% of Venezuela's active population works in the informal sector. But considering the fall of formal sector real wages in the last two years, and that the standards used to calculate informality systematically underestimates it, we could infer that the real number is a lot higher. This has substantial implications for our small formal companies, their innovation, and their TFP.

On another subject, Transparency International's latest report on corruption (2016) ranks Venezuela as the most corrupt country in Latin America, and at the 166<sup>th</sup> place of 176 worldwide. Just below Iraq and Eritrea. In this sense, medium-sized firms could be significantly restricted in terms of R&D investment propensity, and subsequently, their TFP.

Finally, the latest World Bank's Worldwide Governance Indicators (2016) rank Venezuela at the 13<sup>th</sup> percentile regarding political stability. We could expect that this prominent level of uncertainty about the future's public policies might be causing a toll on large firms' propensity to decide to invest in R&D, and that their productivity is suffering consequently.

At **Ecoanalítica** we estimate that in the past 5 years the series of impractical and inefficient policies put in place by the *Chavismo* have shrunk the aggregate investments financed by the banking system by 99.3% (in terms of USD at the parallel rate), so that they only represent USD 151 million in the present.

With such a low level of investment (in innovation and other forms), and with a GDP contraction of 34.3% in the past 4 years, we are not expecting that Venezuela's TFP will rise anytime in the short or medium term, and sadly it won't be rising in the long term either unless the government makes a structural reform and also generates the perception of political stability.

**Guillermo Arcay Finlay**

Year 13. Number 47 Week II  
 December 2017

## WEEKLY INDICATORS

Weekly Economic Indicators			
	1st Week September	Weekly var. (%)	Depre/Apre (pp) <sup>1</sup>
FX Dicom (VEF/USD)	3345.0	2.9	2.8
	4th Week November	Weekly var. (pp)	Annual var. (pp)
Lending Interest Rate (%)	20.8	-0.8	-1.3
	1st Week December	Weekly var. (pp)	Annual var. (pp)
Overnight Interest Rate (%)	0.0	-0.1	-0.2
	4th Week November	Weekly var. (%)	Annual var. (%)
International Reserves (USD Bn)	9.8	-0.8	-9.9
	4th Week November	Weekly var. (%)	Annual var. (%)
Monetary Liquidity (VEF Bn)	81,751	14.2	828.2
Price of International Oil Baskets (USD/bl)			
	1st Week December	Weekly var. (%)	Annual var. (%)
WTI	58.0	1.4	21.3
Brent	63.6	1.1	30.9
Price of the Venezuelan oil basket (USD/bl)			
	1st Week December	Weekly var. (%)	Annual var. (%)
Weekly Average	56.4	1.8	39.3
Annual Average	45.8	0.5	31.7

Sources: BCV, MENPET and Ecoanalítica

\* Annual variation of accumulated expenditure.

<sup>1</sup> Depreciation (+)/Appreciation (-)

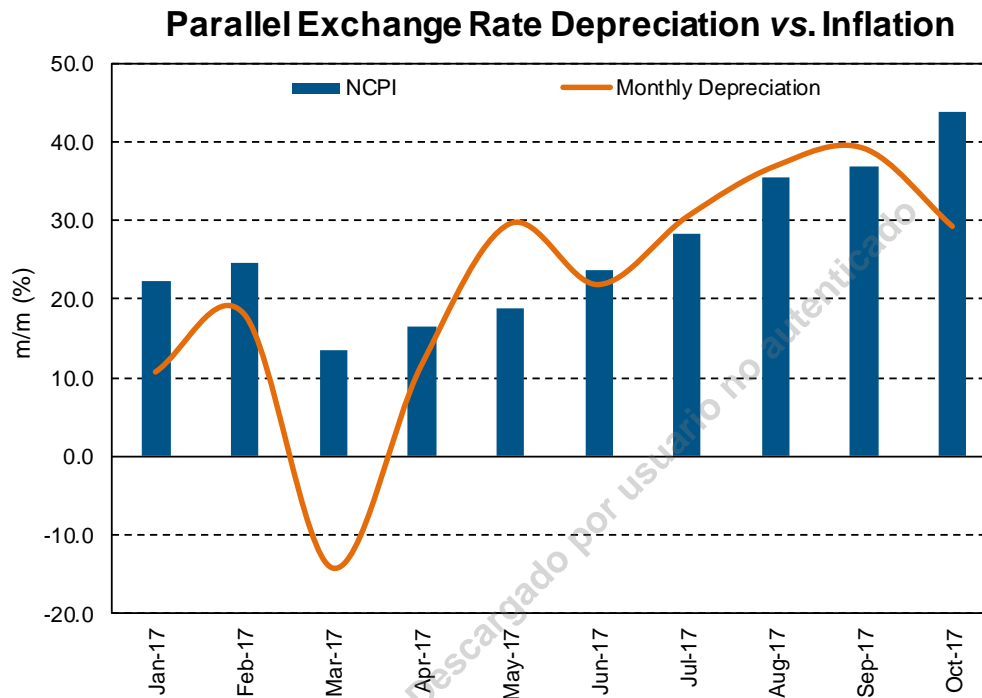
Price of the Venezuelan oil basket published in yuans since 09/08/2017

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### CHART OF THE WEEK: "WHAT IS THE WORST OF ALL EVILS?"



Sources: BCV, Dólar web and Ecoanalítica

The present exchange rate scheme has not escaped from the distortions that have plagued the Venezuelan economy. With the preferential exchange rate, applicable to public sector imports only, still at VEF 10/USD and the suspension of the DICOM system for more than a month, the allocation of foreign currency via official mechanisms is practically inexistent, leaving the parallel market as the only alternative. This situation and inflation in 2017 to date of 915% have become two major enemies of the private sector.

The volatility of the parallel market has increased. The exchange rate has been posting relevant increases from one day to the next. So far this year it has depreciated by 96.7%, at an average of 21.3% a month, accompanied by average monthly inflation of 26.4%. In November alone, the exchange rate posted a depreciation of 57.6%; and in the first four days of December it depreciated by 10.2%, whereas inflation was up by 11.4%.

At Ecoanalítica we estimate that 15.1% of total imports and 56.8% of private sector imports will be paid for at the parallel rate in 2017, which means that the behavior of the parallel exchange rate has an impact on cost structures and the process of determining end prices in the economy. The trend in the parallel exchange rate reflects the instability and uncertainty perceived by economic agents and shows the government's inability –or unwillingness- to find solutions to the difficulties Venezuelans face every day.

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**ECONOMIC TIPS**

**No hesitation.** Standard & Poor's has downgraded Venezuela's credit rating once again. This time it went from selective default (SD) to default (D). S&P was the first credit rating agency to officially declare a partial default by the Venezuelan Government on its debt obligations.

**Admitting to inflation.** Last Sunday in his regular television program, President Nicolás Maduro announced that private individuals with income of less than 32,000 tax units would be exempt from paying income tax. Explaining the measure, the president stressed that it was *"a measure to protect workers' wages (...). We're going from 6,000 tax units in 2016 to 32,000 tax units in 2017."*

**20.5% of the Family Food Basket.** Maduro added that this measure would benefit 95% of private individuals who are taxpayers. This new ceiling means that private individuals who earned up to VEF 9.6 million during the fiscal year, equivalent to an average monthly wage of VEF 800,000, will be exempt from paying income tax. That monthly amount is only enough to cover 20.5% of the Family Food Basket.

**The "Petro."** Maduro announced the creation of a national cryptocurrency called the "Petro." According to statements made by the president, the purpose of this new currency is to *"beat the financial blockade."* Maduro explained that the "Petro" would be backed by oil, gas, diamonds, and gold. The backing to which he referred is a long way from the formal definition of a cryptocurrency, which is created by a cryptographic process and is backed by its usefulness in performing transactions and the confidence it inspires.

**But without the green light?** National Assembly Deputy José Guerra said that this measure must be approved by the National Assembly. He reminded everyone that the Constitution and the Hydrocarbons Act establish that the oil reserves cannot be transferred, or can they be given as collateral in any financial or commercial operation.

**Looking for alternatives.** Representing the Central Bank of Venezuela, its director Ramón Lobo held a meeting in Ecuador as a participant in the Latin American Reserve Fund (FLAR). This organism provides financial aid to countries that require it.

**Going for the tenth round.** Monetary aggregates are continuing on their upward spiral. Liquidity came to VEF 81.8 trillion on November 24, according to data published by the Central Bank. In the same month last year, it was VEF 8.8 trillion, for an increase year-on-year of 828.0%.

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**Sterile strategies.** As a palliative measure, the Central Bank has siphoned off a total of VEF 753.0 billion from the economy; however, this has not been enough to contain the growth in monetary stock.

**Down USD 1.25 billion.** As at December 4, the international reserves came to USD 9.75 billion, up 0.4% (USD 43 million) from the same date last month and down 0.02% (USD 2.0 million) from the previous day. The total reduction so far this year is 11.4% (USD 1.25 billion).

## OIL TIPS

**The guest of honor.** After appointing Manuel Quevedo as president of Petróleos de Venezuela, S.A. (PDVSA), the government announced in *Gaceta Oficial* Number 41,288 the appointment of Ali Rodríguez Araque as the company's honorary president. In Araque's opinion, the key to recovering the country's economy involves recovering domestic oil production, while keeping to the production cut agreements reached with OPEC.

**Tossing out the bad apples.** Quevedo and Araque held meetings to restructure the functioning of PDVSA. According to the new minister for oil, he has seen how the corruption that existed in the state-owned oil company has had negative consequences for the production of crude.

**A brief look at what they're doing.** The president of PDVSA conducted inspections in the operating areas of Paraguaná Refining Center. Quevedo held a meeting with PDVSA's vice president of refining, Guillermo Blanco, and the complex's general manager, Iván Hernández, as part of the restructuring plan. The idea is to activate the production capacity of all the country's refineries and guarantee domestic supply and crude exports.

**A brief look at what they're doing (II).** According to statements by labor union leader Iván Freitas given during an interview with Reuters, Paraguaná Refining Center is operating at 13.0% of its installed capacity. He also said that only one of the five distillation units at Amuay is working and that there was a fire at Cardón early in the week that took one of its units out of commission.

**Dotting the i's.** In an attempt to wipe out corruption, PDVSA is to review all the contracts entered into by the 262 companies that are part of the corporation as well as the

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company's management positions, nearly 100 in all, This process is to be supervised by Executive Vice President Tareck El Aissami.

**It's not a problem of solvency or liquidity.** At the meeting of the Organization of Petroleum Exporting countries (OPEC), Quevedo stated that PDVSA has the "available resources, cash flow, and production" to meet its debt obligations.

**The production cut is to continue.** OPEC reached a consensus at the meeting held last week on extending the production cut agreement with a view to eliminating surplus global crude stocks.

**At least until June.** After the agreement had been reached, Saudi Arabia's Energy Minister Khalid Al-Falih said that he thought they would start discussions in June on whether it would be convenient to raise crude production, although he forecast that the production cut agreement would be maintained throughout 2018.

**Venezuela takes its turn.** Venezuela is to assume the vice presidency of OPEC in 2018, complementing the United Arab Emirates, who will be the chair.

**In line with the cuts.** According to a survey conducted by Reuters, it is estimated that OPEC crude production fell by 300 kb/d to its lowest since May. Moreover compliance with the production cut agreement was 112.0% in November.

**They're still sitting on the benches.** Indonesia's Minister of Energy Arcandra Tahar announced that Indonesia would continue to freeze its OPEC quota on the orders of the government. The main points of disagreement between OPEC and Indonesia have to do with the agreed cuts, which Indonesia does not want to implement.

**Complying with the cuts.** The United Arab Emirates announced that its crude production had gone down to 2.9 mb/d due to maintenance and also as a result of its efforts to comply with the production cuts agreed by OPEC, since the United Arab Emirates had not complied 100.0% with the cuts, owing to the drop in production in Angola and Iraq.

## BUSINESS SECTOR TIPS

**The social State.** Nicolás Maduro announced a new plan to provide support to those who are registered with the Local Supply and Production Committees (CLAPs). This support will be given via the carnets of the fatherland. Maduro commented that the goal is to consolidate the "social policy the State is implementing to protect Venezuelan families."

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**Don't let inflation beat us.** President Maduro also stressed the need to put up the prices of the CLAP boxes of staple goods. He said that the cost of the box was barely equivalent to the cost of just one product in any market, emphasizing that the price needed to be raised. As he put it, *"The box is at VEF 10,000, that's more or less what just one product costs in the street. We can't allow the prices to lag behind."*

**The order is: Produce!** Maduro explained that the CLAP products had to be competitive, that the CLAPs had to become entities that produce. He demanded that producers do whatever they had to do to obtain raw materials and to produce. On the matter of seeds, he said that if they did not have them, *"they'll have to split them,"* saying that the State should not be the provider of everything that is needed in order to produce.

**Fair changes.** The Constituent National Assembly's Economic Committee introduced some amendments to the Fair Prices Act, eliminating the 30.0% ceiling on profits for all stages of the production chain. Constituent National Assembly member Oscar Schemel said that it would now be the Executive that would establish economic agents' permitted profit margins.

**The crusade continues.** The Superintendency for the Defense of Socioeconomic Rights (Sundde) has deployed its inspectors in Caracas and in several of the country's states, among them Carabobo, Falcón, and Guárico. In downtown Caracas they inspected approximately 250 businesses.

**They'll put them out of business.** The National Commerce and Services Council (Consecomercio) rejected the measures being taken by Sundde and accused its inspectors of harassing shopkeepers who decide to keep their establishments closed. The president of Consecomercio, María Carolina Uzcátegui, said, *"They couldn't care less what the purchase price was and, of course, much less what the cost of replenishing stocks is. All they do is demand that what's there be sold at 50.0%."* Uzcátegui warned that the consequence of these policies would be that these stores would be unable to open in 2018.

**Molding the future.** Maduro commented on future plans for taking the Youth Job Plan to another stage, the idea being to create organizational structures on the state and municipal levels. Currently there are 450,000 young people registered with the program and they want to increase that number to 750,000.

**At least we'll have a roof over our heads.** Minister of Housing and Habitat Ildemaro Villaroel commented that the shanty district upgrade program, *Gran Misión Barrio Adentro*, has made it possible for 543,046 homes to be upgraded nationwide.

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**Price talks still ongoing.** José Agustín Campos, the president of the National Confederation of Farmers and Cattlemen (CONFAGAN), commented that the prices set for beef were prejudicial to producers and that a meeting with the Central Government had been scheduled for December 13 to discuss the possibility of another increase.

**Let's agree another price.** After establishing "agreed prices," Nelson Moreno, the president of the Bolivarian Coffee Industrialists Association (ABICAF), said that coffee prices needed to be raised again as a matter of urgency, as those that had been agreed no longer made sense given how fast inflation is spiraling. Moreno said that *"at the moment a kilo of ground roasted coffee made with coffee types 1, 2 and 3 should have a retail price of between VEF 75,000 and VEF 90,000."*

**Another one takes flight.** The International Air Transport Association (IATA) announced that it is to close its offices in Caracas due to the political, economic, and social instability in the country. Only six airlines that are members of IATA are currently operating in Venezuela, compared to 24 in 2014.

**The capacity to tough things out is evaporating.** The president of the Venezuelan Confederation of Industrialists (Conindustria), Juan Pablo Olalquiaga, said in the association's annual report that 1,000 companies had closed their doors due to the economic situation in the country. In an interview he said, *"Hyperinflation is causing a huge contraction in demand at a time when production has shrunk due to the incoherencies of the government's economic policy."*

**Loan portfolio grew 26.9% in October.** According to last figures released by the Bank Superintendent's Office (Sudeban) in October, gross credit portfolio of commercial and universal banks grew 466.7% in nominal terms and in real terms (excluding inflation), it meant a year-to-year decrease of 54.8%.

**Economic destinations credit portfolio.** In relation to the structure of the banks' loan portfolio in terms of economic destination, all sectors showed year-to-year a variation in real terms, led by vehicles (-88.0%) followed by tourism (-75.2%), mortgages (-72.3%), micro credits (-70.2%), consumption credits (-64.8%), credit cards (-64.8%), agricultural credits (-62.8%), and for the manufacturing sector (-55.3%).

**Commercial credits' share increases.** Concerning share in loan portfolio, commercial loans grew a little more, from 69.5% in October 2016 to 73.6% in the same month 2017, followed by credit cards reaching 13.6% of total portfolio, despite the yearly 3.9 pp decrease. Mortgages, in turn, recorded a marked drop, from 3.6% in October 2016 to 2.2% in October 2017. Similarly, the agricultural credits decreased to 12.7%

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**Delinquency stayed at 0.1%.** Portfolio's delinquency index (Due Portfolio + Portfolio in Litigation / Gross Portfolio) registered its 4<sup>th</sup> consecutive with 0.1% in October.

## WORLD ECONOMY TIPS

**A growing imbalance.** The deficit on the US economy's current account grew by 8.6% in October to USD 48.7 billion, higher than the USD 44.9 billion forecast by the markets, and the biggest deficit since January this year.

**The expansion continues.** Manufacturing in the United States fell to 58.2 points in November compared to the 58.7 points posted in October. Even so, this indicator remains at historically high levels after having achieved its highest score since 2004 in September.

**A 17-year high.** The Purchasing Managers' Index for the manufacturing sector in the euro zone went up to 60.1 points in November, its highest score since the year 2000 and the second highest score in the entire historical series.

**Japan is to keep to its stimulus program.** The president of the Bank of Japan, Haruhiko Kuroda, said that the bank had decided to maintain its ultra-easy monetary policy in 2018. He said that the idea was to achieve an inflation target of 2.0% a year as soon as possible.

**A three-month high.** The Purchasing Managers' Index for China's services sectors, as measured by the private consulting firm Caixin, posted its biggest jump since August to 51.9 points, driven particularly by the new business sector. Even though this result indicates growth in this sector, it is below the long-term trend.

**Driven by investment.** Brazil's Gross Domestic Product (GDP) was up by 1.4% in 3Q2017 compared to the same quarter in 2016. This growth was driven by 1.6% growth in the acquisition of new machinery, installations and inventories and a 1.2% increase in household consumption.

**Manufacturing is recovering...** The PMI for Brazil's manufacturing sector, as measured by Markit, went up to a seasonally adjusted 53.5 points in November. This is the best result in six years and the ninth month in a row that it has posted an increase. The demand for goods came from both the domestic and the foreign market, painting a bright outlook for Brazil's economy.

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**...but services are stagnating.** On the other hand, the PMI for the services sector posted its biggest drop in nine months in November to 46.9 points. This result is way below the 50-point threshold that separates contraction from growth.

**Exporting minerals.** In October, the value of Colombia's exports increased by 15.1% compared to October last year to USD 3.13 billion. This result was driven by oil, coal and ferronickel sales. Even so it was below the USD 3.28 billion posted in September.

**Driven by copper.** In October Chile's economy grew by 2.9% compared to October 2016, according to the Monthly Economic Growth Index (Imacec). This is the best monthly result since August last year. It was driven by growth of 11.1% in the mining sector, whereas the non-mining sector grew by 2.2%.

## POLITICAL TIPS

**We'll meet again.** After the last session of negotiations between the Venezuelan Government and the opposition coalition last week in the Dominican Republic, a subsequent meeting has been scheduled for December 15.

**The common enemy.** In view of the meetings between the government and the opposition, the committee advising the Democratic Unity Alliance at the negotiating table advocated continuing to work on the negotiations given the crisis in Venezuela. *"We're in an emergency and we make an appeal for the process to continue without delays, without obstructions and without losing sight of the urgency of the situation,"* said the members of this technical committee.

**Will they give up spaces?** As for the president of the National Assembly, Julio Borges, he said that President Nicolás Maduro is afraid of the next meeting, scheduled for December 15, being held, as, in Borges' opinion, international pressure will be brought to bear and Maduro will have to provide answers for the most controversial issues of the crisis that Venezuela is experiencing.

**Wanting ignore what's there for all to see.** Humanitarian aid is one of the main demands being made by the opposition in the negotiations. However, President Nicolás Maduro said that Venezuela does not need humanitarian aid; on the contrary, he claimed that Venezuela was "flourishing." *"Venezuela is a flourishing, hard-working country; it's not a country of beggars as some have wanted to make out with that business of humanitarian aid. No. Venezuela does produce; what they do is worth something. We're proud of that. Besides what they're saying is not true,"* he said.

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**No hard feelings.** Maduro admitted that he had some major differences with the Democratic Unity Alliance and with Julio Borges. Even so, he urged Borges to continue with the “*collaborationist spirit*,” which, according to him, he had shown at the last meetings. “*If you want, don’t shake my hand or laugh with me. As for me, I am going to shake your hand and, despite the differences I have, serious, hugely serious differences, I’m going to give you a smile, Deputy Borges,*” he said.

**Don’t get too excited.** As for Minister for Communication and Information Jorge Rodríguez, he demanded that the Democratic Unity Alliance recognize the Constituent National Assembly. He said that he would not sign any agreement at the negotiations with the opposition until he received a response to the government’s petitions, which include lifting the sanctions imposed by the US Department of the Treasury, which, in his opinion, were requested by “*the Venezuelan right-wing leadership.*”

**So near and yet so far.** Metropolitan Mayor of Caracas Antonio Ledezma, currently in exile, said that there is fear among the members of the Venezuelan military who do not support the Nicolás Maduro administration due to Cuba’s “interference” in the army’s ranks. Ledezma explained, furthermore, that a solid collective leadership was needed in the opposition alliance instead of personal or party aspirations.

**The utmost in control.** President Nicolás Maduro announced that the last day for issuing the Carnet of the Fatherland would be on Sunday, December 4. He also warned people that “*from now on, everything will be done using this carnet.*”

**Abandoning ship, by being kicked overboard.** The former president of PDVSA, Rafael Ramírez, resigned as Venezuela’s ambassador to the United Nations. He resigned as Venezuela’s permanent representative before the UN at the request of President Nicolás Maduro.

**Loyal to Commander Chávez.** The reason for his resignation? Opinions, says Ramírez. “*I’ve been removed because of my opinions,*” he said after explaining that he had proposed economic measures to the late President Hugo Chávez and that they had not been implemented due to “*internal factors.*”

**Every man for himself.** Following firings and arrests of employees and managers at the state-owned oil company, PDVSA, in an attempted anti-corruption crusade, General Manuel Quevedo, the company’s president, announced that “*the management positions at PDVSA, nearly 100, are being reviewed. They are all going to be reviewed by our Commander-in-Chief Nicolás Maduro.*”

**Offering brotherly solidarity.** Spain's Minister for Foreign Affairs and Cooperation Alfonso Dastis requested coordination between the European Union and the United States on the Venezuelan crisis through the good offices of US Secretary of State Rex Tillerson. The Spanish minister stressed the need for coordination to get the Nicolás Maduro administration to take action to deal with the situation Venezuelans are faced with.

**(Some) consequences of poor government.** According to the latest opinion poll conducted by the pollster Venebarómetro, 68.0% of those interviewed considered Nicolás Maduro's performance to be negative and only 31.1% viewed it as being positive. Only 32.1% considered that Nicolás Maduro should continue in office.

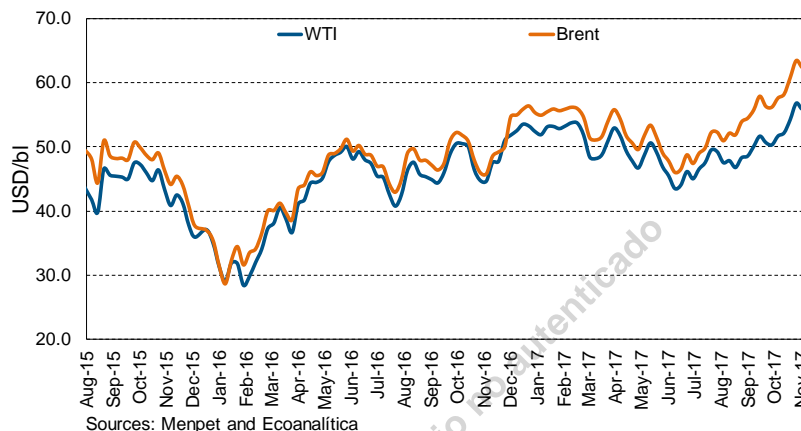
**And a clear lack of leadership.** On the other hand, according to Venebarómetro, 65.7% of those interviewed considered the work done by the Democratic Unity Alliance to be negative and only 31% viewed it as being positive.

**Split down the middle.** On the issue of the negotiations, according to Venebarómetro, 45.0% of those consulted was in agreement with the negotiations, whereas 49.8% was not. Moreover, 41.7% of those interviewed considered that the most important issue that needed to be negotiated was setting the date for the presidential elections in 2018 and 28.2% gave priority to immediately opening the channel for humanitarian aid.

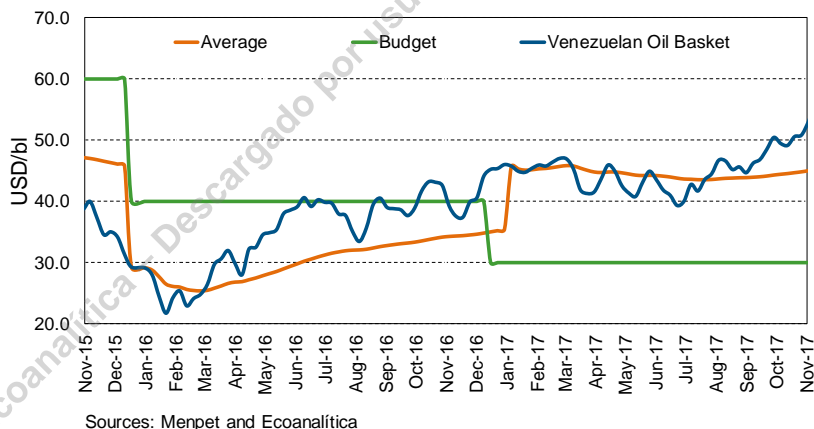
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**ECONOMIC INDICATORS**

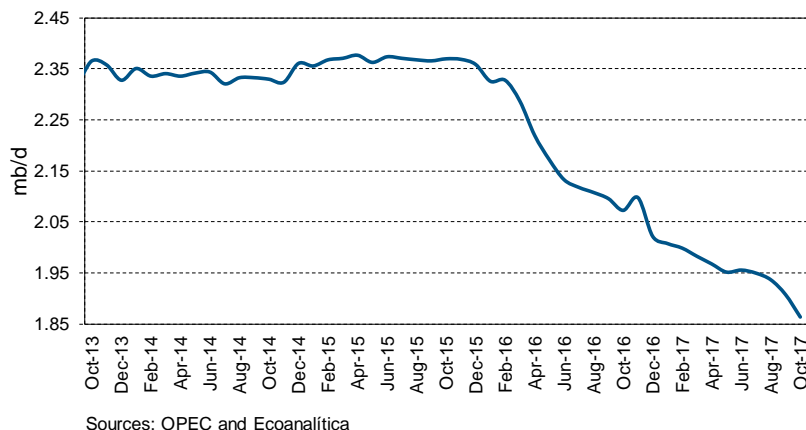
**Oil Prices  
(WTI and Brent)**



**Oil Price  
(Venezuelan Basket)**

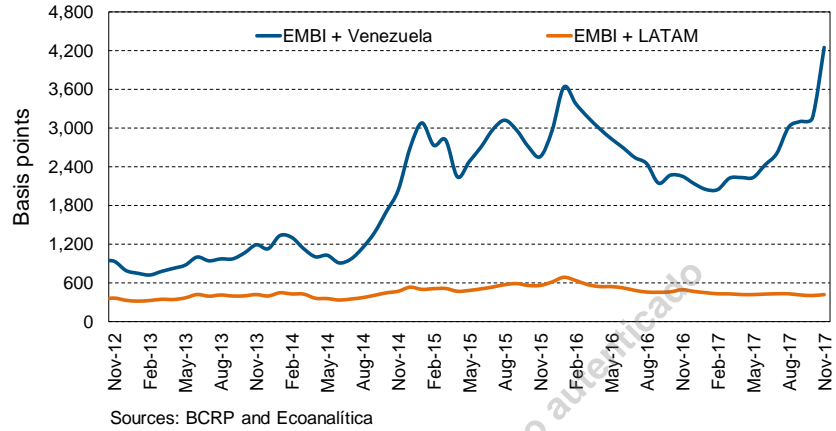


**Oil Production  
(Secondary sources)**

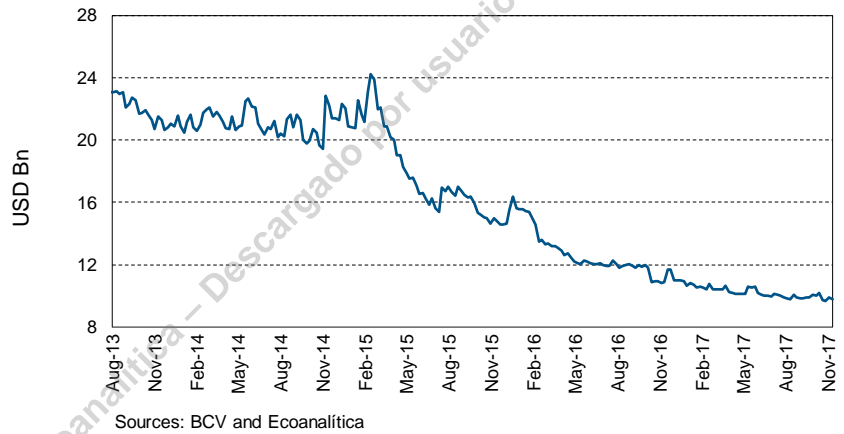


**ECONOMIC INDICATORS**

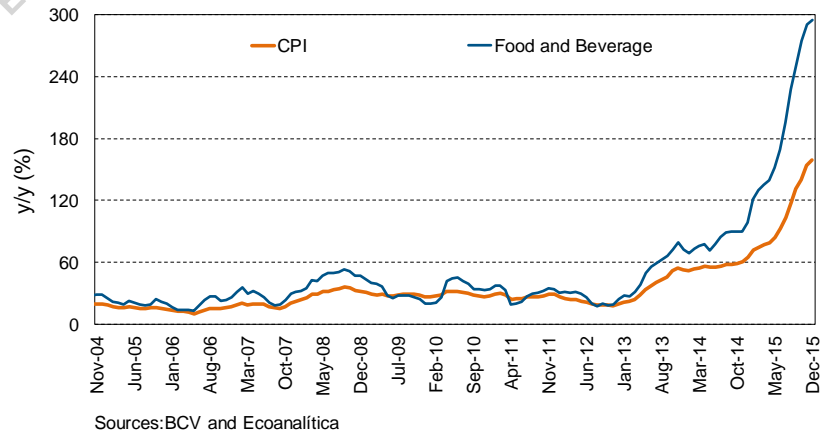
**EMBI**



**FX Reserves (BCV)**

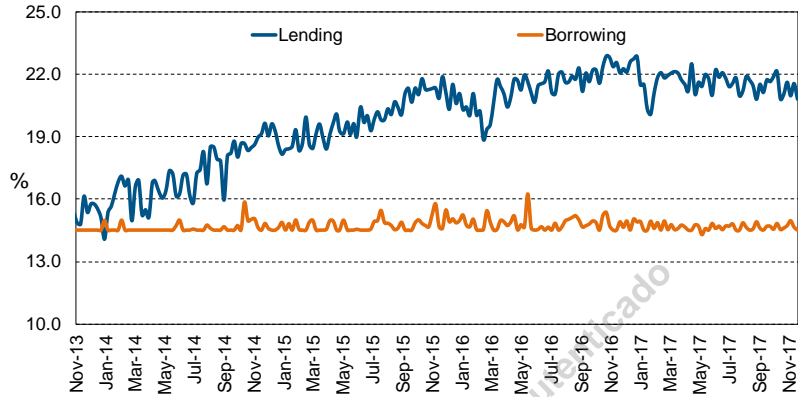


**Inflation (BCV)**



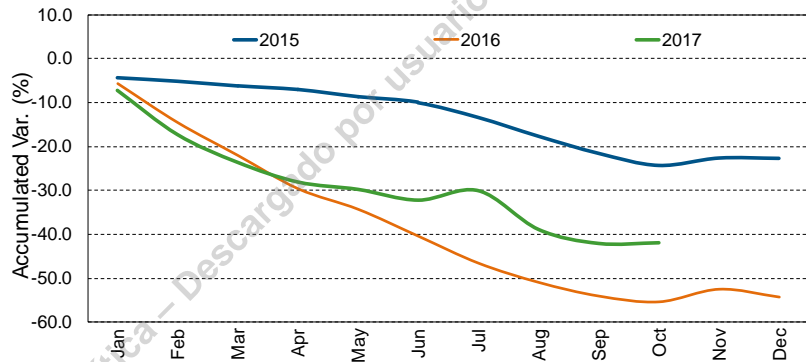
**ECONOMIC INDICATORS**

**Interest Rate  
(Six major banks)**



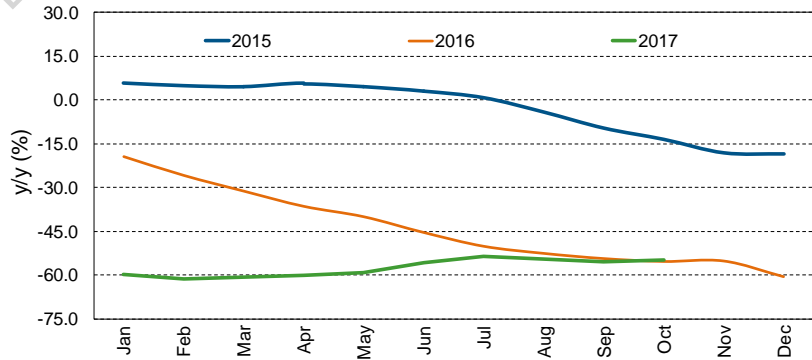
Sources: BCV and Ecoanalítica

**M2 Expansion  
(Real)**



Sources: BCV and Ecoanalítica

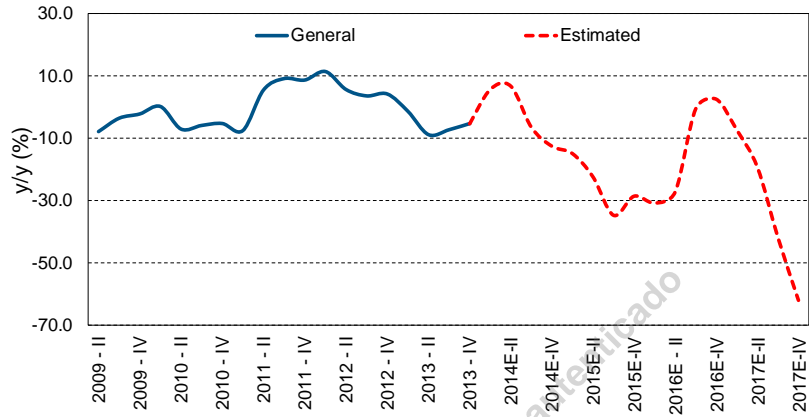
**Loan Portfolio  
(Real)**



Sources: SUDEBAN and Ecoanalítica

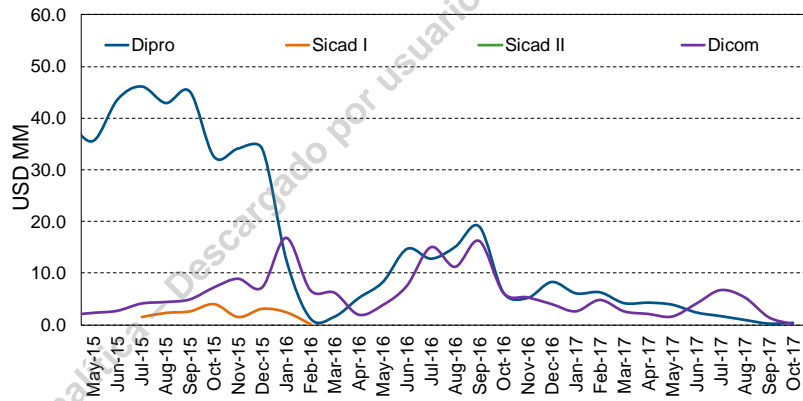
**ECONOMIC INDICATORS**

**Real Wage Index**



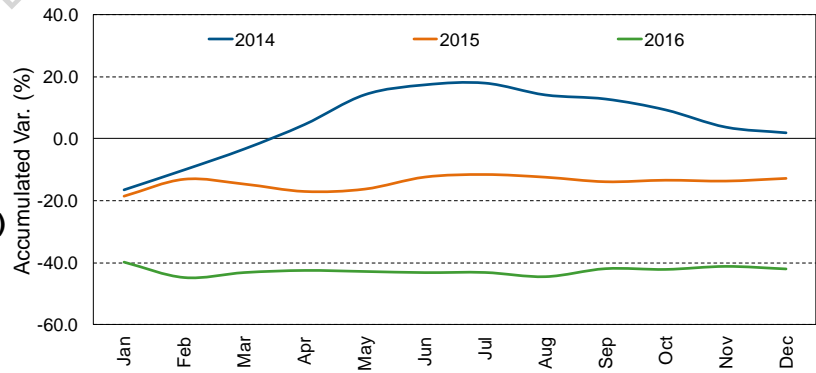
Sources: BCV and Ecoanalítica

**Disbursements to the Private Sector (Daily Average)**



Source: Ecoanalítica

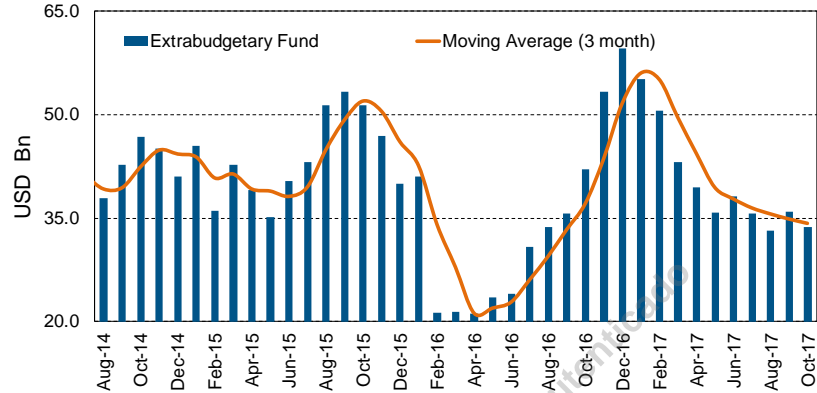
**Primary Spending NTO (Real - Central Government)**



Sources: ONT and Ecoanalítica

**ECONOMIC INDICATORS**

**State Extrabudgetary Resources**



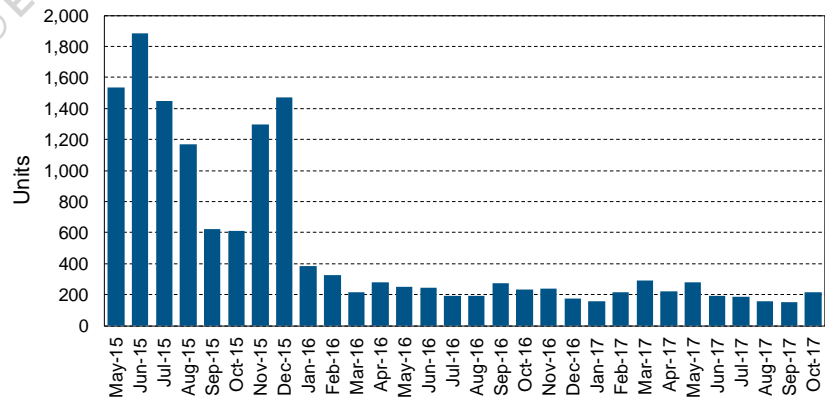
Source: Ecoanalítica

**Unemployment Rate**



Sources: INE and Ecoanalítica

**Vehicle Sales**



Sources: CAVENEZ and Ecoanalítica

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