

## **COLUMBIA GLOBAL ENERGY DIALOGUE**

# **CODE RED: VENEZUELA'S OIL AND DEBT CRISES**

BY ANTOINE HALFF, FRANCISCO MONALDI, LUISA PALACIOS AND MIGUEL ANGEL SANTOS

The economic and humanitarian crisis in Venezuela took a turn for the worse in the second half of 2017. Unofficial GDP and inflation measures—the country has long ceased to provide economic indicators—show a sharp deterioration. Declines in oil production and exports are accelerating. The government has fallen behind in debt payments, past the grace period in several cases. Despite these alarming developments, the regime shows surprising resilience. While hard to gauge, popular support for the government and the ruling party, which President Nicolas Maduro has been purging of potential rivals, has yet to evaporate. Military support for Maduro, meanwhile, seems as strong as ever. The challenges ahead are thus daunting for both the leadership and the fractured opposition, with no clear path out of the crisis. The impact of new US sanctions imposed in August 2017, while a matter of debate, seems limited, at least for the short term.

Columbia University's Center on Global Energy Policy (CGEP) convened its first expert workshop on Venezuela last June<sup>1</sup>. The alarming developments that have been unfolding in the interim called for a follow-up and reappraisal. On December 4, 2017, CGEP hosted a second roundtable that brought together a diverse group of about 45 experts from the oil and financial industries, academia, think tanks, consultancies, and multilateral organizations. This note is an attempt to sum up some key takeaways from that rich discussion. It does not claim to capture all the insights shared by participants—nor does it come near to giving the reader a sense of the vividness and passion that animated the conversation.









#### A STUDY IN CONTRASTS

By all measures, the economic situation in Venezuela continues to deteriorate. Since October, the country has become the first oil producer to suffer from hyperinflation. According to the latest World Economic Outlook of the International Monetary Fund, Gross Domestic Product (GDP) plunged by 12.5% in 2017, a cumulative loss of 37% in GDP per capita since 2013. Forecasts point to yet another double-digit fall in GDP for 2018 (-15%). That would put income per capita at 50% of its 2013 level, the largest five-year loss in GDP per capita experienced in Latin America since the 1950s, and a world record for any country not involved in armed conflict or suffering from natural disasters (Figure 1).



Figure 1: Venezuela GDP per capita 1950-2018F (50=100)

Source: Venezuela Central Bank up to 2014, World Economic Outlook (IMF) from 2015 onwards.

Oil production is in freefall. The government is effectively—though not officially—in default. Politically, however, the regime enjoys surprising stability. The mass demonstrations that preceded the constitutional election of July 31, 2017 are history. Polls show the government continues to enjoy nominal approval ratings that, while far from stellar, would be the envy of the leaders of more prosperous and more democratic Latin American countries, from Mexico's president Enrique Peña Nieto to Colombia's Juan Manuel Santos to Chile's Michelle Bachelet. (Measuring political support in Venezuela today is course difficult given the repressive nature of the regime and the lack of freedom with which people express their support for, or rejection of, the government. Indexes of popularity in authoritarian regimes and democracies are not comparable.) Meanwhile, President Nicolas Maduro appears to have outmaneuvered potential rivals within his own party, placing key leaders under arrest under the banner of an anticorruption crackdown. The prospects of political transition appear to be dimming—which is only making the economic outlook grimmer.

#### **OIL PRODUCTION IN A "DEATH SPIRAL"**

Venezuelan oil production declines have entered a new stage, with accelerating losses no longer confined to fields wholly owned and operated by state-owned Petroleos de Venezuela SA (PdVSA) but now spreading to joint ventures. According to OPEC (Table 1), Venezuelan production had plunged to near the 1.6 million barrels per day (bpd) mark as of late 2017, 1 million bpd or 40% below 2013 levels. Estimates from the International Energy Agency are in line with those of OPEC, and show production of 1.6 mb/d in December 2017 and January 2018. Other estimates using satellite imagery to monitor field activity are lower still: data provider Kayrros thus assesses December production at 1.5 mb/d.

Foreign operators lost confidence after PdVSA, which for years had failed to meet its full budgetary requirements, reportedly stopped making all payments into the JVs' budgets, even as it sought to expand its control over their sales. US sanctions may have compounded those issues by limiting foreign companies' ability to lend to PdVSA the amounts corresponding to its unpaid budget contributions. Having reduced capex, foreign operators are effectively limiting their exposure and cutting back on operations. Production looks set to plummet further in 2018.

Table 1: OPEC Crude Oil Production based on secondary sources (Thousand barrels per day)

	2016	2017						2018	Jan/Dec
Countries	2016	1Q 2017	2Q 2017	3Q 2017	4Q 2017	Nov 2017	Dec 2017	Jan 2018	
Algeria	1,090	1,043	1,054	1,055	1,014	1,006	1,037	1,029	-8.5
Angola	1,725	1,639	1,648	1,641	1,634	1,590	1,626	1,615	-10.9
Ecuador	545	531	530	536	528	531	523	523	-0.5
Equatorial Guinea	160	135	137	129	132	130	131	134	3.4
Gabon	221	200	203	199	200	198	199	198	-0.9
Iran, I.R.	3,515	3,811	3,793	3,833	3,822	3,820	3,832	3,829	-3.4
Iraq	4,392	4,445	4,455	4,482	4,396	4,393	4,405	4,435	30.2
Kuwait	2,853	2,708	2,709	2,707	2,704	2,704	2,700	2,707	6.8
Libya	390	817	709	932	964	969	957	978	21.0
Nigeria	1,556	1,660	1,594	1,763	1,765	1,772	1,828	1,819	-8.1
Qatar	656	607	613	603	604	608	602	596	-6.7
Saudi Arabia	10,409	9,953	9,960	9,994	9,971	9,925	9,953	9,977	23.3
UAE	2,979	2,915	2,911	2,922	2,892	2,885	2,870	2,864	-6.3
Venezuela	2,154	1,916	1,964	1,929	1,771	1,799	1,647	1,600	-47.3
Total OPEC	32,643	32,380	32,279	32,725	32,399	32,330	32,310	32,302	-8.1

Note: Totals may not add up due to independent rounding. Source: OPEC Secretariat.

## **WITHER HEAVY OIL**

Heavy-oil scarcity is looming in the US Gulf of Mexico, as a fall in Venezuelan exports of its heavy and extra-heavy grades compounds the effect of Mexican field declines. Canadian heavy crude holds limited promise as a substitute due to constrained pipeline capacity from Canada to the US Gulf Coast pending the completion of the Keystone Express pipeline. OPEC quotas are capping shipments of lighter Saudi crude. Iraqi shipments diverted from Asian markets are partly filling the gap but are also lighter. While it may hurt profit margins at Gulf Coast refineries, many of which are specifically configured to process heavy Mexican and Venezuelan grades, heavy-oil scarcity is not really an energy security concern, as traders can easily manage the gap, albeit at a cost.

## **UNCERTAIN DEMAND**

On the other hand, Venezuela's longer-term economic outlook could be adversely affected by "peak oil demand"—the global energy transition away from oil—given the country's dependence on its vast oil reserves and reliance on oil export revenues as its sole source of foreign exchange earnings. As soon as 2020, a global cap on sulfur emissions from ships, which is expected to drastically cut shipping demand for high-sulfur fuel oil (HSFO), could erode the value of heavy crude grades such as Venezuela's, whose price partly tracks that of HSFO. Futures markets, in anticipation of large demand swings, are already pricing in far steeper discounts for HSFO relative to US crude oil benchmark WTI by 2020 compared to today. This does not bode well for future Venezuelan crude pricing. To make things worse, the cost of shipping Venezuelan crude to far-flung Asian markets, where Venezuelan barrels have been increasingly headed in recent years, could also shoot up as the sulfur cap makes marine fuels more expensive.

### **US SANCTIONS: MORE BARK THAN BITE?**

The effectiveness of US sanctions is a matter of debate. Pre-August 2017 asset freezes targeted at specific Venezuelan individuals were intentionally narrow and largely symbolic. The amounts of money held up have not been disclosed and may well be modest. Financial sanctions imposed in August were, likewise, deliberately narrow, targeted, and intended go be fairly benign. Even as President Trump signed the executive order—which only affects US entities—in August 2017, he also issued licenses that effectively granted waivers to parties that could have been affected by the measures. While oil market participants have invoked the sanctions to back away from doing business in Venezuela, some discussants thought the measures merely provided them with an excuse for steps they would have taken anyway. New sanctions, including a ban on imports of Venezuelan crude, seemed—at the time of the meeting—unlikely in the absence of stronger congressional support, which thus far has been muted. The risk of eliciting criticism from Brazil or other Latin American countries for meddling in the region's affairs could hold back Washington, as would the fear of providing Caracas with a scapegoat and easy excuse for its own failures, and the implicit assumption of responsibility for helping rebuild the country postsanctions. Factors that could nevertheless

open the door to new sanctions include more trouble on the ground, such as descent into full-blown civil war; a total halt in oil exports, which would make them "safe for banning"; or the arrival at the Department of State of a more hawkish secretary than former oil executive Rex Tillerson, whose departure from the job has been the object of growing speculation.

Not all meeting participants agreed that US sanctions were ineffectual, though. Some felt restrictions on borrowing over 90 days had the unintended consequence of dramatically curtailing oil operations, given PdVSA's practice of paying counterparts in arrears (if at all) over longer periods of time. Although the sanctions might have been intended to not be too harsh, the US Treasury appears to have underestimated the reaction of US financial institutions, which moved to an over-compliance mode, scrutinizing each transaction involving Venezuelan counterparties (public and even private). This significantly slowed payments despite OFAC licenses. Moreover, global financial institutions with operations in the US voluntarily chose to comply with the US sanctions in their business with Venezuela and extended the sanctions' footprint. The sanctions have been especially hurtful to PdVSA, noted some participants.

A good measure of the sanctions' effectiveness may be provided by the Maduro government's determination to get rid of them. Some participants felt Maduro's lobbying of opposition figures and even creditors to get sanctions lifted was a clear sign of the pain felt by the regime. Another participant noted that a medium- to long-term benefit of the sanctions for Venezuela had been to prevent the Maduro regime from rolling over foreign debt at such predatory yields as registered in the Goldman Sachs operation of May 2017 (48% in dollars). In general, participants agreed that gaining legitimacy for their incoming presidential (re) election and luring the opposition into helping it circumvent the sanctions were the primary drivers of the government's participation in talks with opposition leaders in the Dominican Republic on December 1-3.

#### THE ENIGMA OF ACCOUNTING

Apparent inconsistencies in Venezuela's national accounts were a recurrent subject of discussion. Venezuela's economy is opaque in the absence of official economic indicators or even comprehensive information on the amount of its various debt obligations. Nevertheless, there is clearly something wrong with its balance of payments, several participants independently noted. Even after oil production declines and low oil prices are taken into account, proceeds from oil sales should be more than enough to cover imports, debt repayment, and the service of the debt, given the freefall in imports from a high of \$56 billion in 2012 to \$16.5 billion in 2016 and a low of around \$12 billion in 2017. Imports per capita are now at their lowest level at least since 1950. This compares with oil exports estimated around \$26 billion-\$26.5 billion for 2017.

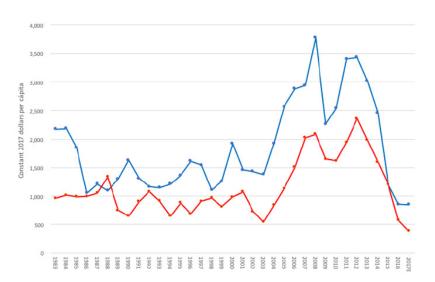


Figure 2: Venezuela: Exports and imports per capita (1983-2017E, constant 2017 dollars)

Source: Venezuelan Central Bank, World Economic Outlook, and Miguel Angel Santos own calculations.

"With respect to cash flow in dollars, something is going on with the way Venezuela is managing its cash that we don't understand well," said a participant. "One thing that surprises me," said another, "is the current account of Venezuela...It is clear when you look at the figures that since 2011 something is wrong in the current account of Venezuela." A third participant concurred: "The cash crunch that is happening in Venezuela is hard to explain...The cash flow pipeline has become like a sieve. Everything is leaking...The cash flow is drying up like by design...The Central Bank reserves go up and down by design; the money is elsewhere."

The way the country sells its oil could be a partial explanation. Some of its production has stopped generating cash and is being directly delivered to creditors (China, Russia, and trading houses that entered into presale agreements with Venezuela) in repayment of loans. In the case of Russia, sales proceeds appear to go entirely to repay loans to the government (for arms bought by the late President Hugo Chávez) and Rosneft loans to PdVSA. In the case of China, depending on sales volumes, oil shipments may be generating free cash (net of debt service) after China granted Venezuela a maturity extension that cut debt service to about \$1 billion (interest only) per year, down from \$6 billion-\$7 billion (including capital and interest) previously. That maturity extension, which expires this year, appears likely to be renewed. Although the amount of oil shipped to China has been dwindling, it is likely still worth more than the debt service. Chinese creditors set up a virtually bullet-proof mechanism to ensure a de facto seniority for their claims; their Russian counterparts have not been as shrewd at the inception of their loans.

Some of the country's oil may also be marketed via middlemen who take their cut. Last but not least, the meltdown of the country's oil production capacity and infrastructure is causing egregious mispricing. Unable to process or blend its heavy crude grades into higher-priced,

lighter oil, Venezuela is forced to sell them at distressed prices without realizing their full potential value. Steep declines in light crude output from 100 percent PdVSA-operated fields have caused a shortage of diluent used for blending with extra-heavy crude from joint venture fields in the Faja, or Orinoco Belt. Faja-area upgraders have not kept up with production and have fallen into disrepair, and they lack the capacity to produce enough naphtha, another dwindling diluent source. To get around these issues, Venezuela had resorted to blending its crude with imported diluent in nearby Aruba and Curacao. But the cash crunch is making this option increasingly unaffordable, a situation that may be aggravated by the US sanctions. As a result, not only the volume but also the quality of Venezuelan crude production is collapsing. Already a US refiner has canceled its contract for Venezuelan crude over quality issues, which have also been raised as a problem by a major Asian importer. Others have asked for deeper discounts to compensate for unstable specs.

The regime's complex rent-extraction schemes may also partly explain the cash crunch. Its multiple foreign-exchange rates have been an important way for the military to siphon the oil rent via heavily subsidized dollars used to pay for army-controlled imports of food and manufactured-good imports, on which the country depends. The recent takeover of the oil industry could thus be a sign of impending changes in the foreign exchange regime. According to this view, the appointment of Brigadier General Manuel Quevedo—a career officer with no prior oil experience—as oil minister and head of PdVSA in replacement of purged industry insiders could be a way to maintain army control over the rent, should the dysfunctional exchange rate system be unified.

#### **POLITICAL SCENARIOS**

Thanks in part to its manipulation of subsidy programs, including the food basket program and the electronic card for direct transfers to shanty-town households, the government has managed to pump up its approval rates and even scored a victory in recent gubernatorial elections. Nevertheless, the government has felt the need to open up talks with parts of the opposition on the upcoming presidential election, the first round of which was held in the Dominican Republic on December 1–3, immediately prior to the workshop. Jose Luis Zapatero, president of Spain, and Dominican Republic president Danilo Medina brokered the meeting, which was attended by the foreign ministers of Chile, Mexico, Nicaragua, Bolivia, and Saint Vincent and the Grenadines. Workshop participants pondered the significance of this move at a time when Maduro has embarked on a sweeping purge of establishment figures within Chavista ranks.

Despite enjoying—in apparent defiance of the law of "economic voting"—a short-term political windfall, the Venezuelan government faces clear long-term threats. Those include its lack of political legitimacy among its Latin American neighbors; lack of access to international capital, sorely needed given the capital intensity of the oil industry; and, in the view of some workshop participants, US sanctions (though others dismissed their impact). Maduro faces his own threats separately from his government's. While he has succeeded, for the time being, in sidelining potential challengers from within the Chavismo (by accusing them of corruption and putting them behind bars), his personal popular approval rate (as opposed to

his government's or the ruling party's) remains by some measures in the single digits. Support from Russia and China, lenders of last resort, is running thin. There are signs of Chinese and Russian demands for more "institutionality" from their ailing client. Through outreach to opposition figures, the government may hope to boost its legitimacy, reassure foreign lenders, and improve its chances of getting sanctions lifted.

Participants outlined three scenarios. At one extreme is a "rosy" scenario: following a positive conclusion of the Dominican Republic talks, the regime agrees to an open, competitive, and free presidential election, which the opposition manages to win. To happen, this would require that Maduro and his backers be genuinely confident in his chances of winning a competitive election. Alternatively, the ruling regime could engineer a noncompetitive election, splintering the opposition between banned hardliners kept from running and a more pliable group that would be willing to play by its rules in exchange for a shot at the election. The political cost of compromising with the regime in this fashion could be devastating for the opposition, however, and end up extending Maduro's grip on power<sup>2</sup>. A third scenario envisions a collapse in the talks and a political transition within the Chavismo movement itself. This is the scenario that Maduro likely sought to preempt by jailing potential rivals within the movement and attempting to tarnish their reputations. Meeting participants stopped short of assigning probabilities to these scenarios but noted that the conversation about the future of Venezuela, once predicated on the assumption of political transition based on leadership change, had been increasingly shifting toward a discussion of behavior change within the regime.

#### DISENTANGLING THE DEBT CONUNDRUM

Some discussants noted that the talks in the Dominican Republic had focused on political personal issues (including the recognition by the regime for the first time of the existence of political prisoners) at the expense of policy matters, and thus the talks had failed to offer solutions out of the crisis. Others retorted that a leadership change was an absolute precondition to any change in policies. But what would be a successor government's best shot at overcoming the country's twin hurdle: its seemingly intractable debt burden and the collapse of its only source of income, the oil industry?

Several factors conspire to make the restructuring of Venezuela's mountainous debt one of the most daunting and complicated sovereign restructurings ever experienced. Not least among them is the country's current political posture. Despite a professed interest in a restructuring, the current rulers' approach is clearly not conducive to a deal: far from signaling their willingness to consider structural reforms, they blame others for the country's problems and see nothing wrong with their record. The current constitutional standoff between, on the one hand, an elected but disempowered National Assembly and, on the other hand, a Constitutional Assembly deemed illegitimate and unconstitutional by the opposition but fully empowered by the regime, is another challenge. In the unlikely event that a restructuring package were approved by the government, there is no functioning legislative body in place to approve it and to reassure investors that the package will be in force.

These issues would presumably not be a concern in the event of a transition. But a successor

government would face other problems having to do with the structure of Venezuela's economy and the nature of its debt obligations. For starters, the very state of Venezuela's economy is a formidable impediment to the restructuring of its debt. No country that has gone through an economic restructuring was as economically broken as Venezuela is today. Second, Venezuela's reliance on a single source of foreign exchange revenue is unprecedented. This too would greatly complicate a potential debt-restructuring. Last but not least, the mix of foreign obligations in Venezuela—the full amount of which is unknown is more diverse and complicated than that of any other country that has gone through a restructuring. Foreign obligations include bank debt, sovereign bonds, PdVSA bonds, enormous amounts owed by PdVSA to oil-service companies and other suppliers, large claims by bilateral creditors (China and Russia in particular), claims arising from arbitration awards due to expropriation, vast amounts owed to joint-venture partners that have been funding PdVSA's share of their budgets, unpaid dividends declared by joint venture companies, and so forth. (There might also be substantial indebtedness by other public-sector enterprises, but this is still opaque.) As PdVSA may be considered an alter ego of the state<sup>3</sup>, sovereign debt holders may compete for proceeds of its sales with PdVSA debt holders. There is likewise a tension between the amounts owed by PdVSA to service providers and those owed to joint venture partners. PdVSA assets and cash flows are thus vulnerable to creditor challenge in a way has not been experienced in any previous sovereign restructuring. Any joint venture partner or foreign investor would take these claims into account before committing capital investments to the oil sector. The country's only breadwinner, the oil industry, finds itself crippled by a proliferation of claims on its revenue.

Given the unprecedented nature of Venezuela's debt challenge, and the diversity of the creditors, there is no preset blueprint to deal with it. The first task of an incoming administration will to be to size the amount of the obligations. The proliferation of creditors will require a sufficient proportion of them to agree on a deal for any settlement to proceed. In line with estimates cited at the June workshop, participants thought 75 percent approval would be sufficiently robust, albeit hard to achieve. While not necessarily out of reach, such a level of support would require extensive, complex negotiations. In the words of a participant, the future government will need to design some type of instrument that is going to have broad creditor acceptance, so as to avoid a continuing residue of litigation that would chill new money and investment. "Unless you have a transaction that is able to attract support probably from close to 3/4 of the creditor based, which is a lot, I don't think you'll be able to get it done."

In a departure from textbook recipes, before Venezuela manages to reduce its debt, it will have to increase it considerably so as to restore a minimum level of imports to keep the economy going and finance vital investments in productive capacity. The IMF is the only source of debt that has not been tapped by the Chavista governments. A key to unlocking the country's enormous oil potential, some participants noted, would be to decouple investments in exploration and production from the dire situation of PdVSA cash flows. This could be achieved by introducing a change into the Hydrocarbons Law, giving PdVSA the option – but not the obligation – to have a majority in each oil venture. After all, most of the financing of oil projects will have to come from private industry, participants agreed. There is a potential for some money—perhaps considerable amounts of money—to come back in the form of

repatriation of capital and foreign investment..

The unprecedented nature of the challenge will call for innovative solutions. One way to deal with the debt problem that might be effective, depending on the speed of economic recovery and the extent to which there is any compromise of claims, would be to have creditors accept at the outset less than the face amount of their claims, on the understanding that robust, well-designed value-recovery instruments would allow them to recover anything they had to give up temporarily out of future economic gains. Such value-recovery instruments have yet to be designed, however. In the past, similar instruments suffered from design flaws and did not perform well. "In many cases, either they paid nothing when people thought they should have, because there was an economic recovery, or they paid a lot—and sometimes a lot more than maybe they should have."

Participants were generally agreed that two key pillars of recovery in the event of a political transition would entail seeking extraordinary financial assistance from international financing institutions, and restructuring the country's debt under the umbrella of an IMF-program. The opening the oil industry to private investment, a potential third pillar, was more controversial.

#### **BETTING ON AN OIL COMEBACK**

The problem of nursing the Venezuelan oil industry back to health is both connected to its debt problem and separate from it. The near-consensus view among workshop participants was that a speedy restoration of oil production capacity was a requirement, a sine qua non for the country's economic recovery. In the words of one participant, the recovery had to be "anchored" in the oil sector. Opinions diverged, however, as to how quickly oil production could be expected to recover—and under what conditions.

Some participants voiced skepticism about the country's ability to jumpstart production. Ever since oil was discovered in Venezuela in 1917, the country has never managed to keep up annual production gains of 150,000 bpd for more than 10 years. The largest decadelong increment, 1.5 mbd, was achieved in 1945-1955, when oil development was entirely in the hands of international oil companies, focused on light oil projects, and carried out in an environment of political and institutional stability. In the heydays of the aperture, in the 1990s, when the country opened up its oil sector to foreign investors, offered them generous fiscal terms, and could still rely on a robust, high-performing national oil company which it empowered to reinvest its earnings in the upstream, the maximum production growth registered was 1.4 mbd (1988-1998). PdVSA has since been eviscerated. The oil sector has fallen into the hands of military leaders without any prior industry experience. The national oil infrastructure is in shamble. Investor confidence is at its lowest. By those historical benchmarks, growth prospects look modest at best.

Others disagreed, noting the country's huge potential, particularly in the Faja. Recent production declines, they noted, are not all due to capacity losses, but rather to deliberate cutbacks in investment and operations by foreign companies seeking to reduce their exposure to mounting political and economic country risk. Whereas mature fields run by PdVSA, such as the famed El Furrial giant deposit, have suffered structural damage and would require

considerable investment and time to reverse declines, joint-venture operations in the Faja are operating below capacity and, under the right conditions, could restart on a dime. Venezuela is "the Saudi Arabia of Latin America": exploration risk is nil, and resources are extraordinarily abundant, although new developments are highly capital intensive.

Another source of disagreement revolved around the role of oil-sector reform: some participants felt reform was an absolute priority in Venezuela to kick-start foreign investment in a big way and boost oil revenue quickly enough to pull the economy out of its death spiral. Others cautioned that oil reform was an extraordinarily complex, controversial, and protracted process whose payoff was long delayed, as demonstrated by the Mexican example. Even supporters of oil-sector reform conceded that while all technical experts in the political opposition were in broad agreement that it was necessary, their leadership had yet to be sold on it. Indeed, it was noted that leading opposition parties such as Un Nuevo Tiempo and Acción Democrática are dead set against it. A compromise might be initially to focus on just one article of reform: allowing joint venture projects to have less than the current requirement of 60 percent PdVSA participation and to be majority owned by foreign companies. Such an article might be the most controversial and challenging to pass, however. Yet another view highlighted the advantages of the current hydrocarbon law and the perils of trading it for something worse. According to this view, the reforms accomplished under Bernard Mommer actually favored the oil companies, allowing them to move from operating service agreements to equity ownership of the joint ventures and thus secure financing, and therefore they should be kept intact. Others conceded that the Mommer reforms benefited the IOCs in conventional oil projects -- accounting for about half of the country's production -- by converting service contracts into equity, but noted the reforms hurt the IOCs in capital-intensive Faja projects in which they already had majority equity, and where they ended up in a much worse position in every way.

#### **FACING UNCERTAINTY**

Venezuela, a country that by common estimates sits on the world's largest oil reserves, has become not only a tragic humanitarian crisis but also a daunting policy challenge. As the situation on the ground continues to deteriorate, the hope that could be detected at the CGEP June 19 workshop that a political transition was possible has given rise to the grudging, dreadful recognition that the current regime might linger. A corollary of that recognition is that by the time a transition eventually takes place, the situation on the ground might have changed so drastically that prescriptions conceived today to lift the country out of the crisis might no longer be relevant. Uncertainties abound as to the extent of the country's debt obligations, the amount of its cash reserves, the direction of its dwindling yet still substantial oil cash flows, the inner workings of the Chavismo, the future strategy of a diminished US diplomatic apparatus toward the country, the willingness of highly diverse creditors competing for the same revenues to settle for less than the face value of their claims, and the capacity of the country's oil sector to jump-start production—let alone that of its crumbling institutions to handle a windfall in the event of an oil price spike or a production recovery. These uncertainties should not be cause for resignation or discouragement, however, but only serve to reinforce the need for a blueprint or plan of action to use as guide when the time comes.

#### **NOTES**

- 1. A summary of the June 19 event is available at <a href="http://energypolicy.columbia.edu/sites/default/files/CGEPApocalypseNowVenezuelaOilandReconstruction7%3A17%20\_1.pdf">http://energypolicy.columbia.edu/sites/default/files/CGEPApocalypseNowVenezuelaOilandReconstruction7%3A17%20\_1.pdf</a>
- 2. Given the subsequent failure of the Dominican Republic dialogue, and the call for presidential elections in April issued by the Maduro-controlled Venezuelan electoral council, this now seems the most likely scenario.
- 3. Since the workshop, a U.S. Court in Delaware dismissed Canadian gold miner Crystallex's lawsuit against asset transfers by Venezuelan-owned refiner Citgo, part of a long-running dispute over the 2008 nationalization of the company's assets.

#### **ABOUT THE AUTHORS**

Antoine Halff is a Senior Research Scholar at the Center on Global Energy Policy, Columbia University. Previously, Halff was Chief Oil Analyst at the International Energy Agency (IEA) and editor of two of its most authoritative publications, the monthly Oil Market Report (OMR) and the annual Medium-Term Oil Market Report (MTOMR). Prior to that, Halff served as Lead Industry Economist at the U.S. Energy Information Administration and at firms Newedge and Fimat as First Vice President and Head of Commodity Research. He earned his Masters degree from the Ecole des Hautes Etudes en Sciences Sociales in Paris and served as the Adjunct Professor of International & Public Affairs at Columbia University from 2006 to 2012.

**Francisco Monaldi** is a non-resident Fellow at the Center on Global Energy Policy and a Fellow in Latin American Energy Policy at the Baker Institute for Public Policy, a Lecturer in Energy Economics at Rice University, a Senior Faculty Associate at the School of Government at the Tecnológico de Monterrey in Mexico. Monaldi is the Founding Director and a Professor at the Center for Energy and the Environment at IESA in Venezuela. He holds a Ph.D. in Political Science from Stanford University, a Master in International and Development Economics from Yale University, and a B.A. in Economics from Universidad Católica Andres Bello.

**Luisa Palacios** is a Fellow at the Center on Global Energy Policy and the Head of Latin America at Medley Global Advisors (MGA) based in New York. She joined MGA from Barclays Capital where she was a macro strategist for the Andean Region at the Emerging Markets Fixed Income Desk. Before that, Luisa was a Senior Economist for the Japan Bank of International Cooperation, where she focused on Latin America energy and debt issues. Luisa has also served as a consultant for the World Bank in the office of the Chief Economist for Latin America. Luisa has a Master's degree in International Affairs from Columbia University and holds a Ph.D. from The Johns Hopkins School of Advanced International Studies.

**Miguel Angel Santos** is an Adjunct Professor in Public Policy at Harvard Kennedy School of Government, and a Senior Research Fellow at the Center for International Development (CID) at Harvard University. Before joining the field of international development, Miguel worked for ten years in corporate finance and business development in Latin America, performing as Director of Finance for the Cisneros Group of Companies (1997-2003), Head of Corporate Finance for Mercantil Servicios Financieros (2005-2007), and Business Vice-President for Sony Pictures and Entertainment Latin America (2008-2009). He holds two Master of Science degrees in International Finance and Trade (2011) and Economics (2012) from Universitat Pompeu Fabra, a Master in Public Administration from Harvard University (2014), and a Ph.D. in Economics at Universidad de Barcelona (2016).

#### ABOUT THE CENTER ON GLOBAL ENERGY POLICY

The Center on Global Energy Policy provides independent, balanced, data-driven analysis to help policymakers navigate the complex world of energy. We approach energy as an economic, security, and environmental concern. And we draw on the resources of a worldclass institution, faculty with real-world experience, and a location in the world's finance and media capital.

Visit us at www.energypolicy.columbia.edu





f 🥑 🧿 @ColumbiaUenergy





#### ABOUT THE SCHOOL OF INTERNATIONAL AND PUBLIC AFFAIRS

SIPA's mission is to empower people to serve the global public interest. Our goal is to foster economic growth, sustainable development, social progress, and democratic governance by educating public policy professionals, producing policy-related research, and conveying the results to the world. Based in New York City, with a student body that is 50 percent international and educational partners in cities around the world, SIPA is the most global of public policy schools.

For more information, please visit www.sipa.columbia.edu