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Energy and Geopolitics in Latin America

Paul Isbell

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Summary

Since the beginning of this century, Latin America has become an increasingly important region on the world's geopolitical map. Several economic and political features define Latin America's current geopolitical situation and set it apart from other episodes of the region's history.

Introduction

(1) A new geopolitical scenario for Latin America

Since the beginning of this century, Latin America has become an increasingly important region on the world's geopolitical map. Several economic and political features define Latin America's current geopolitical situation and set it apart from other episodes of the region's history.

Economic Take-off

The first relevant feature of today's Latin America, one that clearly augurs well for its future, is that the economy appears to be finally taking off. For decades the region was described as having a bright future; in the words of many analysts Latin America was a place of economic promise, or 'the continent of the future'. But then its economic performance always turned out to be disappointing, especially in the 1980s and 90s, and in comparison to Asia.

The region's economic history is one of great economic and financial volatility, of recurrent and cyclical crises, with sporadic but brief periods of growth that ultimately end up being fleeting and unsustainable, leaving hundreds of millions of people living in poverty, trapped in the most inequitable economies in the world. However, along with the world economy as a whole, Latin America has just posted the longest period of economic expansion since the early 1970s, with annual growth of between 4% and 5%, following the crisis of 2002-03. Although it is still too soon to state unequivocally that the region is out of the woods and headed for definitive and sustained growth, it does seem that the eternal promise of better times might finally come true.

So-called 'first generation reforms' (privatisation of state-owned companies, gradual elimination of budget deficits, dismantling of trade barriers and price controls) that were implemented in the 1990s and maintained with relative discipline despite crises in 1994-95, 1998-99 and 2002-03 laid the foundations for ridding the region of rampant –even hyper– inflation, consolidating a regime of low and stable prices and stabilising exchange rates in the vast majority of Latin American countries. This set of macroeconomic achievements improved the investment climate significantly, and lowered the perceived levels of economic and financial risk (Machinea, 2008).

For the first time, a period of strong economic growth at the world level has coincided with a stretch of dynamism and macroeconomic stability in Latin America. The region has managed to cash in on the recent world economic boom, posting robust growth through a strong increase in exports. This, in turn, generated an unprecedented accumulation of foreign currency reserves (more than US\$400 billion as of the end of 2007). The ultimate effect of all this has been a notable improvement in debt ratings of the main economies and in risk levels throughout the region. Consequently, investment rates are growing in almost all the economies of the region and this is showing gradually in growth rates and in their composition.

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What has made this cycle of growth in Latin American different from previous ones –and what is the most important geopolitical feature of this potential economic transformation– is the increase in the independence and autonomous capacity of the Latin American economies, both in the formulation and execution of economic policies and in their outcome. For instance, the large increase in foreign currency reserves has made these economies relatively immune to the financial contagion that hit them so hard in previous crises. It has enhanced their ability to hold tight and adapt to outside turmoil, such as the current sub-prime mortgage crisis in the US and the subsequent credit crisis at the international level. Thus, despite problems with liquidity in advanced countries, risk levels in Latin American countries are still very low.

Meanwhile, some economies have earned a degree of fiscal credibility through the sound management of government finances in recent years and the competent handling of monetary policy, which increasingly is carried out by independent central banks. The consequent easing of interest rates and debt burdens has given the region's authorities a certain autonomous capacity to utilise economic policy in a counter-cyclical way. This enhances the ability of Latin American economies to withstand external blows with much less volatility and much more economic independence than in the past. We are witnessing what might be the first economic period in which a crisis in the US –or at least a crisis with international dimensions– is not triggering a local variant in a Latin American economy.

So-called 'second generation reforms' are necessary to strengthen political, economic and social institutions in the region, and key to creating a context in which growth can be sustained over time. These institutional reforms have met with mixed results so far. But there are signs of a clear improvement in many countries, although there have also been setbacks. In any case, although it is too early to know for sure, we could be witnessing the true end of the theory of dependence –or at least the end of the economic dependence itself, which has limited Latin America's progress in the past–. This new economic autonomy has quickly translated into a more independent political impetus and, consequently, a new role for the region in global geopolitics.

New Economic and Political Alignments

A second feature that is defining the current situation is the new political dividing line that is clearly visible in the region: not between fledgling, market-based democracies and military or autocratic regimes –as was the case in the 1970s and 80s– but rather between social democracies with moderate leaders and policies and neo-populist governments that are more interventionist and have more radical leaders (Santiso, 2006). On the one hand there is a group of countries with more pragmatic governments (like Mexico, Chile, Brazil, Colombia, Peru and most of the nations of Central America). Then there are countries with more radical governments that are prone to state intervention, abrupt change and political confrontation (like Venezuela, Bolivia, Ecuador, Argentina and Nicaragua). They are more dedicated (at least in rhetorical terms) to using State power to exert direct influence on their economies (with the stated goal of eliminating poverty more quickly) and to challenging global forces which they perceive as promoters of an oppressive, unjust economic globalisation and as the source of the misery of the masses –in other words, the US and its allies, and certain international organisations, such as the International Monetary Fund–.

This new phenomenon also illustrates two features which had been absent from the region for a long time: on the one hand, professional competence, rigour and discipline in the formulation and implementation of economic policy by pragmatic social democracies (Brazil is the best example); on the other, the return of socialist –even Marxist– ideology to the region's political discourse. It is especially noticeable, at least in the rhetoric, in the leaders of the 'Bolivarian' countries (such as Venezuela and Bolivia, and their friends and allies in Ecuador, Nicaragua and to some extent, Argentina).

The End of the Monroe Doctrine

The third factor that defines the state of Latin America stems to some extent from the two others analysed earlier. We could call it the ‘end of the Monroe Doctrine’. Although the Americans succeeded in keeping the Soviets from penetrating the region deeply and permanently during the Cold War, in the subsequent post-Cold War period –characterised by economic globalisation– they have not been able to block entry first by Spanish capital (the owners of which now make up the country’s second-largest presence in terms of direct investment, after the US); and, secondly, by Asian influences, particularly Chinese, both government and private, in the US’s traditional backyard. Even the Russians and the Iranians, among others, are being better received these days (and therefore they are more heavily present in certain areas of the region) than citizens of the US are. The US is hardly doing anything at all to curb the trend; it even seems that it cannot –or at least that it does not pay much attention to what happens to the south–, contrary to what it did in the past (Malamud, 2007a and 2007b).

The end of the Cold War and the advance of globalisation –in other words the spreading and deepening of the integration of national economies that used to be closed or only partially integrated into the international economy– have led to two results that reinforce each other mutually: (1) Latin American countries are stronger economically and therefore more independent in their policies at the national, regional and international levels; (2) the priorities of the US government and private sector are geared more towards other regions of the world that have integrated more quickly with the American economy in recent years (such as Asia in general and China in particular), and less and less concerned by economies in a region which for centuries was considered key for the US.

The great paradox of the era of globalisation has two sides to it. On the one hand, post-Cold War globalisation has provided many opportunities for creating wealth and enhancing the economic and political independence and autonomy of developing countries, including those of Latin America. In fact, this phenomenon has run against the grain of what many people thought initially: in the 1990s it looked like globalisation was going to make the emerging economies more vulnerable to boom and bust cycles in the world economy and therefore more ‘dependent’ on wealthier economies and international institutions such as the IMF. On the other hand, this same autonomy, which is increasingly evident in the economic reality of the region, the policies of its governments and the behaviour of its leaders, can take the form of mass opposition to the continued development of economic globalisation. This could cause a fragmentation of the world economic system and end this period of liberal economic integration and its economic and political benefits for regions like Latin America. In other words, recent ‘success’, stemming in large part from globalisation, might go to the heads of the beneficiaries –or at least of some of their leaders– and prompt a new wave of nationalism and radicalism in the region.

A New Kind of Energy Geopolitics in the Region

A fourth factor that has helped shape the current geopolitical scene in Latin America has been the emergence of the nearly universal perception of energy as a key element in regional and global geopolitics. The most visible expression of this trend, which has developed in a context of greater political independence and economic autonomy in the region, is a new version of energy-based nationalism among major exporters of hydrocarbons, not just in Latin America but in other parts of the world. Among other things, this new energy nationalism has changed the balance of power between the State and state-owned companies, on the one hand, and private multinational companies on the other, in the global energy sector. This perception of the critical role of energy in world geopolitics has also led to attitudes and policies of energy nationalism among big energy-consuming countries –such as the US– and emerging economies, such as China and India. These latter geopolitical players are now seeing how regions that are net exporters of hydrocarbons –as is the case of Latin America– can fit into their overseas strategies for guaranteeing energy supplies in the future.

In the past, major economic powers –but particularly the US– would have looked to Latin America as a source of both agricultural goods and metals. Today, energy as a raw material –oil in particular but perhaps also natural gas– has emerged as one of the most important variables in the global geopolitical context. Latin America has relatively few energy resources in comparison with the Middle East, North Africa, Central Asia or Russia. But in its own regional context –that of an area that might achieve energy self-sufficiency (or that of a hemisphere that has relatively good energy supplies)– it could play a highly relevant role in the global, geopolitical game that is energy.

For the US, Latin America represents a direct source of energy supplies; for Spain, energy in the region is more an issue of its possible impact on macroeconomic stability and growth. These are two key factors for the benefits to be reaped from the more than US\$100 billion in direct investment that Spanish companies have pumped into the region. Said another way: Latin American energy security links up directly with energy security in the US, while for Spain it is a broader issue of the economic health of its various economic interests in the region and, possibly, a matter of global energy security.

(2) Energy, the Prime Geopolitical Issue in Latin America

Given the global nature of energy issues, it is difficult if not impossible to separate the national or regional focus of an analysis from the overall energy context. In any case, we can explore how Latin America –and its component countries on an individual basis– fit into the world energy scheme. One can think of a Latin American energy system but one can also approach this in terms of a hemispheric system composed of three sub-systems: (1) North America; (2) Central America and the Caribbean; and (3) South America (which in turn is made up of the Andean area and the Southern Cone). On the other hand, it is possible to think of an energy system relevant for Latin America in another way, that is as a component of the so-called ‘minor crescent’, one of the two world zones, along with the ‘major crescent’ of Eurasia, which holds almost all of the planet’s hydrocarbon reserves.

The ‘minor crescent’ system includes the energy-producing areas of all these subsystems of the western hemisphere, plus the producing zones of west Africa: a ‘crescent’ that stretches from the Arctic waters of Alaska in the north, runs through the vast areas of the tar sands of Alberta, Canada and the oil-producing areas of the western US (including Texas), continuing through the Gulf of Mexico (both the Mexican and US parts), the Andean region of South America and the Atlantic coasts of Brazil and Argentina, and concluding in the Gulf of Guinea in west Africa, which holds the major reserves of Africa (including those of Nigeria, Equatorial Guinea and Angola).

The ‘minor crescent’ contains 17.6% of the world’s reserves of conventional oil (compared with 13.6% for the American hemisphere, 9.7% for Latin America, 8.6% in Latin America excluding Mexico, 8.4% for South America and 6.6% in Venezuela, the dominant producer of the ‘minor crescent’ in terms of energy geopolitics). As for production, the countries of the ‘minor crescent’ account for 31.3% of world production of conventional oil (compared with 25.3% of the world total that comes from the American hemisphere, 13.5% from Latin America, 8.8% from Latin America excluding Mexico, 8.4% from South America and 3.7% from Venezuela). In terms of demand, 36% of world oil consumption corresponds to the ‘minor crescent’ (35% comes from the American hemisphere, 8.3% from Latin America, 6.1% from Latin America excluding Mexico, 4.6% from South America and just 0.7% from Venezuela) (British Petroleum, 2007).

Analysing this same situation with regard to natural gas, the ‘minor crescent’ contains only 11% of world reserves (8.2% in the American hemisphere, 4% in Latin America, 3.8% in Latin America excluding Mexico, 3.5% in South America and 2.4% in Venezuela). In any case, this same system accounts for 32.5% of world production of natural gas (almost all of it, 31.5%, comes from the American hemisphere and much of it from Canada and the US, while only 6.5% of world gas

production corresponds to Latin America, 5% to Latin America excluding Mexico, 3.6% to South America and 1% to Venezuela). As for demand, the 'minor crescent' generates 32% of world gas consumption (almost all of it –31.9%– in the American hemisphere, 6.5% in Latin America, 4.6% in Latin America excluding Mexico, 4% in South America and just 1% in Venezuela) (British Petroleum, 2007; Giusti, 2008; and Arriagada, 2006).

Within these concentric circles of energy systems that encompass various parts of Latin America, one can identify several sub-regions with surplus production and supply, and others that face a deficit and are net importers. The former include Alaska and Canada, the Gulf of Mexico, the Andean region and the Gulf of Guinea. The areas of deficit and net import include the continental US, Central America and the Southern Cone. With the obvious exception of Alaska and Canada, the areas of surplus production and supply correspond to relatively poor regions. This will have undeniable implications for the energy geopolitics of Latin America, particularly with regard to energy nationalism and its impact over the mid-term for regional and global energy security.

Although it bears no comparison with the 'major crescent' in Eurasia (which holds nearly 75% of the world's conventional reserves), the 'minor crescent' of the Americas and West Africa contains 15%-20% of world reserves of conventional hydrocarbons. It could also hold more than half of the world's hydrocarbons if the estimate included non-conventional hydrocarbons such as tar sands in Canada or the ultra-heavy grades of crude oil in the Orinoco Belt of Venezuela. These two kinds of oil are much more expensive to develop and produce than the light and sweet crude traditionally produced in Texas and Saudi Arabia. But recently the governments of Canada and Venezuela reclassified much of their non-conventional petroleum as being part of their official, proved reserves. This is because the overall price of oil has risen 400% in a little more than five years, reaching around US\$100 a barrel, and developing these two kinds of oil is considered profitable with prices above US\$40 or US\$50 a barrel.

In any case, the entire Western hemisphere (and Latin America to a lesser extent) is suffering from a short-term energy deficit. This external dependence will increase in the future, especially because of the decline in production of hydrocarbons in the US and a significant rise in energy consumption forecast for Latin America (2.3% per year through 2030) for the next few decades (International Energy Agency, 2007). This trend will mean that the countries of the Americas will depend more and more on the producers of the 'major crescent', in particular those of the Persian Gulf, the countries of Central Asia and Russia. The only changes that could alter this scenario of the whole world depending on this Arab-Asian-Slavic axis would be: (1) massive development of the tar sands in Alberta, Canada, and the ultra-heavy crudes in Venezuela; or (2) a profound transformation of the world energy system and replacement of hydrocarbons with alternative sources of energy, both in production of electricity and fuels for the transport sector. But with or without these changes, Canada and the Andean countries (particularly Venezuela) will see their relative influence in terms of energy geopolitics increase in any of the future scenarios that are possible, so long as these producer nations maintain the efficiency and productivity of their hydrocarbon sectors. This is not at all to be taken for granted, as we shall see further on when we analyse the implications of the current wave of energy nationalism.

The first possible change –massive development of the tar sands in Canada– could modify the energy balance in the whole hemisphere, but particularly in North America. Canada has 4 billion barrels of conventional oil, but it also possesses more than 175 billion barrels on non-conventional oil (tar sands, of which some 13 billion are already classified by BP as proven reserves in its annual review world energy statistics). With all this counted, Canada would have nearly 15% of the world's proved reserves (compared with 22% for Saudi Arabia), instead of the 1.4% it is assigned under the current statistics. In any case it is clear that Canada's conventional petroleum is already on the decline because of geological limitations. Canada currently produces 3.1 mbd and in 2012 it

will produce 3.7 mbd, of which 2.8 mbd (77% of its total production) should be non-conventional oil from tar sands (British Petroleum, 2007).

For this reason Canada is facing major obstacles even to maintain its production levels. It can surpass them only if it manages to continue developing the tar sands at a fast pace. But in order to do this it needs large investments. For each barrel per day of installed capacity for non-conventional oil from tar sand, US\$40,000 in investment are needed, compared with just US\$3,500 to develop the same installed capacity for a barrel per day of Saudi oil (Giusti, 2008). Therefore, while Saudi oil is competitive even at prices as low as US\$10 a barrel, from now on Canadian oil will only be competitive at a price of between US\$40 and US\$60 dollars per barrel, at least, *not counting its high externalised environmental costs*.

For this reason, although large-scale development of tar sands will increase the US *perception* of greater energy security, this *perceived security* will be achieved only at the cost of disastrous environmental damage in Canada, where CO₂ emissions per barrel of oil produced are five times what they are in the rest of the world. This is the case because tar sands require much more energy for extracting and processing their oil, meaning much greater deforestation than in areas that produce conventional petroleum.

Another possible change involves massive development of the ultra-heavy crudes in the Orinoco Belt in Venezuela. This would add 220 billion barrels to Venezuela's reserves, currently estimated at 80 billion barrels, and raise the country's share of world reserves from the current 6.6% to approximately 25%, more than what Saudi Arabia has today (although naturally these would be reserves that are much more expensive to exploit). However, this development would also involve major environmental damage (although less than in the case of the Canadian tar sands) because it would require the use of large amounts of natural gas to extract and process the oil.

In any case, this alternative would also harm the US perception of its energy security, as well as that of many other countries. Furthermore, this prospect of Venezuela being highly influential in terms of energy –both at the regional and global level– could have negative consequences for the international energy system, especially if Venezuelan energy policy continues along the same path that President Hugo Chávez has embarked on.

All these changes aside, sooner or later the American hemisphere will come to depend more and more on the resources of the 'major crescent' of the Middle East, Central Asia and Russia (it holds nearly 75% of world reserves of conventional hydrocarbons but at the same time consumes a relatively small portion), as will Asia and Europe. However, for now, in Latin America and in particular in South America, there is a small but real surplus. This raises the possibility not just of self-sufficiency but also a certain degree of geopolitical influence within the international energy system, especially after recent discoveries in Brazil and Peru.

This prospect is very tempting for the region. But in fact it appears to be distorting the view of many of its politicians when it comes to formulating energy and economic policies. Something similar happened in the 1950s, 60s and 70s with economic policies that sought industrialisation to replace imports –policies that were inspired by economic nationalism and wariness over the alleged benefits of free trade–. Today something similar is happening with energy policies. They are increasingly expressed with a new energy nationalism which masks –with an 'anti-imperialist' rhetoric– a new version of mercantilism that aspires both to the mirage of self-sufficiency and the dream (or chimera) of maximising countries' geopolitical influence on the world stage by using energy exports as political weapons. Although the apparent goals of these policies –national economic and energy security– are impossible to achieve through nationalist policies that isolate countries from the international system, striving for these objectives has the effect of undermining global energy security and, consequently, destabilising the international political system.

(3) Energy Nationalism in Latin America and its Geopolitical Implications

Latin America's strong economic growth in recent years (five years with GDP increases of close to 5%) and the rise in political autonomy of most countries has a lot to do, at least among energy-producing countries, with the recent wave of energy nationalism. The economic expansion of this decade has been one of the main factors, if not the only one, behind the significant increase in oil prices. High prices –and the abundant revenue that they potentially generate– have coincided both with the growing feeling of political independence that was mentioned earlier and the still deeply rooted anti-globalisation sentiment in many Latin American countries. In fact, in oil- and gas-exporting countries there exists the growing perception that economic globalisation has failed and that policies of liberalisation and integration have not managed to bring about sustained development or reduce poverty levels.

It is usually argued that poverty and indigence grew as a result of the structural reform policies implemented when the Washington Consensus ideas held sway in the 1990s, but that in recent years these indicators are improving thanks to greater government intervention. There has been a convergence between the promise of a major increase in state revenue if the government exercises greater control over money from energy exports and the perception that economic globalisation has failed. And this convergence has spawned a potent cocktail of excuses for reversing the trend of the 1990s to open up and liberalise the energy sectors of Latin America, and caused the most radical leaders to embark on a new wave of energy nationalism.

The 're-nationalisation' of energy sectors, particularly in Andean countries such as Venezuela, Bolivia and Ecuador –based on a toughening of conditions for gaining access to the sector and new taxation terms for private multinational companies– has led to a large increase in state revenue from hydrocarbon exports. This increase, along with the effect of higher international prices, has enhanced greatly the growing perception of economic and political autonomy among the government of the region's energy-producing countries.

If the Venezuelan experience is taken as a reference, it is clear that the combined effect of re-nationalisation and higher prices on the increase in oil revenue has been very significant. On one hand, changes in the legal framework affecting the exploitation of hydrocarbons have raised taxes and royalties that private multinational companies have to pay to the Venezuelan government, from an average of 20% to an average of 80% of export revenues. At the same time the government has transformed the contracts in effect until now and created new joint ventures in which PDVSA, the state-owned Venezuelan oil company, always has a majority stake (Isbell, 2007b; and International Energy Agency, 2007). On the other hand, since 2001, whereas Venezuela has seen its production level decline by approximately 500,000 barrels a day, its oil revenue has increased from US\$18 billion to US\$45 billion in 2007 (with a forecast of more than US\$50 billion in 2008) (Centre for Global Energy Studies, 2007).

In any case, this return to State domination of energy sectors in the region might have a thoroughly negative effect on future investment levels by private multinational companies. Several of them, such as ExxonMobil, ConocoPhillips and Total, are in the process of withdrawing from the region, leaving this problematic realm to medium-sized companies with fewer options elsewhere, such as Repsol, or to other state-run companies, like Petrobrás. So the future of hydrocarbon exploitation is more and more in the hands of state-run companies in the area, led by PDVSA, and in those of state-run firms from other producing countries also caught up in the new energy nationalism of their governments, such as Russia's Gazprom or Iran's NIOC (Mabro, 2007).

At the same time, another trend is emerging: an increase in government spending on social welfare in producing countries, sometimes without proper management. As resources are limited (even if they are growing), these expenditures mean less money is available for necessary investments in

state energy companies. This trend is particularly clear in Venezuela. It appears that the increase in government spending (and even waste) has been so large that it has depleted the increased revenue, displacing funds from much-needed investment towards government and social spending that might have a superficial effect on poverty over the short term but will not generate sustained economic development over the long term (Giusti, 2007; and Arriagada, 2006).

The implications over the medium and long-term are clear: a fleeting impact on poverty and a disastrous legacy for future levels of investment and production; and sooner or later this will undermine social spending. In fact, one of the biggest energy-sector risks over the medium-term in Latin America is that levels of investment, both in maintaining current production and exploring for and developing new hydrocarbon deposits, will not be enough for production to keep pace with growing demand –or even just maintain current levels of production– despite major increases in revenue for state-run companies and governments (Isbell, 2007a).

(4) Venezuela and Brazil: Two Key Players with Different Approaches

In today's Latin America, one can distinguish among several categories of countries, depending on their governments' energy policy and its position regarding energy nationalism. A large part of the hydrocarbon exporters of the Andean zone have basically adopted a nationalist policy. This group of countries is led by Venezuela and includes Bolivia and Ecuador. Meanwhile, Colombia and Peru have distanced themselves from the direction chosen by the Andean countries; their priorities focus on energy integration that is more international, liberal and open. Mexico continues with its traditionally closed policy of energy nationalism. However, there is tremendous pressure, both from within and from outside the country, for the sector to open up after being totally closed for seven decades. Argentina is giving signs that it is going in the exact opposite direction: private investors have bought back 25% of Repsol. In any case, it seems that production of hydrocarbons both in Mexico and Argentina is on the decline, or beginning to decline. Therefore, their positions do not have long-term effects like those of other countries on the continent.

The rest of the countries –such as Chile, Paraguay, Uruguay and those of Central America and the Caribbean– are consumers and net importers of energy. They observe a policy that is more passive in the regional energy context. Of the main players in the region, only Brazil is behaving in a different way. And besides its size and leadership, it has real possibilities of influencing the energy situation in the region. In this way, Venezuela and Brazil, with their sectors dominated by state-run companies (PDVSA and Petrobras), are the most important countries in Latin America as far as energy is concerned. They are the only ones which, due to the size of their reserves and above all their political influence, have the ability to exert an effect on the policies of other Latin American countries as well as the regional and global energy situation. But, as we shall see, they are following very different strategies.

Venezuela

On paper, Venezuela is the most important player in the Latin American energy sector. It is the world's sixth-largest oil exporter (just over 2 mbd), a founding member of OPEC (and also one of the most active and radical these days) and one of the main suppliers of the US. Venezuela's ultra-heavy crudes are among the world's largest hydrocarbon reserves, while its gas reserves are the largest in Latin America (and the second biggest in the hemisphere, after the US). Its state-run company PDVSA, through its CITGO subsidiary in the US, has a large network of refineries and downstream distribution points in the US.

Among all the energy producers of Latin America, Venezuela is best positioned to benefit from changes in the hydrocarbon market. Its privileged position stems from the fact that, of all the big energy powers in the 'minor crescent' (with the possible exception of Nigeria and Equatorial Guinea), it is the one with the lowest production in relation to its reserves (3.7% of world

production compared with 6.6% of oil reserves, and 1% compared with 2.4% in natural gas) and the smallest consumption in relation to its production (0.7% of world consumption compared with 3.7% of world oil production and 1% compared with 1% in natural gas) (British Petroleum, 2007). These ratios show that Venezuela has a tremendous potential as an exporter, plus a wide margin both for economic growth and accumulation of geopolitical power, so long as it manages its position of power efficiently. Furthermore, Venezuela is a natural source for US energy consumption for at least three reasons: (1) geographical proximity; (1) the presence in the US downstream network of PDVSA assets that have the technical capability to process the relatively heavy Venezuelan crude; and (3) the major increase that is foreseen in US imports of oil and gas in coming years.

But Venezuela suffers from a number of weaknesses and faces several limitations, both now and in the future, with regard to its ability to influence oil and gas geopolitics and even to maintain its current level of production. In the first place, with regard to gas, although Venezuela has the region's largest reserves, currently it does not export any at all. All of its production goes to domestic consumption; more than 70% is injected back into oil wells to maintain production levels at the oldest fields. In fact, due to a gap between supply and demand in far-flung areas, Venezuela imports gas from Colombia to supply its western provinces. Most of Venezuela's gas (85%) is associated with extraction and production of oil. It is apt for use in oil production but not so much so for export. The big effort needed to develop its extensive reserves, particularly the offshore ones, has hardly begun. Furthermore, the gas sector was included in the legal changes that transformed contracts affecting private companies in the oil sector. Although Venezuela could have an attractive future as an exporter of liquefied natural gas for the international markets, so far it is has concentrated its efforts in promoting the so-called Great Gas Pipeline of the South, which would carry Venezuela's hypothetically large production in the future to major consuming areas in the Southern Cone.

Furthermore, as far as oil is concerned, future production is jeopardised by a possible shortage of investment due to legal insecurity and a toughening of the tax and access conditions mentioned above. Although some private companies might remain involved in certain projects –as minority partners– the investment scenario is not promising, given the spending habits of both PDVSA and the government (Isbell 2007b; and Giusti, 2008).

Thirdly, there are structural limits to Venezuela's use of energy as a geopolitical weapon. Despite Chávez's rhetoric about changing the pattern of world oil exports in the direction of China (to the detriment of the US) it is hard to see how Venezuela might exert real geopolitical influence on the US. Eastern Asia has very little refining capacity for Venezuela's heavy crude and will take years to develop it. An oil pipeline would be needed to transport oil to the Pacific coast, but these days Venezuela's relations with the countries that could allow this kind of shipment (mainly Colombia) do not allow for such a possibility. Meanwhile, in a global market for a product as fungible as oil, Venezuela could never pressure the US if the oil it exported to China freed up the same amount of oil from traditional sources in Asia (the ones in the Persian Gulf), which could be exported to the US. It would only amount to a change in suppliers. If Venezuela opted instead to reduce its exports in absolute numbers, the result would be a rise in the overall price that all world consumers would have to pay, not just the US. Finally, the current government of Venezuela remains highly dependent on high oil prices and the revenue they generate. Let us not forget that oil accounts for 75% of Venezuela's total exports, more than 50% of government revenue and around 30% of its GDP (International Energy Agency, 2007). The government could hardly consider following a policy that would lead directly to a drop in oil revenue.

Furthermore, hefty revenue from hydrocarbon exports and the social spending financed with it assure the government the support and loyalty of the poorest half of the country, the fundamental political base of Chávez and his government. This revenue also makes it possible to export oil at

subsidised prices –among other forms of international aid–, a tactic Venezuela has used to forge a network of loyal allies in Central America (Nicaragua), the Caribbean (Cuba), the Andean zone (Bolivia and Ecuador) and even in the Southern Cone (Argentina). But this loyalty, both domestically and abroad, depends crucially on oil revenue. If oil prices fall or production levels decline, this political support could erode significantly, jeopardising Chávez’s entire Bolivarian project, particularly in light of the last referendum presented to voters, on changing the constitution to give Chávez more power. The idea was voted down, in a huge setback for the President.

Sooner or later, the government of Venezuela will realise what the nations of the Middle East learned decades ago. A country with oil wealth can use this to benefit its population, but only if it manages the resource carefully and intelligently. In particular, Venezuela must resist the temptation to waste its only asset for developing the country –oil– in a dangerous game of questionable efficiency just to have an influence on international geopolitics and punish a political enemy –the US– which is more developed, more powerful and economically more diversified.

But could the radicalism of Chávez serve US interests? High oil prices and abundant revenue for the state clearly contribute to Chávez’s success and to his confidence. The sense of confidence in himself leads the Venezuelan President to be too daring and surpass the limits of prudence. His aggressive energy nationalism limits investment in the hydrocarbon sector by private international companies, which have the technical capability to develop the ultra-heavy crude oil in the Orinoco Belt. This shortage of investment is reduced even further due to the fiscal priorities of Chávez, which extracts from PDVSA the money needed to invest in maintenance and future production. This lack of development only contributes to high international prices and at the same time encourages development of the tar sands in Canada, clearly a strategic preference for the US. It also helps encourage other alternative sources of energy.

The new US policy could be one of ignoring the Monroe Doctrine and dropping the traditional policy of intervening in Latin America when it seems to go against its domination of the area. Letting Chávez do whatever he wants could involve destabilising Venezuela over the short term. But over the medium-term the US might use Chávez as an example of the utter failure of the radical left in Latin America. Therefore, the potential disaster that could be awaiting Venezuela might lead to a fierce neo-liberal economic reform drive in the future, as was the case in the former Soviet Union (before President Vladimir Putin reacted) or as might be the case of Cuba in the future.

Brazil

Although Brazil has oil and natural gas reserves that are much smaller than those of Venezuela, it is shaping up as another major player with considerable weight in regional energy geopolitics. Brazil has traditionally been a net importer of energy but in the last 10 years both its oil reserves and production have nearly doubled (British Petroleum, 2007). In 2007, Brazil stopped being a net importer of oil, producing more than 2.2 mbd (compared to 2.8mbd for Venezuela). At the end of the year Petrobrás announced an offshore find that could raise its oil reserves from 12 billion to 20 billion barrels.

Ever since the first oil crises of the 1970s, Brazil has developed an extensive ethanol industry (based on sugar cane) and it now meets 25% of its fuel needs in the transport sector. As oil prices rose in recent years, Brazil became the world’s top exporter of ethanol, despite trade barriers which in some countries, such as the US, exceed 50% of the export price. The impact of this growing industry, along with Petrobrás’ progress in developing oil and gas, could turn Brazil into a possible net exporter of hydrocarbons over the short and medium-term.

In order to meet its growing demand for gas, Brazil depends more and more on imports from Argentina and mainly Bolivia, two countries which are at least partially within the political sphere of Venezuela. However, the pace of discovery of oil deposits and increases in production by

Petrobrás augur well for Brazil in terms of reducing its dependence on outside sources of energy. Looking ahead, Brazil is also planning a diversification of its future sources for imports, as well as developing its regasification capacity, which will allow it to import liquefied natural gas from the international market.

But another factor that makes Brazil a key player on the region's scene –beyond its evolution from net importer to a potential net exporter– is the track record and performance of Petrobrás, the state-owned firm that has become one of the world's leading oil companies. Ten years ago PDVSA was the most dynamic, professional and powerful state-owned company in the region, after leading the process of liberalisation and opening in the Venezuelan energy sector. Back then, Petrobrás held a monopoly in the Brazilian sector, with a relatively small role. But the situation is completely different these days. As a result of the big oil strike in Venezuela in 2002-03, PDVSA saw half of its employees fired, particularly engineers and technicians; it has also been hit by the re-nationalisation of the sector and the financial burdens imposed on it due to the new spending priorities of the Chávez governments. Meanwhile, the Brazilian sector has undergone liberalisation and Petrobrás has become one of the world's most successful oil companies –among both state- and privately owned companies– in terms of increases in reserves and production, technical capacity (particularly in exploration, development and production of offshore and deep offshore reserves) and development of international projects.

Brazil and Petrobrás have another advantage besides improvements in the hydrocarbon industry scenario. The Brazilian economy is more and more diversified, so the government does not have to depend on revenue from state-owned firms. In this way Petrobrás has been able to develop the Brazilian hydrocarbon sector and its own international prospects without government intervention. This has had a very positive effect on the company's evolution, financial position and technical capabilities, even though it cannot rely on major revenues from exports, at least for now.

The joint impact of all these events has unexpectedly placed Brazil in a privileged position to have a positive influence on the region's energy system. In the first place, Brazil's evolution is easing pressure on the market, reducing the country's oil imports and increasing its production of ethanol. Secondly, its energy model –more open and liberal– offers the region an alternative with respect to energy nationalism, both among producers and consumers.

Some analysts note a growing rivalry between the energy policies of Brazil and Venezuela, and between Venezuela's oil and Brazil's ethanol. Although Brazil's energy policy is different, one must not overstate the importance of ethanol as a possible challenge to Venezuelan oil. Ethanol production is growing rapidly in Brazil, but the level is still below 350,000 barrels a day (International Energy Agency, 2007). Most of this production is consumed domestically, and there is still much margin left for supplying the Brazilian market. In fact, even though exports of Brazilian ethanol to the US have quadrupled in just a few years (reaching nearly 30,000 barrels a day, mainly to replace MTBE as a gasoline additive), this amount is insignificant when compared to oil consumption. This means that Brazil's ethanol might become a complement to the energy supply for the transport sector, but not an alternative capable of being a rival to oil or threaten Venezuela in geopolitical terms. In any case ethanol could become important as a source of energy for the domestic market, which would be key in transforming Brazil into a net exporter of oil.

The area where Brazil might clash with Venezuela is in management of the flow of the Great Gas Pipeline of the South, a grand project designed to transport 150 million cubic metres of gas per day to the countries of the Southern Cone over a distance of 8,000 km. There are several reasons for scepticism as to the viability of this project: its high cost, estimated at US\$20 billion; its environmental impact (the pipeline would have to run through the Amazon); and the insufficient gas available in Venezuela, at least for now. Even so, the gas pipeline, conceived by Presidents Chávez, Lula and Kirchner, could in theory meet the future gas demand of the consumer countries

of the Southern Cone. However, it would also mean a significant increase in the energy dependency of the southern countries with regard to Venezuela, making their economies less flexible. All in all, even though the project can serve as a catalyst and anchor for the entire continent, providing real support for the dream of a Union of Nations of the South, it will also create an asymmetric situation of dependency and geopolitical influence even more acute than that which Russia has with the countries of Europe.

In theory, this arrangement does not necessarily mean the supplying country at the start of the pipeline is going to use its power to exert political influence over the receiving ones at the other end of the tube. But Venezuela, under the leadership of Chávez, has proved itself willing to sacrifice growing parts of its revenue in order to convert its oil into a political weapon (with its subsidised exports, for instance), something that not even the Kremlin has done so brazenly. Using oil this way is of dubious efficiency given the nature of the market. But using gas in a similar way, in a context in which importers are totally dependent on their pipeline network, could in fact have substantial geopolitical implications. With this in mind it is understandable that Brazil is showing less and less enthusiasm over this project and has launched a project to import liquefied natural gas. At the same time, since Brazil would be the most important transit country no matter what the final route of the Great Gas Pipeline of the South might be, it would never end up without some degree of influence in such a geopolitical ploy. Venezuela may not be Russia, but Brazil is not the Ukraine either: in other words, a transit country that is so big, diversified and powerful as Brazil would serve to minimise the geopolitical danger that Venezuela might pose if it continues to behave in such a Bolivarian revolutionary way and had its hand on the South American gas spigot. In any case, if such a project ever did become a reality some day, Brazil and Venezuela would be doomed to being either partners or rivals in the building of an economic and even political union for South America.

Furthermore, these days Petrobrás is displacing PDVSA in many parts of the region, even in Bolivarian countries or ones close to the ALBA (Bolivarian Alternative for the Americas). Since the decrees issued by Evo Morales in 2006, which many analysts feared would force Petrobrás out of Bolivia, the Brazilian company has had to pledge another US\$1 billion in investment as a result of PDVSA's failure to live up to earlier commitments. Something similar could happen in Nicaragua. And after Brazilian President Luiz Inácio Lula da Silva's recent visit to Cuba, it seems Petrobrás will enter that country –a fundamental ally of Chávez and PDVSA– with greater investments for exploring and developing Cuba's potential hydrocarbon sources. If PDVSA's ability to meet commitments with Chávez's allies is eroding due to the excesses of Venezuela's energy nationalism and the way it manages its oil revenue, then Brazil and Petrobrás might exert even more political and economic influence on the region's energy scene in the future.

In any case Brazil is nurturing its relations with Venezuela and the other Andean exporters, particularly Bolivia, its main source of natural gas. Even though it is an example of the new school of pragmatic Latin America social democracies, Lula's Brazil is proving itself to be patient –and even supportive– of its most radical and outspoken neighbours. Its geopolitical power is growing gradually, especially in the international arena. Becoming the second BRIC country (along with Russia) to gain energy self-sufficiency could ease growing international demand from emerging economies, and this would be great news for prices. Furthermore, in the regional context, Brazil continues to play the role of mediator and trustworthy, cautious ally, not that of aspiring rival for geopolitical leadership.

(5) The Limits of Energy Geopolitics

Within the current context of the international energy scene –and before considering the great, pending challenging of transforming the world's energy base into an economy that relies on post-hydrocarbon energy sources– Venezuela and Brazil represent two paths toward the region's future. One engages in energy nationalism and its own version of anti-imperialism –with consequences that

might contribute to fragmenting the current process of globalisation–. The other has chosen a path that is more open, more pragmatic and more in tune with intelligently conceived globalisation.

The way the US –the hemisphere’s biggest consumer– sees it, Latin America could change the global balance of energy geopolitics in the future. If the US could depend only on energy from the Americas, in other words if the Americas could be self-sufficient in energy, they would free themselves from the rivalries among the big consumers of Eurasia (Europe and Asia) for the energy resources of the ‘major crescent’ (the Middle East, Central Asia and Russia). In the meantime, the producing countries of Latin America, particularly the ones carrying out a policy of energy nationalism, could dream of an energy diplomacy that would thwart US goals, tightening links with other key producers –and even consumers– in Eurasia in order to forge an ‘anti-imperialist’ (ie, anti-US) alliance.

But in the end both strategies are destined to fail because the world oil market, by its very nature, restricts possibilities for using energy as a geopolitical weapon. The US is not going to be safer by needing fewer energy imports, or fewer imports from outside the Americas. On the other hand, Venezuela cannot pressure the US (at least not without pressuring the rest of the world) by cutting its exports to the US market, diverting them to other markets (that are not US allies) or tightening relations with Russia, Iran or China.

Only in a context of war, in which the logic of trade stops governing the actions of the main economic players, would energy work as a geopolitical weapon. And only in that context does the strategy of the big consumers like the US to seek energy independence –or at least independence from supposedly unreliable suppliers– make sense. Brazil offers another path: a consumer country that tries to increase its own energy production without using policies that shake up the pattern of interdependence and without straying from globalisation. In this regard Brazil can become a leader, both at the regional and international level, and both inside and outside the context of energy. Its strategy is much more appealing –and gives it greater soft power– than the Venezuelan approach.

Paul Isbell

Senior Analyst on Economics and International Trade, Elcano Royal Institute

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