

Drivers and Barriers to Cross-Border Gas Trade in The Southern Cone

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After the completion of the presidential elections in Brazil and Argentina, the question of regional economic integration must return to the political agenda. After a rapid expansion of regional trade in the 1990's, it has become clear that the lack of infrastructure is a serious obstacle to the creation of integrated regional markets. Transportation, telecommunications and energy infrastructure affect the entire range of economic activities, and are fundamental to promoting economic convergence among countries. The lack of an integrated transportation infrastructure, for example, complicates cross-border trade and impedes price convergence.

The sector of the economy with the most potential for regional integration is natural gas. There is a sound transportation infrastructure for natural gas and gas reserves in the region are abundant. The integration of gas markets, therefore, offers tremendous opportunities for exploiting economic synergies in the region.

The new context of the energy market in the region, characterized by strong restrictions of public funding and the practically absence of financing from multilateral institutions, has some factors that are driving forces for the integration of regional gas markets. On one hand, combined cycle gas turbines are central for the expansion of the electricity supply in the Southern Cone. This technological option is more adapted to the current restrictions on long term financing. Therefore, given the disparity on the disposition of gas resources in the region, economic synergy has increased with the gas and power technological and business convergence. On the other hand, the current industrial dynamics is characterized by the presence of companies that are "global players", that orient their strategies to the exploration of these synergies. These companies are able invest in sufficient scale to integrate their activities regionally.

There are not only driving forces on the new context of regional energy markets. Some important obstacles have to be challenged by governments and companies, in order to explore all the potential of intra-regional gas trade. Though there are sufficient reserves in the region to meet growing electricity demand and demand from other sectors, a large volume of investment will be needed to expand transportation and distribution infrastructure in countries

where the natural gas industry is in an incipient phase (Brazil, Bolivia, Uruguay, Paraguay). The accomplishment of these investments faces important risks, associated to the specificities of the natural gas industry: i) great deal of interdependence among agents throughout the productive chain; ii) presence of sunk costs; iii) strong inter-fuel competition in the end-market. These peculiarities of the gas industry contribute to increase the transaction costs, motivating agents to sign long-term contracts in order to reduce these costs.

Multinational investment projects in energy infrastructure imply greater economic risk than domestic projects. International gas pipelines are projects of difficult negotiation, particularly when this negotiation involves private companies. Uncertainties associated to international transactions are more important because the number of parameters subjected to change increases (regulatory risk, exchange rate risk, market risk and political risk)

The barriers mentioned above are more intense in the case of the Southern Cone, due to the economic specificities of the region. Three additional barriers must be emphasized: i) asymmetry in national regulatory frameworks and energy policy; ii) liberalization of end prices of fuels that competes with natural gas and electricity; iii) strong exchange rate volatility. These problems results in a high probability of unbalances in the long-term contracts that anchors the cross-border gas trade in the region.

Regarding the volatility in the exchange rates, it is important to mention that even though the Southern Cone assumed an important role in the international scene with the formation of Mercosur, the region has significant economic peculiarities when compared to other important regional economic blocks (NAFTA, EU, and ASEAN). Mercosur is the only attempt to integrate markets of relatively industrialized countries, with no presence of members that have a strong currency, convertible in the international market. The absence of a strong currency in the region has important implications for the dynamics of market integration, especially in industries that depends on long-term contracts.

In the absence of a strong currency, the problem of price volatility assumes a different dimension in this region. Since the equilibrium in extern accounts of member countries depends on the flow of strong currency from outside of the block, and given the peripheral position of the region in the international trade and financial flows, exchange rate crisis are frequent. Once the financial and trade flows within the region are made in dollars, the volatility of gas prices in Reals or Pesos becomes extremely high.

Projects for natural gas trade within the Southern Cone faces more important economic risks then those oriented to gas exports for countries with strong currencies. Therefore, in order to make possible the increase of cross-border gas trade within the Southern Cone, it is important that governments and companies launch a joint effort in the search of a new institutional and regulatory environment, as well as new contractual practices that mitigates the current risks.

The Role of the Governments

Given the high level of risks due to the interdependence between the players involved in one transaction and the specificities of assets of the gas and

electricity industries, market mechanisms are not sufficient to provide an adequate governance structure for projects. Government actions have an important role to create additional mechanisms to coordinate investments, such as market and competition regulation, development of systems of guaranties and indicative planning.

Regarding the role of government, it is worth emphasizing the coordination of energy planning aimed toward the expansion of Mercosur. Since international projects require the authorization of the governments involved, it is important that these governments work together in deciding how to use the energy resources of each country. After determining how the resources of each country should complement one another, governments can then indicate to private agents which projects should be given priority.

Coordinating investments does not simply mean devising an energy plan for the region. Since investment projects are directly affected by regulation in each country, governments must be active participants in project negotiations. Confronting regulatory asymmetries within each country should be Mercosur's number one priority. In attempting to improve regulatory systems, governments should take into account the advances already made with energy reform in other countries. Along the same lines, in establishing rules regarding energy policy and competition, regulatory agencies should take into account the work of their counterpart agencies in the region.

The need for regulatory convergence is particularly important in establishing policies to promote competition. As competition becomes more of a regional and global phenomenon, competition policies based solely on national priorities could stifle new investments and obstruct the formation of strong regional companies. Thus, when making decisions regarding mergers, acquisitions and asset swaps, it is important that government agents think of competition on a regional basis, much as the Brazilian and Argentine governments did during the recent asset swap between Petrobras and Repsol-YPF.

Clearly, there is a need for some kind of regional agency to organize the various projects in the region and coordinate planning and regulation in the region's energy sector. In a word, what is needed is a Secretary of Energy for Mercosur. Mercosur's current institutional diversity makes very difficult coordination of energy planning and regulation among the member countries. These limitations, obviously, must be removed if the Southern Cone countries intend to promote some kind of meaningful energy integration.

Although Mercosur prohibits the creation of organisms with supranational decision-making power, it is possible to create a communal institution based on voluntary negotiation between the countries. Various activities can contribute to policy coordination and regulatory decisions, such as:

- consolidation of information and further research on the energy industry in the Mercosur countries;
- completion of studies concerning the potential of energy integration;
- technical support for the development of an expansion plan for the various energy sectors of the region;
- creation of a forum for countries to negotiate the expansion plans;

- creation of a forum promoting cooperation among the regulatory organs of the region;
- technical support for international negotiations between businesses and governments involved in international energy projects;
- creation of a negotiating forum for the businesses and governments involved in international projects.

The Role of the Companies

One of the most important drivers for companies' growth is innovation in all dimensions of the business (managerial, technological, contractual and commercial)

Traditionally, international gas trade has been anchored on long-term contracts with take-or-pay and ship-or-pay clauses. This type of contract aims at assuring the shipper and transporter cash flow, making possible the investments in the supply side. On the other hand, local distributing companies tried fixed end prices at a level that allows gas to compete with concurrent fuels (netback price system). This traditional pattern of transactions presents important difficulties to adapt to the economic context of the region. As the price of fuels that competes with gas has been liberalized, the recurrent variation in price of these fuels requires a no less frequent variation in the gas final prices. Additionally, exchange rate variations also require changes in final gas price. . Therefore, long-term contracts become unbalanced frequently as specific segments of the chain have their margins shrunk, due to non-anticipated changes in relative prices.

Given the problem of non-adapted contracts, the role of the global players present in the Southern Cone gas industry is to search for contractual innovations that make their investment sustainable. The recent history of gas and electricity markets in Brazil and Argentina has shown that conventional contracts are not sustainable. If long-term contracts, established in dollars and with take-or-pay clauses mitigate the risks of the seller, the buyers can not guarantee the displacement of other fuels developing the necessary market for the accomplishment of the gas contract. On the other hand, given the political and institutional instability of the region, it is not sustainable as well to pass these risks to governments. Therefore, the only sustainable solution is the adoption of contractual innovations. These innovations should emphasize the reduction of the volatility in the gas final price, indexing the contracts to prices from within the region. One option, for example, is to take in consideration a basket of currencies from the region. Another option would be to consider the prices of electricity and/or fuels that compete with the natural gas. Therefore, given the level of volatility in exchange rate and fuels prices in the region, the search for contractual flexibility should be the focus of the companies' innovative commercial strategies.