U.S.-Mexico
Policy Bulletin

Issue 4 • April 2005

A US-Mexico Partnership in Energy: A Policy of Convenience

José Luis Alberro

I. Introduction[1]

Four years have come and gone in the Mexico-US relationship since the almost simultaneous inaugurations of Presidents Bush and Fox. The optimism bred by their first auspicious meetings has given way to aloofness and/or irritation in the post 9/11 era. Indeed, for some in the United States, Porfirio Díaz's dictum should be turned on its head to state "poor United States, so far away from God and so close to Mexico."[2] The fact remains that geography is destiny. Moreover, in the post-9/11, post-PRI environment, Mexico and the United States have complementary needs that could become the foundation of a policy of convenience and be the basis for a commitment to further strengthen their long-term economic ties.

President Bush recently stated that his second administration will "pursue more energy … in our own hemisphere so that we're less dependent on energy from unstable parts of the world." Mexico has the largest proven conventional crude oil reserves in North America.[3]

Two thirds of the way into the Fox administration, it is clearer than ever that per capita GDP will not grow long-term because structural changes have not been implemented. Stagnation translates into weak job creation and migration to the United States. Turning the Mexican economy around will require considerable will and political imagination to carry out profound institutional reforms, but it also calls for debottlenecking physical infrastructure, as well as human capital and technological development. Such expensive investments are a prerequisite for job creation and poverty alleviation and will not be carried out by the private sector on its own: the Mexican government needs to take the lead, while eliminating the obstacles to private investment. Given Mexico's weak public revenues, financing such projects can only come from leveraging Mexico's large hydrocarbon resource base.

Mexico and the United States can help each other while pursuing their own interests: a *quid pro quo* in which the United States helps finance the development of Mexico's hydrocarbon reserves so that it can double its exports, has the dual effect of decreasing the United States' dependence on Middle East oil and provide Mexico with additional revenues to fuel a productivity-based growth strategy. Faster economic growth could lead to job creation, poverty alleviation, slowing down undocumented migration, strengthening the middle class and consolidating democracy.[4]

Once before, the United States and Mexico's complementary needs led to a marriage of convenience. By late 1994, Mexico found itself with more short-term debt coming due than it could repay and a currency it could not defend given that reserves were insufficient. The specter of a debt default similar to the one that had happened 22 years earlier became a concern for the Clinton administration. The "Tequila Crisis" could have spread to US financial markets, weakened as they were by the doubling of interest rates over the previous year. Self-interest created an opportunity for both countries to cooperate.

This article was originally prepared as a background paper for the study on Parameters of Partnership in U.S.-Mexico Relations, co-sponsored by the Wilson Center's Mexico Institute and the Consejo Mexicano de Asuntos Internacionales.

Woodrow Wilson International Center for Scholars
Mexico Institute

Along with international financial institutions, the Clinton administration assembled a rescue package backed by oil revenues worth 50 billions dollars that bolstered Mexican solvency. The Mexican government had to accept supervision of the disbursements and had to commit to make prudent use of the resources before it could use them. Mexico's access to financial markets was reestablished preventing further blows to tight markets, all loans were repaid and both countries came out ahead.

A decade later, a new opportunity has emerged. Again, it entails having the US government play a key role in assembling a financing package backed by oil revenues. But, in this case, the resources would be used not for conjunctural purposes but to transform the very structure of the Mexican economy: invest in oil production to generate additional revenues to invest in a productivity based growth strategy that will benefit both countries. As before, the disbursement of those funds would have to be contingent on accepting supervision and a commitment to make prudent use of them.

II. United States' Increasing Reliance on Imports from Politically Volatile Areas.

Between 1998 and 2000, the average price of oil increased 130%. Two weeks after the 2001 Inauguration, a National Energy Policy Development Group was created to develop a policy to promote "dependable, affordable, and environmentally sound production and distribution of energy."

The report stated that America "faces the most serious energy shortage since the oil embargoes of the 1970s."[5] Indeed, the uncertainty created by the increase in the price of oil made energy supply diversification a priority. The National Energy Policy (NEP) projected a shortfall in total energy production that would more than double from 2000 to 2020: the oil deficit would reach close to 20 million barrels of oil per day and the natural gas deficit 23 trillion cubic feet per year, requiring increased imports. Given the politically volatile Middle East, the NEP called for "building strong relationships with energy-producing nations in our own hemisphere" and recommended establishing a "North American Energy Framework to expand and accelerate cross border energy investment" while acknowledging it would require dealing "with the facts as they are, meeting serious problems in a serious way."[6] Then came 9-11.

Between 2002 and 2004, the average annual price of oil increased 100% and the average price of natural gas rose more than 80%.[7] The IEA has estimated that, if those increases are permanent, GDP growth will be 0.6% lower and inflation will be 1.0% higher during both 2005 and 2006.[8] Again, the volatility and fragility of worldwide—and US—energy markets has been exposed.

The accomplishments of the North American Energy Framework have been limited, but, then, no one could even conceive of 9-11. While Mexican crude oil exports to the United States have grown by two thirds since the implementation of NAFTA, Mexican constitutional prohibitions against private investment and the continued financial weakness of the government have proven to be formidable obstacles. Mexico is probably the most closed country in the world in terms of private participation in the oil sector.[9] Dealing with the facts as they are has not been easy: finding ways to utilize Mexico's resource base to Mexico's and the US's advantage continues to be a challenge.

III. Mexico's Arrested Development

The result of the first generation of modernizing, privatizing and liberalizing measures introduced in the mid 80's was a success: between 1986 and 2000, per capita GDP in dollars corrected for inflation grew at an annual average rate of 5.3%, the Tequila crisis notwithstanding.[10]

It has stagnated since. For the last 5 years, rent seekers have successfully maintained their hold on sectors that are essential for competitiveness and there are no signs that current political institutions can find a way out of the impasse. But then, the PRI lost power after 70 years of uninterrupted rule, and the lack of jobs fueled acrimony and a political stalemate.

Mexico's wounds are self-inflicted: infrastructure services are lacking (natural gas, electricity, transportation and transborder operations are expensive and low quality), labor productivity is stagnating and red tape chokes entrepreneurship. As a result, the tradable goods sector is saddled with an anti competitive bias and faces a perverse incentive to not integrate with the rest of the economy so as to avoid it.

Returning to sustainable growth is not a minor endeavor. As Geoffrey Garrett has pointed out: "in today's global markets, there are only two ways to get ahead. People and countries must be competitive in either the knowledge economy … or the low-wage economy… Those who cannot compete in either include not only the erstwhile industrial middle class in wealthy nations, but almost countries in the middle of the worldwide distribution of income."[11] That is certainly the case of Mexico. If it fails to regain its growth impetus, the contrast between those that are accessing the digital world and those that have to compete with low wages will be unstable, providing a "fertile ground for populist backlashes."[12]

Returning to growth and significant job creation will require, first and foremost, institutional reforms to increase the functionality of the newfound democracy, to strengthen the rule of law[13] and to eliminate red tape that restricts investment but it also calls for investments in physical infrastructure, human capital and technological development. Three different studies have estimated that the additional investment requirements to increase productivity appreciably total 15 to 20 billion dollars a year for several years.[14]

Those investments will not be carried out by the private sector on its own because a significant part of the return cannot be appropriated privately. Thus, the government has to take the lead while eliminating the obstacles to private investment. Given Mexico's weak public revenues,[15] financing such projects can only come from leveraging Mexico's large hydrocarbon resource base.

IV. The Oil is There and It is Profitable to Extract it

Mexico possesses a rich hydrocarbon resource base: existing (proven plus probable) oil reserves are sufficient to maintain current oil production levels for 22 years and current gas production for 28 years.[16] Investment in exploration plummeted during the 1990's but the Fox administration has made it a top priority. As a result, PEMEX is now replacing 75% of the oil it extracts and 38 new fields have been discovered.[17] Since only 20% of the territory with resource capacity has been explored and the rest is found in deep waters, PEMEX started exploring beyond its usual depths. It recently announced the discovery of a new deposit that could hold between 100 and 200 million barrels of oil: ***Nab1***, the first well by more than 2,000 feet of water started producing 1,200 barrels a day in November 2004.[18]

In 2004, oil production reached 3.4 million barrels a day, half of which were exported to the United States, making Mexico the top source for its imports.[19] Doubling that level by 2010 and becoming a marginal exporter of natural gas will strengthen North American energy security. It will also increase government revenues by 12 billion dollars if average price of oil is 25 dollars a barrel.[20]

Analyses carried out by PEMEX indicate that these goals are realistic if 15 billion dollars of annual financing can be obtained for the rest of the decade: 12 billion to sustain current production levels and

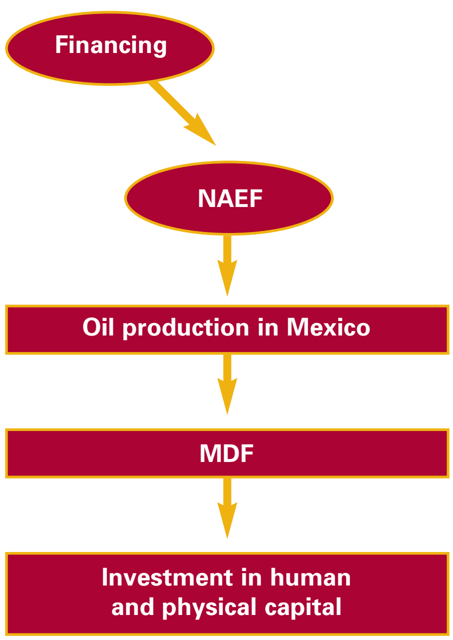
Dr. José Luis Alberro is a Director with LECG. He specializes in merger and antitrust matters before the Mexican Federal Competition Commission, as well as strategy, regulatory, and performance improvements in the energy sector (electricity and hydrocarbons), and manufacturing. Prior to joining LECG, Dr. Alberro was Vice President at Charles River Associates and head of its Mexico City office. Dr. Alberro has also had a distinguished career as a public official in the Mexican Government. He was Chief of Staff to the Secretary of Commerce and Industrial Policy in 1995; Director General of PEMEX Gas and Petrochemicals (PGPB), one of the ten largest companies in Mexico, between 1992 and 1994; and PEMEX's chief representative in the NAFTA negotiations between 1990 and 1992. While he held these positions, Dr. Alberro participated in drafting legal and regulatory frameworks for the Mexican natural gas, LPG, and electricity industries. During his tenure at PGPB, operating profits increased threefold through aggressive corporate restructuring and strategic refocusing. Dr. Alberro is a former consultant to the United Nations, has been an arbitrator at the World Bank's International Centre for Settlement of Investment Disputes, and has taught economics at universities in the United States, Mexico and the United Kingdom. He is a member of the Mexican Academy for Scientific Research. Dr. Alberro holds a Ph.D. in Economics from the University of Chicago. He is a French and Spanish native speaker, and is fluent in English.

make them grow to the new targets, and 3 billion for interest payments and amortization.

A recent World Bank study estimated that "close to 80 percent of flowing oil, and possibly a higher percentage of reserves, can be produced at a cost of under US$5/barrel …(making) pretax rates of return … for investments in new oil projects vary from a low of 26 percent in the Norte region, to highs in excess of 70 percent in the marine area."[21] Extraction costs are expected to increase over the next decade but preliminary analyses carried out by PEMEX indicate that the pretax internal rate of return should remain above the 15% threshold usually required to justify such investments.

V. A North American Energy Fund to Finance a Mexican Development Fund: Finding 75 Billion Dollars.

In normal circumstances, raising 75 billion dollars from private sources would not be possible without introducing risk contracts or concessions, which require constitutional changes. Waiting for the stark realities of a non-performing economy to force political change, however, may take long and produce a populist backlash rather than progress towards liberalization.



Instability in the Middle East has created an opportunity born out of convenience for a two-step strategy that would benefit both countries. In a first step, the United States' fosters the creation of a North American Energy Fund (NAEF) which issues 75 billion dollars of securities backed by oil-revenues (not the oil itself) to finance Pemex's investments in the development and production of oil and natural gas. This additional output will lessen the United States' dependence on Middle East oil. In the second step, the net revenues from this added production would be used to finance the Mexican Development Fund (MDF), which would in turn invest in human and physical capital to increase productivity.

For the plan to be successful it needs to recognize three imperatives and deal "with the facts as they are, meeting serious problems in a serious way":

- First and foremost, it has to be consistent with the Mexican political compact and Constitution. Attempting to force changes in the legal framework will guarantee its failure;
- Secondly, it has to be effective. None but PEMEX can carry out such an ambitious project but a different corporate culture has to be put into place given its traditionally opaque workings; and, finally,
- It has to include an independent control system to guarantee that funds are dispensed in a manner that is transparent and exempt from conflicts of interest.[22]

All three processes—the NAEF securing funds and financing additional oil production, as well as the MDF investments—should be transparent and supervised by Mexican and North American stakeholders alike to insure that all investments are carried out with the highest standards, that all operations are subjected to benchmarking and that risks are minimized. Accountability to the international community is a condition ***sine qua non*** to bring financial institutions to the table.

Currently, about 10 billion dollars of private financing flows annually to PEMEX through three mechanisms:

- PIDIREGAS, public investment projects financed by the private sector in a manner that is consistent with constitutional restrictions;[23]
- CSM, multiple service contracts, have attracted over 4 billion dollars to the exploration and development of natural gas in northern Mexico; and
- Direct indebtedness

There is no magic bullet to finding 75 billion dollars, particularly because the PIDIREGAS and CSM are showing signs of fatigue, but increasing transparency suggests consolidating dispersed efforts. There are two basic mechanisms:

1. A significant portion of the project's inputs will be imported from the United States. Thus a special facility should be created at the Export/Import Bank for loans, insurances and/or guarantees to foster the participation of American businesses. A special task force should be created within the bank to streamline the approval process and the terms of these instruments should be tailored so that part of the risk is borne by the government.

2. Institutional investors and pension funds should be incentivized to hold instruments backed by oil revenues. The long-term, capital-intensive nature of this project suits the search for safe long-term returns by the dominant institutional investors in the United States—public and private pension funds. Solid and safe returns guaranteed by oil revenues should be an attractive addition to their portfolio and would be no less profitable or secure than the Mexican government bonds they hold. A US government guarantee—or other form of enhancement—is necessary to facilitate the marketability of the new instruments.

The task is ambitious but within the capabilities of Pemex's and of Mexico's Secretary of the Treasury *if* the international financial community subscribes to the reasonableness of increasing the oil platform and *if* Mexico pledges transparency and accountability. The $50 billion dollars of the 1995 Tequila crisis package shows the potential of combining financial creativity with political will.

Credit rating agencies will have to be convinced to not downgrade Pemex. Exchange rate risk would be nominal because Mexican oil is traded in dollars: indeed credit agencies presently grant PEMEX ratings that are not significantly different depending on the currency of the instrument. Contractual-judicial risk could be mitigated by having contracts acknowledge the authority of US and international courts, as is currently the case. Lessening design and execution risk will require a bigger effort. A backlog of investment projects will have to be created and audited by experts to insure their reasonableness: international agencies could make important contributions to that goal, given their experience.

The main obstacle to this endeavor is not the existence of constitutional restrictions but the lack of a social compact about the Mexican energy sector. This absence of a coherent long-term hydrocarbon strategy has weakened PEMEX, undermining the competitiveness of the Mexican energy sector, contrary to the goals of NAFTA's energy chapter. The quest for higher levels of productivity and energy prices equivalent to those that would prevail in a competitive environment, has been replaced by ideological confrontations about privatization that have strengthened the hand of rent seekers.

VI. The Social Investment Fund

The impact of twelve billion dollars of additional government revenue on the economy will depend on whether it becomes an excuse to increase subsidies and not carry out the needed structural reforms —as in the early 80's, or whether it becomes the vehicle to increase total factor productivity. Economic growth in Mexico is constrained by institutions that are inadequate for the XXI century and low levels of human and physical capital. Thus, for the new investment in those two types of capital to spur economic growth it has to be accompanied by four initiatives to improve the regulatory/institutional system:

- reform of the justice system to streamline it, make it transparent and predictable;
- labor reform to foster flexibility and decrease the disincentives to formal employment;
- elimination of red tape to facilitate investment; and
- fiscal reform to eliminate special fiscal privileges and increase governmental non-oil revenues so as to maintain macroeconomic stability.

While twelve billion dollars a year will not solve all problems at once, they can go a long way:

- doubling expenditures in science and technology,
- increasing by a half spending in justice and law enforcement, AND
- increasing investment in health and education by 25%.

Such a strategy would increase total factor productivity and long run growth perspectives. In all likelihood it would also trigger self-reinforcing virtuous mechanisms that would benefit both Mexico and its North American partners.

VII. Conclusion

The incoming administration faces a unique opportunity to rely on self-interest and not assistance to leverage the complementary needs of Mexico and the United States to the advantage of both: a *quid pro quo* in which the United States helps finance the development of Mexico's hydrocarbon reserves so that America's dependence on energy from the Middle East is reduced and Mexico can finance a productivity-based growth strategy that would lead to job creation, poverty alleviation and slowing down of undocumented migration.

The burden will be heavier on Mexico and so it should because so will its benefits. Mexico will have to dare to carry out the profound reforms needed to access a different set of opportunities. The additional resources will ease the transition and open the possibility of triggering self-reinforcing virtuous circles.

The United States has an opportunity to invest in a project that is risky but it is the only one that offers a reasonable long-term solution to some of the endemic problems that plague the relationship with Mexico. To mitigate these risks the United States has to demand prudence, transparency and accountability.

This is a worthwhile challenge. The losers of the strategy put forward in this proposal are the rent seekers that obstruct change and the naysayers that refuse to deal with the facts as they are. Let's hope that the governments rise to the task.

Notes

1. This paper expands on the ideas presented at the Conference "Forging North American Energy Security" Organized by the North American Forum on Integration (NAFI), and the EGAP Instituto Tecnológico de Estudios Superiores de Monterrey, April 1–2, 2004 in Monterrey, Mexico.
2. Samuel P. Huntington *Who Are We: The Challenges to America's National Identity*. Simon&Schuster, 2004
3. http://www.eia.doe.gov/emeu/northamerica/engindex.htm; and http://www.energia.gob.mx/wb/distribuidor.jsp?seccion=1495
4. While the specific financing mechanisms will be explored later, full repayment is taken for granted.
5. Report of the National Energy Policy Development Group (2001). http://www.whitehouse.gov/energy/
6. Ibidem.
7. International Energy Agency, *End User Petroleum Product Prices and Average Crude Oil Import Costs* (November 2004) and *Monthly Natural Gas Survey* (September 2004)
8. International Energy Agency, *The Impact of Higher Oil Prices on the Global Economy with a Focus on Developing Economies.* (April 2004).
9. Lourdes Melgar, *Energy Security: A North American Approach*. FINA/NAFI 2004. Francisco Gil Díaz, Mexican Secretary of the Treasury recently declared that "the legislation of the energy sector in Mexico is so obsolete that it is comparable to that of communist North Korea." http://busquedas.gruporeforma.com/utilerias/imdservicios3W.DLL?JSearchformatSP&file=reformacom/2005/negocios/articulo/484516/default.htm&palabra=gil%20diaz&sitereforma
10. http://dgcnesyp.inegi.gob.mx/cgi-win/bdieintsi.exe/ Consultar; http://www.banxico.org.mx/eInfoFinanciera/FSinfoFinanciera.html; http://www.inegi.gob.mx/est/contenidos/espanol/tematicos/mediano/anu.asp?t=mpob01&c=3178; http://frwebgate5.access.gpo.gov/cgi-bin/ waisgate.cgi?WAISdocID=49177659527+7+0+0&WAISaction=retrieve. If purchasing power parities rates of currency conversion are utilized, the average rate is 4%. The OECD calculated these rates to eliminate differences in price levels between countries http://www.oecd.org/dataoecd/61/56/1876133.xls
11. Geoffrey Garrett "Globalization's Missing Middle", *Foreign Affairs*, November/December 2004
12. Ibidem.
13. Eliminating impunity, corruption and violence.
14. Shiau, A., J. Kilpatrick, M. Matthews (2002), "Seven per cent growth for Mexico? A quantitative assessment of Mexico's investment requirement", *Journal of Policy Modeling*, June 2002; OECD *Economic Surveys, Mexico*, November 2003; and Pastor, Robert A., Samuel Morley and Sherman Robinson "*Closing the Development Gap: A Proposal for a North American Investment Fund*", March 2003, FINA/NAFI.
15. Non-oil, non-social security tax revenues amount to about 15% of GDP, compared to 24% in Poland or 28% in Turkey OECD

countries with comparable per capita GDP's. In the US the number is 23%. Banco de Mexico (2003) *Un Comparativo Internacional de la Recaudación Tributaria*.

16. Those levels are more than double those of Norway, Canada, or the United States.
17. Pemex Exploración y Producción, *Anuario 2003*.
18. British Petroleum recently stated it considered additional reserves of 30–40 billion barrels of oil (equivalent to an additional 20 years of current consumption) were present in Mexican deep waters in the Gulf of Mexico.
19. *Crude Oil and Total Petroleum Imports, Top 15 Countries* EIA, October 2004.
20. The average price of Mexican oil exports was 25 dollars a barrel during 2003 and 31 dollars during the first eleven months of 2004. http://www.pemex.com/ files/dcpe/eprecio-promedio_esp.xls
21. *Energy Policies and the Mexican Economy*, ESMAP, World Bank, January 2004.
22. Pastor, Robert A. and Christine Frechette "Quand le libre-échange ne suffit pas. De l'intérêt a créer un Fonds d'investissement nord-américain", FINA/NAFIN March 2003.
23. Almost 20 billion dollars of investment were financed in this manner between 1998 and 2002.

For more information, contact:
Andrew Selee, Editor
202.691.4088, seleead@wwic.si.edu

Heidy Servin-Baez, Associate Editor
202.691.4050, servinbaezh@wwic.si.edu

If you wish to be added or removed from the mailing list, please send your request to: mexico@wwic.si.edu.