The discrepancy between the analysis of transnationalisation and the oil industry's evolution in Mexico

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When analyzing the evolution of oil and gas industries, international energy circles often refer to a « norm of transnationalization ». The latter process, is supposed to structure both the global economy and the national economies. Many hypotheses have been brought forward regarding the implications of this norm for the hydrocarbon industries :

- the 'degeopolitization' and the move towards the transnationalization of the whole of the oil and gas industries;

- the opening of the oil industries, especially of exporting countries' upstream activities. As a result, there would be a shift from the role of the possession of reserves to a situation where access to capital and technology dominates. In this process, the logic of transnationalization would tend to prevail upon the oil intergovernment interplay. Thus, oil companies and market forces would rule while the states would only support the movement.

- The relationships between the States and the international oil companies are favoured either in order to support their development or to negotiate with these companies the most favourable host conditions within a liberalized framework;

- the new interrelationships between the actors of the oil transnationalization which take place nowadays in the context of the renewal of the forms of the practice of power on the international scene.

The Mexican case is peculiar. Mexico's oil industry did not adapt fully to the current transnationalization trends and despite NAFTA (North American Free Trade Agreement), Mexico did not become a full partner of Canada and the USA in the energy area[1]. Within NAFTA, many analysts can neither conceive why the Mexican State restricts the access of foreign investment to the hydrocarbon industry, nor why Mexican oil is not primarily put at the disposal of the world's biggest consumer. Is it an out-of-date double refusal on the behalf of Mexico? Will these reluctances be

1 - As it will be said later, only the U.S.A-Canada energy exchanges have really been regionalized within the North American context . Moreover, it appears that it is primarily Venezuelan oil which would have turn towards a regional complementarity regarding North America and the whole of the continent. Cf. "Regionalizing oil markets", Oil and Gas Journal, July 15th 1996, together with several analyses and declarations emitted in recent years by some Venezuelan representatives.

swept away by the global movement of progress? Are these temporal discrepancies? or is this only an apparent situation, as shown by certain indicators[2].

This article highlights some lines of interpretation of the evolution of Mexican oil and gas industries, especially regarding opening to competition and market regionalization. **These two trends go hand in hand in North America. An energy symbiosis exists between the U.S.A. and Canada since these two countries converge towards a similar institutional framework while their energy industries move towards greater deregulation.**

In order to analyse the Mexican case, firstly, the "transnationalization norm"[3] and the instruments implemented in order to achieve it (of which NAFTA has been the most important expression during the past years) will be referred to. Secondly, the discrepancies against this norm presented by the evolutions of Mexican petroleum industry, will be stressed. This will be achieved by the distinction of two types of discrepancies :

- one is related to a deceived hope : that the whole of the Mexican economy, its sectors and industries would attain the transnationalization norm in the short term;

- the other results from the rhythms and characteristics specific to any economy and from the consideration of historical and institutional factors.

According to the first, no decisive change has occurred since the core of the oil and gas industries have not been completely opened whereas PEMEX[4] has not been fully privatised. In the present paper this radical approach is not followed.

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2 - Among others : the share of Mexican oil exports going already to the U.S.A. (near 80% in 1996); the ***de facto*** effects of the co-lateral guaranty demanded at the time of the 1995 financial rescue ('the peso package'); the attempts to sell petrochemical plants and the opening up of natural gas industry which could allegedlly be a sign of further and larger opening up and privatization, etc.

3 - No in depth development on "transnationaization norm" can be included here. For the objectives of this paper, it is sufficient to evoke the analysis developed by the "conventional wisdom". For example : "one dominant economic system is emerging [with a] common set of institutions" ; recent years "have witnessed the most remarkable institutional harmonization and economic integration among nations in world history"; "A global capitalistic system is taking shape, drawing almost all regions of the world into arrangements of open trade and harmonized economic institutions. (...) this new round of globalization promises to lead to economic convergence for the countries to join the system". All quotations are taken from J.D. Sachs & A.Warner [1995; p.1, 61 and 63]. For a discussion on the tendencies towards homogenization and towards the convergence of all the economies: See R.Boyer [1996].

4 - **Petróleos Mexicanos**, the Mexican oil state owned entreprise. According PIW's grading (december 16, 1996), **PEMEX** is globally the 6th most important petroleum company worldwide. Overall, PEMEX's place in the world represents 5% of total oil production, proved reserves and exports; excluding the Gulf countries it represents 7% of the oil production, 8% of the exports and 15% of the reserves. In 1996, oil production averaged 2.86 million b/d (1997 forecast : an average of 3.08 million b/d) and oil exports 1.54 Mill.b/d. PEMEX is the most important source of public finances in Mexico : fiscal duties amounted to 70% of all its outflows in 1996, providing near 30% of total fiscal income of Federal government. In 1996 PEMEX net exports amounted approximately to 7,500 million dollars.

Moreover it is assumed here that a reform does not change instantaneously and radically the whole institutional and organizational structure of a sector. Instead, it is thought to promote changes which can engage a short, medium or long term process, via the introduction of new institutional and regulatory criteria, together with incentives and clear messages towards economic actors. In the present work it will be argued that in the Mexican context a process of reform of the institutional, organizational and regulatory framework which has been in operation since the nationalization of the oil has been engaged. Such a reform has to be analyzed in terms of the complexity of a country which, as Carlos Fuentes describes it at the time of the oil boom of the early 80s, is "a Nation not only an oil well".

1- The transnationalization norm, its implications for the oil industry and the instruments for its achievement

At the end of the 1980's, and during the first half of the 1990's, a vision which implied the commercial and financial liberalization of economies, imposed itself. This vision included the norm and the instruments required in order to achieve it : on the one hand, new market-oriented public policies and, on the other hand, a new institutional framework expressed at continental level. The most complete expression of this process has been the US proposal to sign Free Trade Agreements with the Latin American countries.

1.1. Transnationalization norm and its implications

Within the new international order which has apparently emerged since the fall of Berlin's wall and the Gulf War, it is considered that the only viable economies are those which open to foreign investment and operate a withdrawal of the State to the advantage of the market. The energy sector, especially hydrocarbon industries, appeared to succeed in representing the very example of a State directed sector, closed to foreign capital. Henceforth,

> "**The overall paradigm** underlying the current situation is a redefinition of the role of the state with respect to the economy. The state, quite generally, is retreating from a pervasive presence in business to a role as regulator, (...). **This is particularly true where the oil and gas is a country's key industry**"[5].

The demonopolization and the privatization of public enterprises in Latin-America was a major aspect of this strategy, the justification appeared obvious with "the growing conviction that free enterprise advances the wealth of nations better than nationalized industries and planned economies"[6].The expected benefits of such a strategy have often been put forward. Regarding international companies, it was assumed that their reserves should increase to an unprecedented level within the context of new financial and technological improvements. In terms of producing countries' companies, the possibility to receive new investments, new scientific,

5 - Thomas W. Waelde [1996; p.192]; parts underlined by the author of the present paper.

6 - Energy Information Administration (US Department of Energy) [1996], p.51.

technological and organisational developments and to enter international product markets was suggested.

Until the 1994 December crisis of Mexico, "mutually reinforcing beliefs and expectations created a mood of euphoria about the prospects for the developing world. (...) It was a very happy picture"[7]. At the beginning of the 1990's, the concept that a "new golden age of global capitalism"[8] was on the threshold, spread out world-wide. Influxes of foreign capital returned to state controlled countries which converted to market economy. The Mexican case and its supposed entrance to the « First world » became the reference, and illustrated the relevance of the norm.

1.2. Instruments required in order to attain the norm : new public policies and NAFTA

The new economic policies aimed at reducing the distance between norm and real economies by achieving deregulation, privatization, opening to competition and sound public finances. External institutional constraints needed to be included within public policies if this process was to be irreversible. "NAFTA locks in these policy changes..."[9].

Free trade agreements were a starting point; however, their implementation belonged to a larger framework. Beyond its strictly commercial aspects, NAFTA represented an ambitious project of reinstitutionalisation, a whole proposal towards a new regulatory regime. Through this agreement, the U.S.A. were offering Latin-American societies the key elements of their own economic model of free trade, market economy and liberal democracy:

> "In fact, NAFTA represents a kind of big economico-legal machinery which can support the Mexican modernizing elite in its effort to conform the country to the rules of ´market democracy´ ".
>
> This treaty ... " since it establishes **drastic norms in key areas**, not only the legal area, but also the political one, becomes, therefore, **a powerful world-wide centre of elaboration and promulgation of economic norms, regulations and behaviours**".
>
> "It really is, therefore, a matter of the reinforcement of the U.S.A.'s capacity **to elaborate and ´export´ a regulation process** whose objective (...) is to supervise the great movement towards world-wide economic globalization"[10].

7 - Paul Krugman [1995;p.39].

8 - Paul Krugman [1995, p.29].

9 - B. De Long *et al.* [1996; p. 10].

10 - Alfredo G.A. Vallado [1995]. The above quotations are taken from p.38-39 and 132-133. Parts underlined by the author of the present paper.This export of a regulation process has important implications for the legal point of view, as it has been shown by two recently adopted US laws

NAFTA was not only thought as a device to favour commercial exchanges, it was also supposed to stimulate the generalization of certain institutional and behavioural rules. Even within an area in which market freedom has not progressed very much, the case for the Energy area, institutional aspects are mainly stressed when these are considered to be elements liable to induce new processes. One exemple is NAFTA's rewriting of the government procurement process, specially designed to guarantee that USA and Canadian contracts bids will receive fair consideration by Mexican public energy enterprises. « This revision makes an important contribution to building Mexico's legal infrastructure and, as such, is one one of the most important part of NAFTA »[11].

1.3. Was there a consensus around this strategy?

Mexican elites made important steps towards North American projects; particularly important when taking into account the country's history : " Mexico has stopped defining itself by its opposition to the United States and is instead attempting to imitate the United States and to join it in the North American Free Trade Area. Mexican leaders are engaged in the great task of redefining Mexican identity and have introduced fundamental economic reforms that eventually will lead to fundamental political changes"[12]. This was the official context in the President Salinas era (1988-94). However, beyond official statements, the terms of the debate have effectively changed. In this perspective, the alternative project which was developed by C. Cárdenas[13] is very significant.

C. Cárdenas opposed USA projects of "hemispherical" integration, with a "true continental co-operation" which could not be established on the existing situation. "The exploitation of cheap labor, energy and raw materials, technological dependency and lax environmental protection, should not be the premises upon which Mexico establishes links with the US, Canada and the world economy". He talked in terms of "a coherent, integrated, global approach conducive to a broad, long-term continental free trade and development pact ". The starting point should

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(known as Helms-Burton's and Amato's Laws) which include economic sanctions of an extra-territorial nature. According to Brigitte Stern, Professor of international law (Paris I-Sorbonne), these laws claim on behalf of US foreign politics requirements, to "impose a certain behaviour to all the economic agents world-wide", behaving as if globalization "had been irremediably achieved and had swept away national economic areas". The scope and the implications of this situation are discussed by the author who states that it is "extremely desirable that globalization does not lead to an imperial structuralization of international society dominated by one single power", **Le Monde**, "Les Etats-Unis et le droit imperialiste", September 12th 1996.

11 - Congressional Budget Office [1993; p. 18]; parts underlined by the author of the present paper.

12 - Samuel P. Hintington [1993; p. 43]. Mexico's previous president, C. Salinas declared in an interview to **Le Figaro** , on August 1st 1991, that he wanted to change the course of History and that hate between "gringos" and "latinos" ought to disappear . Consequently, he had decided to " change Mexican people's mentality concerning [their] relationship with the United States".

13 - Cuauhtemoc Cárdenas [1991]. All the following quotations concerned with C. Cárdenas alternative project are taken from this document. Cuauhtemoc Cárdenas is not only the son of the Mexican president Lázaro Cardenas, who nationalized the oil in 1938, but also the candidate and, probably the unofficially recognized winner, of the 1988 presidential elections against C. Salinas.

have been a clear vision of the characteristics of Mexican economy. Accordingly, the origin of Mexico's problems must be found within the mexican economy, and in the way development policies were conceived and implemented, instead of rejecting the responsability to the structure of the international economy alone[14]. Markets can work in a developing economy, although "the responsibility for solving these interrelated problems is not only for the market ".

Within the Mexican context, Cardenas's analysis was far reaching :

> " Movements of capital, particularly direct foreign investments, are the central component of the new continental partnership we want to build. (...) We must learn to see foreign investments not as an unavoidable evil but as a desirable opportunity and even a necessary instrument to attract resources, to close technological gaps and to move decisively into world markets".

As far as foreign investments were concerned, only oil could remain an exception, in C. Cárdenas opinion :

> "Those sections of the law and regulations limiting foreign investment in Mexico that we believe must be maintained have to do with access to natural resources and the strategic sectors of the economy mainly oil. The existing state monopoly on the exploration, extraction, refining and industrial transformation of Mexico's oil must remain intact and be excluded from this negotiation. This obviously includes, from our point of view, any commitment to a guaranteed supply of oil to the United States, in contrast to what Canada accepted in the US-Canada Free Trade Agreement ".

Thus, an alternative project to "neoliberalism" tried neither ignore the contemporary international context, nor his own country's environment or circumstances.

1.4 "And then came the Mexican crisis"

During the first half of the 1990's, the world, therefore, appeared to be in a unique situation : a clear norm and a consensus around public policies which would reduce the discrepancy between reality and the norm by achieving structural changes, while integrating the economies in the global context. All the components fitted together in a harmonizing way : market economy, as a model for social organization; a framework for economic policies (The 'Washington's Consensus'); new attitudes of the elites corresponding to projects of integration of the dominant power.

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14 - According to C. Cárdenas, in Mexico, these policies are characterized by : " lack of vision, the absence of any democratic accountability, corruption, mismanagement and demagogy ", C. Cárdenas [1991; p.2].

"And then came the Mexican crisis"[15]. The "conventional wisdom" concerning the performance of Mexico's economy during C. Salinas' presidency, has obscured unresolved problems of the Mexican economic and political system. On January 1st 1994, the starting point of both NAFTA's implementation and the "Zapatist" uprising in Chiapas[16], the fragility of the economy, the serious crisis of the political system and the fact that large parts of Mexican society, and entire sectors of the economy were not ready to enter the "First World", became visible world-wide. These facts questioned the concept of a soft transition towards the transnationalization norm : the integration of « torn countries[17] » within the developed world was a complex process and needed a more sophisticated approach.

"Neoliberal" policies did not take into consideration this complex framework and appear today to be the instruments of a forced movement towards transnationalization norm, which led to the 1994/1995 crisis and its terrible consequences for the growth and the well-being of the population[18]. These policies are, today, evaluated very severely in Mexico since they were constituted of :

- the brutal opening of the Mexican economy towards foreign markets and the integration with the U.S.A. within a deeply asymmetrical framework.

- the withdrawal of a State which had up to then played a central role in terms of investments and direct participation in the key sectors;

- the deregulation and privatization within a not yet fully democratic system which still has not established clear rules affecting the relationships between public and private areas (corruption, asymmetries between the privates actors themselves and in their relationship with the state, etc.);

- the economic policy that considered foreign investment as the key variable both to finance the large trade deficit and to lead the modernization of the

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15 - Paul Krugman [1995; p.30]

16 - Before this date, several Mexican intellectuals and economists (among others : Lorenzo Meyer and Arturo Huerta) drew attention to the fragility and deficiencies of Mexican-style neoliberalism. In the U.S.A., Rudiger Dornbusch presented some lines of analysis on the deficiencies and effects of C. Salinas' economic politics, before the December 1994 crisis : "Mexico suffers from a failure to accompany the stabilisation of inflation (...) and the impressive array of economic reforms with not only true political reform but also economic progress", R. Dornbusch, A. Werner, " Mexico : Stabilization, Reform and No Growth" , **Brookings Papers on Economic Activity**, I : 1994, pp.253-315, p.253.

17 - S. P. Huntington [1993]. According to the author torn countries " have a fair degree of cultural homogeneity but are divided whether their society belongs to one civilization or another " (p. 42). "For the United States, Mexico is the most immediate torn country" (p. 43). Huntington's analysis is very suggestive, but debatable too.

18 - A few indicators : between 1994 and 1995, the GDP decreased from 230,132 to 214,023 (millions US$ 1980); the GDP per capita fell from 2,557 to 2,336 (US$ 1980); the GDP's rate of growth decreased from 3.5% to -7%.

industry, without real questioning on the nature, volatility and productive involvement of these investments.

The mexican government has clearly not been able to manage the very movement of trade and financial liberalization it initiated, and has plunged the country in the 1994/1995 monetary crisis and the following recession.

2 - Evolutions of the Mexican oil industry in relation to the transnationalization norm and to internal constraints

2.1. Discrepancies against the expected evolutions

On one hand, the international oil industry managers expected to be free to invest right away in the whole chain of the Mexican oil industry; on the other hand, USA expected Mexican oil to fit within the schedule of regional integration experienced with Canada.

2.1.1. The expected evolutions related to NAFTA

Regarding transnationalization, few results were achieved in the energy field as was almost unanimously recognized abroad :

> "For the most part, the **energy chapter of NAFTA sets out exceptions to the principles of free trade with Mexico that the rest of the agreement embraces**. In particular, NAFTA would do very little to increase U.S. access to Mexican oil resources... ". Therefore, it can be stated that " NAFTA's accomplishment [represents] **only a first step towards free energy trade with Mexico** : constitutional prohibition against foreign ownership of energy resources; no desire to weaken state monopolies in oil, natural gas and electricity (...) "[19].

> " The agreement did not fundamentally undermine PEMEX's monopolist position, instead, it restricted itself to favour, in a limited way, the access for Mexican and foreign companies to certain sectors of activity within PEMEX"[20].

> " The failure to open Mexico's oil market to foreign investment as part of the North American Free Trade Agreement is a tragedy for Mexico "[21].

In contrast with the regional evolutions expected following the Canadian example, Mexican oil has remained formally outside regional integration. Mexico

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19 - Congressional Budget Office [1993; p.1]. parts underlined by the author of the present paper.

20 - OCDE, **MEXIQUE**, Etudes Economiques de L'OCDE, Paris **1992**, 297p., p.101. Our translation from french.

21 - Ph. K. Verleger Jr., " The North American Free Trade Agreement : implications for the parties and world oil markets ", **The Energy Journal**, Vol.5, 1993, Special Issue, p.99.

retained the right to determine its own export levels without guaranteeing a preferential supply to its partners. Consequently, for current energy literature Mexico does not belong to " the North American energy market (USA and Canada) [which] contains 5% of the world population and consumes 27% of the world's energy. (...) It is the world's largest energy market. (...) It is self-sufficient in all fuels except oil in which it has a 65% self-sufficiency "[22]. Obviously, the whole energy picture of this area changes if Mexican oil, production and reserves, is taken into consideration.

Curiously, the very people who advocated, within the United States, the opening and total privatization of the Mexican oil industry, expected that the Mexican government would guarantee the U.S. supplying, without even apparently considering the contradiction between these two positions. Indeed, if M.A. Adelman's analysis on the integrated international oil market[23] is assumed; oil supplying cannot be considered in terms of national security[24] any longer : whether the oil consumed by the United States comes from Mexico or elsewhere is irrelevant within global economy.

However, even those who support this position have to recognize that for the USA **Canadian oil imports are more secure than others** : "Canada has no outlet other than the U.S. and all Canadian crude is shipped to the U.S. by pipeline integrated into the U.S. supply system. Furthermore under NAFTA (...) oil shipments to the U.S. must be fully maintained in an emergency unless Canadian internal consumption is also reduced "[25]. Thus, « given the physically integrated nature of Canadian crude oil imports and the NAFTA treaty, the availability of Canadian crude to US refiners can be rated very highly »[26].

There is a real symbiosis between the United States and Canada in the hydrocarbon industry. Considering the deepening of the deregulation process within the gas and electricity markets as well as within the transport area, the energy interpenetrations of both countries will certainly increase further. As for Mexico, this process does not follow the same rhythm, and this explains why Mexico was not granted a significant presence within the regional scheme, after NAFTA was signed.

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22 - Ibidem, p.1 and 4.

23 - M.A. Adelman [1991] : "The world oil market, like the world ocean, is one great pool. Who exports the oil Americans consume is irrelevant ".

24 - See for instance, John H. Lichtblau [1994], " Oil imports and national security : is there still a connection ", **The Energy Journal**, Vol. 15, Special Issue, pp.329-356.

25 - Ibidem, p.339. In 1995, Canada exported, solely via pipeline, 1 million b/d of crude oil to the USA. In fact, Mexican exports towards the U.S.A. are quantitatively fairly similar to Canadian ones. In 1995, Mexico exported 1,037,000 b/d to the U.S.A, which is 80% of total Mexican crude oil exports. Cf. PEMEX [1996], Table 108, p. 266.

26 - John H. Lichtblau [1996], " The North American Energy Scene ", 19th IAEE Energy Conference, Budapest, p.4.

Indeed, as some specialists put forward, the follwing facts :

- Canada's significance within the gas trade which constitutes a privileged relationship between Canada and the United States;

- the large deregulation existing in US-Canadian trade before 1989, and as the FTA (Free Trade Agreement) between both countries, which has been consolidated by NAFTA, tends to make previous policies irreversible;
- Mexico succeeding in maintaining a situation of exception for its hydrocarbon industry;

meant that " Mexico will likely remain a relatively minor player in North American natural gas markets **until an internally-driven deregulation process occurs** "[27]. However, after the 1993 signature and approval of the NAFTA, the opening out of gas and oil industries went on.

2.1.2. The expected evolutions related to reforms subsequent to NAFTA

An important trend abroad has been demanding the privatization of PEMEX together, sometimes, with the abrogation of the 27th article of the Constitution concerning the Nation's ownership of mineral resources[28]. Privatization became the symbol of Mexican decisive engagement towards the transnationalization norm. According to international energy circles, **the only interpretation of the word reform is privatization and total opening out of the oil industry**, specially within oil and gas Exploration and Production. As an influential international magazine put it : " It is time to privatize PEMEX, the inefficient state oil company "[29].

As a consequence, the appraisal of the reforms could only be mitigated, since there has not been any fundamental change concerning the ownership of the resources and the major place occupied by PEMEX[30] :

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27 - A. Plourde, " Natural gas trade in North America : building up to the NAFTA ", **The Energy Journal**, Issue dedicated to the theme " North American energy markets after free trade ", Vol. 14, num. 3, 1993. parts underlined by the author of the present article.

28 - The public ownership of mineral resources has been frequently questioned (see for example Sergio Sarmiento, « El petróleo es nuestro », **Reforma**, México, 9 febrero 1996). According to this line of interpretation the 27th article of the Constitution which deals with the Nation's ownership of the subsoil resources must be firs abrogated, then the national oil industry must be privatized. Such a view only appears to take into consideration the example of the U.S. oil industry. However, as Bernard Mommer has often stressed in his writings, the U.S. oil industry is an exception rather than the rule in term of mineral rights since private ownership of the subsoil resources is dominant in this country. Wowever, world-wide, this is clearly not the case. Nowhere else can a trend towards the privatization of natural resources be depicted. On the contrary, existing private property rights over natural resources are generally increasingly restricted. See : B. Mommer [1997]

29 - **The Economist**, June 29th 1996

30- The new statutory law of the 27th Article of the Constitution, approved in May 1995, starts as thus:
Art. 1 - The direct, inalienable and imprescriptible ownership of all hydrocarbons in the national territory - including the continental plateau - (...) corresponds to the Nation.

« Despite some initial efforts, reforms in Mexican Petroleum has faltered. Foreign participation in oil and gas exploration, production and refining remains proscribed by the constitutional requirement which allows only PEMEX to engage in those activities » [31].

Skepticism toward reform measures included the new legal an regulatory framework :

"At present, it is not certain that the legal, regulatory and pricing innovations developed by the Mexican Government and the Comisión Reguladora de Energía in 1995-1996 will be interpreted by the investment community and its lenders as offering an acceptable balance of risk and reward "[32].

Within this context, it is not surprising to find article titles such as : "Industry skeptical about Mexican gas reforms "[33]; " Mexican hydrocarbon industry reform to wait until mañana "[34] and " Mexico : the mañana revolution"[35].

In fact the central target concern by international energy circles was the failure to open up oil and gas E&P. This criticism has been joined by certain mexican researchers who expressed regret about the state maintaining the control over private and public investment flows in the energy sector and about the continuing role of the state as entrepreneur and owner of resources and energy enterprises[36].

Compared to the above opinions, IEA emitted a more balanced point of view :

Art. 2 - Only the Nation shall carry out the various exploitations of hydrocarbons that make up the petroleum industry under the terms of the following article (...).
Art. 3 - The petroleum industry encompasses : the exploration, exploitation, refining, transportation, storage, distribution and first hand sales of oil and products deriving thereof; the exploration, exploitation, elaboration and first hand sales of gas as well as the transportation and storage required to interconnect the exploitation and elaboration thereof, and the elaboration, transportation, storage, distribution and first hand sales of oil derivatives susceptible of becoming basic industrial raw material, and gas derivatives used as basic petrochemicals.
Art. 4 - The Nation shall carry out the exploration and exploitation of oil and all the other activities (...) that are considered strategic (...) by means of PEMEX and its subsidiary bodies. With the exception of that providen in article 3, the transportation, storage and distribution of gas may be carried out, with prior permit, by the social and private sectors who may build, operate and own pipelines, facilities and equipment under the terms of the governing technical and regulatory provisions that may be issued.
Note : The spanish version shall prevail in all respects.

31 - Energy Information Administration (US Department of Energy) [1996; p.57].

32 - George BAKER [1996; p.33].

33 - **Oil and Gas Journal**, December 4th 1995.

34 - **Petroleum Economist**, Mars 1996, p.14.

35 - **Energy Economist**, September 1996.

36 - See Rodríguez V., Vargas Rocío [1996]. The main targets of those authors's criticism is the Salinas Administration measures, while they hope his succesor will have more possibilities to broaden and accelerate the opening of the energy sector. It's then a matter of time, as for the energy integration : « the integration of the Mexican and US energy industries, like commercial integration, is unavoidable; it all seems to be a question of time » (ibidem, p. 265).

"**All countries have to choose an approach to regulation of the energy industries which is suited to their own institutions and circumstances**. Exactly the same is true of deregulation (...). **They have to choose a course which takes account of the structure and history of their hydrocarbon industrys, of policy constraints and priorities**, of the specific objectifs of deregulation. The case of Mexico is of particular interest because of the number of challenges it faced in the process of deregulation and the way it has responded to these challenges to produce a result which respects the existing policy and other constraints, yet offers the prospect of worthwhile liberalisation, of securing many of the benefits of competition and the introduction of outside finance " [37].

2.2. Discrepancies related to internal constraints : « a Mexican model of transformation and opening of the oil and gas industries » ?

After the 1938 nationalization, Mexico established a set of rules in order to construct symbiotic relationships in the hydrocarbon industry within a closed economy. Those rules basically derived from the public ownership of the subsoil ressources and from the existence of a state monopoly over an oil industry which was, then, absent from the international oil market. When Mexico became once more an important exporter during the second half of the 70s, and especially when it began to open its economy in the mid-80s, deficiencies, gaps and inadaptations became appearant, mainly in the technological and organizational fields. At the same time the international oil industry was in a processs of deep change following the two oil shoks. In particular, concerning the organizational field, the model of closed vertical integration was changing for a more open one where market transactions could take place.

Current interpretation of Mexican reform are often simplistic as shown above. The changes within NAFTA and subsequent evolutions in the deregulation and privatization of hydrocarbon industries have to be assessed taking in consideration the institutional and historical factors that appears to be of central importance in understanding the peculiar characteristics taken by the hydrocarbon sector reform in Mexico.

It is important to consider privatization not only in its basic definition (the sale of public assets or changes in property) but also in a wider meaning. The latter comprises the progressive introduction into the public sector of certain conditions that prevail in the private sector, and/or of certain measures that diminishes public ownership and control. It is a trend towards a more market-driven economy[38].

Moreover, property rights and the introduction of market mechanisms are not the unique aspects of a reform of the energy sector. Other components are the changing in the nature of the relationships between this sector and the rest of the

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37 - IEA [1996; p.81]; parts underlined by the author of the present paper.

38 - For a wider understanding of privatization see Dennis Swann [1989] and DOE [1996].

economy. As stated in the last Energy Programme, the energy sector has to contribute "to the global competitiveness of the producing sector, by the supply of goods and services which have international quality and price standards"[39].

If the reorganization of the oil industry in Mexico is considered accordingly[40], and although PEMEX assets have not been sold, one cannot therefore consider the oil industry to be at variance with the mains-stream economic reform and the privatizing trend. This is a significant aspect too when the presence of the state is considered : it does not appear realistic to imagine a complete retreat of the state since it will certainly continue to regulate private and public investments flows within a new business-oriented environment. Rather than labelling present energy reform in Mexico as a simple product of the « modernization of statism »[41] it is more interesting to attempt a more sophisticated analysis of the future role of the state. An example of such approaches is the analysis of the shift in industrial policies and of new actors and behaviours in Mexico's post-NAFTA deregulation policies[42].

2.2.1. PEMEX's reorganization

The need for PEMEX's reorganization was brought forward subsequent to the 1982 crisis and the serious financial restrictions experienced by the Mexican economy and PEMEX. Since then, there has been a decrease in PEMEX's investments which has affected exploration and development drillings, together with output and reserves[43]. Moreover, " PEMEX has been unable to achieve cuts in production costs comparable to many other major petroleum companies"[44]. This latter fact points out the basic essential challenges for Pemex's strategic definitions and reorganization. For many specialists, and apparently for PEMEX's top management too[45], this company cannot ignore any longer international competition nor the performances of other oil companies, either private or public, in the area of the management of reserves and of the industrial and technological development of these resources.

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39 - Secretaría de Energía [1996]

40 - See A. De La Vega Navarro [1994].

41 - Cf. Rodríguez V., Vargas Rosío [1996].

42 - Concerning petrochemical industry, Isidro Morales [1996] suggests that the present shift in industry policies doesn't mean the end of state-lead policies even if they are conceived in a way radically different from the pre-NAFTA economic regime : « On the contrary (...) in this new business-oriented environment, the state will remain the major single institutional actor that will be able to reduce or compensate for the asymmetries prevailling among private actors as well to ensure a fair distribution of the costs and opportunities provoked by those asymmetries ».

43 - " Since 1985, the total number of wells [oil and gas] drilled annually has gone down substantially, reflecting tighter resources constraints. From a high of 303 wells around 1985, the number of wells drilled declined to 72 in 1994. During the same period, the number of active drilling rigs went down from 200 to 27" IEA [1996; p.43].

44 - IEA [1996; p.34]

45 - "PEMEX's ambitious programme should allow the company to act and take place among the most important integrated oil companies worldwide. This requires changes within the company, in its relationships with the government and in market structures », A. Lajous Vargas, **La Jornada**, Mexico, January 19th 1996.

PEMEX's reorganization has speeded up essentially since 1991 :

In 1991, strategic definitions were designed. PEMEX decided to refocus its investments, and its financial and human means strictly on energy concerns, particularly oil and gas. Exploration, production and operation of oil and gas "are the strategic activities which the Mexican Nation and State will continue to realize through PEMEX"[46]. Before the year 2000, according to the latest Energy Programme, PEMEX will have to invest more than 10 billions of dollars in oil and gas production in order to achieve approximately 3.1 mb/day oil production and 1.4mb/d exports. Specific efforts will have to be done regarding natural gas, in order to attain a production of approximately 5.1 mcf/d.

This refocussing trend presents already some results. In recent years PEMEX has been able to execute upstream projects successfully, to increase oil and gas production and to begin to change the trend concerning the hydrocarbon reserves[47]. This was done while maintaining its refusal to accept foreign companies to get into Mexico's upstream sector.

In July 1992 took place the PEMEX's reorganization aiming towards a new management and organisation criteria and at a new type of relationships with the international oil industry. Four subsidiary companies were created and depend on a holding-type central structure which is separated into several divisions. New management criteria, accounting and pricing systems allow these subsidiary companies to become independent and to act as profit centres. PEMEX's reorganization goes beyond strictly administrative aspects since between 1987 and 1995, the company's staff decreased from 210,000 to 100,000 employees.

One of the problems of PEMEX, comparing international oil companies, is that it is an integrated company operating only in its own country. Specialists now emphasize that even State oil companies have « to seek exploration acreage, production sources and markets for petroleum services beyond the national borders. (...) The path to successful survival for a State petroleum company -whatever the petroleum potential of the home country - lies in the transnationalization »[48].

2.2.2. NAFTA's energy contents

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46 - A. Lajous Vargas, PEMEX's General Director, Statement, September 12th 1995. Actually, PEMEX has adopted : " a more expansive strategy in its exploration and production activities, which is oriented towards the increase of production capacity, essentially of gas, and towards other strategic initiatives such as the sale of its secondary petrochemical assets, the liberalization of gas transport and distribution and the improvement of its refining margins », A. Lajous Vargas, **La Jornada**, January 19th 1996.

47 - At the end of 1995, the hydrocarbon reserves were officially 62,058 Mill. bbls of oil equivalent (PEMEX, 1996) while in 1983 they amounted to 72,500 Mboe.

48 - T. W. Walde [1991; p.415]

Apart from the exceptions concerning the hydrocarbon industry introduced by Mexico within NAFTA, this treaty set new institutional elements and led to new changes :

- Mexican private consumers and Canadian and US natural gas suppliers will be able to negotiate sales and supply contracts directly, while PEMEX acts actually as third party;

- NAFTA allowed competition to appear, officially or non-officially, in certain formerly monopolist areas;

- a revision and clarification of the procedures dealing with energy companies public markets has been accepted by Mexico;

- within NAFTA's dynamics, the Mexican government reclassified numerous petrochemical products which were previously exclusively produced by the State, in order to allow their production by private companies;

- risk contracts are forbidden, although performance clauses were introduced to drilling service contracts. Evolutions in this area are to be expected : "NAFTA's provision for performance clauses in service contracts may ultimately be interpreted as allowing U.S. drilling firms to own part of the oil or gas they discover in Mexico, even though Mexico does not accept that interpretation now "[49]

2.2.3. The liberalization of the natural gas area

Previously, it was common in Mexico to consider natural gas simply as a joint product of oil which was either to be used or wasted. However gas has now become a full energy source which is to be developed for economic and environmental reasons. Therefore, a new regulatory framework is being set out in order to promote the development and utilization of this resource[50] and to attract private capital. Within the perspective of the on-going reform, the influx of venture capital is a key element for the future of Mexican gas development.

- In **May 1995**, the new regulatory law of the 27th article of the Constitution was approved. Henceforth, domestic or foreign private investors are allowed to transport, store and distribute natural gas as well as operate and own the natural gas transport, distribution and storage systems which were before exclusively attributed to PEMEX. However, PEMEX will keep the transport and storage related to the production process.

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49 - Congressional Budget Office [1993].

50 - With more than 3,000 millions cf/d, gas represents in Mexico around 30% of total energy consumtion. The distribution of natural gas consumption in Mexico is the following : PEMEX 42%, CFE (electricity) 20%, industrial sector 35%, residential 3%.

- In **October 1995**, the law establishing the Energy Regulatory Commission (an agency having a technical and operational independence) is set. The sphere of activity of this commission which was previously restricted to the electric industry, has been extended to the natural gas area. Henceforth, the commission develops the regulation concerning the distribution of natural gas and the ownership of the pipelines. This commission is a new entity in Mexico and is an important one for the process of reform[51]. The role of large public companies (e.g. PEMEX, CFE) in certain areas of competence of this commission still has to be defined since, up to the present, these companies often have overlapping operational and regulatory responsibilities.

In **November 1995**, a new regulatory framework concerning the natural gas is set. This presents in detail the operational regulations towards a new kind of development of this industry, which includes the participation of private actors within the areas indicated by the new regulatory law.

In **March 1996**, The "Directive on the determination of prices and rates for natural gas and related activities" are established.

Two main positions towards this opening out process can be highlighted. On the one hand, officially : « A fundamental change in Mexican natural gas markets has already been initiated which will tend to speed up during the following years »[52]. On the other hand, a position exists shared by the international oil circles :

> "Mexico's Constitution still bars private companies from taking equity interests in oil and gas production. Some challenge the idea that a country can successfully introduce competition in energy markets while retaining full control of upstream activities "[53].

According to this latter view, as long as the upstream sector is not substantially altered, credibility will not be given to the reform. However other opinions are expressed. According to the IEA, the changes brought forward are not radical, but they still open new perspectives :

> " The changes do not, of course, amount to the wholesale deregulation. PEMEX retains a special position (...) [and] retains, for the moment, a ***de facto*** monopoly there as well as ***de jury*** monopoly of natural gas exploration and production in Mexico. However, the changes are much more than nominal. (...) So there remains a possibility of a degree of real competition and, to a greater extent, of using regulation to produce the result which would be

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51 - The control of this agency and the degree of influence and power held by actors such as consumers, state companies, private investors or energy bureaucracies are not well defined yet. These represent new uncertainties in the context of the opening up of the Mexican energy sector to private investment.

52 - A. Lajous Vargas, PEMEX's General Director,**La Jornada**, January 19th 1996.

53 - " Industry skeptical about Mexican gas reforms " , **Oil and Gas Journal**, December 4th 1995.

expected of a competitive market. There is also a scope, provided the reforms are implemented effectively for a significant introduction of private capital and for significant expansion of the Mexican gas market "[54].

A full assessement of the consequences of the recent changes in the natural gas industry will not be possible for some time. Nevertheless, hypotheses are elaborated which take into consideration firstly, the permanence or disappearence of certain central institutional aspects and, secondly, the present organization of the hydrocarbon industry. These lead to opposite choices. What would happen if PEMEX retains the monopoly in E&P or, in the contrary, if the Mexican government opens up PEMEX monopoly to private investment? Access to capital, levels of production, imports and exports are very much related with the evolution of government's policies and changes in institutional and organizational setting[55].

2.2.4. Privatization of the petrochemical industry

Within the petrochemical sector, the deregulation process began in the mid-eighties and NAFTA contributed towards a desintegration of PEMEX's monopoly in this area. In the near future PEMEX will no longer be the leading actor in the organisation of the petrochemical industry : new private agents, mainly foreign owned firms, are emerging while those previously implanted are strengthening their position.

Although PEMEX retains exclusive rights to the production of « basic » petrochemicals, the number of these products has been considerably limited through successive re-classifications in 1986, 1989 and 1992 : at present, only 8 petrochemicals bear restrictions out of the original 34. In fact Mexican government used these « re-classifications » based on arbitrary criteria in order to materialize a radical change in the policies concerned with the petrochemical industry. The objective was to diminish the number of petrochemicals products classified as basic and to increase the number of the « secondary » products since foreign capital had better access to the production of the latter. This trend has been accompanied by some changes in the foreign investment law (1993) in order to allow fully foreign participation in the production of secondary petrochemicals. In so doing, new steps towards the privatization of the sector were made possible in legal and administrative terms.

In **March 1995**, the sale of all the "secondary"[56] petrochemical plants was decided. This represented 61 installations, among which Casoleacaque, the most important Latino-American producer of ammonia. Although this sale ought to have

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54 - IEA [1996; p.69-70].

55 - See George R. & Mortensen P. [1995] for an effort in building scenarios for the Mexican oil and gas industries in the North American area,

56 - " 'Secondary' petrochemicals include : ammonia; acetylene; benzene; butadiene; butylene; ethylene; methanol; n-parafins; orthoxilene; paraxylene; toluene and xiles. PEMEX manufactures these products but private firms can produce them after obtaining Mexican Government authorisations. Other 'Secondary' chemicals require no authorisation", IEA [1996; p. 12n]

started in October 1995, its implementation has been delayed by a large political and unionist opposition to privatizations and "a lack in clarity and precision in the [new] regulatory framework"[57]. A significant part of medium and small size mexican businesses expressed also their disagreement upon the sale process. Moreover, international investors have prooved to be skeptical, although private investments in the activities which were formerly the rights of the Mexican state, are protected by NAFTA's investments' dispositions : national treatment, safeguards against unjustifiable expropriations, international arbitration procedures, protection of intellectual property rights and other enforcement mechanisms.

During October 1996, the Mexican government redefined its strategy : it will retain 51% of the plants capital and it announced the creations of new companies from January 1997 onwards. Within these latter companies, domestic and foreign private sector will be able to have shares up to 100% of the capital.

The massively expressed opposition to privatization is not only due to ideological reasons. The privatization of petrochemical plants has been announced within a complex social context. The main part of the population has indeed been affected by low employment, income and living standard levels as a consecuence of the 1994/1995 crisis. Meanwhile, several aspects of the liberalization trends have deeply affected Mexican society, especially regarding the conditions within which the former privatizations were carried out. Mexican society now expresses general requirements for more clarity, transparence and accountability. This in turn questions the role of the State, together with the content of the new industrial policies within which the hydrocarbon industry still has some responsibilities in Mexico, although not the same ones as previously.

CONCLUSION

While analysing the Mexican reorganisation of the oil industry, two main aspects must be highlighted :

- the changes within the Mexican oil industry aim at aligning it to the working of international oil industry and to the norms, criteria and performances which are imposed to oil producer countries within the global economy;

- Mexico's own historical and institutional aspects, however, necessarily influences this trend towards adaptation.

Within this context, the role of two different types of institutional elements needs to be questioned. On the one hand, some as the public monopoly over the entire oil industry guaranteed the cohesion of a specific mode of development. On the other hand, some are related to the viability of the Mexican nation, such as its

57 - "Legal risks in relation to the privatization of secondary petrochemical complexes", **Proceso**, Num. 1021, May 27th 1996, Mexico. This document, reported by this weekly magazine, was allegedly elaborated within the Mexican Government.

ownership of natural resources (27th Article of the Constitution). In Mexico's debate this two differente elements tend to be confused.

Is the maintenance of the Nation's ownership rights compatible with a trend towards the adoption of the international oil industry norm and criteria? This trend should require an homogenization of regulatory and institutional systems in the case of a symbiosis like the one is beeing established between U.S.A and Canada. However, even in the latter example, a total homogenization is not achieved.

In summary, three main points can be brought forward :

- the role of the 1938 oil nationalization in the foundation of the Mexican economic and political system explains the country's discrepancy to the norm;

- this institutional aspect should not be conceived simply as an internal rigidity that ought to be discarded in order to achieve the norm of transnationalization. This measure had an important role in the foundation of Mexican economic and political cohesion on which the capacity for any government to develop reforms rely. It is precisely the respect of these strong institutional elements that can allow to implement reforms.

- If Mexican oil industry have not until now adjust more to the norm of transnationalization it is because certains institutional aspects, which seem dysfunctional in relation to this norm, continue to play a determinant role in the country's social, political and economic cohesion. A country undergoing a severe economic and political crisis while attempting to rework its social and institutional contract, has to identify precisely the institutional aspects that are to be changed radically and those that are to remain, since they form the basic requirement for the country's survival as a nation.

Accordingly, it could be productive to analyze the country's evolution in terms of a peculiar transformation and opening of the oil industry, a ***sui generis*** adaptation to the transnationalization norm. Nations together with their ideology and institutions are presently confronted with a globalization process within which they have to deal and to negotiate. This leads to the abandonment and/or the redefinition of certain aspects of their institutional endowment and heritage. Mexico is a good illustration of the latter evolution, since this country is at present trying to explore new combinations between past and future trends, between local and global scales. The globalization process is not free from power and domination aspects. These have to be analysed in terms of a new, diversified framework where states, firms, markets and local agents interact in order to improve their situations and exploit new ideas, technologies and opportunities.

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