The failure of introducing market institutions in a rent sector into an economy in transition

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Abstract

Privatisation is at the heart of the structural reforms for economies in transition. In theory, the main aim of privatisation is to change the structures of corporate governance in order to improve the efficiency of the enterprises and to assure their long-term future in a competitive environment. The adoption of formal market institutions would be sufficient to secure the new property rights, in particular because the new holders of the rights to control assets would have a great incentive to encourage the definition of new judicial rules that would guarantee their rights of ownership. In Russia that didn’t happen.

The paper discusses the narrowed vision of institutional change, without consideration of the previous environment of formal and informal institutions, and the need to put together the institutional infrastructure that is needed for the market institutions to function. It offers explanations of the “unexpected” results of the reforms in a capital-intensive natural resource industry, namely the hydrocarbons industry characterized by the opportunity of rent extraction by the exportation. It demonstrates right holders’ interest for the weakness of the “rule of law”. It demonstrates that the incompatibility of these institutions with the initial informal and formal institutions has led to adaptations that are strongly path-dependent, under the need to preserve a minimum of inter-industrial coherence.

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Privatisation is at the heart of the structural reforms recommended by the so-called “Washington Consensus” for economies in transition. The term defines the full range of measures recommended by the IMF and the World Bank for providing financial support for the restructuration of the economies of the East and South. Privatisation is the third and last aspect of the famous threefold process consisting of macroeconomic stabilisation, market deregulation (capital, change and sectorial monopoly) and therefore privatisation. However, implementation of the privatisation process has led to two problems and is being criticised as such by a growing number of sources, including the widely works of J. Stiglitz, former Vice-President and Chief Economist of the World Bank (1998, 1999, 2002).

On one hand, the measures that underlie this consensus indicate a narrowed vision of institutional change, which is seen as the adoption of a certain number of market institutions without consideration of the previous environment of formal and informal institutions, and the need to put together the institutional infrastructure that is needed for the market institutions to function. On the other hand, the issue of the order in which the reforms are made is usually ignored. Priority has been given to macroeconomic stabilisation with controlled inflation. The reforms implemented at sectorial level in order to favour industrial restructuring and rapid improvements in productivity have been partial, with the emphasis being on privatisation alone. By not paying attention to other such fundamental issues as progressive price liberation and development of competition, the possibility of additional incentives aimed at steering enterprises strategies towards productive efficiency is being suppressed. Therefore, the newly privatised monopolies or oligopolies still have a significant capacity to limit subsequent regulatory changes in the field of competition.
In theory, the main aim of privatisation is to change the structures of corporate governance in order to improve the efficiency of the enterprises and to assure their long-term future in a competitive environment. To do this, it relies on a bankruptcy law the function of which is to ensure the “tightening” of enterprises’ budgetary constraints. In Russia, however, privatisation has been generalised while the judicial environment is still not adapted to consolidate trade deals or guarantee the credibility of new business management structures, and other institutional reforms of greater importance for incentives, such as those mentioned above, are being neglected.

One of the suppositions of the Washington Consensus is to predict a rapid improvement in macroeconomic and sectorial aspects of economies through the sudden introduction of market institutions and privatisation (the “shock therapy”). On the contrary the institutional critics of the reforms are seeing a great deal of uncertainty in relation to the results of the reforms (Roland, 2000). One of the main hypotheses is that the reforms do not necessarily lead to increased efficiency, as the effects of the reform process are largely undetermined, most notably because of the initial incompatibility between the new market institutions and the informal institutions that are slow to evolve. Rather, the process should be gradual and adaptive, in keeping with Stiglitz’s suggestions.

In this paper we will be looking at the reform of a capital-intensive natural resource industry, namely the Russian hydrocarbons industry. The theoretical aim of this reform, which was based in principle on privatisation, was to set up a growth scheme within the industry, based on significant improvements in productivity and passing through major structural reforms, allowing the investment necessary for renewal of oil and gas reserves and the development of the major infrastructures. This sector has been chosen because of the extreme unsuitability of the measures recommended at sectorial level by the Washington Consensus for the
institutional environment. From the reformers’ point of view, the emphasis was on the modification of property rights of enterprises. However, being a major source of income for the enterprises through exports, and also being the main source of income and tax revenue for the State and Regions of the Russian Federation (53% of exports in 2001), the industry is a classic case of opportunist behaviour of the private and State actors to suit the market institutions in the economy in transition\(^2\). The choice of this sector is all the more justified because over different transition countries there is a clear correlation between the unprotection of ownership rights in the general sense and the abundance of natural resources for exploitation and exportation (Hoff & Stiglitz, 2002).

Having defined the context for analysing the Russian hydrocarbon industry in terms of institutional unsuitability, we will analyse its privatisation and the limited performance of it in terms of efficiency and long-term strategy, essential in a resources industry for reconstituting reserves. We will then explain the surprising results of the privatisation process by analysing the market institutions that were grafted into an institutional environment very particular to the Russian economy. Finally, we will show how the incompatibility of these institutions with the initial informal institutions has led to adaptations that are path dependency, with the need to preserve a minimum of inter-industrial coherence.

I – THE ANALYTICAL FRAMEWORK: INSTITUTIONAL INCOMPATIBILITY

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\(^2\) Some have gone even further. The exportations on international energy markets are the variable allowing a minimum liquidity level necessary for the Russian economic system in the context of a non-monetary economy. This is the argument developed by C. Gaddy and B. Ickes (1998) on the “virtual economy” in Russia. Beyond the controversy that this argument triggered, its interest lies in the link that the authors have shown between the existence of this source of liquidity, the demonetarisation of the Russian economy, the development of barter, and the absence (or weakness) of restructuring in the industrial sector combined with a lack of investment.
The reforms recommended by the Washington Consensus have led to a very specific definition of institutions and understanding of institutional change. This definition is based on the hypothesis of the “transfer” and the imposition by the State of theoretical institutional models referred on the basis of Western market economy practices (Hausner, 1995; Stiglitz, 1999). The institutions found themselves reduced to a set of formal rules, essentially of law, based on the adoption of a standard legislative mechanism (Roland, 2000): laws on privatisation, laws aimed at guaranteeing private ownership and securing the rights of shareholders and creditors, laws on bankruptcy, and laws on foreign investment. The function of these laws should, in principle, have been to clarify and guarantee rights of ownership in the context of their four aspects: the right of use (usus) of assets, the right to income from assets (usus fructus), the right to transform and alienate assets (abusus) and the right to transfer assets (Andreff, 1990). It is therefore assumed that the economic agents will alter their behaviour to adapt to the new rules of the game.

The concepts of “coherence” and “institutional complementarity” developed by the institutionalist and neo-institutionalist approaches (Aoki, 2001 in particular) allow the “unexpected” results of the reforms to be explained. In fact, only coherent “institutional arrangements”, with elements that enforce each other, will be viable. In this situation, the introduction of an institution can have unexpected results in terms of actor behaviour and structuring of industrial organisations. When market institutions are hastily introduced into an environment not appropriate to deal with them, coherence of institutions will be ensured by strengthening the judicial and regulatory environment necessary for the new market institutions to function on one hand, and by progressively reducing the differences between formal and informal institutions on the other hand.
- **Modifying the corporate governance structures**

Despite the priority given in the short term to macroeconomic stabilisation, to which reducing the budgetary deficit through the sale of public enterprises made a significant contribution, privatisation should be a response to a long term preoccupation: improving the overall productivity of the economy by transforming enterprises incentive structures and their corporate governance (Stiglitz, 1998). According to the theory of ownership rights and the principal-agent model, the existence within a planned economy of public ownership and more generally of poorly-defined ownership rights leads to an insufficiently controlled system of incentives that is therefore inefficient (Shleifer, 1994). The new ownership rights should generate a system of incentives that induces improvement in the enterprises’ efficiency, either because the ownership structure is dominated by insiders (managers and employees”, or because it is dominated by outsiders (banks, institutional investors, foreign investors or individuals).

The problem of incentives linked to an insider-dominated control structure can be resolved by additional mechanisms of governance. The first is the banking institutions working through credit facility mechanisms. In this way, the European capitalist systems combine a structure with shareholders dominated by insiders, finance from banks and a corporate governance structure, all supported by bankruptcy mechanisms (Aoki & Kim, 1995).

After the initial mass privatisation phase, management through supervision by banks was sought following the *Loans For Shares* programme. It was seen as an effective incentive structure that could be coupled with application of the bankruptcy laws. The reasoning went beyond that, referring in addition to specific organisational models that justified a certain
level of industrial concentration under the aegis of financial holding companies. These companies were reckoned to encourage efficiency of production and profitability by the firms within their group, on the basis of the industrial and financial model observed in Japan and Germany. This carries the assumption that the banking system has the same level of financial and institutional maturity as in Germany and Japan, with stabilised and credible banking charter rules that comprehensively cover their functions as lenders and creators of money, and with sufficiently developed financial resources. It will however be remembered that in the Soviet era the banks were not market institutions; instead, they received savings and allocated loans on the basis of ministerial orders, and were not responsible for granting loans, for monitoring the profitability of projects and overseeing repayments (Bensimon, 1996). Given this initial situation, it is evident that the original banking law was not suitable for ensuring that the new banking institutions would perform credibly. Instead, a whole new set of codes and consolidation rules had to be progressively put together, a process that took several decades in the market economies (Stiglitz, 2002).

- **The need for institutional infrastructures**

This refers more generally to the need for a judicial and regulatory framework that ensures that contracts will be implemented and respected, disputes resolved, bankruptcy procedures followed, the rights of minority shareholders honoured, and the management rules governing deals between insiders and companies\(^3\) as well as banking regulations aimed at keeping banks solvent and maintaining their functions as lenders compiled with. There is a need to make ownership rights safe through the application of laws, a process that Anglo-Saxon tradition refers to as *rule of law*. This supposes, in addition to the fact that ownership rights are

\(^3\) The self-dealing rules that cover internal deals between insiders and companies must be capable of being monitored by a stringent legal framework so that asset stripping and breaches of trust can be avoided (Blake & al., 2000).
properly defined and consolidated, that there is wide-open access to the ownership rights and to the regulations for resolving disputes over ownership rights (Hoff, 2000).

The policy recommended by the Washington Consensus is based on two major institutional presuppositions. On one hand, the institutions and market rules developed in the market economies, in accordance with economic theory, are instantly transferable. On the other hand, the additional market institutions, which will consolidate the ownership rights, will be created spontaneously as a result of the privatisation process. The hypothesis developed most notably by A. Shleifer and R. Vishny (1994, 1998), who played a key consultative role with the Russian reformers, is that the new holders of the rights to control assets have a great incentive to encourage the definition of new judicial rules that will guarantee their rights of ownership. They will therefore use their influential power to promote laws and regulations allowing more precise definition of ownership rights. The Russian privatisation processes, however, have not allowed the hypothesis put forward by these authors to be verified. The new holders of the ownership rights did not look to consolidate or develop the market institutions, a process that would have allowed them to consolidate their ownership rights (Hoff & Stiglitz, 2002). The explanation is that because of the gains to be made from the “institutional fuzzy set” and the manipulation of the market institutions by the dominant actors, it was not in their interest to consolidate the rule of law for as long as the opportunity to profit from the “muddle” existed.

The consequence was the self-perpetuation of this situation of vague and unstable rights. In fact, the new laws and the way in which they were capable of being used for privatisation ran up against the general problem of “legitimacy of the new institutional order” (Kozul-Wright

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4 “Privatisation offers an enormous political benefit for the creation of institutions supporting private property because it creates the very private owners who then begin lobbying the government (…) to create market supporting institutions (…). Such institutions would follow private ownership rather than the other way round” (Shleifer and Vishny, 1998, p.10-11).
& Rayment, 1997). The transfer of rights of ownership to certain banks was nothing more than despoilment of public property, and such transfers were disputed for a long time afterwards, as will be seen later. Some writers concluded from their analysis of the new Russian institutions that “corruption, a weak State and ineffective laws have made private ownership inoperative” (Freeland, 2000).

- The distortion of the new formal institutions: the need to maintain social and inter-industrial coherence

It is also important to know whether the formal institutions are working with or against the informal institutions (Nee, 1998; Pistor, 1999). If they are working against, there may be a continuation of the “path dependency” in relation to the old institutions. In the case of the Russian economy, two major factors are working in this direction: the need to maintain a minimum of social cohesion, and therefore a need to maintain minimal preservation of previous employee relations on one hand and a need to maintain minimal inter-industrial coherence on the other hand.

The first aspect of path dependency is found in the practices of the planned economy in relation to management of employee relations, these carefully structured practices being based on the principle of guaranteeing full employment. The result has been the continuous attempts to protect the work force as far as possible against the cuts that would have been caused by the considerable reduction in industrial output. Non-payment of salaries or very low payments are the commonest forms of making adjustments to the workforce, in contrast to the market economies’ practice of imposing dismissals (Earle & Sabirianova, 1999). It is the result of an
agreement between the employees, the businesses, the State and the local authorities\textsuperscript{5}. Because of this, trading relations in the energy industry are largely replaced by relations of forced supply or barter, in order to prevent bankruptcies of enterprises that are not able to pay their inputs.

The second aspect of path dependency that arises from the need to maintain minimal inter-industrial coherence is the preservation of inter-industrial relations that allow a sector to produce, regardless of the model of privatisation applied. In the planned economy, in which the concept of enterprise does not exist, one is dealing with administrative and centralised hierarchies in which the basic unit is the production association, a simple technical entity controlled by the ministers and by Gosnab. After the controlled economy disappeared, the need for minimal industrial coherence also helped consolidate non-trading relations between new businesses. This factor had a spontaneous effect on the outlets in the hydrocarbon industry, which was a supplier of a basic input. In the face of the fundamental uncertainty engendered by the collapse of the planned economy, the organisational forms that emerged spontaneously were of two types: vertical integration through the grouping of the entities created by the disappearance of the ministries, and informal networks based on the barter that restructured the relations between actors by removing the formal contractual relations.

It is therefore because of this combination of factors that the laws and market institutions introduced have not led to the same behaviour as those noticed in the market economies and their introduction has led to unexpected results in relation to the theoretical model on which their adoption was based. We will now show what is demonstrated by the Russian example.

\textsuperscript{5} S. Brana et M. Maurel (2001) show that all the actors have some interests in this process of adjustment: the Federal State and the Regions have some political interests, the employees enjoy some social advantages in the enterprises and enterprises can negotiate some advantages with the State and the Regions.
We have a specific “process of appropriation” of the market economy rules. The process is characterized by path dependency to anterior planned economy practices. The practice is determined not by laws alone, but by interactions between laws and informal institutions in the case where the new laws do not have great legitimacy.

**II – METHODS OF PRIVATISATION IN THE HYDROCARBONS SECTOR**

The main objective of reform in the hydrocarbons sector is to ensure increasing oil and gas production on the base of significantly gains of productivity and the renewal of the hydrocarbon reserves as is the practice of all oil companies in resource-rich countries. This will presuppose work on modernisation, restructuring and investments, all of which have to be financed. It was believed that privatisation will allow fulfilment of this objective by introducing a new system of incentives, but subject to the condition that the two other axes of reform, namely the introduction of competition and price reforms, are realised; this has not however been the case. The reforms that have been defined, on the basis of the old centralised administrative hierarchies (the ministries), have maintained a monopoly of production and transportation in the gas sector (the gas company Gazprom), and created an oligopolistic structure in the oil sector. The particular feature of this structure is that it leaves each company in a state of quasi-monopoly over its regional market (Khartukov, 2001). The foreign companies have been kept out of the privatisation movement, so that the State and Regions can maintain control over gas and oil income and, armed with that pretext, allow private Russian interests to come together and avoid the creation of a reliable judicial network in the process.

2.1. The two successive types of privatisation
Privatisation is carried out successively in two different ways: mass privatisation, which allows considerable power of control to the insiders, and privatisation towards new banking institutions, with unexpected results in terms of efficiency.

- **Mass privatisation**

In the oil industry, the initial phase of the “corporatisation” process transformed the old production, transportation and refining units, which were the basic units of the Ministries of Oil, Transport and Refining, into shareholding companies. These companies were grouped into financial holding or “joint stock” companies, according to a vertical integration scheme. In the gas industry, Gazprom held 100% of the shares of the main production associations now transformed into stock companies and 100% of the shares in the transport company Transgaz. It also holds the monopoly over Russian gas exports and 100% of the shares in the foreign trading company Gazexport (which manages in particular the European gas contracts transferred to the holding company). In the oil industry the holding companies (Lukoil, Yukos, Surgutneftegaz, Sidanko, Sibneft, Slavneft and Tyumen Oil Company) are integrated from production through to distribution, via refining.

The process then passed through a mass privatisation stage in 1992-3, in the same was as other sectors, but the shareholding constituted was dominated by two groups of insiders, the managers and the employees. The initial privatisation scheme for the oil production and

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6 The 1992 Privatisation Law transformed public enterprises into shareholding companies (“corporatisation”), initially held 100% by the State through the Federal Property Fund. The aim of this “intermediate” enterprises structuring system was to give the economic entities a separate legal identity from that of the ministries. These economic units had previously been “production associations”. The aim was to confer an economic value on the oil-industry assets (Blasi, Kroumova & Kruse, 1997; Hare & Muravyev, 2002).

7 Over 70% of Russian businesses chose a privatisation method in which 51% of shares in the business were offered to employees at a preferential rate. The remaining 49% were sold at auction or are still under State control awaiting subsequent sale.
refining companies transferred 40% of shares to employees and managers, 5% going to the directors and 35% to the employees, with 25% preference shares being distributed free of charge (see Table 1). Only 17% of the shares were issued to the public through stocks that could be exchanged for privatisation certificates. In the gas industry, 10% went to the directors of Gazprom and over 20% of shares in the holding company itself were transferred to employees. The energy sector is however different from the rest of the industrial sector in that the State retains a significant portion of the shares. Although not a majority shareholder, the State held 45% of the shares in the oil holding companies until 1995 and remained the dominant shareholder in Gazprom, with 38-40% of the shares (the holding increased to 51% in March 2003 as part of the Government’s policy of maintaining control). This method of privatisation has in fact led to power of control being given to the directors.

Table 1: Initial ownership structure scheme for oil holding companies

This formal transfer of ownership rights does not lead to equivalent changes in the governance structures, especially with regard to the essential issue of control (Earle & Estrin, 1996). The employees, who are important shareholders in the oil production companies, exercise very little control over these structures. In the same way, in the gas company, the State, at least until the coming to power of V. Putin, essentially remained a passive shareholder despite its dominant position. Conversely, although they held only a minority of shares (5% in the oil companies, 10% in the gas company), the managers had very significant powers of control in this first period.

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8 The rest, that is 38% of the shares in the production companies and 38% of the shares in the refining companies, have been transferred to the holding company (see Table 1).

9 The Russian State held 44% of shares in Gazprom until 1998 and 38.37% from 1998 to 2002, divided between the Ministry for State Property (35%) and the Federal Property Fund (3.37%).
The explanation for this is the rapid disappearance of management and public control skills following the loss of the main institutions of the planned economy (the distributing organisation of inputs Gosnab, the planning bureau Gosplan, the sectorial ministries and the single bank system), and the great increase in numbers of shareholders from very different backgrounds; all this has allowed the managers to take over the total exercise of control. Later on, the issue of new shares by the managers of some of the oil holding companies (Yukos, Surgutneftegaz, Yukos, Sidanko and Sibneft) slightly lessened the power of the other shareholders but strengthened that of the managers.

- **Privatisation towards the banks**

In its second episode, privatisation was the result of the need for funds to finance the 1995 budgetary deficit and the influence of a small number of financiers closely allied to the Yeltsin government. For the first time, the Russian State borrowed from a number of different banks rather than from the Central Bank. These loans were granted under the security of the State’s involvement in a number of different industrial sectors, and that, combined with its critical solvency situation, could lead only to the appropriation of the State’s shares by the banks in question\(^{10}\). A purely formal auction procedure for their sales followed with very low share prices which provokes from 1998 to 2001 a recursive political questioning of its legitimacy. This questioning had the effect of weakening ownership rights, as will be seen further on. The *Loans For Shares* programme marked the effective privatisation of the holding companies in favour of the Russian banks and financial institutions, and the system

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\(^{10}\) This *Loans For Shares* system initially gave them temporary control (for three years) over the majority of the State’s shares in these businesses in return for the opening of credit facilities for the Government. At the maturity date, the State has a priority repurchase right over the shares in return for repayment of the loans. Otherwise, once an invitation to tender process has been completed, the shares shall be definitively purchased.
led to the emergence of several powerful industrial and financial groups. With the exception of Rosneft and (until December 2002) Slavneft, which are still mostly State-held, the Russian oil industry is now a private industry structured around seven banks: Uneximbank, the Logovaz Group, SBS (Stolichny Bank Sberezhnii) / Agro Bank, Imperial Bank, National Reserve Bank, Alfa Bank and Menatep (see Table 2).

*Loans For Shares* was a turning point in Russian privatisation. Beyond the financing of the State’s budgetary deficit (which was in fact greatly reduced because the shares were sold off) and the transfer procedure, which was very much open to criticism, the constitution of the industrial and financial groups in this way found its justification through the liberal reformers and their advisers through the interest of modifying ownership rights in favour of outsider banks. According to the principal-agent model, this transfer was reckoned to increase the efficiency of the corporate governance structures through ownership that was dominated by outside shareholders, in this case the banks. The banks, which submitted the holding companies to their financial management criteria, should have favoured the definition of restructuring and rationalisation policies through “governance by intervention”. This would have allowed them direct control over the enterprises, in contrast to simple governance by objectives. In this case the business’s strategic choices are defined by the capital market incentives (Bergloff, 1995). A second justifying objective was to favour the establishment of an intra-group finance arrangement, necessary for development in a sector with considerable financial needs (Starodubrovskaya, 1995) in a situation where capital was thin on the ground.

**Table 2: The shareholdings in the main Russian oil and gas holding companies in 2002 (as %)**
Some of the industrial and financial groups have been constituted on the basis of these direct or indirect acquisitions by the banks in the oil holding companies’ capital. These include Yukos, held 85% by Menatep Bank (through Rosprom); Sidanko, held 85% by Interros-Oil; Sibneft, 51% held by FNK; and Tyumen Oil Company (TNK) held 51% by the consortium of Alfa Bank and Access Industries Renova. The other groups have an industrial basis, the shareholding banks in the group having been created by the holding companies themselves. Gazprom, Lukoil and Surgutneftegaz best represent this scheme (Locatelli, 2001). The difference will show itself in the way the businesses perform.

2.2. Unexpected results of privatisation: the distance to the theoretical model

The question is one of knowing whether the changes to ownership rights brought about by the privatisation programmes have satisfied the aims that were allocated to them. It should be remembered that the aim was to alter the agents’ incentives in order to guide them towards efficiency-related behaviour likely to lead to large-scale restructuring and this improve enterprises’ performance. In the studies relating to countries in transition, the term “enterprise restructuring” describes all the processes undertaken by enterprises to adapt themselves to market economy conditions. It is still difficult to characterize the level of restructuring, which has been the subject of differing methods of evaluation. The methods are centred either on the enterprises’ decision-making processes (changes in the structures of corporate governance and management, investment rates etc), or on the performance level measured in terms of productivity, profit and sales development (Djankov & Murrell, 2002). For the Russian hydrocarbons industry, we are mainly interested in the capacity of investment in exploration-production and in the infrastructures (refining, pipeline networks etc).
- Privatisation by insiders

The empirical studies carried out on privatisation by insiders in the whole of the CIS (Commonwealth of Independent States) and also in ECE (Eastern and Central Europe) (Djankov & Murrell, 2002) concluded mainly that this type of privatisation did not have any significant benefit on the improvement of the enterprises’ performance, especially in the area of restructuring. It may even have had a negative effect in the countries of the CIS\textsuperscript{11}. In the Russian hydrocarbons industry, as in all sectors of industry, rapid privatisation by insiders has led to a huge problem of enterprise governance (Andreff, 2002). These factors, combined with the specific employment-related choices made by the State and the Regions, greatly restricted the scope of so-called strategic and non-defensive restructuring. Alliances with the regional authorities prevented outsiders from taking any form of control that might have restructured the enterprises and thus brought into question the issue of total employment, particularly by foreign firms (Lambert-Mogiliansky & al., 2000).

This method of privatisation has not therefore allowed any real restructuring of the hydrocarbon sector, and has done even less to guarantee its medium and long-term development. The drop of almost 50% in Russian oil production between 1988 (568 Mtep) and 1996 (301 Mtep) has not been countered by any significant restructuring in the industry. In particular, none of the production companies created has ever been declared bankrupt. The evolution of the deposit productivity shows that increases in efficiency remain limited (Locatelli, 1998). Problems of modernisation and maintenance have led to the closure of many operative wells and a decrease in average productivity per deposit from 18.5 t/d in 1985 to 7.3 t/d in 1998. In addition, the renewal of oil reserves is far from being guaranteed, in

\textsuperscript{11} A synthesis of these empirical studies can be found in S. Djankov, P. Murrell, 2002, \textit{op. cit.}, p. 739-792.
view of the 3.5-fold collapse of investments in exploration between 1989 and 1994 (Konoplyanik, 2000). Volumes discovered annually have mostly been lower than volumes produced. As recently as 2001, after the second privatisation phase, the increase in reserves was a mere 290 Mt compared with an oil production figure of 348 Mt (Fontaine & al., 2002).

Table 3: Changes in annual exploration activity in Russia

(Average in millions of metres drilled per year)

- Privatisation by outside shareholders

The involvement of the banks in the oil holding companies’ capital has significantly altered their attitudes to restructuring and productivity, but on a speculative basis and in the short term in both cases. The period (1995-1998) where the state shares of the holdings have been transferred to banks in the context of the Loans For Shares programme is very specific. The enterprises behaviour is largely characterized by the search for liquidity. This implies the maximisation of the oil rent extraction. The aim of this move was first to obtain an immediate valuation of the shares on the international markets through maximisation of export income and the holding of foreign currency income by offshore companies. The long-term concerns, which found expression through policies of investment in modernisation of assets and renewal of reserves, have largely been ignored.

The banks have not fulfilled their task of control. The structure of the ownership of the companies and banks has not been clarified, especially in relation to rights of control by directors, movements to offshore subsidiaries etc. In contrast to the control capacity, their presence has led to an absence of industrial control by offering easy and almost free access to internal bank credit facilities and allowing the enterprises to survive without restructuring.
Sometimes they have brought about circumstantial diversification at the request of the bank, an example of this being Sibneft’s shareholding in aluminium production.

The evident paradox of this behaviour, however, is the improvement in productivity in existing deposits since 1998, the year in which the banks were able to purchase the shares that they previously held, at ridiculously low prices. Some companies (Yukos, Sibneft, TNK) made specific investments in the improvement and renovation of the installations (especially in the rich Western Siberian deposits) by using Western technology through service contracts signed with major international oil-associated companies such as Schlumberger and Halliburton. The recovery in Russian oil production from 305 Mt in 1999 to 360 Mt in 2002 is mostly attributable to this strategy. It does not however guarantee that this improved performance will be continued, as there has not been sufficient exploration.

There are however noticeable differences in the strategies of these holding companies, between those whose principal shareholder is a bank created by the holding companies themselves (Lukoil, Surgutneftgaz) or those whose principal shareholder is an “outside” bank (Yukos, Sibneft, Sidanko, TNK) (Locatelli, 2001). In the first case, the holding companies have attempted to maintain long-term investment policies with the aim of renewing their reserves. Lukoil’s successive purchases have allowed it since 1998 to take control of the companies that hold the deposits in Russia’s northernmost regions where it did not have a presence and to diversify into the republics of Central Asia. In the second case, the stress has been on the short-term investment policies, the aim of which is to increase immediate production on the deposits being worked and on the policy of repurchasing companies through “asset-stripping” (artificial bankruptcy with repurchase) in order to acquire new reserves. Sibneft (but also Yukos), best represents this strategy with the enforced bankruptcy
of two of Sidanko’s production subsidiaries in 1998 and 1999. These were purchased by TNK (Tyumen Oil Company, see below). This, however, can also occur through more standardised procedures such as the joint purchase at auction in 2002 of public shares in Slavneft, the eighth largest producer, for $1,900 million by Sibneft and TNK, followed by the partitioning of its production assets, or the merger of Yukos (the second largest) and Sibneft (the fifth largest) in April 2003 to create a company with huge reserves in Russia but no international establishment.

- The semi-privatisation of Gazprom

Between the gas sector, characterised by the partial privatisation of Gazprom at 51%, and the oil sector, characterised by near-total or total privatisation of the oil holding companies’ capital (apart from Rosneft), the performance levels in terms of restructuring are not noticeably different. However, the gas company has retained a long-term industrial strategy that contrasts with the strategies of the oil companies dominated by the outside banks. The search by the directors for individual income for themselves was limited in comparison to the actual size of Gazprom (523 Gm$^3$ sold in 2000, 130 Gm$^3$ of this in Europe)$^{12}$, allowing the logic of maximising production to be expressed in the context of financial restraints on the company. Despite the restraints arising from non-payments and from low interior gas prices, the company endeavoured to maintain a certain level of investment in production and in infrastructure, without however being able to carry out the desired developments on the huge Yamal project in Northern Siberia. Gazprom has however managed to keep its production

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$^{12}$ The directors of Gazprom have also followed a policy of opacity in some areas. They created an independent American company known as ITERA in 1997, and its unknown holders derived a certain level of income from Gazprom’s production (it produced 23 Gm$^3$ in 2002). It was thus granted part of Gazprom’s contractual undertaking in relation to the least solvent export markets, namely the markets of the former CIS. It delivered 46 Gm$^3$ there in 2000); and meanwhile, delivered 33 Gm$^3$ in Russia. The Federal Government’s reasserting control over Gazprom in 2002-03 led the authorities to transfer the main production assets of ITERA (the company Purgaz) to Gazprom.
levels relatively stable, in the region of 585-600 Gm$^3$ of gas. The renewal of Russian gas reserves is assured\textsuperscript{13}. The 1990s saw the commencement of production from major deposits such as that at Zapolarnoye, and Gazprom has continued with the costly development of its network of export pipelines with the Yamal I project (which passes through Belarus’ alongside the Euro-Siberian pipeline aimed at the European markets) and the Blue Stream Pipeline (a pipeline that passes under the Black Sea to the emerging Turkish market, managed in association with the Italian company ENI). The explanation for this is its large financial spread, which has come about because of its significant foreign currency income from Western Europe.

In general the strategy of maximising income in the very short-term can therefore be explained principally by the difficulty of valuing oil and gas products on the interior market and by the low level of protection of ownership rights through the rule of law.

\section*{III – UNCERTAINTY OVER OWNERSHIP RIGHTS}

The particular features of the Russian institutional and economic environment provide an explanation for the failure of privatisation in the hydrocarbons sector from the point of view of restructuring and improved productivity through the tightening of budgetary constraint and the setting up of a true corporate governance for enterprises. Three factors have played a decisive role: the existence of non-monetary relations and maintenance of prices at a low level, uncertainty over rights of ownership to industrial assets and resources, and the process by which certain rights of ownership seen to be illegitimate (speed of initial allocation of the right to develop and exploit deposits in 1991-92 and transmission of ownership rights under

\textsuperscript{13} In 2002, discoveries of gas reserves totalled 634 Gm$^3$, that is, a figure higher than the year’s production figure of 595 Gm$^3$ (Fontaine & al., 2002).
the Loans For Shares programme in 1998). The first factor weakened the right of usufruct associated with the ownership of a licence to exploit deposits, by limiting income and creating considerable uncertainty linked with the State’s discretionary control over administered prices and the allocation of export quotas and access to export networks. All these regulatory mechanisms are a mean for allocating rights to export income between competing enterprises. The other two factors, which are the consequences of the weakness of the rule of law, led to the practice of cash stripping, aimed at increasing the value of existing assets as quickly as possible, and the predation of assets through asset stripping followed by efforts to increase the value of assets quickly.

3.1. Uncertainty over the right of usufruct over resources

The absence of deregulation of energy prices, and the phenomena of non-payment and barter, have severely restricted the rights of ownership over resources and the opportunity to earn the necessary income from sales on the domestic market in order to reconstitute reserves and renew infrastructures. These factors define an “hold-up” situation as defined by O. Williamson (1985). The operators who invest are wholly exposed to the discretionary risk of price policies and to the opportunism of some purchasers of gas or oil products. To this situation must be added the effect of the discretionary nature of the attribution of rights to exports, which is the privileged mean for increasing the value of production: that is, the level of general quotas for exportable quantities and the discretionary regulations for access to export infrastructures.

14 K. Hoff (2000) shows that when the rules necessary for consolidating the market institutions are not in place and when the privatisation process creates rights of control that are perceived as illegitimate, the result is cash stripping, aimed at increasing the value of the existing assets as quickly as possible, and predation of assets through asset stripping, which is also followed by a rapid increase in asset values.
With regard to deregulation of prices, the restrictive monetary policy pursued by the Russian Government following the IMF’s recommendations in the early 1990s led to a reduction in direct State grants to industrial enterprises (Boycko, Schleifer & Vishny, 1996). At the same time, however, the very restrictive controls on the money supply led to large-scale development of non-monetary relations such as barter, inter-company credit and non-payment. In the energy sector, these non-monetary relations are types of grant given to consumers of oil products and gas. They are maintained in spite of the steady monetarisation of the Russian economy and the decrease of non-payment in most areas by the end of the 1990s.

This shows the currently difficulty in Russia of agreeing to pay for energy resources. Not only is there the problem of solvency in a population that is mostly very poor, but there is also the distinctive behaviour of the industrial and commercial consumers that are solvent. It should be remembered that under the planned economy system, energy was always considered to be practically a free resource. This informal institution is still being applied today, despite the reforms aimed at deregulating energy prices by breaking “path dependency”. The efforts made by the liberal government of E. Gaidar in 1994-5 to increase the administered prices in the gas sector\textsuperscript{15} and introduce gradual deregulation in the oil sector\textsuperscript{16} were offset by unprecedented increases in non-payment and barter with enterprises and regional authorities. Subsequently, whenever the prices were raised, the rate of non-payment increased almost mechanically. A few figures reveal the magnitude of the phenomenon. During the 1990s, only

\textsuperscript{15} As the gas sector is dominated by a State monopoly, prices are regulated by the Federal Energy Commission and in the text, according to the \textit{cost plus} principle.

\textsuperscript{16} Until 1992, oil prices only benefited from centrally administered rises that were mostly below the level of inflation. In May 1992 a price ceiling system was introduced, and above this ceiling a higher tax rate was imposed. In July 1993, the ceiling was replaced by the restrictive \textit{cost plus} regulations. From 1994 onwards, prices were progressively deregulated but a rate that could be adapted for exports was maintained, the object being to bring world prices and interior prices as close together as possible and thus limit export incentives and avoid hardship on the interior market.
10-20% of domestic sales of oil and oil products were paid for in currency, and these payments often benefited from discounts as high as 50% (Bobylev, 1997). In the gas sector, in 1999, monetary payments accounted for only 18.5% of Gazprom’s interior sales; promissory notes accounted for 4.9%, barter for 28.9% and clearing agreements for 38.2% (OCDE, 2000). The beginning of the 2000s, however, showed a marked improvement in energy exchange monetarisation, but real prices were kept far below the cost that could have been set, both in the oil sector and in the gas sector. In 2001, for example, gas prices were $10 per 1,000 m$^3$ for domestic consumers and $15-16 per 1,000 m$^3$ for industrial consumers, compared with an average of $120 per 1,000 m$^3$ for exports to Western Europe (Butler, 2002)\(^{17}\). However, the correlation between discipline of payments and energy prices remains, posing a major restriction on any large-scale reform in energy prices.

The reform of the gas industry (introduction of competition, de-integration of gas companies, etc.) is continually bumping up against the acceptability and feasibility of a major increase in gas prices. Without the price rises, however, the profitability of the gas industry actors is not guaranteed, and that makes the advent of competition illusory and the reform insubstantial. With current prices, the oil companies that could compete against Gazprom in the field of gas production do not have the necessary incentive to start production\(^{18}\). In order to get round the restrictions on acceptability, the reform planned in 2002 but almost immediately abandoned provided for the creation of a two-tiered market: one tier with free prices largely reserved for new entrants, and the other with prices regulated by the Federal Energy Commission and

\(^{17}\) See also Petroleum Economist, February 2002, p. 40. It should be added that according to the World Bank, the marginal long-term cost of Gazprom’s deposits is between $35 and $40 per 1,000 m$^3$. That is, an average of twice the price currently fixed by the FEC. The Moscow Times, 12 February 2003.

\(^{18}\) The incentive to invest is less as the production costs related to the deposits that are likely to be developed largely exceeds those of the “super-deposits”, namely Yamburg, Urengoy and Medvezhe, developed during the Soviet era under accounting conditions that paid little attention to capital costs. The fact that Gazprom holds these deposits, which would guarantee it almost all the production, provides a very significant competitive edge.
required to be assured by Gazprom (Gas Matters, 2002). The independent producers could see most of their production realised on the unregulated market and thus benefit from prices much more advantageous than those devolving on Gazprom. Complete deregulation of gas prices could pass through this kind of system if the rule of law was likely to guarantee that it could be consolidated. However, in a situation of poor credibility of institutions, a number of factors call the feasibility of such a system into question. On one hand, siphoning of regulated (old) gas to the deregulated market will be difficult to control and would weaken the system immediately. On the other hand, the criteria for assigning purchasers to the free market would undoubtedly be the subject of bargaining agreements the outcome of which depends on the enterprises’ power to negotiate with the competent minister. The questions of competitiveness and increased exports for certain industries on the international market will greatly influence the definition of these criteria (Locatelli, 2003).

To sum up, the absence of price deregulation and the phenomena of non-payment and barter have placed severe restrictions on the right of usufruct, and this has had two linked effects: one, the enterprises have been encouraged to pursue a policy of maximising exports on the basis of existing assets, which has made easier by trade liberalisation, and two, the budgetary constraint on the energy enterprises has been reduced. The bankruptcy law is difficult to apply, as the State and the Regions are asking the energy companies to accept the situation in order to limit the number of bankruptcies amongst industrial concerns.

The first effect could create the impression that the possibility of exporting and benefiting from income from sales at international prices and in foreign currency would restore the right of usus and usufruct over natural resources. However, as already indicated, one would soon encounter the second difficulty, which arises from the restrictions imposed on export rules
that themselves carry an increased discretionary risk: fixing an export ceiling for the quantities produced but especially for the regulation of access to the infrastructures. There is in effect a regulation that limits each company’s gas and oil exports to 30%; in the context of oil, it is associated with a flexible tax on these quantities, aimed at limiting the incentive to export. In addition, in the production licences linked to new deposits still to be developed, the State is in a legal position to impose that a percentage of production will supply the domestic market. This will dissuade foreign applicant operators from becoming involved in Russian oil or gas production. Most significantly, however, the State controls exports of oil through the access authorisations awarded in a discretionary fashion the pipelines of Transneft, a public company. This opens considerable opportunity for bargaining and control games comparable to those that conditioned the sales of the enterprises’ capital. In principle, this is also the case with the Gazprom pipelines, which have legally been freely accessible to third parties since the passing of a law in 1997, but the control is exercised first and foremost by Gazprom itself, which has managed to dissuade competitors from entering in order to reserve the export markets for itself, with the more or less explicit consent of successive governments.

3.2. Uncertainty over enterprises’ ownership rights

The institutional environment in which the hydrocarbons industry was privatised has created insecurity with regard to the ownership of industrial assets, for two reasons: the doubtful legitimacy of the privatisation process and the manipulation of the law on bankruptcy, which it was believed would have to ensure consolidation of ownership rights.

In the first place, the banks’ ownership of the oil industry assets was uncertain for a long time, and to some extent still is. Initially, during the provisional period of the Loans for shares of
1995-7, there was considerable doubt over the right of ownership as the shares were likely to be returned to the State if the State became capable of repaying. In any case, the situation was not favourable for long-term investment as public and private ownership rights were interlinked and sometimes confused. Secondly, the method of allocation at the 1998 auctions was the subject of intense political controversy, because of the conditions of non-transparency under which the shares were repurchased from the banks at greatly reduced prices\textsuperscript{19}: the absence of an invitation to tender procedure, participation by the banks in auctions that they themselves organised (and were successful in), and non-realisation of planned investments in exchange of management by the bank of the state shares in the oil companies (Black \& al., 2000). Before Vladimir Putin came to power, the Russian Parliament tried on numerous occasions to revise the privatisation process, this continuing to weaken the rights of ownership and leading to a short-term behaviour pattern (Hare \& Muravyev, 2002). The compromise reached with the Putin Presidency since 2001 is the non-questioning of the allocations of these rights in exchange for less speculative behaviour and greater transparency in capital and in company management.

In the second place, the impossibility of valuing enterprises because of non-payment or barter thus complicates the exchange of ownership rights as it is no longer possible to value the enterprises. The relations of non-payment and barter prevent enterprises from being controlled by the financial discipline mechanism normally laid down by bank credit facilities. The criteria of profitability efficiency lose all their importance, and as a result, privatisation was not a sufficiently strong condition for the “tightening” of budgetary constraint on enterprises (Dewatripont \& Roland, 2000). These relations make it difficult to differentiate between profitable and unprofitable businesses. The situation implies large-scale transfer of assets

\textsuperscript{19} For example, Yukos shares increased in value by a factor of 67 between the 1998 auctions and 2002.
regardless of whether or not the business is profitable when restructuring becomes necessary. They have been able to lend a justification to the diversion from the spirit of the law on bankruptcy.

Consequently, the law on bankruptcy has been subjected to a general use that is completely removed from its original function. Industrial and financial managers close to the central political power use it to serve their strategy: maximising their income through the “appropriation” of the hydrocarbon rent (Zlotowski, 2002). In the hydrocarbons sector, the law on bankruptcy was implemented with this in mind. Used as a means of concentrating ownership, it led to the production companies without liquidity being declared bankrupt. These companies, however, have potential economic profitability because of their exports to international markets. The law did not help liquidate unprofitable businesses, but merely gave a legal form to transfers of assets. The transfer of assets through the acquisition of artificially bankrupted enterprises was the principal means used by Lukoil, Yukos and Tyumen Oil company (TNK) to increase their strength and reserves by avoiding involvement in tender procedures for the acquisition of new reserves. The case of Sidanko, which directly affected the interests of BP, the only Western company that dared to involve itself with the capital of a Russian oil company, is a very clear illustration of the despoilment of minority shareholders’ interests in the process and is explained more fully in the box. Quite clearly this is an extreme form of manipulation of formal market institutions.

The weakness of the rule of law revealed by the perversion of the bankruptcy law is also evident in the regulation of banking and financial institutions. The banks have done hardly anything to fulfil their role of principal shareholder control. They have not put together any alternative “effective” means of managing the oil businesses, in sharp contrast to the Japanese
and German industrial/financial group models that Russia intended to emulate. On the contrary, they were the initiators of the practices of cash stripping and asset stripping.

The perversion of the bankruptcy law reduced the transparency and clarity of the ownership structures, without doing anything to improve transparency and strictness of management or to take advantage of the benefits that the law should have brought about. The ownership structures of the oil holding companies, which are very complex, thus involve numerous offshore companies whose principal activity is to collect the income from exports as part of the liquid asset extraction strategy.

**BOX : The Sidanko Case and BP’s Problems in Russia**

**3.3. Uncertainty over ownership rights to resources**

Normally, as in almost every country, the Russian Constitution allocates ownership of underground resources to the Federal State, which then grants the rights of use and usufruct over the resources to private or public agents through the issue of licences for exploration and production. These licences define the rules for sharing the income through a royalty rate and a reserve renewal tax (Bosquet, 2002). The law on natural resources adopted in 1992, and the law on production sharing agreements adopted in 1995, are reckoned to give a legal framework to underground resource access and make the associated rights safe. The first law thus set up a system of licences for granting rights to explore and develop deposits of hydrocarbons, on the basis of sales by auction through tender. Two specific provisions, however, contributed to a degree of uncertainty in relation to rights over natural resources.
In the first place, during the creation of oil and gas holding companies in the period 1992-1994, a series of development and exploration licences was granted to the companies without passing through the system of tender, in breach of the law (Kryukov & Moe, 1996). In consequence of that some of these licences are now being reallocated by the State on a discretionary basis. It is the case of some licences of development initially held by Gazprom and transferred in 1997 in mysterious circumstances to ITERA, the new company for marketing gas to the CIS Republics, created by the directors of Gazprom again in singularly mysterious circumstances. The take-over of the company by the Federal Government in 2001 has led to an authoritative reallocation of the main production asset of ITERA (namely the company Purgaz) to Gazprom.

Something similar occurred with the development licences for major deposits such as the Shtokman gas field in the Barents Sea. The production sharing agreement negotiated with Gazprom by a Western consortium led by Total was first questioned in 2002. The licence to develop the field, held by a subsidiary of Gazprom, was contested by Lukoil. Showing some reservation with the foreign operator present, the government nevertheless profited from the dispute by transferring the Shtokman development licence to another company, Sevmorneftegaz, jointly held by Rosneft and Gazprom\(^{20}\). By this method, through both Gazprom and Rosneft, the State has reasserted its control over key deposits in the Russian hydrocarbons industry\(^{21}\). It has also reallocated four important gas fields licences in the Arctic zone. A number of licences for oil deposits in Central Siberia and the Komi Republic, which

\(^{20}\) This company is held 50% by Rosshelf, a 52.7% subsidiary of Gazprom, in which Rosneft holds 12.55% of the shares, and 50% by Rosneft-Purneftegaz, a 100% subsidiary of Rosneft.

\(^{21}\) On this occasion, the government reorganised the allocation of licences for Arctic Coast deposits and in December 2002, reallocated development licences for four deposits (Prirazlomnoye, Kharampurskoe, Ety-Purovskoe and Vnygayakhinskoe) to Sevmorneftegaz. It should also be noted that another problem has risen, with the licence to develop the Vankor deposit in Central Siberia and other licences in the Komi Republic also being contested.
are under the control of Rosneft, are also being contested by other major Russian companies and could suffer the same fate.

In the second place, the allocation of licences is managed jointly by the State (through the Russian Commission for Geology and the Use of Underground Resources) and by the regional authorities. These authorities, in fact, have to give their agreement during the allocation process. This leads to a *de facto* sharing of ownership rights over resources, in the strict sense, between the Federal State and the Regions, which also have the power to impose a special tax regime on the resource. Because a provision of the law on natural resources allows the companies to obtain the licences without passing through the tender process in some cases, access to the resource becomes the subject of bargaining and negotiation between the companies, the Regional Authorities and the Federal State. The licences are therefore awarded on the basis of negotiations between the Federal State and the regions (as every licence has to be approved by the Regional Authorities), and this runs contrary to the principle of equity of law in relation to allocation through auction (Petroleum Economist, 1993).

With regard to the law on production sharing agreement, which was signed in 1995 and has been amended several times, it does not allow access to the resources of international companies as it was supposed to do, for two reasons. The barriers to establishing agreements are very important. Each of the agreements should be submitted for voting by the Duma. The regions also have a part to play, as a provision in the law states in fact that the regions shall determine the deposits that will be submitted for voting by the Duma with a view to being covered by production sharing agreement. There is also a risk of the agreement being called

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22 Two texts were competing with each other, one drawn up by the Economic Policy Commission of the Duma and known as the “Konoplyanik Project”, the other by the Ministry for Energy and Fuel. In the end, the first text was adopted.
into question. The Russian companies have frequently voiced their opposition to the production sharing agreements. The main reason for this is the need in such eventual agreements to ensure transparency in relation to costs and transfer prices, which they do not want at any price for tax reasons, wishing instead to retain control over internal transfer prices. On the other hand, as the regions are in a position to block the process once the list of deposits eligible for production agreements is finalised, bargaining between the Regions, the Federal State and the international companies becomes crucial and frequently ends in failure.

The involvement of the international oil companies remains very limited, at a time when they could be used to relieve the financial pressure on the sector and introduce technology. As of now, only three production sharing agreements relating to exploration and production have actually been implemented. Two relate to deposits on Sakhalin Island and the third relates to the Kharyaga deposit in the Timan-Pechora Basin in Eastern Siberia.

To sum up, the main actors have taken advantage of the confusion over ownership rights by maintaining it through “asset stripping”. In addition, the threefold uncertainty over rights of usufruct for exploration licences, enterprises’ ownership rights and ownership rights over resources, has been the determining factor in the companies’ strategy of immediate valuation of their assets. At the same time, the hypothesis put forward by K. Hoff and J. Stiglitz, according to which these agents are refraining from putting on pressure so as to encourage the reinforcement of the rules aimed at consolidating ownership rights, because of their interest in that area, explains the persistence of this situation.

23 The development of Sakhalin is the subject of two production partitioning agreements. Sakhalin I is headed by ExxonMobil (30%), by a number of Japanese companies grouped together in Sodeco (30%), and on the Russian side by Sakhalinmorneftegas-Shelf (23%) and Rosneft (17%). The production partitioning agreement was signed in 1996. The Sakhalin Energy Investment Consortium, responsible for developing Sakhalin II, consists of Shell (55%), Mitsui (25%) and Diamond Gas (20%). There is no Russian partner. The production partitioning agreement was signed in June 1994. Finally, the production sharing agreement for the Kharyaga deposit (in the Timan-Pechora Basin in the Nenets Autonomous Territory) was signed by the consortium consisting of Norsk Hydro and Total (operator) and on the Russian side, by Nenets Oil, held by the local authority and Lukoil.
This hypothesis is borne out by the fact that the opportunity for consolidation quite clearly existed, and indeed still does, with the possibility of Russia becoming a member of the Energy Charter Treaty, an international legal framework intended to make investments in the energy sector safe and set up with much effort following an initiative from the European Union involving OPEC, the countries of the CIS and almost all the countries of OCDE (Walde, 1995). Approved by the governments in 1999, this treaty has been awaiting ratification by the Russian Parliament ever since. The directors of the oil companies and of the associated banks, as well as the nationalist representations of the collective interest common to all the influential parties, all combined together to reject the framework. If reliably established in Russia, this international framework would require the enforcement of the rule of law, and this would favour the arrival of foreign oil companies. The government still has reservations on this, as almost all the Russian companies are anxious to avoid any demands to make rights safe and to provide transparency.

In the light of the legal and legislative uncertainty in Russia, some recent developments, especially the creation of a joint venture between BP and TNK in late 2002 with the British company prepared to invest very substantial resources, could reflect a significant improvement in the Russian legislative framework and increased security of ownership rights over enterprises (although this is still to be confirmed). However, the creation of the new private Russian company BP-TNK is being interpreted first and foremost as confirmation of the difficulty in accessing Russian oil resources in the light of the current law on production sharing agreements, which is a great deterrent to international oil companies. The only possibility, in fact, seems to be that of passing through a Russian company.
In the very distinct institutional situation in Russia, in which market institutions have been grafted into an environment not prepared to receive them, relations between economic agents in the energy sector are fashioned and determined by a very specific combination of the formal institutions with the informal rules and the specific co-ordination mechanisms left over from the planned economy practices.

- Continuous bargaining with different political and administrative levels

The bargaining relations with the federal and local authorities, which were an informal institution of the planned economy complementary to the formal networks of the Communist Party (Hoff & Stiglitz, 2002), persist despite the disappearance of the Party’s main institutions. Bargaining between the enterprises and their supervising minister or between the ministers and the centre were traditional behaviour patterns in a planned economy. They formed part of the process of the annual plan and the five-year plan elaboration, especially for the allocation of inputs and of quantitative production objectives. They also related to the renegotiation of the plans (Andreff, 1993).

Presently in the field of hydrocarbons, the liquidity search that accompanied the predation of assets suggests privileged access to export networks and oil and gas pipelines that have remained under State control through the national companies Transneft and Transneftproduct for oil and Gazprom for gas. This access to export networks is governed by bargaining and by relations of strength between the oil and gas companies on one hand and the Federal State and the Regions on the other hand. The terms of the negotiation are as follows (Desai & Goldberg,
At regional level the aim is to maintain employment by allocating indirect grants to enterprises for non-payment or payment in barter for energy bills. In the case of the gas industry, where the enterprises have not paid their invoices to the regional distribution companies, who in turn have not paid Gazprom, the local authorities that control them are protecting them against any bankruptcy proceedings. In this configuration of relations, the influential oil companies benefit from the discretionary allocation of quotas on transportation capacities and from favourable network access prices. The gas company, in the meantime, benefits from a monopoly on exports, the non-payment of a large part of its tax debt, and the possibility of acquiring shareholdings in a number of companies, especially the distributors, in exchange for their debt\textsuperscript{24}.

- **The dominant forms of co-ordination: company networks and vertical integration**

Forms of industrial co-ordination are the product of the gap opened between the radical alterations to the formal institutions (private ownership rights) and the slow evolution of the informal institutions. Two main forms can be distinguished. The first is characterised by a widening of vertical integration and of the traditional intra-group co-ordination mechanisms (internal transfer prices and input and capital allocation processes) similar to the planned economy practices. The second consists of informal networks that extend the industrial and financial groups, which are distinct institutional arrangements that tend to reproduce the inter-industrial relations of the planned economy. These organisational forms allow the survival of industrial enterprises to be organised, especially by allowing them to be supplied with inputs without recourse to cash or at prices that are heavily subsidised and not linked to the

\textsuperscript{24} In this way, Gazprom has secured for itself the top position in the distribution networks at regional level, which could limit the effects of deregulation of the Russian gas market through deregulation of access to the transportation network.
companies’ solvency levels. The hydrocarbon companies supply energy to other sectors rather than selling it. These networks can be described as “preservation networks”, their primary function being to preserve the existing enterprises by allowing them to survive through the perpetuation of old-style economic relations (Jordan, 2002).

The new organisational forms are based on debt compensation mechanisms and a logic of exchanging shares for the debts arising from complex barter relations. These non-monetary relations show the old practices of barter between enterprises that allowed them to make good the physical discrepancies in the planning through networks of supplies not included in the Plan (Andreff, 1993). In some regions, the gas companies even use a debt compensation mechanism to co-ordinate all the supplies within a network of companies. Gazprom sometimes fulfils the functions of the old Soviet Gosnab, an institution of the planned economy, in certain regions by reconstructing a managed supply system without recourse to cash resources (Kuznetsov et al., 2000).

V – CONCLUSION

The main observations

The analysis of the reforms in the Russian hydrocarbons industry has revealed three problems: the issue of timing between reforms of deregulation and privatisation because of the need to deregulate prices and introduce forms of competition in order to allow the value of production assets to be increased in the normal way; the issue of making rights of ownership to industrial assets and resources safe prior to privatisation by the rule of law; and finally the issue of the progressive nature of the introduction of new formal rules, in order to allow adaptation of
additional rules and informal institutions. The case of this profitable sector shows how the hypotheses of the reformers and of their academic advisers on the endogenous appearance of institutions additional to the formal market institutions with the purpose of making ownership rights safe after implementation of the privatisation reforms have been disproved in reality. Instead of that, as there was no sufficient institutional infrastructure, adaptation of the introduction of the new formal rules has been by combination with the old informal institutions, a process that has exacerbated the problems of modernisation, while the interest of new private or semi-private groups is slowing down the institutional adaptation process.

In the Russian hydrocarbons sector, the possibility of immediate increases in asset value by cash stripping on the international market by maximising production and exportation facilitates the practice of siphoning off assets to “liquidity” without looking to preserve those assets through investments in exploration, and indeed makes the practice possible on a large scale. In the same way, the interest in immediate increases in value has led to the predation of profitable production assets through the misapplication of the law on bankruptcy. These practices, known as “cash-stripping” and “asset-stripping”, have been authorised through the preservation of weak market institutions, most notably through the poorly developed legal system, while the preservation of opportunities has not led to the political demand for market institutions aimed at making ownership rights safe (Hoff & Stiglitz, 2002).

Instead of that, privatisation without deregulation of prices and the introduction of market institutions that do not fulfil their functions, especially application of the bankruptcy laws, has led to the emergence of an organisational model that can best be described as “original”, the main function of which was and is to manage non payment and very low prices on the internal market with no relation to the economic value of the resources. Part of the Russian problem
lies in the contradiction that has been pointed out between the transposition of Western formal market institutions and the practices inherited from the planned economy system, which are much less quick to transform themselves. The success in getting out of the institutional environment of this system lies mostly in getting the informal institutions to evolve by leaving behind the standards and practices left over from the planned economy.

The worry of the institutionalist critique given at the Washington Consensus considers that the adoption of laws and regulations is not sufficient to secure a modification of ownership rights, the necessary “tightening” of enterprises’ budgetary constraint and the development of competition. What is needed is a step by step process with consistent evolution of all the formal and informal institutions. The conditions of feasibility, credibility and acceptability of reform, aimed at satisfying the criteria for the institutionalist analysis of the reforms (Levy & Spiller, 1996), must in this respect be determining factors, otherwise they will lead to behaviour different from that anticipated. From this point of view, the approach that underlies the Washington Consensus, which limits itself to the formal institutions only, cannot produce the results expected.

What is to be done?

This concept brings into the centre of the analysis the issue of institutions and institutional change. Once the privatisation process is complete, the aim is no longer to discern the factors likely to induce the holders of ownership rights to ask for the creation of institutions (regulations and laws) that allow the rights to be made safe, as the analysis shows that they have no interest in them over a long period. The aim is to do this effectively against the
interests of the private enterprises already in place, and also to do it by following a previously determined and effective pattern of energy product price deregulation despite their opposition.

We can also ask ourselves the question of whether it would have been preferable to do this during the 1990s, following the collapse of the Soviet regime. The issue of reforming the hydrocarbons sector cannot be dissociated from the issue of general economic reform. It will therefore be admitted that the general, gradualist approach should have been adopted, in complete contrast to the shock therapy applied; this would have had the advantage of introducing the institutional changes consistently and at a stable pace.

Privatisation should not have to be a priority stage in the structural reforms. The initial preservation of State or regional ownership over regional enterprises should have been accompanied by the essential economic and legal reforms in order to organise and enforce the ownership rights needed for the emergence of an efficient entrepreneurship work ethic. Consolidation of the rule of law appears to be a stage of particular importance. The creation of a capital market and a banking system capable of properly serving the financial intermediary and regulating the behaviour of the enterprises should have been the second prerequisite.

A price reform should have been the third condition linked to the planned restructuring process. Such a reform is, in fact, essential for creating true ownership rights over the exploitation of resources and ensuring the viability of energy companies on the domestic market, by lessening the incentives to provide exclusive orientation towards searching for liquidity through export income. It would then allow a progressive introduction of competition, which would then provide an impetus for the restructuring strategies. All of these prerequisites would have fully justified a gradualist approach to the issue.
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Table 1: Initial ownership structure scheme for oil holding companies

1. Initial distribution of capital in oil holding companies

- The State: 45%
- Private investors: 40% (maximum 15% for foreign capital)
- Popular savings: 15%

2. Scheme for allocation of shares in production and refining companies

- 38%: Ordinary shares included in oil holding companies’ capital (free distribution).
- 35%: Shares transferred to employees, including:
  - 25%: Preference shares (free distribution)
  - 10%: Ordinary shares sold to employees (closed subscription)
- 5%: Ordinary shares intended for management (closed subscription)
- 5%: Ordinary shares intended for local authorities (closed subscription)
- 17%: Ordinary shares intended for exchange for privatisation bonds (open subscription).

Table 2: The shareholdings in the main Russian oil and gas holding companies in 2002 (as %)

<table>
<thead>
<tr>
<th></th>
<th>Production (in million of barils)</th>
<th>State</th>
<th>« Outside » Bank</th>
<th>Financial organisation and bank of the holding</th>
<th>Others (Employees, international investors…)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group 1</strong> The holding owns the bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lukoil</td>
<td>(571)</td>
<td>17,6</td>
<td>-</td>
<td>41,0 (1)</td>
<td>41,4</td>
</tr>
<tr>
<td>Surgutneftegaz</td>
<td>(359)</td>
<td>1,0</td>
<td>-</td>
<td>80,0 (1)</td>
<td>19,0</td>
</tr>
<tr>
<td><strong>Group 2</strong> «Outside» bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sibneft</td>
<td>(192)</td>
<td>1,0</td>
<td>FNK (2) : 51,0,  SINS (3) : 19,0</td>
<td>-</td>
<td>29,0</td>
</tr>
<tr>
<td>Sidanko</td>
<td>(118)</td>
<td>-</td>
<td>Interros Oil (4) : 40,0</td>
<td>-</td>
<td>60,0</td>
</tr>
<tr>
<td>Tyumen Oil Company (TNK)</td>
<td>(277)</td>
<td>-</td>
<td>AlfaGroup (AAR) : 50,2</td>
<td>-</td>
<td>49,8</td>
</tr>
<tr>
<td>Yukos</td>
<td>(507)</td>
<td>-</td>
<td>Rosprom-Menatep : 85,0</td>
<td>-</td>
<td>15,0</td>
</tr>
<tr>
<td><strong>Group 3</strong> State ownership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rosneft</td>
<td>(118)</td>
<td>100,0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Slavneft</td>
<td>(109)</td>
<td>76,0 until 2002 (5)</td>
<td>-</td>
<td>-</td>
<td>14,0</td>
</tr>
<tr>
<td>Gazprom (Gm³)</td>
<td>(595)</td>
<td>51,0</td>
<td>-</td>
<td></td>
<td>49,0</td>
</tr>
</tbody>
</table>

Notes on the table.
1) Unlike the other holding companies, shares in Lukoil and Surgutneftegaz are held by the banks created by the holding companies themselves.
2) FNK is a subsidiary of the Logovaz Group.
3) SINS is linked to Stolichny Bank Sberezhnii / Agro Bank.
4) Interros Oil is a subsidiary of Uneximbank.
5) At the end of 2002, the State’s 76% holding in Slavneft was sold 50% to TNK and 50% to Sibneft, these two holding companies being mostly held by the banks.

Table 3: Changes in annual exploration activity in Russia
(Average in millions of metres drilled per year)

<table>
<thead>
<tr>
<th></th>
<th>1980s</th>
<th>1990s</th>
<th>2000-2002</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.7</td>
<td>1.2</td>
<td>1.5</td>
</tr>
</tbody>
</table>

In 1998, BP purchased from the financial group Interros, 10% of the shares in the oil holding company Sidanko. The 10% of shares that BP purchased gave it a 20% voting right and the right to nominate managers for key posts (especially in finance). During 1999, a number of different bankruptcy procedures were commenced against two of Sidanko’s production companies, Kondpetroleum and Chernogorneft. (It should be noted that the bankruptcy of these two companies was linked to non-payment for their deliveries to Sidanko itself). A bankruptcy procedure was then commenced against Sidanko following an initiative from a mysterious creditor known as Beta-Eco. Both Sidanko and the two production companies were declared bankrupt, against the advices of foreign investors including BP-Amoco, who were prepared to re-negotiate Sidanko’s debt. The various procedures first led to the production company Kondpetroleum being purchased by Tyumen Oil Company in 1999, despite opposition from foreign investors. The same procedure was followed in relation to Chernogorneft, which was purchased by Tyumen Oil Company in November 1999 for a modest sum. BP-Amoco thus found itself as shareholder of what was practically an empty vessel, as the two main production companies had been sold off.

There are two schools of thought on the bankruptcy of Sidanko. Some believe that it was initiated by the company’s own shareholders (the banks) and was an example of a self-bankrupting procedure. This is a common phenomenon in Russia, and allows the company to escape its debts by transferring its assets to other holding companies. Others believe the more likely scenario, which was that the bankruptcy of Sidanko was an example of transfer of assets through despoilment of minority shareholders. It would have been initiated by the main shareholders in Tyumen Oil Company, namely Alpha-Eco, which was hiding behind Beta-Eco.