

Privatization of the Hungarian Energy Industry

By Tamas Jaszay Jr. and Eniko Kiss*

Following the fall of the iron curtain, it became clear that Hungary lacked the required capital to carry on the necessary improvement and development of its energy sector and that the needed capital would have to come from foreign sources. The first step in the privatization of the large state-owned energy companies was the incorporation and unbundling of them so as to make them more attractive to investors.

Central planning of the electricity industry was ended in 1991 and the state-owned electricity company converted to a corporation, MVM Rt. MVM Rt. became a holding company for six regional power distribution companies, seven power station companies and the high transmission grid company. It was also responsible for imports and exports. MVM Rt. then purchased electricity from the power companies and sold it to the distribution companies.

In 1991, the Hungarian Oil and Gas Trust (OKGT) was also split up and converted into a corporation. The regional gas distribution companies were split off and what remained converted to a corporation called MOL Rt. This included oil and gas exploration, production, refining and retail distribution and high pressure gas transmission.

An effort was made to privatize both the gas and power distribution companies prior to the establishment of an adequate legal framework (1992-93) but these efforts had to be aborted due to the very low prices offered and high uncertainties surrounding the operations. Bids for the electricity companies, for example, were 60% of nominal value.

Privatization Strategies

Following these problems the government hired professional financial investors to manage the process: Lazard for MOL, Rothschild for the gas companies and Schroders for the power industry. In addition, targets to be achieved by privatization were defined, namely:

- To create an environment conducive to a reliable long term supply of energy at reasonable prices,
- To raise revenue for the national budget,
- To create the financial resources necessary for development,
- To install market oriented, professional financial management at the companies, and
- To promote the integration of the country with the European Union.

Privatization strategies were worked out and approved by the government in December, 1994. These strategies were later adjusted as needed to the actual circumstances.

MOL Rt.

At first the objective of the MOL privatization was to improve operations through the establishment of joint ven-

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tures at the sector level (exploration and production, refinery, gas transmission, etc.) with the expectation that after the needed improvements the company would be sold through a public offering. Later this strategy was changed and the government decided to sell a minority interest through a private placement to foreign and Hungarian financial investors, while it kept a 25 percent + 1 vote stake together with a *golden share* (i.e., an ownership residual giving the government special rights). Employees were offered small blocks of shares.

The Gas Distribution Companies

In the case of the gas distribution companies (GDCs) the government decided to sell a majority stake (50 percent + 1 vote) to strategic foreign investors while again, keeping a *golden share* with special rights for itself. Forty percent of the shares were allocated to the municipalities based on their former contribution to the development of distribution networks. The rest of the shares were to be offered to employees or kept for compensation.

The Power Industry

Once unbundled the electricity industry operated in this fashion, but with MVM influencing the decisions of the generating and distribution companies through its ownership rights. In 1993, the loss-ridden coal mines went bankrupt and were integrated into the power generating companies to which they were supplying coal. Through this move coal mining costs were sharply reduced.

The basis of the privatization strategy for the electricity industry was to keep the unbundled structure and sell the companies separately to foreign industrial investors thus creating competitive conditions in generation and enhancing "least cost" operation for the entire industry.

Accordingly, the decision was made to sell a minority interest in the distribution companies together with an option to raise this stake to a majority at the end of 1997, with the government keeping a *golden share* for itself. The government agreed to allocate a 25 percent stake to the municipalities, too, similar to that done with the GDC's. A 25 percent + 1 vote stake was offered for MVM that included the national grid company and the Paks Nuclear Power Station.

Minority interests in the generating companies were also offered together with either (1) an option to raise the stake to a majority, similar to what was done with the distribution companies, or (2) the opportunity to acquire a majority by making capital investments in specified development projects.

The Regulatory Framework for the Industry and for Privatization

The Gas and Electricity Act

The gas and electricity acts were approved by the Parliament in May 1994. These acts now serve as a basis for the operation of the Hungarian energy industry. They define the roles and the responsibilities of all parties. The most important elements and principles of these acts are:

- the establishment of an unbundled (generation-transmission-distribution) power industry structure,
- the separation of rights and obligations of the gas industry

transmission and distribution companies,

- the establishment of the Hungarian Energy Office, as the body for regulation and consumer protection,
- the definition of licensing procedures and conditions,
- the establishment of the principle of "least cost", meaning that where applicable the cheapest solution has to be selected by the companies (development, import, etc.),
- the establishment of the principle that consumer prices must be set so as to cover all reasonable costs of the energy companies including environmental costs, plus an average 8 percent profit, and
- the establishment of the areas where regulation has to be accomplished by government decree and resolution.

The Privatization Law

The Privatization Law was approved by Parliament in the middle of 1995 creating the organization as well as the rules for selling state owned assets. The State Privatization and Asset Management Company was founded by the merger of the two former organizations responsible for privatization. The appendix of the law defined the ownership percentage which the state wished to keep over the long term. This was especially important for infrastructure companies, like those in the energy sector.

The Hungarian Energy Office (HEO)

The Hungarian Energy Office is one of the most important parties of the Hungarian energy industry. The HEO is a governmental organization reporting to the Minister of Industry and Trade. Its most important tasks can be summarized as follows:

- licensing of the gas and electricity companies, including development projects,
- regulation of natural monopolies in the gas and electricity industries,
- ensuring satisfaction of consumers demand and the standards of service, the protection of consumers,
- controlling the costs of the companies and enforcing the principle of "least cost," and
- making proposals to the Minister of Industry and Trade on pricing issues.

The HEO prepared and issued all operating licenses in 1995, which defined the supply areas and the scope of activities of the companies and worked out the operational code for both by the electricity and the gas industry. The execution decrees for the energy acts were also drafted by the HEO and later approved by the government.

Pricing

To reach an attractive pricing system and price level in the energy sector was a crucial objective of privatization. This would have a substantial impact on government revenues.

Accordingly, prices were increased by the Government based on the proposals of the HEO in several steps, starting in January 1995 (65 percent and 53 percent increase for gas and electricity household prices, respectively), fol-

lowed by another increase of 8 percent in September 1995.

The government also determined that price increases in 1996 will take place in March (an average increase of 18 percent for electricity and 25 percent for gas) and October (the extent of which is to be determined after a thorough review of costs by the HEO). The aim was to gradually secure an 8 percent yearly profit for the energy industry from 1997.

Government resolutions include gas and electricity pricing formulas which allow for inflation, changes in exchange rates and an efficiency factor as well. These formulas, which are very similar to those in Western Europe, will be effective from 1997 to 2001. After 2001, a detailed review of the whole pricing system will follow.

The Transactions

From the beginning, foreign investors, including large European and American utility companies, showed considerable interest in the privatization of the Hungarian energy industry.

The tenders for all the electricity and gas companies were issued by the State Privatization and Asset Management Company (July and August 1995) with the exception of FOGAZ, the gas distribution company of the capital city of Budapest. This tender (under somewhat different conditions) was issued by its sole owner, the Municipality of Budapest.

At the same time, MOL approached the potential financial investors with a "road show" presenting the company and answering questions.

Bids were submitted in November.

The Results

The Gas Distribution Companies

The results of the gas distribution tenders were published in the second half of November. The most successful bidders were Gaz de France winning EGAS in the Northwest and DEGAS in the South; the consortium of Italgas and SNAM acquiring TIGAZ, the biggest gas distribution company in the Northeast of the country; while the Ruhrgas-VEW consortium from Germany got DDGAS in the Southwest and FOGAS in Budapest. The German-Austrian consortium of Bayernwerk and EVN acquired KOGAZ in the Southwest region.

In most cases prices for the stakes of these companies were unexpectedly high. Most prices exceeded 200 percent of nominal value and the highest offer was well over 400 percent. This high level of proceeds positively influenced the offers for the electricity companies as the tender submission deadlines for these were a week later.

The Power Distribution Companies

In the acquisition of the power distribution companies, German investors played a dominant role. Four of the six companies were privatized by German investors. ELMU in Budapest and EMASZ in the Northeast were acquired by the consortium of RWE Energie and EVS; TITASZ in the East was taken by Isar Amperwerke, while DEDASZ in the Southwest was purchased by Bayernwerk. The remaining

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two companies, EDASZ in the Northwest and DEMASZ in the South, were acquired by Electricite de France.

Prices for the 46-49 percent stakes of these companies were also relatively high, however, somewhat lower than for the gas companies.

Power Generating Companies

The level of success was a bit lower on the generation side of the electricity industry. A minority interest in only two of the six offered companies was sold: Dunamenti Power Station to the Belgian Powerfin-Tractabel and Matrai Power Station to a consortium of RWE Energie and EVS from Germany. For the rest of the power stations either the prices were unacceptably low for the government or there were no offers at all. The reason for this is the poor condition of these, mostly coal fired units, the environmental problems and their obligations for district heating, the pricing of which is confusing and still has social elements.

It was quite surprising that neither British nor American companies acquired a shareholding in any of the power and gas companies in spite of their strong interest and in certain cases long local presence.

MVM

There was only one offer for the 25 percent of MVM which owns the only nuclear power station in Hungary. This offer was relatively low and could not be accepted by the evaluating bodies.

MOL

Eighteen and a half percent of MOL, the Hungarian Oil and Gas Company, was acquired by mostly American and British institutional investors through private placement. Another 3 percent was sold to Hungarian individuals and institutional investors during December. Employees and managers of MOL also purchased small shareholding at beneficial rates. Prices were at 1100 HUF/share, at the lower end of the indicated range.

The Next Steps After The Privatization

The Government is working out a strategy for the companies, with special regard to the power generating companies, which will remain in state ownership in the spring of 1996. The aim is to operate them more effectively and to try to make them more attractive for foreign investors in the future. This will offer opportunities for investors to be involved in the next round and become major players in the Hungarian energy industry, which will need enormous injections of capital in the next ten years.

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Should Oil States Hedge Oil Revenues?

Oil hedging experts from around the United States met with Alaskan state leaders on Friday, October 13, 1995 at the University of Alaska, Anchorage Business Education Building for an all day workshop entitled "Should Oil States Hedge Oil Revenues?"

Alaska Compared to Oil Companies and Oil Sovereigns

To understand if Alaska can hedge like oil companies and oil sovereigns, David C. Shimko, J.P. Morgan Securities, made the following comparisons: Alaska is similar because like oil companies and oil sovereigns, they bear the oil price risk associated with high production levels. Alaska is different, however, in that the state does not explore for new oil or manage its oil assets. When oil prices fall, producers cut back exploration and production to save costs while sovereigns can withhold production or collude to raise world prices. Alaska's exposure is passive, however, since it does not manage assets and cannot unilaterally undertake actions to influence world prices. When oil prices fall and producers cut back, Alaska experiences lower prices on fewer barrels without the compensating effect of lower operational costs. Alaska feels the impact of lower prices immediately as oil revenues have historically driven state budgets.

Shimko advised comparing Alaska to an underdiversified investor rather than to either an oil producer or an oil sovereign. Looking at Alaska's public portfolio, Shimko estimated the current value of the oil reserves to be \$30 billion, the value of the Alaska Permanent Fund to be \$15 billion, and miscellaneous revenues \$3 billion. In other words, oil represents 62.5% of Alaska's public wealth, and no investor should put that much of a portfolio into oil. Alaska needs to diversify; hedging is one way to transform nondiversified oil price risks into a portfolio of diversified risks.

The Size of Alaska's Exposure

On an annual budget of about \$2 billion, unexpected oil price decreases can erase one-fourth of Alaska's state budget. "This occurred in fiscal year '94," said Mary Lindahl, University of Alaska, Fairbanks, "in March 1993, the Alaska Legislature budgeted operating and capital expenses for the coming fiscal year based on a mid-case oil price forecast of \$18.38 per barrel. But by mid-December, ANS prices had dipped below \$10 and Alaska was facing an expected deficit of more than \$500 million." Much of this deficit could have been avoided if Alaska had locked in forward oil prices at the time the budget was approved.

The most recent month is yet another example of Alaska's exposure to oil price volatility. Michel Brogard, Lehman Brothers, showed that if Alaska had hedged 100 percent of its oil position (about nine million barrels per month) with five year swaps on September 10, '95, that the mark-to-market of these swaps would have been a positive \$300 million by October 10, 1995. Not only had oil prices decreased during the month, but the whole forward oil curve had decreased. "That is a substantial amount of money in a short time," Brogard understated, "and with that kind of price volatility, to hedge at least a portion of the oil price exposure

seems a prudent thing for Alaska to do.”

Risk Management Tools for Alaska

With the continuing development of derivatives and capital markets, Alaska's tools for managing financial risk are becoming increasingly effective. Alaska can lock in forward oil prices using WTI futures, WTI swaps or ANS swaps; Alaska can buy insurance on its oil revenue using WTI options; and Alaska can convert its oil dividends into a security which can be sold to investors willing to bear oil price risk (securitization.) At current prices, Brogard reported that Alaska could lock in the Department of Revenue's high case price scenario with swaps, and that Alaska could protect the low case price scenario with put options for less than 5 percent of Alaska's annual budget (\$100 million per year).

Securitization is an intriguing possibility as it avoids both basis risk and credit risk and can protect prices for up to ten years. Securitization, Shimko reported, reaches the largest possible audience for selling Alaska's exposure. The potential success of this tool is hard to assess, however, until a marketing study evaluating investor preferences is done.

The WTI instruments all have basis risk, the risk that the difference between WTI and ANS oil prices will change. Though basis risk is smaller than overall price level risk (oil prices have fluctuated from \$9 to \$41 per barrel while the basis has varied from \$0.80 to \$4.20) basis risk is still considerable. The potential of losing money due to a disadvantageous change in the basis while hedged must be evaluated.

Exchange traded futures and options on futures have no credit risk, are flexible – meaning that trading decisions can be modified or reversed easily, and have transparent prices – meaning that prices are easily observable on a computer screen. Over-the-counter swaps prices, by comparison, are discovered by calling several swap counter-parties. Options might be the most politically correct tool as they can be compared to insurance. However, the duration of price protection is less than nine months with options. By comparison, at least some portion of futures hedging could go out two years, swaps could go out five years, and a security could approach ten years.

To what extent Alaska should hedge, depends in part on the choice of the hedging tool. Futures and options have limitations due to market thinness beyond nine months. Philip Verleger, Charles River Associates, recommended that no more than 10 percent of the outstanding open interest in any month should be hedged by any one player. Recent open interest figures for WTI were 54,000 contracts (54 million barrels) in the first month, and 3,000 contracts 12 months out. Alaska's total exposure is roughly 9 million barrels per month. Therefore, Alaska could hedge (under the 10 percent rule) 60 percent of its production one month forward, and only 3 percent of its exposure 12 months forward with futures. Brogard noted that forward oil prices are sensitive to big market players and Alaska should act discretely if it decides to hedge a large portion of its forward oil price exposure in the paper markets.

WTI hedges are easier to execute than ANS hedges, as

ANS markets are more limited than WTI markets in both volume and maturities. While Alaska absorbs basis risk with a WTI hedge, this could be to Alaska's advantage as Brogard reported that ANS is expected to strengthen relative to WTI in the next few years. If the oil ban is lifted, noted Shimko, a WTI hedge could especially be to Alaska's advantage.

Learning from the Texas Experience

Linda Patterson of Patterson Associates and Dennis Weinmann of Coquest emphasize that education of risk and risk management is the first step to be addressed when implementing a state hedge program. Texas passed through this phase very quickly, likely due to the fact that many State legislators engage in oil-related or agricultural businesses and were already familiar with the concept of hedging as a risk-reduction strategy. In 1991, Texas State Senator Teel Bivins introduced Senate Bill 1033 that authorized a two-year pilot hedging program. Expanded legislation was passed in 1993.

Based on the Texas experience, authorizing legislation should not address types of hedging strategies or the tools to be used. Rather, the legislation should empower an oversight board to make those decisions. Given the slowness of any political process, using an oversight board that is already in place is ideal. Texas, for example, assigned the responsibility to their State Depository Board, composed of the Treasurer, the Comptroller, the State Bank Commissioner, and a citizen member. The Board was already charged with reviewing certain investment areas and took on the supervision of the state hedging program as an additional task.

A system of checks and balances with separation of responsibilities is a necessary part of any hedge program and is crucial to the success of a state hedge program. Patterson and Weinmann recommend the following key components: Treasury supervision, Oversight Board Supervision, Risk Management Group Trading, Banking Function, Accounting Function, Broker/Clearing Agent, and an External Audit.

A state hedging program should be viewed as a way to better predict and protect oil revenues and as a tremendous aid to the budgetary process. While hedging should not be viewed as a way to win or lose money for the state, Patterson identified the political risk of “losing” money early in a hedging program and problems that can be encountered with press coverage. Her advice is GO SLOWLY.

Should Alaska Hedge or Not?

Rationales in favor of hedging include: (1) revenue shortfalls can have a disastrous effect on the state budget; (2) hedging can provide for better prediction and protection of the budget; (3) knowing the budget in advance helps planning at all government levels; (4) Alaska needs to diversify as state revenues are 75% dependent on oil; and (5) politics have prevented a two-way cash flow from the Alaska Permanent Fund. Rationales against hedging include: (1) oil is a good long-term investment; and (2) Alaska can begin its own oil price stabilization fund by maintaining a reserve.

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