

## PRIVATIZING ELECTRICAL UTILITIES IN POLAND

THOMAS M. FITZPATRICK<sup>1</sup>

**ABSTRACT.** This study consists of an extensive review of the literature related to the topic of privatizing the electrical utility industries in the Visegard country of Poland. The intent of the study is to examine the status of the Polish privatization campaign, review of privatization strategies used and an assessment of successful or unsuccessful campaigns.

The review of the literature to date reflects the relative youth of these privatization initiatives. Unlike the UK privatization effort, which is over 25 years old, this 10-year-old campaign has far less written on the subject and a paucity of empirical analysis available on the Polish campaign. The majority of the literature available consists of press releases and feature stories that would appear in the business and financial sections of newspapers and magazines. This study of the literature provides the historical, political, and economic foundation and context for empirical study.

### **Discussion of Privatization Models and the Polish Experience**

The privatization campaign of Poland had the benefit of choosing from four basic privatization models that have been employed by nations over the past twenty-five years of collective privatization experience. The issue today for a nation considering strategies for promoting economic growth is not whether they should privatize but rather how they should approach the process of privatization. It is essentially axiomatic that “governments have found that privatization when properly implemented, useful in reducing public expenditures, increasing efficiencies, raising capital and sparking innovation.” (Chang and Jones 1992) What follows is a general description of the four fundamental privatization models that nations can select from in the design of their privatization campaign.

#### ***British Model***

“The outright sale of government assets is probably the most common form of privatization in the United Kingdom. Two primary pricing conventions have been used. Fixed-price stock offerings make single priced shares available to the public and tender stock offers that do not fix stock prices in advance; thus the price is determined by market forces. This traditional sale of assets follows the traditional private-sector procedures of assessing the value of the firm and then

---

<sup>1</sup> Assistant Professor, Business and Economics, Saint Anselm College, New Hampshire, USA, e-mail: [tfitzpatric@anselm.edu](mailto:tfitzpatric@anselm.edu)

“developing a prospectus, identifying underwriters and issuing houses and selecting stockbrokers.” (Chang and Jones, 1992) The British model has served widely as an efficient and effective model for privatizing industries in an expeditious and revenue enhancing scheme for governments with economies that have the financial, legal and political infrastructures to implement such a program.

#### *New Zealand Experience*

“Corporatization” is a term coined in New Zealand, where privatization of most governmental services is an all-out effort. Using the corporatization approach, the government creates a for-profit corporation having a governing board typically composed of member from the government as well from the local business community. The government owns all the stock in the new corporation. The net assets of the spin off entity are transferred to the new corporation at book value in exchange for the stock. This process allows the newly created corporation to operate free of most of the constraints of government while allowing the government to maintain control and ownership.

#### *Old Standby*

Contracting out, and old standby approach in most western societies, is perhaps the simplest method available to accomplish privatization. Contracting for services has historical roots in governmental circles and has been used in the U.S. by federal, state, and local agencies. The governments establish contractual relationships with outside businesses to provide necessary services. The private businesses supply the personnel and perform the needed service for an agreed upon fee. Assets required to perform the contracted task may be provided by the government or by the private business.

#### *United States Innovation*

“A somewhat different approach to privatization has been observed recently in the U.S.” (Chang and Jones, 1992). Much like corporatization in the initial stages, this technique has a key difference. A non-profit organization, instead of a for-profit entity, is formed and the government does not retain full control of the new institution. Through this mechanism a previously governmental function is transferred to a new entity. The government is actively involved in all phases of the transfer, however, the new non-profit is overseen by its targeted citizen/customer group rather than by government. The oversight group provides initial start-up capital and shares representation with the government on the governing board of the new entity. Once established, the government and the newly formed entity enter into a contract to provide the required services.

Below is a matrix created by Chang & Jones that allows the reader to compare the advantages and disadvantages of the four major privatization models.

PRIVATIZING ELECTRICAL UTILITIES IN POLAND

<b>Advantages and Disadvantages of the Four Major Privatization Models</b>		
<b>Approach</b>	<b>Advantages</b>	<b>Disadvantages</b>
<b>British Model</b>	<ul style="list-style-type: none"> <li>*Available specialists</li> <li>*Raise capital</li> <li>*Provide ownership assets</li> <li>*Reduce public expenditures</li> <li>*Correct inefficiencies</li> <li>*Enhance services</li> </ul>	<ul style="list-style-type: none"> <li>*Expense</li> <li>*No market</li> <li>*Revenues gain an accounting illusion</li> <li>*Wide ownership short-term only</li> </ul>
<b>NewZealand Experience</b>	<ul style="list-style-type: none"> <li>*Same as above</li> <li>*Allows adjustment time</li> <li>*Allows profit generation time</li> </ul>	<ul style="list-style-type: none"> <li>*Same as above</li> <li>*Requires more legislative effort</li> <li>*Time consuming</li> </ul>
<b>Old Standby</b>	<ul style="list-style-type: none"> <li>*Procedures in place</li> <li>*Enhance services</li> <li>*Legislative involvement not necessary</li> <li>*Short time frame</li> <li>*Ease of change</li> <li>*Correct inefficiencies</li> </ul>	<ul style="list-style-type: none"> <li>*Suppliers not available/acceptable</li> <li>*Some not cost effective</li> <li>*No capital generation</li> </ul>
<b>The United States Innovation</b>	<ul style="list-style-type: none"> <li>*Less costly than asset sale</li> <li>*Nonprofit</li> <li>*Allows service continuity</li> <li>*Reduce public expenditures</li> <li>*Correct inefficiencies</li> <li>*Interstate involvement easily possible</li> <li>*Enhance services</li> </ul>	<ul style="list-style-type: none"> <li>*Lacks arm's-length independence</li> <li>*Special legislative effort required</li> <li>*No capital generation</li> </ul>

The review of these privatization strategies in relation to the Polish privatization experience must take into account the strategic goals of the privatization program. Additionally, one must take into account the firm, industry and country specific variables that would influence the selection of one privatization strategy over another.

<b>Depth of Privatization Campaign</b>	<b>Macro/economic crisis</b>	
	<b>Yes</b>	<b>No</b>
Shallow	China India	Brazil Ghana
Deep	Malaysia Poland	Argentina Peru

(Table from Ravi Ramamurti: Why Haven't Developing Countries Privatized Deeper and Faster)

The Polish economy was devastated by the years of central planning and communist rule and would require more than an incrementalist approach to converting their firms and industries to a market competitive environment. The Polish privatization campaign set forth these objectives:

<b>Polish Privatization Goals</b>
<b>1. Creation of an open market fostering efficiency and competition</b>
<b>2. Improvement of enterprise performance through the installation of private initiative, motivated management and labor</b>
<b>3. Generation of revenue through the sale of public assets</b>

The Polish privatization campaign (1996) adopted a case-by case method with an accelerated time table for privatization that the Polish strategists referred to as the “Big Bang” strategy. The intention of this strategy was to advance the privatization as rapidly as possible to avoid organized resistance from stakeholders who believed their interests might be adversely impacted by a change to free market economy. Polish privatization strategists selected the British Model of privatization through the sale of public assets using the traditional private sector process of establishing a valuation, identifying underwriters/financial consultants and opening the sale with tender offers from both domestic and foreign firms.

What follows in this paper is a chronology and analysis of the events leading up to and throughout the process of privatizing the Polish electrical utility sectors.

### **Overview of the Polish Privatization Campaigns**

The movement toward privatization began in 1987 under the communists with legislation that allowed state owned firms to begin issuing their own stock. But the real privatization initiatives take hold in 1990, when Prime Minister Tadeusz Mazowiecki signed to bills into law; The State Enterprise Privatization Act and the Office of Minister for Ownership Transformation Act. The Ministry of Ownership was charged with the responsibility of designing and implementing a privatization program that had the following policy objectives at its core: 1) creation of an open market fostering efficiency and competition and 2) improvement of enterprise performance through the installation of private initiative, motivated management and labor. It should be noted that Mazowiecki’s government only lasted five months after enacting these laws. (David Gordon, Privatization in Eastern Europe, The Polish Experience, 1995)

The philosophic discussion in Eastern Europe regarding privatization initiatives focused on the issues of corporatization-commercialization-privatization. It is important to distinguish between these three concepts of transformation of a state-owned enterprise:

## PRIVATIZING ELECTRICAL UTILITIES IN POLAND

1. Corporatization creates a new separate legal entity for the firm by converting an SOE into a joint-stock company, all the shares are held by the State Treasury
2. Commercialization implies that the new JSC firm will run a profit-seeking firm.
3. Privatization implies that the JSC will be sold to private investors through a variety of sales mechanisms.

In Poland, the debate about the need for full blown privatization versus corporatization and commercialization was a particularly active debate. The belief of some was that changing the structure, management styles and goal setting would be sufficient to accomplish the objectives of enhanced organizational performance, lower costs and innovation. However, empirical studies were cited by the proponents of privatization to demonstrate that the performance of corporatized and commercialized firms didn't differ much from that of their SOE predecessors. "They believed that only through privatization would firms get the infusion of financial, human and physical capital necessary for restructuring". Poland has been slower to corporatize SOEs over the opposition of managers and workers and more willing to consider commercialization of the corporatized entities without the final step of privatization." (Bornstein 1999)

The following shows the share of various approaches taken in the overall privatization process (Economic Reform Today, Privatization in the Digital Age, Number 2, 1999):

Commercialization (the preliminary stage before privatization) was introduced in 1,343 large companies. Of this group, 240 large companies have been entirely privatized via capitalization (through IPOs, public tenders or negotiations following public invitations).

Some 512 commercialized companies were designated for the NIF program, which is still underway. Their shares have been transferred to 15 National Investment Funds, and these share certificates were distributed to the public in 1995/96. About 25.7 million Poles, or 96% of the adult population, acquired them.

Privatization through the direct route, sale of assets, was used for medium or small enterprises. The number of operations following this privatization track from 1990 to December 1998 came to 1,551. Among them, 1,515 completed the process, of which 1,021 enterprises were leased to MBOs (management buyouts), 312 were sold for cash, 127 were contributed in kind to new companies, and the remaining were privatized using mixed methods. Direct sale of assets has been the most popular privatization procedure utilized in Poland and by far the quickest to implement.

Around 1,581 state enterprises in weak financial condition have been involved in the so-called "liquidation privatization" program under the state enterprise law. As of December 1988, 699 of them have been liquidated via sale of their assets to outside private owners for cash; less frequently, the assets have been transferred to the employees.

The scale of the privatization effort in Eastern Europe and in Poland in particular was a Herculean undertaking as noted in this excerpt: “The best-known privatization efforts, in England and Chile are minuscule compared with the scale of the task in Eastern Europe. Privatization agencies and ministries initially confronted some 7,500 state-owned firms in Poland, 4800 “large” SOE’s in the former Czechoslovakia, and 2300 in Hungary.” (David Gordon, *Privatization in Eastern Europe*, 1994)

“Each country in Eastern Europe has chosen to approach privatization differently. In Hungary, for example, negotiated transactions (particularly direct foreign investment) have resulted in as many deals as public offerings. Hungary also utilized loan coupons, public auctions and leasing and management buyouts. Poland’s privatizations have been accomplished through public share offerings or via asset sales to managers, employees, or both; negotiated transactions are possible in Poland, but so far other factors have combined to make them less desirable.” (David Gordon, *Privatization in Eastern Europe*, 1994)

The Polish privatization initiative was a combination of top down privatization and grass roots entrepreneurial start-ups. The grass roots program produced the “most visible results in transforming the ownership of the Polish economy. During 1989-1994 the number of individual private proprietorships (unincorporated firms) more than quintupled. From 350,000 to 1.9 million, by December they employed 2.7 million people or 24% of the non-agricultural workforce. The number of domestic corporations grew in the same period from 11 thousand to over 69.3 thousand, employing 5.5 million people or 47.5 % of the non-agricultural workforce.” (Rapacki, *Privatization in Poland-(Framework issues in Privatization Strategies of the Czech Republic, Hungary and Poland 1995)*)

The privatization campaign from the top down was designed to “efficiently transfer ownership, improve resource allocation, facilitate institutional and market structural changes, redistribute property rights, create a new middle class and provide a strong political for systematic reforms. In the first privatization campaign, 1990, the goal was established to privatize 50% of the state owned enterprises (SOEs), a goal later postponed until 1995.” (Rapacki, *Privatization in Poland*, 1995)

“During the past five years, the role of the private sector in the Polish economy, as measured by general macro-economic yardsticks, has dramatically increased. By December 1994, private firms contributed 53% of the GDP (compared to 3% of GDP in the late 1980’s) and employed 61% of the workforce.” (Rapacki, *Privatization in Poland*, 1995) State ownership of enterprises dropped significantly during this time period falling from 8,872 in 1990 to 4630 in 1995, a drop of 48%. In agricultural enterprises the decline reached 90% and in industry 26%. (Rapacki, *Privatization in Poland*, 1995)

“The prospects of the privatization process in Poland will be influenced by several factors of a different nature determining the pace, direction and effectiveness of the remaining stock state assets into private property. In the most general terms, it is very likely that further privatization efforts, based on standard methods, are bound to face growing difficulties and stronger economic, social and political hurdles. They will stem to a certain extent from the fact that the cream of the crop of Poland’s productive assets; that is, most of the viable SOE’s (or their parts) in politically non-sensitive sectors have already been transferred to the private sector. What remains to be privatized are mostly smaller-sized state owned firms in poorer financial position that need restructuring to reveal growth potential, and large, under performing SOE’s in politically sensitive sectors, such as mining, metallurgy and power generation.” (Rapacki, Privatization in Poland, 1995)

Additionally, privatization legislation passed in 1995 was destined to slow the process of privatization as it created a mechanism for creating treasury owned enterprises that were corporatized and commercialized but were not intended to be privatized. This left bureaucrats in charge of enterprises that prior to this legislation would have been up for bid to foreign and domestic investors. This legislation also decentralized the privatization process by empowering many central government agencies and local government agencies with the authority to approve or disapprove privatization efforts. By the end of the decade the Polish government recognized that this initial strategy of decentralized privatization was not generating the desired results and philosophically their privatization strategy moved toward mass privatization and the “big bang” approach.

“With the experience of ten years of transition behind us, it is now abundantly clear that the speedy privatization of state owned enterprises is one of the most fundamental elements of transition to a market economy in former socialist countries. Most countries in Central and Eastern Europe adopted a mass privatization campaign strategy. Poland was one of the last countries to embark on her mass privatization campaign in 1996. The Polish mass privatization campaign (MPP) was designed to create dominant owners for enterprises in the scheme-owners who would have the appropriate incentives to force through restructuring of enterprises and speed up their ultimate and genuine transfer to the private sector. Fifteen National Investment Funds (NIFs) were created by the programme, and have taken control of 512 enterprises in the scheme and in 3-4 short years have established themselves as major intermediary financial institutions with significant knowledge of different sectors of the economy and the massive capability to influence the development of these industrial sectors.” (Iraj Hashi, The Polish National Investment Programme, 2000)

#### ***Polish Electrical Privatization Efforts***

The new Energy Law of 1997 created the legal framework for liberalization of the power sector and creation of a competitive energy market. The key provisions

of the 1997 law included a solid legal framework, defining the rights and duties of producers, distributors and users of energy, and the establishment of an independent regulatory entity (URE) responsible for granting licenses, approving tariffs and ensuring competition within the energy sector. The law also introduced Third Party Access (TPA) of enterprises to energy distribution grids, provided the third parties produce energy domestically and meet contractual and governmental obligations. According to the Energy Law and its secondary legislation, the full liberalization of Polish electrical power market will be accomplished in 2005.

The electrical power sector consists of three main systems: 1) the power generators - system power plants, combined heat and power plants and local energy producers with a total installed capacity of 34,255 megawatts; 2) the high-voltage transmission system operated by Polish Power Grid Company, PPGC; and 3) the distribution system consisting of 33 electric distribution utilities (some already grouped into larger companies) and new companies created according to the Energy Law. (Economic Committee of Ministers Council, December 1999)

The Polish government outlined five key objectives for the privatization of its power generation sector and highlighted the size of the privatization program in the power sector—with 17 power plants, 19 combined heat and power plants, 33 distribution companies and the country's power grid all scheduled for sale. (Economic Committee of Ministers Council, December 1999):

- To protect consumers by means of liberalized energy market
- To ensure energy security
- To create capital resources necessary for rational investments especially with a reference to the integration with the European Union
- To optimize social security of the sector workers
- To optimize privatization income

When the process of commercialization began, state-owned energy companies were transformed into joint stock companies with State Treasury holding 100% shares. In the distribution sub-sector all 33 distribution companies became State Treasury joint stock companies at the same time. In the generation sub-sector commercialization took longer. The last power plant was transformed into a State Treasury joint stock company in 1999. About 150 business entities were granted the energy supply concession for the area of the whole country. Among them there are daughter companies of leading energy companies from the world and companies established by big Polish investors. To facilitate analysis for potential investors, power plants to be privatized were organized into groupings each capable of generating 5000-7000MW of electricity. One of the most important issues was the establishment of an energy exchange. (EECE Market 2001)

The year 1999 was “the year of Polish energy”. Thirteen power companies were expected to be privatized, including the Patnow-Adakpw-Konin (PAK) power generation plants, the Polaniec and Rynik plants, GZE and Warsaw electricity distribution companies and privatization revenues were estimated to exceed \$3.8b



#### PRIVATIZING ELECTRICAL UTILITIES IN POLAND

in 1999. In the first phase of privatization the Polish Treasury planned to divide the country's power plants into nine groups, each containing between one and six power stations and each with no more than 15% of the national market. Among the first stations scheduled for sale were the Polaniec and Rynik power plants and the Belchatow and Skawina plants. Altogether, stakes in 12 power stations were to be sold in 2000 as well as shares in five heat and power plants with investors offered 35-40% stakes in most plants, although in some cases, a majority stake was to be made available on condition that the investor agreed to capitalize the plant. (Modern Power Systems, Privatisations Proposals, Oct 1999) Demand for electricity in Poland is expected to increase by 60% in the next 20 years. Electricity's share in the overall energy consumption is expected to grow from 12% in 1999 to 15% in 2010 and 17% in 2020. Poland estimated that the privatization of the power sector would raise between \$25 -\$30 billion for the state. Its three-year strategy called for the sale of stakes in power generators and distributors, with the full liberalization of the market timed for 2005. (Ministry of State Treasury in August 1999)

To accelerate the Polish energy sector privatization, all 17 system power plants were scheduled to be sold by 2002, either individually or in groups with potential investors to be offered 20% to 35% stakes and allowed to gain majority shareholdings by investing in plant modernization and by increasing their share capital and subscribers for new shares. Seventeen combined heat and power co-generation plants (CHP's) were to be privatized on a "case by case" basis in a similar way to the system power plants. Initially, strategic investors were to be offered 20% to 45% stakes, but trade sales of more than 50% stakes in the first phase excluded. The privatization of the CHP's was scheduled for completion by 2001. (Ministry of State Treasury in August 1999)

Some 33 regional electricity distribution companies (EDCs) were to be sold in regional groups having 12% to 15% shares in the Polish electricity market, with the exception of the largest EDCs, would be sold individually. Potential investors would be initially offered 20%-25% stakes and investors buying shares in all EDC's forming individual groups would be preferred. The largest Polish EDC, Gliwice-based GZE was purchased in February 2001. "Sweden's power company Vattendall paid 167.5 million Euros to acquire 25 percent of this Polish electricity distribution company, and now controls 8% of the market. The Swedish firm has pledged to invest 2.8 billion zlotys in GZE within a decade, especially in low and medium voltage network modernization and to make capital improvements in the energy distribution networks. Vattenfall also bought 55% of Warsaw's thermo-electric power plant in 2000 and wants to take part in the privatization of other Polish energy distributing companies." (PAP-Polish News Agency, 2001, September)

Polish Power Grid (PSE) was not to be privatized before 2002. The first company to be privatised was the Kraków thermal-electric plant, subsequently, the Warsaw thermal-electric complex, the Gdańsk based thermal-electric complex, the Pštnów-Konin-Adamów power station and the Połaniec power station have also

succeeded in finding strategic investors. Privatisation via the Warsaw Stock Exchange is an alternative route that has been chosen by the Wrocław based Kogeneracja and the Będzin thermal-electric plant. The Upper Silesian electricity distribution company is set to be the first distribution company for privatisation. Other regional distribution companies have decided to join forces creating the G8 group, for example, and will seek strategic investors together. A similar strategy has been chosen by a number of Poland's professional power stations that have formed the Południowy Koncern Energetyczny (Southern Power Concern).

Poland established an ambitious program of sell-offs of power plants. In 2000, Polaniec Power Plant, the fourth largest power generator in Poland, was purchased by Tractebel of Belgium, which acquired a 25% stake in the facility for some E87.5m. Tractebel will invest around E340m in the plant over an 11-year period. The increase in the stake will be achieved in two stages. First Tractebel will increase the plant's capital by E61.6m over two years, following which it will be offered a 37.5% stake. The second stage would involve purchasing a 15% stake currently held by employees. Polaniec occupies a firm position in the Polish power market, with some 5.5% of domestic market share and an installed base of 1,800MW. Net profits in 1999 were Z24m (US\$7m). (Polish Energy Privatisation, Polish News Bulletin, May 2000).

Investors were also invited to bid on other large power plants including Rybnik Power Plant; Zespół Elektrociepłowni Wybrzeże, the fifth largest CHP; and Elektrociepłowni Wrocław, the fourth largest CHP in Poland with a 30 to 35% stake. The largest Polish power plant, Belchatow, as will the Zabrze and Tychy CHP's were also scheduled to be privatized in 2000. (Privatisation International, 2000) A Franco-American consortium acquired a 35% stake in the Rybnik power plant. This plant supplies around 6.5% of the country's power and increase its power output from 1600MW to 1700MW within the next three years as a result of a modernization program. Early in 2001 eight electric power plants in northern Poland were also scheduled to be sold and then another four from southern Poland. These plants are smaller than those already sold or in the process of being sold, and the government will be looking to attract existing investors in the sector to participate in the sales. The treasury will sell off some 30% of its current overall stake but retain 25% for many years to come. Retaining this stake is to enable it to block any potentially unfavorable decisions by foreign investors. (Polish Energy Privatisation, Polish News Bulletin, May 2000).

The Polish electricity sector continues to go through consolidation, in line with the government's plan to restructure the industry. In the power generation segment, consolidation has focused on creating two large companies, Południowy Koncern Energetyczny (PKE) and BOT, with installed capacities of 5,000 megawatts (MW) and 8,000 MW, respectively. BOT is a holding company for Belchatow, Opole and Turow power plants. In the distribution segment, two group consolidations have already taken place, creating the Group G-8 (eight distributors

in central and northern Poland) and the ENEA Energy Group which comprises five merged companies. There are plans to create three additional consolidated power distributors: L-6 Group (six distribution companies from eastern and southeastern Poland); the K-7 Group (seven companies in central and southern Poland); and W-5 Group (five companies in southwestern Poland). In the coming years, the government plans to begin floating stakes in the newly consolidated distributors and power companies, with a 35% stake in ENEA and a 35%-40% stake in PKE likely to be offered by the end of 2004. Stakes in BOT and three distributors –W5, L6 and K7 – are likely to be offered in 2005 or 2006. The government has privatized only two of distributors: STOEN to RWE; and Górnośląskiego Zakładu Elektroenergetycznego (GZE) to Sweden's Vattenfall. (EIA Country Analysis Briefs, June 2004)

The Polish government currently is working on annulling long-term supply contracts between power plants and the national grid operator Polskie Sieci Elektroenergetyczne (PSE). The contracts have been seen as a hindrance to liberalization of the country's electricity market. Under the contracts, PSE committed to purchasing energy at fixed prices and fixed volumes. The new law would cancel these contracts and the power plants would receive compensation. Government officials have pointed out that these contracts have been a disincentive for restructuring and modernization of country's power sector as producers have fixed revenues. (EIA Country Analysis Briefs, June 2004)

When full decentralization is reached, all market players will be free to perform trade transactions. Buyers may purchase directly from generators or through the competitive energy trading intermediates. Generators may sell directly to end-users or to intermediates. The key element of this market model is the total separation of trade activities from transmission activities performed by transmission and distribution networks. The market players will have free and equal access into the services of the transmission. (EIA Country Analysis Briefs, June 2004)

### **Conclusion**

The privatization campaign of Poland was prompted by the need for radical institutional and economic policy changes to address the residual effects of 45 years of communism. The "Big Bang" theory of privatization implemented was intended to create a momentum for socio/economic change that could not be reversed by revisionist forces in Poland. The speed at which some of the industries were privatized is an unparalleled experience in the history of privatization and this strategy had both positive and negative implications. From a positive standpoint the anti-privatization constituents could not move to block the privatization and thus privatization could be likened to a "rolling wave" sweeping across the economic landscape of Poland, changing it forever. From a negative standpoint the speed at which at the individual industries and firms were privatized frequently meant that the interval for effectively marketing the assets of the firm were shortened and in

some instances may have led to lower revenues generated and some investors withdrawing from the bidding process. But given the breadth and depth of the Polish privatization campaign one would have to conclude that considering the country-industry-firm specific circumstances the privatization of the Polish economy was and continues to be a remarkable achievement.

## REFERENCES

1. Ash Nigel, A Rocky Road to the Market Economy, *Petroleum Economist*, Oct. 1996
2. Ash Nigel, An uncomfortable legacy, *Euromoney*, September, 1990
3. Ash Nigel, Hopes are high, but production is falling, *Gas World International*, 1994
4. Ash Nigel, The Privatisation Dilemma, *Euromoney*, September 1990
5. Beck Ernest, Belching Smokestacks have Admirers, *Wall Street Journal*, June 1995
6. Berenyi Ivan, *Petroleum Economist*, Post Communist Changes Causes Confusion in Energy Sell-off, July 1996
7. Boubakri Narjess, Cosset Jean-Claude, The Financial and Operating Performance of Newly Privatized Firms: evidence from developing countries, *Journal of Finance*, June 1998
8. Bunn Derek, Evaluating the Effects of Electricity, *Journal of Operational Research Society*, April 1994.
9. *Business Eastern Europe*, The New Power Generation, September 1999
10. *Business Eastern Europe*, Will to Power, April, 2000
11. Cavanaugh Herbert, CG&E extends arm to Eastern Europe Projects, *Electrical World* 1995
12. *Comparative Economic Studies*, Summer 1998
13. Cook Paul, Privatization and Utility Regulation in Developing Countries, *Annals of Public & Cooperative Economics*, December 1999
14. Czaban Laszlo, Richard Whitley, Incremental Organizational Change, *Journal of Management Studies*, May 2000
15. Dibelius Alexander, Privatization the Polish Experience, *McKinsey Quarterly*, 1993
16. Dillon John, Keeping the Lights On, *Technology Review*, May 1996
17. Dobbs Richard; Elson Matthew, Regulating Utilities, *The McKinsey Quarterly*, Winter 1999
18. Donahue John D, *The Privatization Decision*, Basic Books, 1989
19. Edge Gordon, A Close Call for the UK Grid, *Modern Power Systems*, Feb. 1996
20. *European Energy Report*, Budapest to Call Tenders in August, 1995
21. *European Power News*, French Power into Poland, July 2000
22. *European Power News*, Privatization Works, June 1997

PRIVATIZING ELECTRICAL UTILITIES IN POLAND

23. Fortune, Who Turned the Lights Out, Feb. 2001
24. Francis Ann, Socket Fuel, Business Eastern Europe, December 1997
25. Gordon David, Privatization in Eastern Europe, Law and Policy In International Studies 1994
26. Grygier, Olga, Privatisation International, Eyes on The Prize, May 2000
27. Holberton Simon, Privatisation is an Irreversible Trend, The Financial Times, Sept. 1997
28. International Market Insight Reports, Poland: Electrical Power Sector, Feb. 2000
29. Isles Junior, Do It by the Book, Modern Power Systems, March 1996
30. Jones Colin, Foreign Banks Welcome, The Banker, January 1997
31. Joskow Paul, Electricity Sectors in Transition, The Energy Journal, April 1998
32. Kielmas Maria, Energy Privatization a Cold New Reality, June 1994
33. King Stephen, Privatization and Reformation, Economic Record, March 1995
34. Lee Sheryl, Business Eastern Europe, May, 1995
35. Mergers and Acquisitions International, An Appetite for Foreign Capital, Sept 12
36. Middle East Economic Digest, Private Ideas are Attracting More Attention, August, 1995
37. Modern Power Systems, Power for Emerging Markets, April 1994
38. Modern Power Systems, Privatization Proposals, October 1999
39. Molano Walter T., The Lessons of Privatization, International Journal of Public Administration, 2000
40. New Straits Times, Ensure Reverse Privatised Entities Don't Become Bottomless Pits, 2001
41. Newbery David, Power Markets and Market Power, The Energy Journal, July 1995
42. Newbury David, Pollitt Michael, The Restructuring and Privatization of the UK Electricity Supply—Was it Worth It. World Bank, Sept. 1997
43. Peel Michael, Sweeping Changes in Priorities, The Financial Times, June 1997
44. Petroleum Economist, Energy Privatization sidelined by election, June 1994
45. Petroleum Economist, Picking Over the Recs, December 1995
46. Privatisation International, Acceleration of Polish Energy Sector, Oct. 1999
47. Privatisation International, Advisers sought for Polish Oil and Gas, Sept 2000
48. Privatisation International, Bulging power sector pipeline, May 2000
49. Privatisation International, Polish Privatization, April 1999
50. Privatisation International, Power Sector Affected by emerging Risk, Sept. 1999
51. Privatisation International, Record Disposals in First Six Months, July 1994
52. Rapacki Ryszard, Privatization in Poland, Comparative Economic Studies, 1995
53. Shearlock Peter, Stew over Sell-Offs, The Banker, January 1996
54. Smith Christopher, UK Companies could do better, Acquisitions Monthly, Feb. 1994

THOMAS M. FITZPATRICK

55. Smith Warrick, Utility Regulators-Roles and Responsibilities, World Bank 1997
56. Stanley Chang & Roberta Ann Jones, Government Finance Review, Approaches to privatization 1992
57. Sustra Miro, Luby Peter, Combine cycle power plant efficiency, Modern Power Systems, 1997
58. Swift Jack, American Support for Power Generation Projects and Privatization, Economic Review, July 1994
59. Taylor P.J. Liberlisation Pace Gathers, Petroleum Economist, 1997
60. The Banker, The Gleaners Follow On, The Banker, July 1993
61. The Independence Debate, 1997, F
62. The Oil and Gas Journal, Energy Privatization in former Communist Bloc, Sept. 1994
63. Thirsk Jeremy, European Revolution, Institutional Investor, Oct 1993.
64. Vinton Louisa, Privatization in Poland; A Statistical Picture, 1994
65. Waddams Catherine, Taking the Utilities to Market, New Statesman, 1998
66. Waddams Catherine, Taking the utilities to market, New Statesman, July 1998
67. World Bank, Policy Views from the Country Economic Department, Privatization: Eight Early Lessons, July 1992