Book Reviews

The Politics of Oil in Ecuador, by John D. Martz. (New Brunswick, NJ: Transaction Books, 1987, 345 pp. $34.95)

For those students of energy affairs interested in the details of petroleum policy and politics in the OPEC countries, John Martz's *The Politics of Oil in Ecuador* will be a welcome addition to a growing collection of case studies. Martz's book, covering the critical years between 1972 and 1984, presents a detailed and balanced chronology of the evolution of oil policy, effectively highlighting the role of individuals and institutions in a rapidly changing and turbulent political setting. The research that went into the book was obviously diligent and painstaking; Martz's familiarity with the personalities, interest groups, parties, and cliques is extensive, and his account of the subtle changes in national policy resulting from the continuous tug-of-war between economic and political interests is careful and complete.

Martz presents his information as a case study in public policymaking. His aim is to contribute to the literature in political science which, for a decade and a half, has been concerned with clarifying the connections between the substance of policy and the key attributes of politics. Martz's review of the literature in this field, presented chiefly in the first chapter, is comprehensive and insightful. His principal goal is to determine whether, in effect, politics made a difference in shaping Ecuadorian oil policy. Since Ecuador was governed by two types of government – military dictatorship between 1972 and 1979 and then constitutional democracy until 1984 – Martz seeks to determine if these "regime-types" resulted in different kinds of petroleum policy. His ultimate goal is to derive broader hypotheses about the policy behavior of these different governments.

Unfortunately, Martz is unsuccessful in his attempt to derive generalizable hypotheses about the political bases of petroleum policy – in the sense that he does not find them. In a nutshell, his review of the evolution of policy concludes that no useful conclusions can be drawn with respect to this matter. To be sure, there was a higher level of political involvement in oil policymaking after 1979, but policy was basically "incremental" and "prudential" in character during the reign of both types of government. And the debate between those seeking to assert national sovereignty at the expense of the foreign oil interests, and those fearing the damage to the economy that such a strategy would entail, continued throughout both eras, but with neither side really winning. To the extent that any regime was more nationalist, it was the first one in which Captain Gustavo Jarrin Ampudia held sway as Minister of Natural Resources for some thirty months.

Martz is forthright in acknowledging his lack of remarkable findings, noting that perhaps the characterization of the political systems as simply "civilian" or "military" is inadequate as a typology. This observation at the end forces the reader to wonder why he chose this approach in the first place. The history of oil policy in Ecuador would be of interest to many without the infrastructure and jargon associated with the framework he uses.

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Interfuel Substitution in the UK Industrial and Service Sector Steam Raising Market by Jim Skea. (Brighton: Science Policy Research Unit, University of Sussex, 1988, 122 pp. £9 UK, £12 abroad).

Skea here continues work he has conducted throughout the 1980s on fuel substitution in British industry. This study describes an expanded model for simulating fuel choice in industrial boilers and shows the sensitivity of the choice to fuel prices.

The model takes advantage of the existence of an extensive survey of existing boilers to incorporate the characteristics of the stock of boilers into the analysis. For the purpose of the study, an effort was made to update the survey data to 1983.

The model deals with the economics of operating and replacing these boilers. Provision is made for limiting the fuel switches and boiler replacements to levels below those the model calculates as desirable. As usual, such failures are attributed to consumer ignorance rather than errors in the model.

The model is used both to deduce the economic assumptions implicit in the choices made between 1979 and 1983, and to present alternative scenarios of future choices. The analysis of past behavior shows very rapid paybacks (often less than a year) are required to ensure fuel shifts. (Given the proposition that paybacks are roughly the reciprocals of internal rates of return, this means requirements of returns of 100 percent or more.) Skea recognizes that this may reflect the riskiness of the shifts.

Skea develops nine basic scenarios. He starts with a set of oil, gas, and coal prices associated with three different states of the oil market. The model produces the appropriate outcomes that the consumption of a given fuel is discouraged by increases in its own price and stimulated by rises in the prices of other fuels.

The effects of continued subsidies to coal use are also modeled. In the lowest price model, heavy fuel oil prices steadily rise about 80 percent between 1986 and 2010. A second model calls for a 140 percent increase over the same period. A third model assumes the same 2010 price, but with a jump in 1990 to a level double that of 1986 and no further rises until after 2000. Three additional scenarios consider what would happen if the gas price associated with each oil price were lower; the last three treat lowering the coal price associated with each oil price.

As would be expected, a higher oil price causes a shift to coal and gas; gas tends to gain more. The low gas cases involve somewhat greater reductions in gas prices than the reductions of coal prices in the low coal price cases. Thus, the low gas price cases involve oil-gas shifts more substantial than the coal-oil shifts in the low coal price cases. With low oil prices, the base case gas price assumptions, and either coal price assumption, oil supplies at least half the fuel. With high oil prices, low gas prices or both, gas becomes the leading fuel. To get coal to become the dominant fuel, subsidies and acceptance of longer paybacks are necessary.

The work nicely lays out the options and shows the sensitivity of the outcome to price trends. Given this breadth and the many runs made, it would be unreasonable to complain that a favorite case was not run. The book is a good review of what appears to be a well-done study of British fuel choice.

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Debating Coal Closures: Economic Calculation in the Coal Dispute 1984-5. Edited by David Cooper and Trevor Hopper. (Cambridge: Cambridge University Press, 1988, 288 pp. $59.60).

The bitter British coal strike of 1984-85 inspired efforts to provide analyses of the management proposals for mine closings that were a key cause of the strike. Various writers, mostly from universities, quickly produced simple benefit-cost studies.

This book collects updated versions of ten of these pieces, preceded by an editors' introduction. The editors themselves are critical of the closings and were among the authors of a piece included in the book that attacked the Coal Board's case. The selections are unbalanced. Only one is a full-fledged statement by market-oriented economists of the case for drastic curtailments.

Six vigorously criticize various aspects of the case for closings. Three others (including two by the same author, W. J. Robinson, editor of the *Economic Observer*) are critical of the Coal Board, but also do not fully accept the attacks on it.

The three main issues raised are the true labor costs of closing, the true capital costs, and determining the world price of coal. In both the chapters coauthored with three other accountants and their introduction, the editors employ an argument familiar to those who have studied oil debates. The price paid for coal is dismissed as the product of distress sales and thus meaningless. This argument is difficult to reconcile with the conscious creation in Australia and South Africa of steam coal mines for the export market. Robinson seems to recognize this point.

A range of views appears on the true magnitude of sunk costs. The chapter based on a pamphlet Glym prepared for the union comes close to arguing the costs are fixed forever: labor has no alternative use. At the other extreme, the market-oriented paper suggests that it would be preferable to shift the money into other uses where more productive jobs could be created.

Other anticlosing chapters add that unwise investments in nuclear power, new mining capacity, and mechanized, computer-controlled mining systems have put excessive pressures on small, old coal mines. No recognition is shown that however unwise these measures, they also created sunk costs. Besides, if the coal were competitive with imports, it could find an outlet elsewhere.

Robinson spoils his analysis by reviving an argument from the early days of British nationalization — that it is appropriate to use the profits of low-cost mines to subsidize high-cost ones. As I. D. M. Little argued about the original case in his 1953 book, *The Price of Fuel,* the subsidization argument shows total misunderstanding of the marginal cost principle.

In sum, the book consists of loosely reasoned pieces, too many of which are special pleadings. Limiting the contents to modestly revised versions of pieces written during the heat of battle only reinforces the sense that the selections are biased. An appropriate part of providing a more permanent record of the dispute would have been to seek out or commission studies that benefit from opportunities for reflection. The introduction indicates that post-strike replies to the arguments reprinted, in fact, were deliberately excluded.

As a result, the book is only an expensive short-term souvenir of a controversy that has persisted for seventy years. Thus, the book is of interest only to narrow specialists.

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Natural Gas in Europe: Markets, Organization and Politics, by J. Estrada, H. O. Bergesen, A. Moe and A. K. Sydnes. (London and New York: Pinter and Columbia University Press, 1988, 289 pp., $45.00).

This book sets out to describe the development of the European gas market, analyze its organizational structure, clarify the effect of institutional and political factors on the commercial actors, analyze national markets and "the entire European gas Industry," assess the strengths of the present market structure and evaluate alternatives for the 1990s and beyond. These intentions have been fulfilled in the sense that all the declared topics for description and evaluation are presented. The book provides an excellent introduction to, and an overview of, a recent sector of the Western European energy economy (it dates only from the mid-1960s) that has been little covered in book-length analyses (though J. D. Davis, *Blue Gold: The Political Economy of Natural Gas,* G. Allen and Unwin, London, 1984 dealt in part with the European gas industry).

The various objectives of the book are, however, treated with varying degrees of insight and depth and are marked by contrasting degrees of success. On the one hand, the politics – both domestic and international – of Europe's gas supply and the strategies of the producing countries, including the Soviet Union and Algeria (the two major external suppliers of gas to Western Europe), are comprehensively and carefully considered and presented. It is a shame that the two maps which present the geography of the system are so bad, viz. Figure 1.1, *The West European gas transport system,* is unreadable and is in French, while Figure 9.1, *Norwegian gas fields and pipelines*, is incomplete, includes some UK fields and pipelines, and is in Norwegian.

On the other hand, the economic analysis of the markets and of the organizational structure of the industry is much less successful. There is, in essence, no demand analysis of the former. It is, indeed, substituted by consideration of what is defined as gas "requirements" emerging out of the shortfall between unexplained levels of consumption and the amounts of gas purchased by the transmission companies under long-term contracts. There are also unpersuasive sections devoted to issues of monopoly/oligopoly and monopsony/oligopsony in the market structure, with a predeliction on the part of the authors to accept that technical success and excellent engineering (in the utilization/control of the pipelines system, for example) may be equated with economic efficiency. Pricing issues are virtually ignored except for a discussion of the formulae used by suppliers, transmission companies and governments to fix price levels. Competition does not even merit an entry in the index.

These shortcomings on the economics and the economic structure of the industry serve to undermine the credibility of the book's conclusion (Chapter

10) on the future of the European gas industry. This is presented largely in the context of the author's perception of the gas industry as "a very impressive, almost (an) awesome structure" (p. 254), so that they see the future as most likely to emerge from continuing the alliance between technocrats and politicians out of which the current structure has emerged. The authors note that this conclusion begs a large number of questions relating to the acceptability of the system in a more competitive European economic structure and to its survivability in a situation of over-supply (in markets restrained by state and institutional policymakers). They list the issues involved (pp. 254-9) but do not analyze their significance before concluding that the status quo will "no doubt...be maintained" (P. 259). The conclusion has, however, already been overtaken by a number of recent events which point to market liberalization and to competition between suppliers for expanded markets, particularly in power generation.

It seems essential that any revised edition of the study take the economics of Europe's natural gas more seriously into account. Were the authors to do this, then they would probably arrive at a set of different conclusions on the future of this industry. As the book shows, the industry's evolution has depended to a large degree on political considerations which have restricted the expansion of the industry and produced too high prices for most of the continent's consumers.

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