

EXPLAINING PUBLIC VERSUS PRIVATE PARTITIONING OF THE ECONOMY

By

Prajapati Trivedi

The property rights literature has long provided a theoretical justification for the comparative efficiency of private enterprises over public enterprises (Alchian, 1961, 1965; Furburton and Pejovich, 1974).¹ The accumulated empirical evidence thus far would also seem to confirm the above assertion (Borcherding and Pommerehne, 1982, 1983; Davies, 1971, 1980; Bennett and Johnson 1979; Kennedy and Mehr, 1977; Rushing, 1974; Millward, 1982).² Therefore, economists have had to grapple with a question which was most recently restated by Baumol (1984): "If government enterprises do always suffer from an efficiency handicap, why should not all economic activities be left to the private sector?" A large body of literature has concerned itself with seeking an answer to this question. We can classify most of the approaches to it into four broad categories.³

(a) Principal-Agent Analysis (or Transactions Approach): According to this approach, when the government contracts-out the production of some goods to the private sector, it becomes the "principal," and the private enterprise the "agent". To ensure that the agent supplies the desired vector of goods and services, the principal has to undertake continuous monitoring. However, under certain circumstances, the inefficiency associated with public enterprises may be less than the cost of monitoring. In such cases, the rational solution is the creation of public enterprises. (Borcherding, 1983; Alchian Demsetz, 1972; Mc Manus, 1971, 1978; Williamson, 1975)

(b) Political Economy Approach: There are several variants of this approach. One group uses the political economy approach to show that the size and nature of the public sector in a country depends on the class interest on the dominant political group (Ahmad, 1982). They suggest that the capitalist class leaves to the government (with pleasure) those industries where the risks are larger, pay-offs are deferred and expected returns are low. Another group argues that public enterprises are created because they provide a discrete way to selectively redistribute income to the "politically" worthy groups. (Lidsay and Zacher, 1978; Lowi, 1979; Hartle, 1979). Finally, another major variant of the political economy approach can be found in works dealing with

dependency and development. These examine the so-called "triple-alliance" between public, private and multi-national enterprises in a dynamic setting. Their main thrust is to model the changing adjustment path and the eventual equilibrium of the respective shares of these three groups (Freeman, 1982; Baer, 1974; Cardoso and Fletto, 1979; Evans, 1979; Duvall and Freeman, 1984).

(c) Marginal Cost-Benefit Approach: In this scheme, the government is assumed to be pragmatic and rational. The size of the public sector is posited to increase until the marginal benefit from doing so just becomes equal to the marginal cost (Jones and Mason, 1982). In this approach, benefits are conceptualized as avoidance of undesirable consequences of market failure and the costs are the so-called "organizational failures," such as the failures of public enterprises to minimize costs.

(d) Institutional Approach: The starting point for this approach is an "efficient" partitioning of the economy into public and private sectors. "Efficiency", however, is defined in the broadest possible terms including factors such as "humaneness" (Klien, 1984). The fact that the public-private division of the economy does not conform to this "efficient" division is then explained by the Institutionalists in terms of the clogged or distorted information channels, concentration of power, huge inequalities in the initial distribution of wealth and income, etc.

In spite of the large amount of literature that seems to exist on this topic, it is fair to say that what Pashigian (1976) asserted nine years ago is more or less still true:

"Public production of goods and services is somewhat of an embarrassment to most economists. It exists, and will in all likelihood increase in importance, but it is difficult to explain. An acceptable theory of public production has not appeared."

The approaches outlined above suffer from two broad categories of problems. First, they tend to implicitly assume that the costs, benefits and risks associated with public and private production are known. Second, these approaches are static, in that they do not deal adequately with the issues relating to the "nationalization" or "privatization" of existing enterprises.

This paper overcomes the above deficiencies by conceptualizing the problem in an evolutionary light. It presents a model whose assumptions and predictions are closer to the stylized facts about public enterprises. The final section of the paper also examines some implications of this model for designing industrial policies.

THE MODEL

The main thrust of this model is that it conceptualizes the question of public versus private partitioning of the economy as a contract problem between the government and the private sector. The days of unfettered laissez-faire are long over. In all mixed economies, the government is presumed to have sovereign rights to regulate all businesses for the larger "collective good". It has a choice to either own and operate businesses directly under its control (public enterprises) or enter into a contract by issuing a license to a private enterprise to own and operate a business. This model goes on to show that since the information held at the time of licensing (contractual-agreement) is limited and since each party is put in a highly vulnerable position after the license is issued (i.e. after the contract is signed), the creation of trust is an essential ingredient of a successful industrial policy.⁵

Some Stylized Facts

1. The basic role of the government's industrial policy vis-a-vis private enterprises, in a mixed economy, is to ensure that the latter's activities conform to certain economic, social and ethical goals and standards. This is achieved by:
 - (a) Providing rules and regulations that outline desired behaviour.
 - (b) Reserving the right to revoke licenses at any time.
2. Private enterprises are in a highly vulnerable position once they begin operations because large amounts of capital can be lost if the government revokes their license or nationalizes them.
3. It is impossible to completely specify standards for conducting business or list all of the rules and regulations necessary to produce desirable conduct. Therefore, all licensing agreements are generally incomplete and include vague clauses like: "Any activity that is deemed detrimental to the national interest may cause the revocation of this licence."⁶
4. The value of a license to the government and to private enterprises is based on very different sets of calculus. It is, therefore, unlikely that their estimates will ever coincide.

In short, the government has enormous clout over private enterprises in mixed economies. It can, if it so chooses, use the threat of contract termination to force the earnings of existing private enterprises below "normal profit." Private enterprises, on the other hand, can cause substantial damage by flouting the rules and regulations. Thus, the two parties know that a licensing agreement puts them in a continuing, implicit bargaining relationship. It is this relationship that is modelled here.

The model uses the language and constructs of the game theory as they seem most appropriate for this problem. To prevent descriptive cluttering and to simplify the analysis, only a few strategies for each party will be discussed, and for these only the essential elements made explicit. Incorporating more details into the model would not provide additional insights because the conclusions derived are of a general nature.

Government Strategies

(a) *Strategy "S" (Supportive)*: Under this strategy, the government does not attempt to obtain the maximum possible rent from its licensing agreement. It eschews the use of bargaining as a tool to force private enterprise incomes down to their opportunity level. This kind of regulatory policy may be called, "enlightened regulation", "benevolent regulation" or "hand-off regulation". It is characterized by a supportive attitude towards private enterprises and an infrequent use of the threat of license revocation, reserved only for those enterprises that openly flout the rules and regulations.

(b) *Strategy "M" (Maximizing)*: Under this strategy, the government attempts to obtain all economic rents that the private enterprises generate. The bargaining element implicit in a licensing agreement frequently comes out in the open. And when it does, the threat of license revocation is on the minds of both parties. Often, the result is changes in license terms over time. This kind of policy may be referred to as "exploitative regulation."

The major problem with this policy is that it creates a tremendous amount of ambiguity. The private enterprises have no way of knowing which of the two policies the government is following — whether it is maximizing its revenues subject to the private enterprises receiving normal profits or whether it is using private enterprises' immobility to reduce their incomes below normal profits. As we shall see momentarily, this ambiguity has profound implications for the predictions that private enterprises make concerning expected outcome resultant from license implementation.

(c) *Strategy "P" (Public Enterprises)*: In this case, the government opts for undertaking the productive activity itself. It does so because it realizes that the cost of monitoring to ensure compliance with the regulatory standards is more than the cost of inefficiency due to the organizational failure associated with public enterprises.

Private Enterprise Strategies

Private enterprises can react in different ways to the government's demands for compliance with regulatory standards. Total compliance is costly for private enterprises; effort and energy must be expended in understanding

or interpreting rules and regulations and extra staff is usually needed to fulfill requirements. Satisfactory compliance, however, diminishes the probability of license revocation. One can, therefore, distinguish two strategies:

(a) *Strategy "H" (Helpful)*: This involves a highly responsive attitude; the government's regulatory objectives are absorbed as private enterprises' own. In Williamson's (1975, p. 69) terminology, "cooperation is consummate."

(b) *Strategy "U" (Unco-operative)*: Under this strategy, co-operation becomes perfunctory. Resources allocated by private enterprises for meeting regulatory objectives are kept at a level satisfying only the government's minimum requirements. This forces the government to be diligent in monitoring and highly specific in formulating rules and regulations. The government's cost of achieving regulatory objectives under such circumstances would be as high as those with the public enterprise alternative (strategy P).

WORKING OF THE MODEL

The Payoff Matrices and Equilibria

Figure 1 shows the payoff matrix facing the two parties during license implementation, as perceived before the license is issued. Private enterprise payoffs are shown using the lower case Roman alphabet, earlier letters representing higher numerical values. Government payoffs are represented using the upper case Roman alphabet and, once again, earlier letters in the alphabet represent higher values. Each payoff represents the expected discounted value of the net benefits stream over a long period.

The task of constructing even the most rudimentary estimates of the payoffs would be formidable because of the informational requirements for doing so. Therefore, it is not suggested that such estimates are made. Rather, it is assumed that the parties know the ordering of the various payoffs. These orderings can be easily determined from the stylized facts about this issue.

The following analysis establishes the relative magnitudes of the payoffs. It is intended to reflect the way in which private enterprises may deliberate over future possibilities.

- A > B Government shares economic rents under S and obtains all rents under M
- B > C Cooperative (responsive) private enterprises are superior to public enterprises
- C > D Cooperative Private enterprise is better for the Government than unresponsive one during the period of transition to public enterprise.
- D > E Unco-operative private enterprise may cause so much damage that public enterprise is preferable.
- E > F Same reason as for A > B.

Figure 1(a)

		GOVERNMENT STRATEGIES		
		SUPPORTIVE	MAXIMIZING	PUBLIC ENT.
PRIVATE ENTERPRISE STRATEGIES	HELPFUL H	a	B c1	A c2
	UNCO-OPERATIVE U	b1	F b2	E b3
				C D Equilibrium

Figure 1(b)

		GOVERNMENT STRATEGIES	
		SUPPORTIVE S	PUBLIC ENT. P
PRIVATE ENTERPRISE STRATEGIES	HELPFUL H	a	B c2
	UNCO-OPERATIVE U	b1	F b3
		EQ. 1	EQ. 2
			C D

FIGURE 1

$$a > b1$$

Non-co-operative private enterprise face a much higher probability of license revocation. Earning a fair share of economic rents will compensate for the costs of compliance with regulatory standards.

$$b1 > c1, c2$$

$$b2 > c1, c2$$

$$b3 > c1, c2$$

A private enterprise whose earnings are below the normal profits may not suffer from license revocation. The costs of being co-operative may be greater than the expected returns from continuing the license agreement. This is especially the case when the private enterprise thinks that strategies M and S will lead to the government taking advantage of private enterprise immobility once the license is implemented. Then the real costs of following regulatory guidelines compound with the psychic costs of following the orders of a government using its bargaining strength to its utmost.

$$c1 \geq c2$$

$$b1 \geq b2$$

$$b2 \geq b3$$

The sizes of the b's and of the c's relative to each other are irrelevant for our discussion. No attempt is made, therefore, to speculate on the magnitudes of these payoffs, besides that contained above.

Let us now examine the equilibrium of the game depicted in figure 1(a) under the assumption that both participants engage in Cournot-Nash behaviour. The equilibrium is one in which the government applies strategy P and private enterprises use strategy U. Thus, a prospective private enterprise would believe that a license would result in earnings below normal profit and that the government would eventually turn to public enterprises. Both parties would, of course, prefer the outcome in which strategies H and S were chosen. But the logic of their interaction precludes that outcome since the imperative of achieving and maintaining regulatory standards means that license revocation must remain a possibility. However, the government's ability to revoke licenses is a powerful bargaining tool against an incumbent private enterprise.

This is because it can be used to reduce the latter's income below the level which the original license implies. This chain of logic would force both parties to conclude that it would be unwise to sign a licensing agreement, unless the private enterprise could be convinced that the government will refrain from using its bargaining power to its maximum.

Let us now suppose that the government is able to convince the prospective private enterprise that strategy M will not be used. Figure 1(b) then depicts the payoffs. There are now two equilibria, Eq. 1 and Eq. 2, and the former is superior for both parties. This equilibrium, in which economic rents are shared and the private enterprise is cooperative, would be self-sustaining once it was established. If Figure 1(b) represented the private enterprises' beliefs, the government will have no difficulty in getting private enterprises willing to enter into licensing agreements and achieving its regulatory objectives.

The difference in the equilibria in Figures 1(a) and 1(b) highlights the government's central problem. Prospective private enterprises must be persuaded to believe that strategy M will be eschewed. This belief cannot be established in any way that is legally enforceable; license revocation in case of non-compliance must remain a possibility for the sake of achieving regulatory objectives. Therefore, the conditions of the initial licensing agreement must conform to strategy S and the government must inspire the trust that this strategy will continue.

To summarize, Figure 1(a) depicts a mixed-motive game. The above model is an application of one of Schelling's (1960, p. 158) most important conclusions:

"There is probably no single principle of game theory that epitomizes so strikingly the mixed-motive game as this principle that a worsening of some or even all of the potential outcomes for a particular player and an improvement in none of them may be distinctly — even dramatically — advantageous for the player so disadvantaged".

If the government's flexibility is reduced by removing the possibility of strategy M, the game depicted in Figure 1(b) will result and both participants will be better off. That is, the government's bargaining strength is not always advantageous to it and it must counteract this power by inspiring trust.

Before examining the implication of this model let us delineate the difference between the approach in this paper and the existing literature reviewed earlier.⁷ That literature, particularly the principal-agent approach, emphasizes that the government's decision to contract-out instead of operating a public enterprise reflects a process in which short-term efficiency is maximized, subject to relevant informational constraints. It ignores the uncertainty and the consequent bargaining relationship implicit in the implementation of the licen-

sing agreements. In contrast, this paper emphasis the vulnerability of the private enterprises and the bargaining strength of the government during the license implementation and, therefore, the need to generate trust.⁸ In what follows we will attempt to examine the implications of this approach.

IMPLICATIONS OF THE MODEL

It must be noted, at the outset, that in discussing the public versus private partitioning of the economy we are not talking about the two extremes of the spectrum. On the one extreme there are some “natural” public activities. National defense is the most obvious example of this. A government may be expected to use the army only when it is threatened by a foreign attack or if it is being an aggressor. An army run by a private enterprise is unlikely to be paid for inactivity. Hence, it is likely to lobby to make work for itself with adverse consequences for the public. It is for this reason that activities like defense, law enforcement and the judiciary are in the public domain even in the most capitalistic economies. Additionally, most of these “natural” public activities involve public goods⁹ and, hence, cannot be operated on market principles in any case.¹⁰

On the other hand, there are some “natural” private activities. Even in the most centralized communistic economies small traders and farmers selling their produce are tolerated as vestiges of free-enterprise.¹¹

The real issue concerns the partitioning of the spectrum which lies in between these two extremes. In this context, the following issues concerning the public *versus* private partitioning of the economy need to be addressed:

(a) Why is it that two countries, India and Japan, starting their industrial recovery around the same time, after World War-II, have such different proportions of public enterprises as a ratio of their respective GDPs? In terms of our model, the explanation lies in the kind of regulatory policies government have followed. In India, successive “Industrial Policy Resolutions” passed by the Parliament created the impression that the government could easily nationalize any industry it wanted, and it was not clear what the limits of this process were. Each resolution chisselled at the “trust” between the government and the private enterprises. This made the private enterprises reluctant to get into many sectors, which is exactly what our model predicts.

Japan, on the other hand, adopted “supportive” regulatory policies and, hence, encouraged many private enterprises to enter into licensing agreements with the government (Johnson, 1983).

Some may argue that this is a matter of political ideology. If this is so, how can we explain roughly the same proportion of public enterprises in such ideologically diverse countries as Korea and India? In terms of our model, the

answer again lies in the role of "trust". Due to the political and economic turmoil caused by the war and changes in government in Korea, private enterprises were not sure about getting into many areas and, therefore, public enterprises had to be set up. These areas consisted mainly of industries that have long-gestation periods and uncertain payoffs.¹²

(b) Why is it that more developed countries (MDCs) tend to have a smaller proportion of public enterprises than less developed countries (LDCs) in the industrial sector?¹³ The explanation in terms of our model lies once again in the level of "trust" between the government and the private sector. One of the major reasons for this is that in MDCs private enterprises know that they are assured of a fair deal. This belief comes from a developed and watchful press and a well established legal system. These factors act as double edged swords. They prevent the government from tinkering with the licensing agreement during the implementation and also dissuade private enterprises from flouting regulatory standards. Consequently, a stable equilibrium is achieved in which strategies H and S are followed.

In LDCs, in general, the lack of faith in the legal system and the ability of the government to pass *ad hoc* ordinances with relative ease makes the private enterprises "nervous." They are, therefore, reluctant to enter into areas where gestation periods are long and returns risky. Again, LDCs have no choice but to go for the public enterprise solution.

(c) What light can this model throw on the "nationalization" of ongoing private enterprises? The model shows the dynamics involved in "nationalization" quite well. If the government adopts an unfriendly posture towards a private enterprise, convincing it that strategy M is being used, it increases the probability of that enterprise being uncooperative (strategy U). This, eventually, forces the government to take over the enterprise and run it as a public enterprise.

There are several examples of this from both MDCs as well as LDCs. In India, very repressive regulations in the cement and textile industries have led to many private enterprises being declared "sick units," eventually taken over by the government. The regulation of major banks in France, their uncooperativeness and hence their eventual take-over is another example of this process at work.

(d) Finally, what are the implications of this model for the development strategies of the LDCs? The model makes it clear that policies which have all kinds of incentives to encourage private enterprises to become partners in the development process but lack mechanism to promote "trust" are likely to be ineffective. Developing "trust" involves convincing the ~~private~~ sector that strategy M is not being followed.¹⁴ The precise mode of doing so would de-

pend on the industry as well as the country in question. A full discussion of this important issue is, however, beyond the scope of this paper.

CONCLUDING REMARKS

The main objective of this paper has been to explain the observed private-public mix in different economies. After reviewing various approaches, we conclude that this question can be best answered in an "evolutionary" framework. The problem for us is one of inferring from the observed partitioning of economies, the evolutionary problem that must have existed to produce what we observe today.

We use a game theoretic approach to analyze this problem, as game theory appears to be the most appropriate way to model this situation. This model then goes on to highlight the crucial role of trust between the government and the private sector in explaining the observed mix as well as in designing successful industrial policies. Therefore, it would appear that the task of policy makers everywhere should be to discover innovative ways of promoting this trust in their disparate economies.

In terms of this model, the current policy of "liberalization" promulgated by the Rajiv Gandhi government appears to be a step in the right direction. However, it is too soon to comment on its long-term effects. Eventual success of this policy will depend on its ability to inspire the "trust" referred to earlier. If it fails to generate this trust, the result would be a few businessmen making a fast buck and not the well grounded "industrial regeneration" that this policy is expected to bring about.

FOOTNOTES

1. I would like to thank Ingo Vogelsang and Leroy P. Jones of Boston University, and Thomas Princen at the Kennedy School of Government, Harvard University, for helpful discussions and useful comments. Thanks are also due to members of the Boston Area Public Enterprise Group (B.A.P.E.G.) and the participants of the workshop on "Policy for Public Enterprise in Developing Countries" held at the Harvard Institute for International Development (H.I.I.D.) in 1985, for their comments. However, all errors remain my sole responsibility. Part of the research for this paper was supported by a grant from the International Development Research Centre, Ottawa.
2. Of course there are several exceptions, which only go to prove the rule. For examples of superior comparative performance of public enterprises, see: Trivedi (1985a); Bhatt (1982); Baumol (1980); Savas (1977); Caves and Christensen (1980); Hirsch (1965); Wilson and Jadlow (1978).
3. The following discussion is a cryptic description of the various approaches and is not intended to be a comprehensive survey. For a more complete survey, see: Trivedi (1985b).
4. See Schotter (1981) for a discussion of various existing approaches to explaining the emergence of institutions, such as public enterprises, in economics. He would classify this paper's approach as an "organic" approach, which views institutions as emerging out of the selfish interaction of a myriad of individual economic agents each pursuing his own self-interest.

5. Manove (1982) models another aspect of this problem.
6. For example see: Section 18A, Chapter IIIA of the Indian Industries Act as amended in 1953, entitled, "Direct Management or Control of Industrial Undertakings by Central Government." For a more detailed discussion of licensing and regulation of private industry in India see: Kust (1964).
7. This explains the use of the term "non-standard" in the title of this paper.
8. Rubin (1978), Mathewson and Winter (1984) and Murrell (1983) also emphasize the superiority of the sharing strategy in a different context. The model developed in this paper is an extension of Murrell (1984). However, except for Murrell (1983), they ignore the role of trust in their analysis.
9. See Musgrave and Musgrave (1973) for the definition.
10. It is important to note the difference between the terms "public institutions" and "public enterprises". The former implies government organizations that supply "pure public goods"; whereas, the latter implies the government organizations involved in supplying so-called "private goods". This distinction is not trivial. A great deal of attention has been paid to these definitional issues in the recent literature in this area. I have presented the most simple and crude morphology. For a more detailed discussion, see: Jones (1975), Fernandes and Sicherel (1980) and Ramanadham (1984).
11. In fact, it has been suggested that the distinction between the two economic systems is getting blurred (Linnemann, Pronk and Tinbergen, 1967).
12. See Jones (1982) for an alternative explanation of this fact.
13. See: Trivedi (1985c) for greater details on the role of public enterprises in LDCs.
14. For the government, one way of doing this is by making it costly for itself to follow strategy M. This has been called "binding oneself" (Elser, 1981). The "self-denying ordinance" passed by the British House of Commons may be a good illustration of this principle at work (Heald and Steel, 1981). The other option could be the setting up of projects in the "Joint-Sector," the so-called "mixed enterprises."

REFERENCES

1. Muazaffer, Ahmad, "Political Economy of Public Enterprise" In *Public Enterprises in Less Developed Countries*, ed. Leroy P. Jones, pp. 49-61. Cambridge: Cambridge University Press, 1982.
2. Yair Ahroni, "State Owned Enterprises: An Agent Without a Principal". In *Public Enterprises in Less Developed Countries*, ed. Leroy P. Jones, pp. 67-74. Cambridge: Cambridge University Press, 1982.
3. A. A. Alchian, "Some Economics of Property Right" Mimeo, Rand Corporation, Santa Monica, 1961.
4. —, "Some Economics of Property Rights," *Il Politico*, Vol. 30, 1965, pp. 816-829.
5. Werner Baer, "The Role of Government in Latin America's Industrialization." In *Fiscal Policy for Industrialization and Development*, ed. David T. Geithman, pp. 263-81. Gainesville, Fla.: University of Florida Press, 1974.
6. William J. Baumol, "Towards a Theory of Public Enterprise," *Atlantic Economic Journal*, Vol. 8, No. 1, March 1984, pp. 12-19.
7. —, (ed). *Public and Private Enterprises in a Mixed Economy*. New York: St. Martin's Press, 1980.
8. —, Issac Kerstenetsy and Anibal V. Villela, "The Changing Role of the State in the Brazilian Economy" *World Development*, Vol. 1, November 1973, pp. 23-34.
9. J. T. Beneet and M. H. Johnson, "Public versus Private Provision of Collective Goods and Services: Garbage Collection Revisited." *Public Choice*, Vol. 34 (1979), pp. 55-64.
10. V.V. Bhatt, "Decision Structure, Technological Self-Reliance, and Public Enterprise Performance," In *Public Enterprises in Less Developed Countries*, ed. Leroy P. Jones, pp. 129-140. Cambridge: Cambridge University Press, 1982.

11. Thomas, E. Borchering, "Towards a Positive Theory of Public Sector Supply-Arrangements" In *Public Enterprises in Canada*, ed. R. Prichard, Tornot: Butterworth, 1983.
12. —, and Werner W. Pommerehne "Comparing the Efficiency of Private and Public Production: The Evidence from Five Countries." *Journal of Economics*, (1982), pp. 127-156.
13. Fernando H. Cardoso and Enzo Faletto, *Dependency and Development in Latin America*, Berkely, Calif.: University of California Press, 1979.
14. D. W. Caves and L. R. Christensen, "The Relative Efficiency of Public and Private Firms in a Competitive Environment: The Case of Canadian Railroads." *Journal of Political Economy*. Vol. 88 (1980), pp. 958-976.
15. D. G. Davies, "Property Rights and Economic Behaviour in Private and Government Enterprises: The Case of Australia's Banking System" *Research in Law and Economics*, No. 4, 1982.
16. D.G. Davies, "Property Rights and Efficiency in a Regulated Environment: A Reply, *Economic Record*, Vol. 56 (June 1980), pp. 186-189.
17. —, "The Efficiency of Public versus Private Firms; The Case of Australia's Two Airlines", *Journal of Law and Economics*, Vol. 14 (1971), pp. 149-166.
18. Raymond D. Duvall and John R. Freeman, "International Economic Relations and Entrepreneurial State," *Economic Development and Cultural Change*, 1984, pp. 373-400.
19. Peter Evans, *Dependent Development: The Alliance of Multinational, State and Local Capital in Brazil*, Princeton, N.J.: Princeton University Press, 1979.
20. Praxy J. Fernandes and Pavle Sicherl, *Seeking the Personality of Public Enterprises: An Inquiry into the Concept, Definition and the Classification of Public Enterprises*. Reports and Papers of an Expert Group Meeting held in Tangier, Morocco, Dec. 1980. Ljubljana: International Center for Public Enterprises in Developing Countries, 1981.
21. John R. Freeman, "State Entrepreneurship and Dependent Development," *American Journal of Political Science*, Vol. 26, No. 1, February 1982, pp. 90-112.
22. Eric Furbuotn and Pejovich Scteoazar, *The Economics of Property Rights*. Cambridge: Ballinger Company, 1974.
23. D. G. Hartle, *A Public Policy Decision Model: The Case of Government Regulation in Canada*, Ottawa: Economic Council of Canada, 1979.
24. D. Heald and D. Steel, "The Privatization of U.K. Public Enterprises," *Annals of Public and Co-operative Economy*, Vol. 52, No. 3, Sept. 1981.
25. W. Z. Hirsch. "Cost Functions of Urban Government Services: Refuse Collection," *Review of Economics and Statistics*, Vol. 47, 1965, pp. 87-92.
26. Chalmers Johnson, *MITI and the Japanese Miracle*. Stanford University Press, California, 1983.
27. Leroy P. Jones, *Public Enterprise and Economic Development: The Korean Case*, Seoul: Korean Development Institute, 1975.
28. —, and Edward S. Mason, "Role of Economic Factors in Determining the Size and Structure of the Public-Enterprise Sector in Less-Developed Countries with Mixed Economies." In *Public Enterprises in Less Developed Countries*, ed. Leroy P. Jones, pp. 17-49. Cambridge: Cambridge University Press, 1982.
29. K. F. Kennedy and R. I. Mehr, "A Case Study in Private versus Public Enterprise: The Manitoba Experience with Automobile Insurance." *Journal of Risk and Insurance*. Vol. 4, (1977), pp. 595-621.
30. Philip A. Klein, "Institutionalist Reflection on the Role of the Public Sector" *Journal of Economic Issues*, Vol. 18, No. 1. March 1984. pp. 45-68.
31. Matthew J. Kust, *Foreign Enterprise in India: Laws and Policies*, Chapel Hill: The University of North Carolina Press, 1964.
32. Cotton M. Lindsay, "A Theory of Government Enterprise," *Journal of Political Economy*, Vol. 84, No. 5, 1976.
33. —, and B. Zycher, "Porkbarrel Politics and the Fog Factor." Unpublished ms., University of California, Los Angeles, 1978.

34. H. Linnemann, J. P. Pronk and Jan Tinbergen, "Convergence of Economic Systems in East and West" In *Disarmament and World Economic Interdependence*. ed. Emile Benoit, New York: Columbia University Press, 1967.
35. T. W. Lowi, *The End of Liberalism*. New York: W. W. Norton, 1979.
36. Manove, Michael. "Public Enterprise versus Regulation when Costs are Uncertain" In *Public Enterprises in Less Developed Countries*, ed. Leroy P. Jones. pp. 297-313. Cambridge: Cambridge University Press, 1982.
37. G. F. Mathewson and R. A. Winter, "The Economics of Franchise Contracts," *Journal of Law and Economics*, 1984.
38. J. McManus, "The Cost of Alternative Economic Organization," *Canadian Journal of Economics*, Vol. II, pp. 447-464. 1978.
39. —, "The Organization of Production." Unpublished Ph.D. thesis, University of Toronto, 1971.
40. Robert Millward, "The Comparative Performance of Public and Private Ownership," In *The Mixed Economy*, ed. Lord Roll of Ipsden, pp. 58-94. New York: Holmes and Meier Publishers, 1982.
41. P. Murrell, "The Economics of Sharing: A Transactions Cost Analysis of Contractual Choice in Farming," *Bell Journal of Economics*, Spring, 1983.
42. —, "Commitment and Cooperation: A Theory of Contract Applied to Franchising," (Mimeo) Department of Economics, University of Maryland, 1984.
43. Richard A. Musgrave and Peggy B. Musgrave, *Public Finance in Theory and Practice*. New York: McGraw Hill, 1973.
44. Peter B. Pashigian, "Consequences and Causes of Public Ownership of Urban Transit Facilities." *Journal of Political Economy*, December 1976.
45. V. V. Ramanadham, *The Nature of Public Enterprise*. New York: St Martin's Press. 1984.
46. Paul H. Rubin, "The Theory of the Firm and the Structure of the Franchise Contract," - *Journal of Law and Economics*, Vol. 21, No. 1, April 1978, pp. 223-239.
47. W. Rushing, "Differences in Profit and Non-profit Organizations: A Study of Effectiveness and Efficiency in General Short-Stay Hospitals," *Administrative Science Quarterly*, Vol. 19. 1974, pp. 474-484.
48. E. S. Savas, "Comparative Costs of Public Private Enterprise," In *Public and Private Enterprise in Mixed Economy*. ed. W.J. Baumol, pp. 234-294. New York, 1980.
49. —, "Evaluating the Organization and Efficiency of Solid Waste Collection," Lexington, Mass., 1977.
50. A. Scholtter, *The Economic Theory of Social Institutions*. Cambridge University Press, New York, 1981.
51. Prajapati Trivedi, "Comparative Performance Evaluation and Explanation of Public and Private Enterprise Behaviour: Issues, Methodology and the Case of the Indian Cement Industry." Unpublished Ph.D. thesis, Boston University, 1985a.
52. —, "Theories of Public Sector Supply" Department of Economics Working Papers, Northeastern University, Boston, 1985b.
53. —, "Surplus Generation by Public Enterprises for National Economic Development," Paper presented at the United Nations Interregional Seminar on the Role of the Public Sector in the Mobilization of Domestic Financial Resources for Social and Economic Development in Developing Countries, Bangkok, Thailand, December 1985c.
54. O. E. Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications*. New York, 1975.
55. G. W. Wilson and J. M. Jadow, "Competition, Profit Incentives, and Technical Efficiency in the Nuclear Medicine Industry," Mimeo, Indiana University, Bloomington, 1978.