# An Economic Approach to Divestiture

## **1.1** Divestiture of Public Enterprise

This book is about public enterprise divestiture. *Public enterprise*<sup>1</sup> means public production<sup>2</sup> for private consumption.<sup>3</sup> *Divestiture* means to get rid of, in this case by sale to the private sector.<sup>4</sup> Our approach, however, is not descriptive but analytic.

Our goal is to begin to do for the government's *dis*-investment decision what the project evaluation literature has done for the *in*vestment decision: that is, to provide an analytic framework for systematically identifying and evaluating the costs and benefits of a particular decision and comparing the results with alternative policies. We are not so naive as to believe that such a technocratic approach to decision-making will *supplant* ideological and political elements; however, neither are we so cynical as to believe that it cannot *supplement* those elements. Our premise is not that technocratic input will create a perfect decision, only a better one: a decision-maker is likely to achieve political ends or indulge ideological predilections at less economic cost if fully informed of the economic consequences of various policy packages. Readers unsympathetic to this view may want to stop here; for the sympathetic, the balance of this chapter provides an overview of our approach.

#### 1.2 Divestiture: Stylized Facts and Analytical Tools

Our concern with dis-investment rather than investment follows from a fundamental change in the revealed preferences of the world's governments. There has been a marked discontinuity in postwar world economic history: in the 1980s the public enterprise sector contracted or remained the same in almost all countries; prior to that, it expanded or remained the

same in almost all countries in almost all subperiods. Such a bald statement obviously must admit important exceptions (for example, the divestiture of British Steel in 1953 or Korean Airlines in 1968) and complicate matters further with qualifications (for example, restricting the assertion to policygenerated change, recognizing that the sector can shrink absolutely as a result of recession and shrink relatively if large public-dominated sectors read oil—are hit disproportionately).

Nonetheless, the generalization is surprisingly robust across the world's 200-odd countries, be they socialist, less-developed countries (LDCs), or more-developed countries (MDCs). Among MDCs, the United Kingdom, Japan, and France are the best-known examples, but others have also pursued such policies with some zeal (including the Federal Republic of Germany, Canada, and New Zealand). Among socialist countries, the most dramatic changes have been in the broader area of privatization, but a lot has happened in the narrower sphere of divestiture as well (recent events in Eastern Europe are most striking in this regard). In the LDCs, substantial divestitures<sup>5</sup> have thus far been extremely limited (Chile and Mexico), but most countries have announced major programs (with notable exceptions such as India, Indonesia, and Brazil), many countries have sold significant numbers of small firms (Bangladesh and Pakistan), and most have shifted the balance of entry of new firms toward the private sector, resulting in relative shrinking at the margin, even where actual divestiture has not occurred.

It is not our intention to document these assertions, but their validity will be readily apparent to the informed observer of the international public enterprise scene, and they are well documented in a variety of sources cited in our bibliography. Here we merely wish to note that the shift in the world's behavior has yet to be matched by a shift in analytic methods.

This is by no means to suggest that the divestiture phenomenon has been ignored in the literature: the length of our bibliography testifies to the contrary, and more studies continue to appear.<sup>6</sup> What has been ignored is the potential use of the cost-benefit approach, where gains and losses are measured in the applied-welfare-economics tradition.

We therefore apply an intermediate level of technology and examine only a piece of the divestiture pie. The whole pie would include the broad, rich, and diverse range of the versal tradition as represented by the volumes edited by Vernon and by Suleiman and Waterbury<sup>7</sup> as well as the narrow technical virtuosity of the formal modeling tradition as represented by the works of Bös and of Shapiro and Willig.<sup>8</sup> Also in the intermediate range, but far broader than our benefit/cost framework, is the eclectic work of Vickers and Yarrow.<sup>9</sup> The utility of our particular approach can perhaps be seen by considering the basic economic elements of the divestiture decision.

#### **1.3** The Role of Valuation and Price

As an explanation of the slow pace of divestiture policies in many countries, the following couplet elicits knowing smiles and nods of agreement:

If a public enterprise is making money, the government won't sell it; if it's losing money, the private sector won't buy it.

Unfortunately, the widespread initial appeal of this quote can be attributed only to the dominance of political over economic logic because it represents a fundamental misunderstanding of the economics of divestiture.

If this logic operated in the private sector, then the Wall Street Journal would be considerably thinner than it is. On the one hand, profitable firms are regularly relinquished because the price offered exceeds what the seller expects to earn in future profits. On the other hand, even chronically unprofitable firms can be sold at a positive price if the buyer believes that a management turnaround will create future profits. In short, (1) assets are sold when buyers and sellers value them differently, thus creating a positive-sum game where both parties can gain; and (2) the selling price of the asset is the intervening variable that allocates the benefits of the game. Whether a firm is profitable or unprofitable is secondary, since it is the difference in the valuation that makes a trade possible, not the level of the valuation. There is room for a deal if the seller can run an enterprise to yield 20 percent while the buyer could run it to earn 25 percent.<sup>10</sup> If, however, buyer and seller value a firm identically, then no deal can be struck, as there is no gain to be had from trading, and any transaction costs will create a negative-sum game. In sum, it is *divergence* of valuation that facilitates sale the *identity* of valuation that retards it.

If government preferences and management styles differ considerably from those in the private sector, then differential valuations are likely to be large; hence the sale of a public enterprise should be easier than the sale of a private enterprise. For example, if—as is commonly held—public enterprises are less cost-efficient than their private brethren, then the magnitude of the positive-sum game should be larger, and the sale should be easier, as compared with a private-to-private transaction where efficiency—and hence value—differentials are smaller. Because public-to-private transactions are in practice notoriously more difficult to consummate, we have a paradox. Resolution is found in both political and economic spheres.

One political problem follows from point (2). Even if the potential gains are great, how are they to be divided between the two parties? In a purely private transaction, the distribution depends on the degree of competition in the market for the shares: with many potential buyers, the seller might be expected to reap most of the benefits; with only one potential buyer, something in the vicinity of 50/50 might be reasonable, but the exact division will vary with the relative negotiating skills of the two parties. Matters are much more complicated in the politically charged atmosphere of a public sale, where accusations of "giving away the national patrimony," favoritism, and corruption are likely. Such political factors can override economic logic and make negotiation of the sale price a difficult exercise at best.

There are, however, economic obstacles as well. Public enterprises typically operate in highly imperfect markets. If the government chooses not to exploit a monopolistic or oligopolistic position, but the private buyer plans to do so, then he or she will value the enterprise more highly even in the absence of efficiency differentials. The government may nonetheless be reluctant to sell because it is concerned with the welfare of consumers (or workers, or suppliers) after the sale. Analytically, the problem is that the government seller cares about the operation of the enterprise *after* the sale, so we must introduce a third value into the calculation to reflect the social value of the enterprise after divestiture.<sup>11</sup> A private seller does not care about the operation of the enterprise after the sale, but the government seller, as fiduciary for all of society's interests, must care. The introduction of this third element into the divestiture calculus makes the economics of public divestiture fundamentally different from private divestiture.

There is a good deal more to it than this, of course. At this point we merely suggest that the economics of public divestiture are rather more complicated than those of private divestiture, and that to our knowledge they have been nowhere spelled out.<sup>12</sup> The purpose of this book is therefore to identify the relationships among, and the determinants of, the sale price and the three fundamental values of the firm.

More broadly, it is hoped that focusing on price and value will shed some technocratic light on three fundamental divestiture questions:

- 1. Should the public enterprise be sold?
- 2. To whom should it be sold?
- 3. At what price should it be sold?

### 1.4 Market Failures versus Organizational Failures

Are not the three questions internally inconsistent? Is not the entire goal of divestiture to make greater use of decentralized market forces? And does it not follow that if an enterprise is to be divested, the price and the buyer should be determined by impartial market forces, rather than by government technocrats?

More concretely, should not the institutional model for divestiture be British Columbia, where:<sup>13</sup>

1. Shares in companies to be divested were consolidated into a single company (British Columbia Resources Investments Corporation—BCRIC);

2. Some shares in BCRIC were distributed without cost to the "public" at the rate of five shares per resident, others were sold at the offering rate (\$6), and the remainder were retained by the provincial government and;

3. Therefore, shares were valued by the stock market.

The purity and sophistication of this model is to be admired, on both political and economic grounds. On the political side, by taking seriously the notion that the "public" is the ultimate owner of a public enterprise, and by distributing shares accordingly, accusations of favoritism and inequity are neutralized. On the economic side, creation of a market with large numbers of buyers and sellers avoids any governmental discretion in deciding buyer or price.

Although we commend the British Columbia model for the consideration of any government structuring a divestiture plan, we suggest that its direct applications may be limited. Many—if not most—real-world divestitures are motivated at least in part by deficit reduction considerations. Thus any political gains from distributing shares are likely to be offset by political losses from raising taxes or reducing critical expenditures. Even in a surplus context, the alternative to giving away the enterprise is tax reduction or expenditure expansion, and the question becomes, Would we gain more politically and/or economically by transferring income via giveaways, lower taxes, or higher subsidies? The answer, of course, is "it depends," but given the fiscal alternatives, it is not surprising that the British Columbia experiment has not (to our knowledge) been repeated in other MDCs, even where the sale was made to diversified investors via the stock market. Once the government wants the revenue, then the pricing problem returns, since the initial offering price must somehow be set.

In LDCs, matters are further complicated by the underdevelopment of capital markets in general and of the stock market in particular.<sup>14</sup> Thin capital markets and information gaps make market valuations an imperfect matter at best, and at worst result in artificial manipulations.

Even more critical is the control issue. As we shall emphasize later, there is little to be gained from divestiture unless enterprise behavior changes in the direction of cost efficiency and heightened entrepreneurial initiative. The question is whether in an LDC context management is likely to alter its conduct significantly when controlled by a large number of diversified shareholders, as opposed to the government shareholder. In short, will an LDC capital market exercise financial discipline over the firm? Even if you believe it will, will LDC investors believe this and be willing to bet their savings on it? We suspect that many LDC governments will answer in the negative and instead rely on selling controlling interests to a single individual, company, or group.

Even when selling to a single buyer, however, one could still rely on market mechanisms to set the price, through competitive bidding. Here again, the problem of thin capital markets poses a problem. How many bidders are you likely to get? What is the probability that they will collude? In such an environment it is only prudent for the government to do a bit of homework in setting its own reservation price and in estimating a reasonable offer price for the private sector so as to enhance its own negotiating position.

In sum, we suggest that in the LDC context, the pure market mechanism of divestiture will often fail because divestiture will not generate a large number of informed and competitive bidders. It follows that the government or its representatives will need to take an active role in valuing the assets and setting the price.<sup>15</sup>

Saying the government *should* undertake a particular task is of course rather different from saying it *can* do it. The market-failure limitations on market mechanisms are paralleled by the organization-failure limits on government actions. Determining the value of a firm is a complex effort at best, requiring knowledge of a host of unknowable future events. Is the government really capable of doing this? Further, even if the technocrats could do it, would the politicians listen? Is it not the case that the three fundamental questions will ultimately be answered on political grounds, with technocratic analysis being either ignored or merely used as justification for what the powers-that-be wanted to do in the first place?

The foregoing class of criticisms can of course be applied to any technocratic approach to public policy decision-making. Knowing the relevant divestiture values is not going to ensure the right divestiture decision any more than knowing the marginal cost of electricity is going to ensure that such a price is actually charged, nor is knowing the net present social value of a project going to ensure that the right investment decision occurs. Furthermore, given measurement problems, we are never going to "know" the relevant technocratic values with great precision. Nonetheless, while giving full recognition to the political and ideological elements of public policy decisions, the goal of a technocratic approach is to inform the discussion by a careful detailing of the factors to be considered and to reduce the scope for political discretion by quantifying the outer bounds of the costs and benefits.

What distinguishes the divestiture decision from the investment or pricing decision is neither the role of politics nor the inability to provide a perfect answer. Rather, the difference is that the economics of divestiture have nowhere been systematically worked out.

#### 1.5 Approach

In pursuit of this goal, we adopt an approach aimed at the educated practitioner rather than either the high theorist or the "who-needs-a-study?" lay person. The aim is to provide a resource for those who actually have to go to the field and propose a selling price for the enterprise or conduct an evaluation after the sale. We therefore need to strike a balance between theoretical rigor and practical applicability.

On the one hand are proponents of what may be called the "Wall Street" school of divestiture, who view the sale of a public enterprise as fundamentally the same as the sale of a private enterprise and therefore think that all you need to do is hire a "Big Eight" accounting firm. While this approach is relatively easy to apply (which might explain its widespread use), we argue that it isn't enough. It captures the value of the enterprise to potential buyers but ignores the interests of consumers, workers, and others who must be safeguarded by the government. Thus, for example, we believe that demand curves have some slope, that quantities vary with prices, and that therefore the government should be concerned with changes in consumer surplus when evaluating divestiture decisions. In a like manner, the government should be concerned with the fiscal impact of the divestiture and its impact on workers and others.

But where does one draw the line in introducing further complications? Here, pure theorists would step in and say that the only "right" way to do the analysis is to build a general equilibrium model of the whole economy and then allow all the secondary and tertiary impacts of the divestiture to work themselves out through this model. Whereas we might agree with this principle, we reject it as impractical. Instead, we follow the tradition adopted in cost-benefit analysis, which is to use a partial equilibrium approach with the introduction of many shadow multipliers that serve as proxies for many of the general equilibrium effects that are otherwise left out. This approach is not only practical but correct so long as the changes generated by divestiture are not large enough to change the values of the multipliers by more than the error in their estimation. The approach therefore is generally acceptable as long as the divestiture under analysis is "small" relative to the whole economy. If a country is truly expected to divest much of a large public sector over a short period of time, then a formal general equilibrium approach may become necessary. In general, then, we try to take the insights of theory as far as they are likely to be usable in empirical field work, and no further.

Our approach is also eclectic. Economists tend to be preoccupied with the behavioral changes accompanying divestiture, whereas financial analysts focus on valuation issues. We try to look at the interdependency of both.

#### 1.6 Overview

We begin by laying out the relationships between the various prices and values and the way in which they jointly determine the answers to the fundamental divestiture questions (chapter 2). Subsequent sections investigate the determination of the values in increasingly complex environments. Chapter 3 details the considerations involved in deciding the relative value of funds in government and private hands. Chapter 4 deals with the simplest possible case of competitive equilibrium where all prices are "right" and there are no differences between public and private behavior. Here the focus is empirical, and considerable attention is given to extracting relevant data from the accounting records of an actual enterprise. In later sections we see how the respective valuations of this same firm change as we introduce additional complexities.

The first complexity involves the fundamental trade-off between increased cost efficiency and possible exercise of market power by the divested enterprise (chapter 5). The second complexity is the presence of price regulation, indirect taxes, and other factors creating a gap between market and shadow prices (chapter 6). The third complexity is the presence of positive and negative synergies between the buyer and the acquiring firm (chapter 7). The fourth complexity is income distribution; because various classes in society are affected differently by divestiture, incorporation of distributional effects into the model is essential in its own right and also provides a link to the political economy of the process (chapter 9).

To achieve clarity, each of these complexities is introduced on a (largely) ceteris paribus basis. In chapter 8, however, most pieces of the methodology are combined in a Lotus 1-2-3 template, which allows testing for the sensitivity to the various assumptions, examination of interdependencies, and application to widely differing classes of enterprises. These results are then used to suggest the implications of alternative government policies and strategies that might enhance the outcome of the divestiture effort (chapter 10).

The final chapter provides a summary of the book and then moves from ex-ante valuation to ex-post evaluation. Here we outline how the methodology developed earlier can be applied to the evaluation of actual historic divestitures to shed light on future decisions.