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## The Privatization Dividend

A worldwide analysis of the financial and operating performance of newly privatized firms

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Surprisingly little direct empirical investigation has been done to see whether privatization is delivering the expected results. The main constraint has been getting postsale data for firms not publicly traded. Most of the early empirical work looked at only a small number of companies from a single country (usually Britain) and therefore lacked statistical significance, making it hard to draw strong conclusions. The consensus about privatization by the mid-1980s—to the extent that there was one—was summed up by Yarrow (1986), who argued that competition and managerial accountability are more important than privatization in promoting economic efficiency.

More recent theoretical and empirical studies have offered stronger support for the dual propositions that private firms outperform public firms and that privatization itself increases the operating efficiency of the divested firms.

The theoretical work of Boycko, Shleifer, and Vishny (1993) showed that privatization will lead to effective restructuring of public enterprises only if rights to both cash flow and control pass from the government into private (particularly managers') hands. Boardman and Vining (1989), comparing the performance of the 500 largest non-U.S. mining and manufacturing companies in 1983, found, after controlling for the regulatory and competitive environment, that private firms are more profitable and more efficient.

The most thorough empirical analysis of privatization is the World Bank study by Galal, Jones, Tandon, and Vogelsang (1994). They analyzed the postprivatization performance of twelve companies (mostly airlines and regulated utilities) in Britain, Chile, Malaysia, and Mexico to determine whether the transfer to private ownership increased efficiency—and, if so, how the costs and benefits of adjustment were allocated. Taking great care to isolate the effect of privatization, they compared the performance of the divested firm with what it would have been had the firm remained in state hands. Results showed net welfare gains in eleven of the twelve cases—averaging, in present value terms, 26 percent of the firm's predivestiture sales revenue.

As rigorous as the World Bank study was, however, it examined only a small number of (mostly regulated) firms from four countries. Thus, it only partially overcame the basic problem that has bedeviled all empirical privatization studies—obtaining truly comparable pre- and postprivatization data for a large, multinational, multi-industry sample of companies. The study de-

**TABLE 1 POSTPRIVATIZATION PERFORMANCE: KEY RESULTS FROM 61 COMPANIES IN 18 COUNTRIES**

Indicator	Average change
Profitability	+45%
Efficiency	+11%
Investment	+44%
Output	+27%
Employment	+2,346 (+6%)
Dividend payout	+97%
Board turnover	46%





**Sample firms privatized through public share offerings, 1961–90**

**Austria**  
Länderbank  
OMV AG  
Verbund

**Canada**  
Fishery Products  
International  
Air Canada  
Petro Canada

**Chile**  
CAP S.A. de Inversione  
SQM  
Compañía Chilena  
Metropolitana de  
Distribución Eléctrica  
IANSA  
Laboratorios de Chile

**Denmark**  
Kryolit Selskabet  
Oeresund

**France**  
Elf Acquitaine  
St. Gobain  
Paribas  
Banque Industrielle &  
Mobilière Privée  
(BIMP) Sogenal  
Banque de Bâtiment et  
des Travaux Publics  
Crédit Commercial de  
France  
Havas  
Compagnie Générale  
d'Electricité  
Société Générale  
Compagnie Financière  
Suez

**Germany**  
Volkswagen  
VEBA AG  
VIAG  
Deutsche Verkehrs  
Kreditbank  
Deutsche Siedlungs  
und Landesrentenbank  
IVG

**Italy**  
Banca Commerciale  
Italiana (BCI)  
Saipem S.p.A.  
Sirti  
Credito Fondiario  
Aeritalia  
Nuovo Pignone

scribed in this Note did overcome this problem. It limited its analysis to companies that were sold to the public through a share issue and thus for which comparable pre- and post-issue financial and accounting data could be obtained (from the firms' offering prospectuses and annual reports).

Although limiting a study to a relatively small subset of firms would normally yield a serious sample selection bias, that was not the case in this study, for two reasons. First, the largest and most economically significant public enterprises usually can be privatized only through public share issues, and companies so privatized account for most of the assets and employees transferred to the private sector during the study period. Second, companies sold publicly are the most visible and politically sensitive privatizations, and it is the public's perception of their postdivestment performance that will determine whether the entire privatization program is judged a success or a failure.

**Tests, methods, and results**

The study compared the pre- and postprivatization performance of sixty-one companies in eighteen countries (six developing and twelve industrial) and thirty-two industries. It constructed a timeline of the operating results from the last few years of public ownership through the first years after privatization. And it tested for the results most governments expect: increased profitability, increased operating efficiency, increased capital investment spending, and increased output. It also tested for a result that governments hope for but generally do not expect to achieve: privatization without lowering employment levels. The study tested for these results both for the full sample and for several subsamples: privatizations of firms in competitive and non-competitive industries, full and partial privatizations, privatizations involving firms headquartered in OECD countries and in developing countries, and "control" and "revenue" privatizations. Control privatizations are those in which the government sells a controlling share or voting control, and revenue privatizations are those whose purpose typically is to raise revenue without surrendering control.

The overwhelming majority of issues are pure secondary sales of government shareholdings. Thus, any significant results will not be the consequence of cash flowing to the firm from the share offering (see table 1 for a summary of results).

**Higher profits and greater efficiency**

Privatization is designed to substitute the single objective of maximizing profits for the typically mixed objectives of public enterprises, and exposure to the benefits and penalties of monitoring by capital markets is expected to focus employees on the task of raising revenues and lowering costs. The study's results showed that profitability does increase significantly after privatization, as measured by the return on sales (up 45 percent). Profit margins expanded after privatization for 69 percent of all firms. The subsamples showed similar results, except for firms in non-competitive industries (regulated industries such as utilities and banking), for which the increase in the return on sales was insignificant.

Both of the efficiency measures used, inflation-adjusted sales per employee (up 11 percent) and net income per employee (up 32 percent), showed significant increases following privatization for the full sample. Sales per employee increased for 86 percent of firms and income per employee for 70 percent. Efficiency improvements were also the norm for most of the subsamples. The median increase in sales per employee was significant for firms in competitive industries, for full and partial privatizations, for control (but not for revenue) privatizations, and for companies headquartered in OECD countries. And in all but the subsample of non-OECD companies, more than half of firms (70 to 93 percent) increased output per employee.

**More investment**

There are several reasons to expect that privatized firms will increase capital spending after divestiture. First, after their initial public offering, these firms gain far greater access to private

debt and equity markets than most public enterprises ever have. Second, if privatization is accompanied by deregulation and market opening (as often occurs), the newly private firms generally must make large investments to compete with other private firms. Third, public enterprises tend to emphasize labor over capital inputs in their production processes, and the combined influences of politicians, labor unions, and other interest groups tend to leave them employee-rich and capital-poor. And years of financial stress often lead firms to defer routine maintenance, which must also be made good after privatization. Fourth, the removal of government control frees enterprises from pressure to overproduce politically attractive but economically wasteful goods—and frees resources to be reallocated to higher-value uses. Finally, to the extent that privatization promotes entrepreneurship, newly private firms have the incentive and the means to invest in growth options (such as launching new products and services or pursuing acquisitions) both at home and abroad.

The study's results showed significant increases in the ratio of capital expenditures to sales (up 44 percent), its proxy for investment intensity, with the ratio going up for 67 percent of all firms after privatization. For the first time, the results for subsamples reflected substantial differences. Capital expenditure ratios rose significantly for firms in competitive industries, for full divestitures, for control privatizations, and for companies headquartered in OECD countries. The increase was smaller, and insignificant, for firms in non-competitive industries, for partial divestitures, and for revenue privatizations. With only seven observations for companies in developing countries, no strong conclusions could be drawn about this subsample, except that investment spending did not decline.

### Higher output and more jobs

The tests showed that real sales increase after privatization. The mean increase in real sales from the average level during the three years

before divestiture to the average level afterward was 27 percent, with 75 percent of firms experiencing increases. All the subsamples also showed significant growth in output after privatization.

Perhaps the most surprising and important finding of the study is that employment actually increases after privatization—by an average of 2,346 employees (6 percent)—rising in almost two-thirds of all firms. So why do union leaders almost always vehemently oppose privatization programs? There are three possible reasons. First, there have been many high-profile examples of large-scale job losses before and after privatization. British Telecom, British Gas, St. Gobain, and Nippon Telegraph & Telephone all lost at least 5,000 workers after privatization, and British Steel's employment declined from 166,000 workers in 1979 to only 55,000 employees in the year it was privatized. Second, labor unions invariably face the prospect of converting from public to private sector unions, with all that that implies about their power to influence public enterprise policy and to extract wage concessions from companies backed by the taxing power of a national government. Third, where privatization coincides with industry deregulation, management often comes under severe competitive cost pressures—to which it responds by pressuring its workforce for wage concessions, work rule changes, or both.

### Lower leverage and higher dividends

Most governments expect leverage (debt to equity) ratios to drop after divestiture. Public enterprises traditionally have extremely high debt levels, at least in part because they cannot sell equity to private investors and must rely for financing on capital injections from the government and retained earnings. As predicted, the study documented a significant decline in leverage across both the full sample and the subsamples. Also as predicted, it found that the average ratio of dividend payout to profits increases—from 23 percent to 46 percent after divestiture. The ratio of dividends to sales shows an even greater increase.

**Jamaica**  
NCB Group  
Caribbean Cement Co.

**Japan**  
Japan Air Lines  
Nippon Telegraph & Telephone

**Malaysia**  
Malaysian Airlines  
Syarikat Telecom  
Malaysia Berhad

**Mexico**  
Teléfonos de México

**Netherlands**  
KLM  
Naamloze  
Vennootschap DSM

**New Zealand**  
Air New Zealand

**Oman**  
Oman Flour Mills

**Republic of Korea**  
Pohang Iron & Steel

**Singapore**  
Neptune Orient Lines  
Singapore  
International Airlines  
Singapore National  
Printers  
Keppel Corporation  
Sembawang Shipyard

**Spain**  
GESA  
Repsol

**Sweden**  
Procordia  
Swedish Steel

**United Kingdom**  
British Petroleum  
British Aerospace  
Cable & Wireless  
Amersham International  
Britoil  
Associated British Ports  
Enterprise Oil  
British Telecom  
British Gas  
British Airways  
Rolls Royce  
BAA plc  
British Steel

**United States**  
Conrail



### Changes in ownership and control structure

The study found considerable turnover on the boards of directors of newly privatized firms. Barely half (54 percent) of existing directors remain with a firm after its divestiture. To find out what the implications of this turnover are for firm performance, the study divided the firms with data on boards of directors into two groups—firms with 50 percent or greater turnover among directors after privatization (high director change) and firms with less than 50 percent change (low director change). It performed the same analyses for these two groups as for the other subsamples. In general, the results for the firms with high director change mirrored those for the full sample of companies and most of the other subsamples—increases in profitability, output per employee, capital investment spending, employment, and dividend payout and a significant decrease in leverage. By contrast, firms with low director change experienced significant (positive) changes only in output per employee and dividend payout. Thus, changes in firms' ownership and control structures, rather than government divestiture alone or cash infusions from share issues, seem to be the driving force in explaining most of the study's results.

### Conclusions

The study showed significant increases among newly private firms in profitability, output per employee, capital spending, and employment. It also found that the financial policies of these firms start to resemble those typically associated with private entrepreneurial companies—with lower leverage and higher dividend payout ratios. Although the data did not allow precise documentation of the causes of these performance improvements after divestiture, the study was able to rule out price increases as a frequent source of profitability increases.<sup>1</sup> The pervasiveness of these improvements and the fact that most share sales did not raise cash for the firm suggest that privatization itself—the involvement of private investors in a firm's ownership structure—has a strong effect on a firm's operating and financial

performance. The most likely explanation for these changes is that (even partial) private ownership allows the internalization of the benefits of performance improvements, and public listing of shares allows these benefits to be capitalized into the price of the firm's stock. Changes in executive and employee compensation policies may give the firm's workers incentives to be more productive, but the study was unable to document such changes with its data. It could only show that, for whatever reason, newly privatized firms improve their operating and financial performance while maintaining employment.<sup>2</sup>

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<sup>1</sup> Furthermore, the study found little evidence that governments subsidize public enterprises while they are being prepared for privatization, except for the French companies nationalized by the Mitterrand government in 1981 and privatized by the Chirac government in 1986–87. It found no significant examples of subsidies being paid after divestment. Well before privatization, however, governments often paid very large cash subsidies to public enterprises, usually to cover operating losses. For example, the British government paid more than £6 billion to British Steel during 1975–84 to cover the firm's immense operating losses, and gave at least as much to other public enterprises during the same period.

<sup>2</sup> The authors of this Note explore these issues in two later papers. "Share Issue Privatizations as Financial Means to Political and Economic Ends" examines how governments adjust the pricing and other terms of share offerings to achieve political and economic objectives, and "Determinants of the International Spread of Privatization" analyzes how and why privatizations have spread so rapidly in recent years. Both papers are available from William Megginson, tel. 706 542 3648, email: wmegginson@cbacc.cba.uga.edu.

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