WORKING PAPER NUMBER 6
MAY 2002

Winners and Losers: Assessing the distributional impact of privatization

By Nancy Birdsall &
John Nellis

Abstract

While most technical assessments classify privatization as a success, it remains widely and increasingly unpopular, largely because of the perception that it is fundamentally unfair, both in conception and execution. We review the increasing (but still uneven) literature and conclude that most privatization programs appear to have worsened the distribution of assets and income, at least in the short run. This is more evident in transition economies than in Latin America, and less clear for utilities such as electricity and telecommunications, where the poor have tended to benefit from much greater access, than for banks, oil companies, and other natural resource producers.

May, 2002

Winners and Losers:
Assessing the Distributional Impact of Privatization

by

Nancy Birdsall and John Nellis*
Center for Global Development

The predominant view is that we cannot say anything about income distribution as economists…..Having set up a standard, we can proceed to make policy judgments based on that standard. But these are personal rather than professional judgments.

Lloyd G. Reynolds, ***Macroeconomics***, 5th edition, 1985, p. 24.

Introduction

Privatization has not been a popular reform. Economic assessments of the effects of privatization on economic welfare and growth in developing and transitional economies have generally been positive. But evidence of political chicanery and corruption in Russia and Malaysia, of fiscal mismanagement in Brazil, of escalating prices in Argentina, and of lost jobs in a great many countries, has sullied its reputation even among proponents of the liberalizing reforms of the last two decades. Nobel-laureate Joseph Stiglitz thus campaigns for slower and more deliberate privatization, and critics of the larger liberalizing agenda known as the Washington Consensus conclude that privatization should be entirely opposed.

• President and Senior Fellow of the Center for Global Development. We are grateful to colleagues William Cline, William Easterly and John Williamson for comments.

At the heart of much of the criticism is a perception that privatization has been unfair—hurting the poor, the disenfranchised, and in some cases beleaguered workers, and benefiting the already rich, powerful and privileged. Privatization is seen as throwing large numbers of people out of work or forcing them to accept jobs with lower pay, less security and fewer benefits; as raising the prices of goods and services sold; as providing opportunities for the enrichment of the agile and corrupt, and generally making the rich richer and the poor poorer.[1] The complaint is that, even if privatization contributes to improved efficiency and financial performance (and some contest this as well), it has a negative effect on the distribution of wealth, income and political power. The negative perception is widespread and growing: 63 percent of people surveyed in the spring of 2001 in 17 countries of Latin America disagreed or strongly disagreed with the statement "The privatization of state companies has been beneficial. . ." The extent of disagreement was much greater than in 2000 (57%) or 1998 (43%).[2] Over 60 percent of Sri Lankans interviewed in 2000 opposed the privatization of the remaining state-owned firms. It would not be hard to find other expressions of popular dissatisfaction with privatization, of a similar magnitude, from the transition countries in general and Russia in particular.

Some of the popular and critical perceptions and assertions are quite accurate—there can be little doubt that mistakes have been made and promises not kept—but a good number are not. An argument can be made that the concrete outcomes of privatization have in many cases been better than people think, or that privatization may not be the actual cause of the real difficulties they perceive. Nonetheless, perceptions count greatly in and of themselves if they result in political opposition sufficient to slow, halt or reverse a process that would bring efficiency and growth gains to a society—gains which could in principle be fairly shared using tax or other policy instruments. Moreover, the actual distributional effect of privatization matters, because inequality itself matters, in at least three ways. First, most societies possess and exercise some implicit limits on their tolerance for inequality, independent of its effects on growth and efficiency. Second, there is mounting evidence that inequality can and does hinder growth, particularly in developing economies where institutions and markets are weak.[3] Third, it is

[1] A more technical critique of privatization attributes the perceived efficiency and performance benefits to market reform and the enhancement of competition, not ownership change. See for example Tandon (1995), who argues: "…there are, of course, many cases where privatization appears to have 'resulted' in efficiency improvement; in most of these cases, however, the privatization appears to have been contemporaneous with deregulation or other types of competition-enhancing measures." (229-230)

[2] Survey conducted by Latinobarometro, interviews conducted in April and May 2001, results presented in ***The Economist***, July 28th-August 3rd 2001, p. 38. The increase in negative perceptions of privatization is in some places great (e.g., Argentina, Brazil, Colombia), in others slight (e.g., Chile, Ecuador, Venezuela), but in all 17 countries the percentage has grown. For a general discussion of the dissatisfaction with liberalizing economic reform in Latin America, see Lora and Panizza (2002), section 2.

[3] The growing theoretical and empirical literature on this point is discussed in Aghion *et. al* (1999). Barro (2000) finds the inequality effect on growth is negative in developing countries but not developed countries, consistent with the likelihood that the effect operates where markets and institutions are weak and government policy either reinforces or fails to offset those factors. See also Easterly (2001), and Birdsall and Londono (1997) who emphasize the relevance of asset distributions.

increasingly evident that inequality can perpetuate itself by affecting the nature and pace of economic policy and locking in unproductive political arrangements.[4]

In this paper we review the growing (but still uneven) literature on the distributional effects of privatization. We examine which groups have gained or lost, and, where all have gained by some measure, which groups gained the most. The paper is a first step in a larger project designed to assess the distributional effects of privatization programs in developing and transitional economies. It aims to derive lessons for minimizing any tradeoff between the efficiency and equity outcomes of the process, or (as we hypothesize is also possible) maximizing any complementarities. As economists, as Lloyd Reynolds points out, we cannot pretend to make any value judgment about the right tradeoff, where there is one, between efficiency and equity outcomes. But we can try to assess the nature of any tradeoff, or complementarity, to enlighten the public debate about policy and program decisions that are ultimately made in the political arena.

During the 1980s and the 1990s, a wave of privatizations swept the developing world. Including the many firms partially or fully privatized in the transition economies, the number of firms undergoing ownership change now well exceeds 100,000; and the total value of assets transferred has been very large, particularly in Latin America, East Asia and the transition region, though much less so in South Asia, the Middle East and sub-Saharan Africa. Despite the massive shift to private ownership, a surprising amount of firms and assets remain in the hands of the state—in particular in China and Vietnam, but also in India, and in the transition countries where the large, and high-value infrastructure firms have yet to be sold. Thus, information on how to conduct privatization in a proper and acceptable manner is still very much of value.

In the larger project, we concentrate on case studies of privatization programs at the country level, in settings such as Mexico, Bolivia, Sri Lanka, India, Malaysia, Egypt, China, the Czech Republic, Georgia and Russia. In this paper, we review existing studies of particular transactions and sectors, especially in infrastructure (where the distributional impact is somewhat easier to measure), as well as country-level programs.

We begin in Section 1 by outlining a simple framework within which to consider the efficiency and equity gains and losses of privatization—at the firm, sector or country level. In Section 2 we summarize the burgeoning literature on the overall "efficiency" effects, usually considered in terms of gains or losses to aggregate welfare and to the competitiveness and growth prospects of an economy. In Section 3, we review and reflect on what we know from theory and from existing

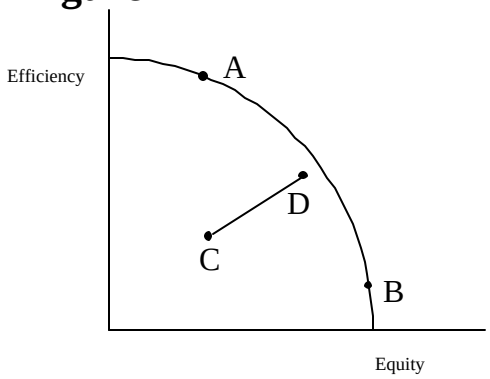
[4] As Hellmann (2000) documented in the Russian case, an initial distribution of resources and property rights to a limited set of actors, in a situation where there were few institutional impediments to translating economic into political power, created a group able to block subsequent competition-enhancing and redistributive reforms. Nellis (1999) offers a similar argument.

studies on distributional issues, using the framework of Section 1. In Section 4, we present our preliminary conclusions—preliminary because of the uneven nature of the existing literature, and because this paper antedates the case studies. Our objective is to help shape the questions (the hypotheses) regarding distributional outcomes which country case authors and others might address more systematically. An Annex reviews in detail the empirical work on which we draw.

Section 1. A General Framework

Economists usually frame the question of equity or distribution in the context of a tradeoff with efficiency or growth. In a perfectly competitive economy at its production frontier, for example, without any externalities, information asymmetries or other problems of missing or imperfect markets, there is likely to be such a tradeoff—as in Figure 1.

Figure 1



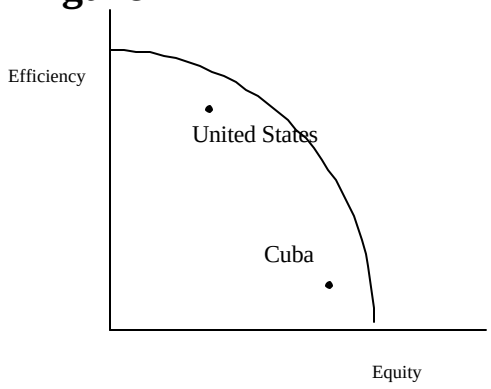
On that frontier, the only efficient means of redistribution is through lump-sum transfers that have no effect on the incentives of economic agents, on prices, and so forth. An efficient economy can be highly inequitable (point A), or equitable (point B), often as a function of some "initial" allocation of the assets (financial, physical, human capital, and so on) that generate income. A move along the frontier must lead to more efficiency and less equity or vice versa, the definition of a trade-off.

In an economy that is not perfectly competitive, however, there is no such necessary tradeoff. At point C in Figure 1, the economy has the potential to move to

both greater efficiency and equity, for example to point D.[5] Most developing and transitional economies are less efficient than the economies of industrialized countries. Their low income is not only the result of their limited resources. They also often fail to use well what resources they possess, because of lack of enforceable property rights, policy failures (highly distortionary tax systems, labor market rigidities), outright corruption, the protected monopolies that state enterprises often represent and so forth.[6] Historical injustices, civil conflict, political instability, crushing levels of disease or frequency of natural disasters may all also keep economies more or less permanently inside the efficiency frontier.

For any given productive capacity, many of these economies are also highly inequitable—because of government or policy failures that sustain insider privileges or corruption, or because of historically driven concentrations of wealth in land, oil, or other assets. Of course it is also possible for a society to be inefficient but equitable ("Cuba" in Figure 2) or highly efficient but also relatively inequitable ("United States" in Figure 2).

Figure 2



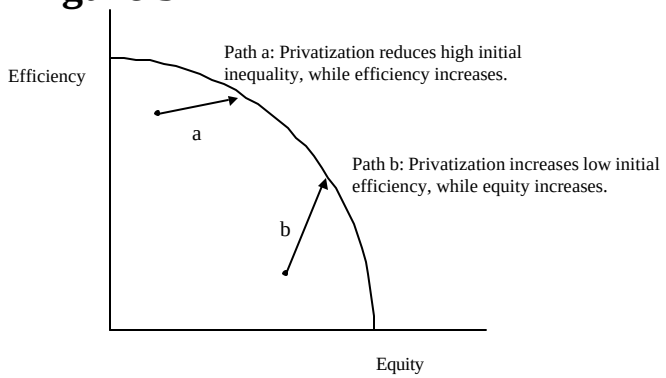
[5] Birdsall, Ross and Sabot (1995) argue that the lack of any tradeoff explains why the East Asian tigers, with relatively low inequality, grew rapidly in the 1960s through 1980s compared to Latin America, with its high inequality. See also the essays in Birdsall, Graham and Sabot (1998), especially Briscoe et al on the effects of privatization in the water sector, and James on the partial privatization of pension systems.

[6] Thus, as Easterly (2001) notes with compelling examples, using foreign aid to provide additional investment capital or additional foreign exchange will not necessarily yield any additional product or growth.

The essential point is that in most developing and transitional economies well inside the production frontier there is no *necessary* tradeoff between increased efficiency and resulting economic growth on the one hand, and increasing equity on the other. This means it should be possible to implement privatization "events" (firm-by-firm) in ways that promote both equity and efficiency. To the extent that privatization reduces monopoly rents held by the wealthy, for example, it is likely to increase both efficiency and equity in the economy as a whole.[7]

The structure and outcome of each privatization event is only one factor in the overall story of privatization's effect on equity (or distribution) at the country level. Pre-privatization conditions matter—there will be more scope for an improvement in equity the more inequitable the initial situation is. And of course the same is true with respect to initial inefficiency (Figure 3, paths a and b). The post-privatization environment (degree

Figure 3

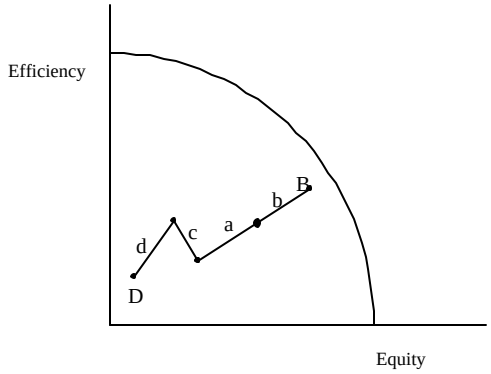


of competition, regulatory arrangements) can reinforce or alter the original path. Complicating matters, the one-time privatization event (even if extended over several years), may help determine the post-privatization policy and institutional environment, and thus the long-term path of a society. For example, mass privatization efforts in the transitional economies were justified on the grounds that

[7] See for the theoretical underpinnings of this view Aighon *et al* (1999) and Benabou (1996); for empirical refinements, see Barro (2000) and Birdsall, Ross and Sabot (1995).

privatization was necessary and perhaps even sufficient to create competition and induce increased firm (and overall economic) efficiency (Figure 4, path "a" via privatization, followed by "b" in the post-privatization competitive environment). But the unanticipated initial

Figure 4



outcome in several countries, most notably Russia, was that the event itself initially increased the economy's inefficiency, but also locked in insider privileges, leading to competition-eroding corruption that increased post-privatization.[8] (Figure 4, path c, followed by d).

Moreover, because the post-privatization path of a society is not unidirectional nor necessarily fully determined by transfer of ownership itself, any single snapshot-like assessment of where a society is relative to where it was before may be a poor indicator of the long-run effects of privatization. The outcome at any given moment of time will be shaped by the amount of time since the process began, the extent to which the process affected the post-privatization environment, and by a host of independent factors post-privatization that can affect the direction of the path (points B vs. D in Figure 4).

We take it for granted that the central objective of privatization in developing and transitional economies, and for that matter in the industrialized economies, has been to secure efficiency gains for the economy as a whole (though some in the transition region interpreted privatization as primarily a political act, required to sever the links between the state and productive enterprises). Where distributional issues have been considered, they have generally been devised in the context of greasing the wheels of

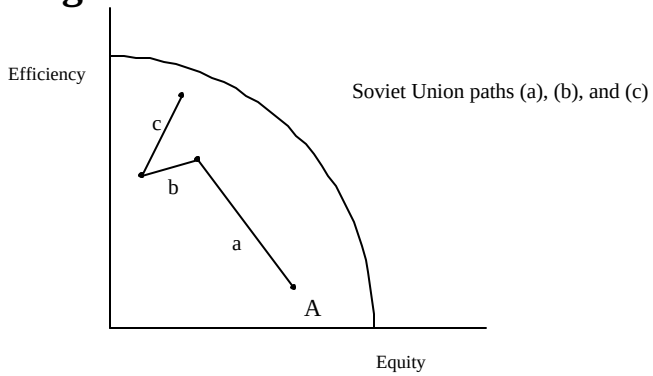
[8] As argued by Stigliz (1999, a and b).

the process to make it politically more palatable (as when employees of enterprises to be privatized are given special deals on obtaining shares in the new firm, or when the sellers oblige the new owners to accept post-privatization conditions such as service guarantees for less profitable markets, or commit to certain levels of investment or maintaining employee numbers for some specified time, etc.). Sometimes of course the distinction between a general distributional goal and a technique to obtain support is not that clear. For example, the voucher programs in Eastern Europe and Russia and Bolivia's capitalization program aimed ostensibly at an adequate distribution of the "patrimony," though they too were designed to mute political opposition to the reform.

Behind the usually paramount goal of improving efficiency has been the implicit assumption that government could and should use other, more traditional and direct instruments for redistribution, through tax and expenditure policies. Of course that assumption may not always have been borne out, because of political and economic constraints that are independent of privatization policy per se. That raises the normative question (which we do not address in detail in this paper) of whether it makes sense to exploit the privatization policy itself as a more direct and less costly opportunity for redistribution, or at least whether to minimize the likelihood that the process itself will exacerbate inequality.

Some familiar examples illustrate the logic of the framework (though we do not claim that these rough examples are absolutely true to fact). With its highly planned economy, the former Soviet Union was initially inefficient, though possibly reasonably equitable — with everyone comparably badly off (point A in Figure 5). Privatization in Russia may well have

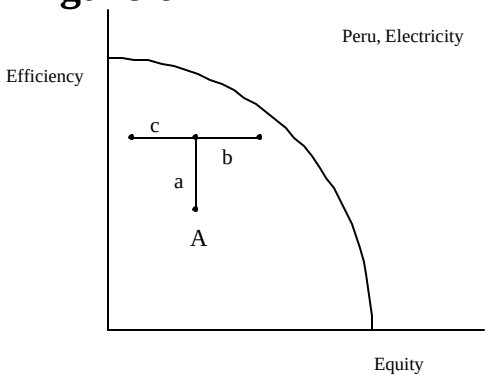
Figure 5



made the economy both more efficient and in the process itself, more inequitable, as some former state assets were acquired by a relatively small group of insiders (path a). The resulting concentration could further worsen equity, and stall or even reverse efficiency gains, as the new insiders concentrate on asset stripping rather than productivity-enhancing investments (path b). However, a subsequent clampdown on corruption (under Putin for example) could bring increased equity, by eliminating favors, and increased efficiency, as the elimination of implicit insider subsidies yields to a more competitive environment (path c).

In Peru, a state-run electricity utility could be inefficient initially, with poor management, high technical losses, poor revenue collection, irrational pricing and so forth. It could also be highly inequitable, providing virtually no services (i.e.services at an infinite price) to poor neighborhoods, while underpricing or failing to charge and collect fees in middle class and rich neighborhoods or from large industrial users. (Point A in Figure 6). Privatization

Figure 6

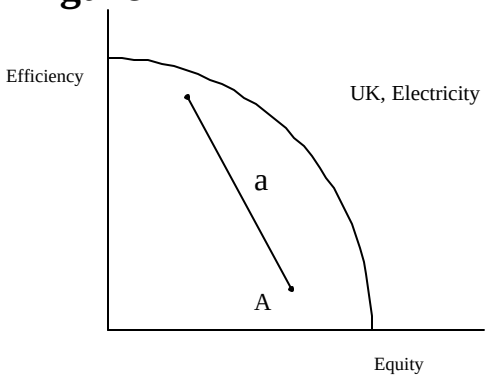


could increase efficiency dramatically, both via technical efficiency gains at the enterprise level, and at the economy-wide level by stemming the hemorrhage of publicly financed subsidies, which both permits and promotes responsible fiscal management. It is easy to imagine offsetting effects on overall equity (path a). Offsetting equity effects could result from a combination of higher prices for the previously insulated middle class with much better access (and a lower than "infinite" price) for the poor. Some poor, e.g. in rural areas, would still be unserved and thus relatively worse off than other poor—though not worse off in any absolute sense of course. Other urban poor—those whose prior access through illegal hook-ups is eliminated, a common outcome of electricity privatization in Latin America and Asia—might be absolutely worse off. In subsequent years, equity gains could be

reinforced or reversed depending on political pressures and on regulatory capacity in an institutional and technical sense (paths b, c).

In the UK, privatization of the electricity sector may provide large initial efficiency gains, but non-aggressive or incomplete regulation in the years immediately after sale may mean that the new owners, and not consumers, capture most of the initial gains (Figure 7, path a). And if this or any other privatization also results in layoffs of workers of relatively low skills and income, it is likely to increase the wage gap between the skilled and unskilled as the supply of the latter in the larger market increases.

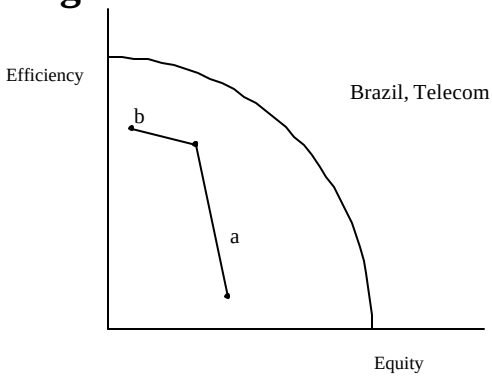
Figure 7



In Brazil, privatization of state telecommunications monopolies may bring huge efficiency gains, with greatly increased coverage and access and quality for consumers and for productive sectors for which communications is a critical input. But under-pricing of the firm to ensure the sale is successful[9] may mean that middle-income taxpayers lose out and the windfall gains to a small number of new owners increase the overall concentration of assets (path a in Figure 8). If those windfall gains go primarily

[9] Government sellers often underprice to ensure that the sale will go forward; failure to sell is a major embarrassment. The major purchasers thus get a bargain. But another reason for underpricing is precisely to encourage local citizens to take part. Paradoxically, a mechanism devised with at least some distribiutional purpose may, overall, add to inequity.

Figure 8



to foreigners there may be no direct effect on the domestic distribution of wealth and income, but rather a sense of unfairness in the society as a whole. If the fiscal windfall is squandered (e.g. because it temporarily relieves the budget constraint on acquiring more debt), leading to subsequent increases in interest rates or reductions in social and other expenditures that are relatively progressive, these second-stage indirect effects may exacerbate the initial inequity (path b).

The framework and the simplified examples underline that there can be no simple prediction about the distributional effects of privatization. The effects on equity depend on at least three factors: initial conditions, the sale event, and the post-privatization political as well as economic environment. The privatization event may reinforce or undermine aspects of the environment that are conducive to equity, or may simply reflect that environment, or may be independent of it. Our judgment of those effects may also depend on at what point on the "path" we measure the outcome. In the end, the question is an empirical one, unlikely to yield to any simple generalization across countries and over time. Thus, understanding the distributional impact of privatization requires an assessment of real cases, and the setting of those cases in the larger context of their political as well as economic environment and history—precisely the approach undertaken in our larger project.

At the same time, our framework reflects and motivates the approach we take, namely that in most settings outside of the industrialized countries, there has been room for efficiency-enhancing privatization that is also equity enhancing. Where there has been a tradeoff it might have been avoided or diminished by a different process or by earlier or more vigorous attention to constructing a different post-privatization environment (regarding competition, regulation, etc.)

Section 2. The Overall Economic Record

On the whole, privatization has proven its economic worth. The shift to private ownership generally improves a firm's performance. There are some exceptions, but this finding holds up in most countries, including some that are very poor, and many of the formerly socialist economies in the transition region. Post-privatization, profitability has generally increased, often substantially, as have output dividends and investment. In their extensive literature review, covering 65 empirical studies at the firm level, and across firms within and across countries, Megginson and Netter (2001) conclude flatly that ". . . privately-owned firms are more efficient and more profitable than otherwise-comparable state-owned firms." (380)[10]

Privatization's economy-wide effects on the government budget, and on growth, employment and investment are less established. The most elaborate study to date, a review by the IMF (2000) of 18 privatizing countries, reported substantial gross receipts from privatization, accounting for nearly 2 percent of annual GDP. Governments have generally ended up with about half that amount, reflecting the high costs of clean-ups and sales. Even 1 percent of GDP is substantial, but the long-run effects on government revenue generally come not from the sales proceeds (which result from a one-time sale of an asset) but from the elimination of pre-privatization subsidies to state enterprises, and from subsequent increased tax revenues from more profitable and productive private enterprises. Governments such as Mexico, Cote d'Ivoire and Mozambique received, in the first few years following sales, more from privatized firms in taxes than from direct proceeds of sales. A "flow of funds" analysis in Bolivia shows, in the first four years following sales, a positive financial return to government of US $429 million —despite the fact that government received not a penny of the sales proceeds.[11] In addition, the IMF study concludes that markets and investors regard privatization as a healthy signal of the political likelihood that government will stick with its overall reform program, probably implying somewhat higher investment rates in the economy overall.

This is not to say that always and everywhere privatization has worked well. Studies of the effects of privatization are more numerous in data-rich, industrialized and middle-income economies than in low-income states. In the latter, privatization is more difficult to launch, and less likely to generate quick, positive effects. There are settings where privatization has not, or not yet, yielded visible, positive performance improvements—in Armenia, Moldova and Guinea, for example. Even in countries where the process is an overall success, not every privatization improves firm performance. In three comparable studies, looking at 204 privatizations in 41

[10] This article summarizes 65 empirical studies, ranging from single firm case studies to assessments of a range of privatizations in one country (e.g., 218 in Mexico) and beyond to surveys of all available literature on an entire set of countries (e.g., a review of the results of privatization in 26 transition economies).

[11] The Bolivians "capitalized" a group of the largest state firms, by selling 50% of equity to strategic investors, who committed to investing the total sales price into the firms themselves. The innovative Bolivian case forms one of the case studies in our larger project.

countries, between one-fifth to one-third of privatized firms registered very slight to no improvement, or, in some cases, worsening situations (Megginson and Netter, 2001, 355-56) A 2/3 to 4/5 success rate is not bad. But the fact remains that inherited conditions place some firms beyond hope of internal reform, or that new owners operate in such poor markets and policy frameworks that a change of ownership is not by itself enough to turn the tide.

In short, controversy continues about the effects of privatization, in particular in settings where complementary reforms are not in place, competition is still limited, and regulatory and supervisory capacity embryonic. Country conditions are especially relevant in natural monopolies and in such sectors as banking. Nonetheless, we think the evidence generally shows that privatization has been among the more successful of the liberalizing reforms, in the sense that privatization in more cases than not has yielded good returns to new private owners, has freed the state from what was often a heavy administrative and unproductive financial burden, has provided governments in place with a one-time fiscal boost, and has helped sustain a larger process of market-enhancing economic reforms.

This is encouraging but perhaps not particularly surprising. Since most developing countries and transitional economies are well inside the optimal production frontier, often because of policy distortions and government failures, there is ample room for increasing efficiency by reducing the stranglehold of the state on resources and making room for the competition that nourishes individual entrepreneurship, motivates workers, and supports overall productivity gains.

We emphasize this broad conclusion about the efficiency effects of privatization in part to stress that our review of the distributional question is not an attack on the idea of privatization, even or especially in welfare terms. There are cases where privatization has produced both increases in income and wealth for all citizens, and increased inequity in the distribution of that income and wealth. One can be absolutely better off and comparatively worse off at the same time, and normally it makes no sense to forego absolute gains for all because of an increase in relative disparities. Nor do we deny the need to reform what have so often been grossly inefficient and financially burdensome public enterprises, nor do we imply that deficiencies of such enterprises could somehow easily be corrected without social pain or economic cost.

Rather our view is that opportunities may have been missed in the process of privatization for minimizing equity losses or maximizing equity gains. In some cases these lost opportunities may have also reduced the efficiency gains of the privatization process itself, for example by excluding potentially more competitive bidders, or have reduced the long-run gains to the economy, for example where limiting sales to nationals has permanently locked out potential bidders. It may be that the unpopularity of privatization—and it is widely unpopular—is not only a political constraint to sustaining privatization and other efficiency-enhancing reforms, rooted in a populist view of what is "fair." It may be that there is room for

a better overall deal—fairer and more efficient at the same time. So: determining what actually has happened regarding distribution, and (tipping our hand as to what we believe we have found) examining the possibility that more equitable outcomes might have been produced, are the principal themes of our case studies.

Section 3. Distributional Effects

a. What might happen?

At issue are the effects of privatization on the consumption or welfare of different households of different initial income groups. The consumption of households depends on their income and the prices they face. Their income, in turn, depends on their assets, including their labor, their human capital, their ownership of land and other physical or financial capital, and the return on their assets. We list below the areas where one might encounter distributional shifts as a result of ownership change.

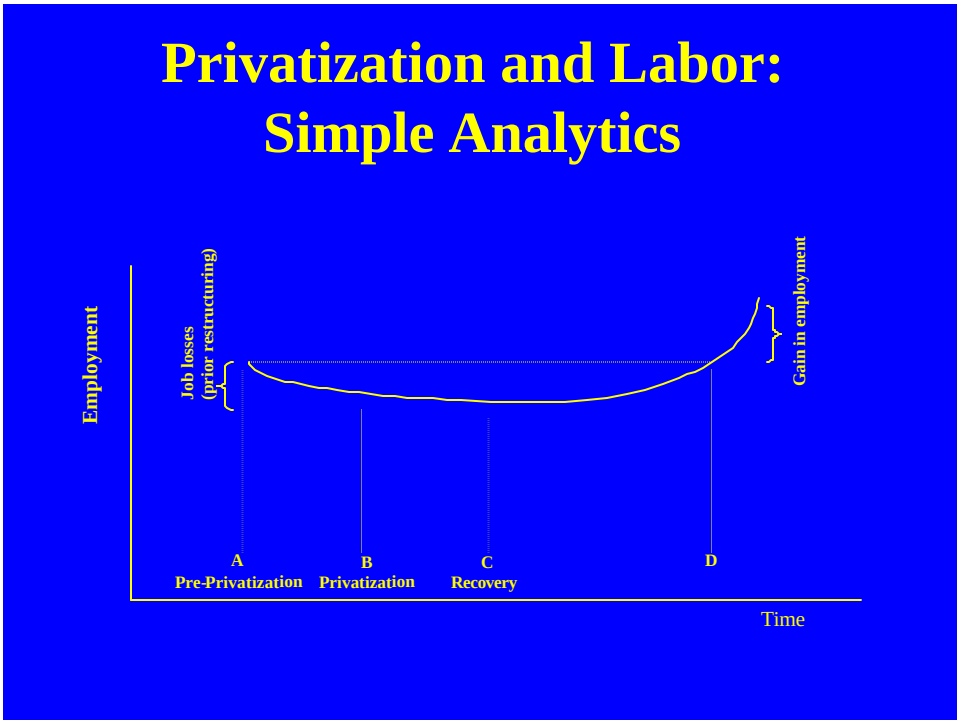
Distribution of assets: Privatization usually involves a shift, from an asset owned (in theory) by the taxpayers as a whole to one owned by private persons or firms. Whether the shift in ownership reduces or increases overall equity in a society depends in part on the extent to which the price received by the selling state adequately reflects the underlying value of the asset. If the seller underprices an asset, to ensure a quick sale for example, equity is quite likely to decline, in the short-run at least. The effect of the change in ownership on the long-run distribution of incomes between taxpayers and new owners ultimately depends on both the initial price and the post-sale stream of value the asset produces. Privatization might be arranged to spread direct (i.e., share) ownership widely among the affected population. Privatization may also confer, or permanently deny, hitherto unrealized pension benefits, creating or eliminating an asset of employees.

Return on assets—labor: Privatization can change the return on assets, such as labor, in a manner that affects the distribution of income. For example, low-income workers might be more likely to be laid off than high-income workers, or dismissed low-income workers might have a more difficult time finding alternative employment, or the employment they do obtain might be less remunerative than either the work they left, or the work generally obtained by higher-income workers who were also dismissed. Conversely, if privatization is an important element in an overall reform program that leads to higher growth and general job expansion, then previously unemployed or poorly paid workers might gain jobs, or better jobs.

Union leaders often allege that cost-cutting measures in preparation for sale, or by new private owners, fall disproportionately and unfairly on workers. Labor leaders argue that it has been poor management and poor government policies that are the major causes of the financially troubled state of public firms, but it is labor that is asked to pay the price of reform.

Proponents of privatization suggest that poor past performance in public firms requires a period of restructuring resulting in cuts in employment, part of which might occur before the actual sale. But the job reduction phase would be temporary; under more dynamic private ownership total employment numbers would eventually recover, and even surpass, the number originally employed (Figure 9).

Figure 9



Modified from an example by Gupta et al. (2000, 23)

Return on assets—physical capital: Privatization can also change the return on the physical capital that is reallocated. If the new private ownership is more efficient than the state, the return on the pre-existing capital (profits) will rise. This can constitute a perfectly legitimate reward to new effort or entrepreneurial skill, with spillover benefits (new jobs at higher wages) from the owners of capital to the economy overall.

Prices and access: Privatization can affect prices differentially across income groups. On the one hand, prices could fall. If increased competition is part of or accompanies the change of ownership, the private owner might be forced to offer lower prices. If private management is more efficient, some of the savings might be passed on to consumers. Conversely, prices could increase if they had

previously been held below cost-covering levels by government action, or if new private owners move to end illegal connections to services and collect from previously tolerated delinquent customers, or if bodies regulating privatized infrastructure firms are weak or ineffective, etc. The distributional impact of price shifts will depend on the extent to which consumption of the goods and services in question varies by income group, and if different levels of consumption, or categories of consumers, face different prices.

Privatization might improve access to products by means of business expansion (that the investment-constrained public firm could not carry out). Conversely, the private owner might withdraw from or ignore some markets that the public enterprise was obliged to service.

Pricing and access issues are closely entwined. The prices citizens and consumers face can be broadly conceived to include whether or not they have access at all to a good or service (the price is infinite if they have no access to electric power for example), and to take into account the quality of a good or service obtained (a lower quality for a given nominal price implies a higher real price). Steep price increases following privatization have been quite common in divested network or infrastructure industries, e.g. electricity and water and sewerage, and common but not universal in telecommunications. .

On the equity side, the argument of reformers is that trying to protect the consumer by keeping the price of essential services artificially low did not work. It resulted in subsidies to the comparatively wealthy, and imposed costs elsewhere in the economy that outweighed the policy's benefits. Better, it was thought, to let the firms operate under private, profit-maximizing ownership, and use other state mechanisms (taxes, regulation) to protect consumer welfare and acceptable levels of income distribution.

But one can readily think of situations where rational policies followed by private, profit-maximizing ownership might impose particular and disproportionate costs on the lower-income groups in a society. Again, infrastructure yields the most obvious examples.[12] It is possible that price increases in electricity and water—required to cover costs and expand the network—would fall more heavily on poorer consumers, who might be spending a higher percentage of their income on these services than do the wealthy. The often vigorous moves by new private owners to collect arrears, and end illegal water and electricity connections, likely fall most heavily on the poor, especially the moves to end illegal connections. And even when a privatized service expands through investment into formerly unserved, and thus probably poorer neighborhoods, the residents might not be able to take advantage of

[12] Of course, there are any number of countries where the mass of poor are not connected to any of the infrastructure networks, making moot the issue of gains and losses relative to other income groups. However, recent research shows that a surprisingly high percentage of the developing world's population is connected to the electricity grid. A far smaller fraction has formal water or telephone services. See Komives et al. (2001)

it due to the high costs of new equipment that the consumer often must provide to tap the water or power.

In telecommunications, a common result of reform and privatization has been "tariff rebalancing," leading to price increases in formerly subsidized local "fixed line" telephony, while introducing competition—usually producing rapidly falling prices—in international services and through mobile phone systems. But since the poor might tend to place most of their calls locally through fixed lines, the price increase could have a negative distributional consequence.

As with prices, issues of access (or coverage) most often arise in the context of infrastructure privatization. Due to low tariffs and other investment constraints, many publicly owned infrastructure firms persistently failed to meet demand. It is commonplace for sales contracts in infrastructure to specify investment and expansion targets, in order to extend the service to clients and regions formerly not served. In many instances, a disproportionate percentage of the new customers will be drawn from the lower income groups. The distributional impact of this expansion will be a function of the initial income of the new customers, and the relative shifts in expenditure that result from connection to the network. For example, where the poor were paying vendors for water, connection to the network could result in much *lower* unit costs—if they can afford the often substantial up-front connection fee. However, they might face some minimal consumption threshold that exceeds the amount they previously consumed, raises their costs, and worsens distribution.

Yet another effect with equity implications is the possible reduction or elimination of informal alternative service delivery mechanisms. Many investors in infrastructure in developing and transition countries expect and require a period of exclusive monopoly service, justified, they claim, by the country risks they bear, and by the investment and expansion obligations governments place in the sales contracts. But if the new private utility employs its exclusivity rights to eliminate less formal, perhaps less expensive service providers, then some consumers, most probably low income consumers, could lose their access to an alternative, and become worse off.

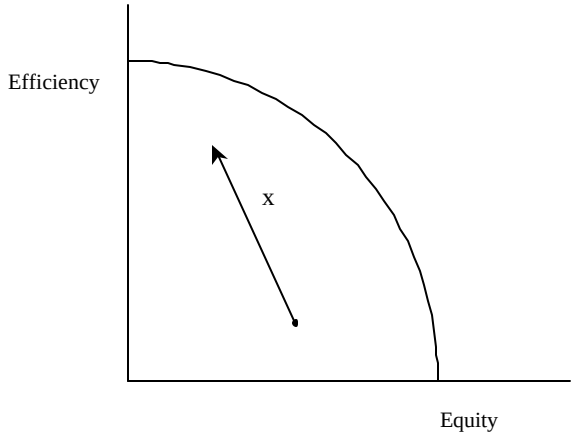
Fiscal effects: Privatization may affect real income net of taxes if its fiscal effects are to reduce the tax burden differentially across households, or to increase the benefits differentially of government services such as education and health that are funded by new tax flows. The fiscal effects of privatization on income distribution—which come through any changes in revenues (including via affects on service expansion), and in expenditures, are indirect and possibly offsetting. Reduced hemorrhage of tax revenues and any increases in public expenditures probably benefit the relatively poor. But the indirect effects are easily offset in countries where broader fiscal problems eat up initial sales revenue and invite a prolongation of weak fiscal policy—ultimately with costs to growth as well as improved equity.

b. What does happen?

A great deal of empirical work on these issues has emerged, all of it after 1990, and most of it in the last five years. Some of the more vexing methodological problems have recently been addressed, yielding an increasingly robust set of conclusions.

Looking at the evidence (and concentrating on studies we judge to be methodologically sound; see the Annex for an annotated review of the literature), we come to an overall conclusion: Many if not most privatization programs list as an objective maintaining or improving distributional equity, and many have built in some specific measures (e.g., vouchers) to achieve this aim. But **most privatization programs have done much more to enhance efficiency than equity. At least initially, and on average, privatization has worsened wealth distribution (highly likely) and income distribution (likely)**. The negative wealth distribution effect arises primarily from by the transfer of assets to the relatively rich, not by reducing the assets of the relatively poor. The negative income distribution effect appears to stem from movements in prices and wages. The degree of inequity increase has varied greatly from case to case and region to region, with some studies recording slight increases (e.g., in Latin America) and others postulating very large ones (e.g., in Russia and some other transition economies). Overall, in the terms of our analytical framework, the average privatization program reviewed in the literature has taken path x (Figure 10).

Figure 10



Re **ownership,** troubling or disappointing outcomes are particularly common. For example, privatization programs and techniques in many transition countries resulted in a mass and rapid transfer of asset ownership from society at large to a small group of agile, daring, thoroughly unscrupulous actors. One can argue, as do Anders Åslund and Andrei Shleifer, that despite the admittedly unfair and often illegal manner of the asset allocation, these owners have now put the assets to

productive work, the results obtained are superior to the alternative of leaving the firms in state hands, and the resulting distributional loss is an unavoidable, bearable price that must be paid for the efficiency gains, and indeed, for the transition to succeed.[13] But others vigorously dispute this conclusion.[14]

The ownership issue has caused concern in less dramatic (and more empirically determinable) circumstances: In their study of the privatization of the electricity sector in the UK, for example, Newbery and Pollitt (1997) show that in the first years following sale, the overwhelming bulk of the financial rewards generated by the substantial efficiency gains was captured by the new private shareholders, at the expense the taxpayers. In this case both government and consumers did reap some gains; the contrast is not winners to losers, but rather huge winners to very small winners. And in a subsequent study Newbery (2001) concluded that as time passed and electricity regulators gained experience, they became increasingly able to transform the efficiency gains into lower prices for consumers. As noted above, how one assesses privatization outcomes depends partly on when one makes the assessment. Nonetheless, the initial wealth distributional impact was negative in both the Russian and the British (electricity) cases (Figure 10).

Mechanisms employed to address the ownership issue have included offering vouchers to the general population, and reserving a tranche of shares in privatized firms for the employees (and sometimes retirees), usually at a steep discount. The latter measure has proven useful in reducing employee resistance to privatization. In many cases sharp increases in share prices post-sale have improved the income position of the shareholders, the employee shareholders among them,[15] though the number of people touched by such schemes is, normally, too small to make any difference to overall distribution patterns.

In contrast, in transition economies vouchers were widely disseminated, but the distributional impact has been disappointing, not only in the infamous cases of Russia and the Czech Republic but in Mongolia, Moldova, Kazakhstan, Lithuania and elsewhere. This is not in the sense of worsening the income position of the recipients, who obtained the vouchers for free or at a nominal price, but rather in the sense of returns on the vouchers being so much less than anticipated or promised, and so much less than the wealth amounts gained by the agile and/or dishonest few. In some cases the best companies were not privatized by vouchers, but rather went, in non-transparent deals, to managers and their supporters. In other instances dispersed minority shareholders (shares obtained by vouchers) found that all assets

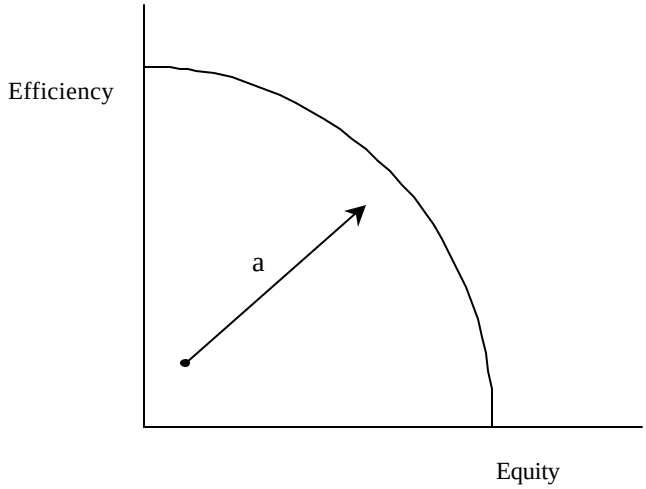
[13] Åslund (2001, 21) argues that that any attempt to avoid or delay privatization in transition economies would only have compounded the pain; indeed "…..the higher the level of privatization that an ex-communist country has attained, the higher economic growth it has achieved." Shleifer and Treisman (2000, 38) see the inequities of Russian privatization as "…troubling, but not exceptional…privatization in Russia worked considerably better than its politically feasible alternative: doing nothing."

[14] Again, see Stiglitz (1999, a and b).

[15] Employees often sell quickly shares acquired in this manner, but even then they tend to benefit since government sellers tend to greatly under-price the initial offerings.

were "tunneled" out of their firm, which suddenly consisted of nothing but liabilities; or the value of minority shares overnight fell to zero (as someone gained a majority stake and had no use for more shares); or the company was inexplicably de-listed from the stock exchange, or the privatization fund invested in transformed without notice, discussion or appeal to an un-sellable status, etc.[16] Overall, the principal distributional problem may be more psychological than financial: people were told (or it was implied) that the voucher was the means whereby the mass of state property would be equitably shared out among the citizens. This did not happen—in reality, it probably never could or even should have happened—and the disappointment and resentment engendered by this failure is still discernible and of political import in countries such as Russia, the Czech Republic and most of the parts of the former Soviet Union.

Figure 11



At the same time, generally positive distributional outcomes viewed in a few cases (e.g., Bolivia; roughly path a in Figure 11) suggest that **negative paths are not an automatic or inevitable result of the application of privatization**. We cannot yet say that the more balanced, efficiency *and* equity enhancing privatization approach seen in the Bolivian and a few other cases could readily have been applied elsewhere; it may be that special and rarely occurring circumstances (e.g., the fact that Bolivia was not in fiscal deficit at the time of privatization and could thus forego revenues to the state) account for the more positive distributional outcome.[17] Moreover, there is no suggestion that the Bolivian approach is optimal or fully endorsed by the populace; neither is the case. The point, for the moment, is not the

[16] John Williamson suggests that in Russia, just prior to price liberalization, the excess money balances of households might have been converted into bonds. Households could then have used the bonds to bid for enterprises being sold. This might have both avoided the inflation that (*inter alia)* wiped out the savings of thrifty Russians, and transferred enterprises to a group more likely to want to hold shares, and perhaps more likely and able to take measures to defend their interests.

[17] While a number of technical reviews have assessed the outcomes of Bolivia's programs as positive in both efficiency and equity terms, the fact remains that the program is deeply unpopular in Bolivia; accounting for this disconnect is one of the objectives of the Bolivian case study in our project.

extent to or the frequency with which equity-enhancing outcomes occur; it is that they occur at all.

Employment: In terms of returns on assets (other than shares of firms), the main topic of analysis has been the effect of privatization on employment levels and returns to labor. Despite the saliency of the employment issue, the matter has received surprisingly little rigorous analysis. What is clear is that public enterprises were overstaffed, often severely so; that in preparing (or as a substitute) for privatization, public enterprise employment numbers have declined, sometimes greatly, and that these declines generally continued post-privatization——though in a minority of the studied cases employment numbers improved post-sale. The important question of what kind of jobs people find after dismissal from public enterprises is just beginning to receive attention.[18]

Our reading of the evidence is that more people have lost jobs than gained them through privatization. But we cannot come to any hard conclusion regarding the overall distributional effects. This is partly because studies provide little detailed information about the incidence and size of severance payments, or the amount of time required to find alternative employment[19] (or even whether those dismissed derived most of their income from employment, though this is probably a reasonable assumption). It is also because many of those dismissed from employment upon privatization were neither the very rich nor the very poor—job losses in many cases hit hardest a previously somewhat privileged middle or working class.[20] Moreover, in cases where the state-owned firm depended upon government subsidies, the overall distributional effect depended on the distribution of the fiscal gains. In a number of Latin American countries, where the prolonged subsidization of inefficient state firms contributed to inflationary financing, the poor may well have gained from the reduced fiscal burden. Nonetheless, the general public is persuaded, in Latin America and elsewhere, that the distributional effects of privatization through employment are large and negative.

Prices and access: A widespread result of utility privatization is network expansion and increased access to the service by the population, especially the urban poor (the rural poor are still generally left out); this is seen in Peru (Torero and Pasco-Font, 2001), Argentina (Delfino and Casarin, 2001), Bolivia (Barja and Urquiola, 2001) and in a number of other Latin American examples. Expansion is partly a function of profit-oriented owners moving to expand their markets—easier

[18] Our larger project hopes to include the results of a forthcoming survey in India, looking at redeployment patterns among workers leaving public enterprise employ, and determining how long people remain unemployed, nature and terms of new work found, and differences in redeployment rates and terns between those taking part in training and placement programs and those who did not, etc.

[19] We review in the Annex the study of Galal *et al* (1994) that attempted to estimate these factors for the 12 privatizations they studied. They concluded that no worker lost out as a result of privatization, but we consider the method used to establish this as debatable.

[20] Behrman, Birdsall and Szekely (2000) found in a large sample of reforming Latin American countries that privatization was not responsible for increasing wage differentials, and indeed, was probably a factor mitigating the increasing disparities.

now that the firm can tap private investment capital—and partly a matter of sales contracts stipulating investment and network expansion targets. In the few cases where access increases significantly and prices do not rise greatly (e.g., again, Bolivia, except in water where prices did rise greatly), jumps in access rates on their own may be sufficient to increase equity.

More **often, however, increases in access are accompanied by increases in prices.** A number of studies reveal that the amount and structure of these price increases—partly due to the very common need for the privatized firms to raise their retail prices to cost-covering levels, and partly because inexperienced regulators have found it difficult to hold down or reduce tariffs in privatized infrastructure firms—are such as to produce, in the short-run, increased inequity (e.g., in Argentina, Peru, Spain [Arocena, 2001] and elsewhere).[21] The finding is sufficiently generalized to prompt Estache et al. (2002, 9), in their review of infrastructure privatization, to conclude: "One of the most painful lessons is that unless governments take specific actions, the gains from reform take longer to reach the real poor than the richer segments of the population, and hence worsen income distribution."[22] An important part of the price impact stems from the elimination of illegal connections to electricity and water networks. Delfino and Casarin (2001, 23) note that in Argentina, for example, 436,000 of the first 481,000 additional subscribers to the privatized electricity system were those who had had illegal hook-ups. On the assumption that a majority of those with illegal connections were lower-income people, the result is likely to be an increase in the inequality of income distribution.[23]

Fiscal effects: Finally, we noted above that in studies covering 18 countries, mostly developing and transitional, the net fiscal effects of privatization were receipts on the order of 1 percent of GDP. That is a substantial amount in a single year, but it is a one-time gain that is modest relative to the size of economies or even of government budgets over several years. In some countries, the critical fiscal benefit of privatization has been to eliminate direct budget transfers (that subsidized commercially unviable enterprises, or compensated for politically determined under-pricing of an enterprise's service or products). That subsidy flow tended to be particularly great for politically visible public infrastructure services, such as energy utilities, railroads, and telecommunications. This normally led to the rationing or under-pricing of services and the penalizing of poorer income households that suffered from lack of access. The tax-financed subsidies provided benefits primarily to the non-poor in the form of employment at wages above the market, or under-pricing for those with access. Neither helped, and both may have harmed, equity.

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[21] Again, as with employment, the counterfactual is very imperfectly known. Failure to privatize might well have hurt the relatively poor even more, through fiscal effects—e.g., if overall taxes are regressive—or through inflation.

[22] This study contains numerous practical suggestions on how to protect the poor, in terms of access and price, in infrastructure reform.

[23] We refer here to narrowly defined vertical inequality. Horizontal inequality (across those with similar incomes) no doubt rises as the illegal connections are ended.

Tax systems are regressive in many developing countries. They rely heavily on indirect trade and value-added (consumption) taxes. To the extent privatization reduces the hemorrhage of funds to keep losing firms afloat, it produces indirect benefits, in terms of increased retained tax revenues. And more efficiently managed, higher productivity private firms do tend to pay more tax, thus increasing government revenues. All this could result in increased benefits to the relatively poor. That is, since expenditure patterns in most developing countries are somewhat more progressive than the income distribution itself (though hardly very progressive), this would also suggest an indirect benefit to the relatively poor. The critical question of whether or not this actually happens has been neglected.

In many cases, governments have used revenues from privatization to reduce the stock of public debt. *Prima facie*, that makes sense. But the ultimate use of privatization revenues is a function of the overall fiscal performance of a government, since even when revenues reduce debt stock, indiscipline on the fiscal side means those revenues are indirectly financing the government's current expenditures or increasing its space to borrow more. Macedo (2000), indicates the likelihood that privatization revenues in the mid-1990s merely prolonged the period during which Brazil tried to sustain the nominal value of its overvalued currency and put off the day of reckoning, which finally came in 1998. The potential fiscal benefits were thus lost as government used reserves to protect the currency. Mussa (2002) refers to the same failing in the case of Argentina. Revenues from privatizations in the mid-1990s were significant over a period of three or four years. Despite those infusions the government failed to generate the fiscal surpluses it needed. Both the national and sub-national governments kept on borrowing, and ultimately the privatization revenues were swallowed up in the collapse of the currency and the debt default in 2002. In Bolivia, the initial situation seemed better, because the government did not accept sales revenue but in effect retained one-half the value of the enterprises (as "shares" held to generate benefits for future pensioners) and exchanged the other half in return for the new owners' commitment to invest equivalent amounts in the enterprises themselves. However even in Bolivia, subsequent fiscal and political problems have led to the failure of government to pay out the benefits to its older citizens to the extent originally envisioned. The fact that many privatizations occurred in countries with fiscal problems suggests that there was at least an opportunity cost in terms of equity: the failure to exploit the potential fiscal benefits implies the relatively poor lost out——relative at least to what might have been.

These are the main points arising from the existing literature.

Section 4. Observations and Conclusions

Section 3b shows that evidence does exist on the distributional consequences of privatization. Still, existing studies leave big gaps. Our conclusions can only be preliminary, since they are drawn from examples within a single region, or from a limited set of sectors, or apply only to urban areas in the countries examined, or involve the assuming away of constraints to the interpretation presented, etc. For

example, what we know about the effects of privatization on income distribution is just about totally based on Latin American cases, a geographical limitation of significance.

In the Latin American studies reviewed, very good use is made of household expenditure surveys. The techniques devised to frame the issue and interpret the data are path breaking and productive. But they treat almost exclusively infrastructure privatizations; very little is said about the impact (possibly much more distributionally favorable) of privatization of firms producing tradable goods——and privatization of "tradables" has been much more common than infrastructure divestitures, in Latin America and elsewhere. In addition, the data on household expenditure variance pre- and post-sale come exclusively from urban areas. The studies must wrestle with the fact that quantities of consumption of a good or service are not specified, just the total amount spent. These and other problems pose methodological concerns, and while these are in the main cleverly dealt with, they are not entirely surmounted.

Similarly, our initial conclusions on the effects of privatization on asset ownership and wealth distribution depend heavily on the findings from the transitional economies of the former Soviet Union and Eastern Europe. The two best-studied cases are Russia and the Czech Republic. These findings are partial and location (or system) specific; they arise from initial conditions that if not *sui generis* are thoroughly unlike the conditions encountered in other regions and settings, or even in other countries in transition. We cannot generalize about privatization outcomes or prescribe future privatization policy on the basis of these experiences alone.

The simple point is that while much is now known, there remains much to uncover and understand, particularly since existing studies tend to devise situation-specific methods rather than apply methods used elsewhere. To illustrate: In transition economies the initial situation regarding economy-wide inefficiency (generally high) and income and wealth inequality (generally relatively low compared to other economies) has not been systematically taken into account in assessing privatization's impact on changes in inequality. We know (see Figure A, below in the discussion on transition economies in the Annex) that in the 1990s gross measures of income inequality—as measured by Gini coefficients—have increased substantially from relatively equitable starting points in all the transition countries, sometimes modestly (Czech Republic, Hungary, Slovenia), sometimes enormously (Russia, Tajikistan, Armenia). But what precise role did privatization play in this increase of inequality? There does not appear to be much of an association between sheer amount of privatization and degree of increase; slow and fast privatizers are found at both ends of the spectrum. More likely explanations are the method of divestiture used, the type of new owner installed, the sequencing and intensity of other market reforms and, especially, the nature and density of the "institutional

framework"[24] prevailing in the country prior to, during, and after the privatization events.

Second, privatization has been, for the most part, a phenomenon of the 1990s. Our understanding of the effects of ownership change is mainly based on analyses undertaken shortly after its implementation. But static snapshots, taken at most within three or four years after the privatization event, do not tell the whole of what is clearly a dynamic story. To illustrate, in the mid-1990s the Czech Republic's rapid and massive privatization program was judged a great success. As more information became available, and problems of both performance and fairness surfaced, the consensus interpretation shifted in 1997-98 sharply towards the negative. In Poland, in contrast, observers were at first critical of the country's hesitant approach to the privatization of large firms, but then shifted to greater enthusiasm as Poland returned to growth and macroeconomic stability. Indeed, Poland's overall good performance, in the absence of large-scale privatization (combined with comparatively poor performance in rapidly-privatizing Russia and the Czech Republic), led some to question the importance of rapid and mass privatization—and others to emphasize that quick privatization in the wrong environment could have the wrong effects altogether. Now the pendulum has once again swung back. The Czech Republic has weathered a lengthy downturn and returned to vigorous growth, while major and recent fiscal and economic problems in Poland are partially attributed to the country's failure to privatize a set of large loss-makers when it had the chance. One could show similar shifts in interpretation and judgment over time in a number of other countries, Argentina, Bolivia, Russia and the United Kingdom among them.

Almost all these shifts in interpretation have been based on variations over time of financial and operating performance of privatized and state firms, and not distributional consequences per se. But since, as we have shown, many of the distributional outcomes depend, to a great extent, on the efficiency and productivity results produced by privatization, shifts in interpretation of the overall economic consequences of privatization imply as well shifts in the assessment of the distributional impact.

This points to a third, long-recognized gap in the analysis; i.e., the extent to which changes over time in income distribution are associated with privatization, or are produced by other reforms and policies taking place contemporaneously. A few pioneering studies (Galal *et al.* 1994; Newbery and Pollitt, 1997; Jones, Jammal & Gokgur, 1998: Pollitt and Domah, 2000; all reviewed in the Annex) construct a "counterfactual" that tries to assign to ownership change only those performance shifts post-privatization that are clearly caused by the ownership change *per se.* This means that the studies must state what would have been the performance had the

[24] See the discussion below, especially the summary of the findings of Djankov and Murrell (2000), but note that the key aspects of a country's institutional framework relevant to privatization are the functioning, accessibility and honesty of the legal/judiciary systems, particularly with regard to the arbitration of commercial disputes and the enforcement of contracts; the structure and prudential regulation of capital markets and insolvency/bankruptcy regimes; and the capacity of the state to regulate remaining natural monopoly firms to protect consumers from the abuse of monopoly power.

firm not been privatized. Moreover, all these studies attempt to determine the winners and losers from the privatization event.[25] All this yields a wealth of fascinating analysis and non-obvious insights. But, as the authors readily admit, it is all based on some element of "crystal ball gazing." The other studies reviewed employ partial and simpler devices to gauge who wins and who loses from privatization, but most of them must still tussle, in one form or another, with the questions of, is the outcome seen the result of ownership change or something else, and what would have happened had privatization not taken place?

Our view is that in the hands of exceptional researchers, counterfactual construction can be a powerful analytical tool. But see note footnote 1 to this paper. It suggests that competition, and not ownership change, may be the cause of many if not most performance improvements perceived post-sale. It is revealing that the author of this statement (Tandon, 1995) was one of the authors of the seminal and widely admired ***Welfare Consequences of Selling Public Enterprises*** (1994), the first work to apply counterfactual analysis to privatization, and the presentation and conclusions of which were highly encouraging to proponents of privatization (see Annex, section a, for a discussion of this volume). This doubt was expressed following the publication of the ***Welfare Consequences*** book, and Tandon specifically does not exclude his previous work from his concern. If the author is not fully persuaded, what can one expect from the reader?

We began this paper arguing that it is important to examine the distributional implications of privatization. The present assessment is a prologue to designing approaches aimed at minimizing the real welfare cost of any increase in inequality, given efficiency objectives—or as we believe is more likely the case in developing and transitional economies, to maximize the potential for gains in distribution as well as efficiency and growth. Whether or not there is a tradeoff between efficiency and equity, societies can benefit from information to guide the policies that help determine, ultimately, the outcome on both dimensions. In some cases, societies might choose an initially less efficiency-oriented approach, if only to diminish long-run risks to efficiency and growth that initial resulting inequities would undermine (through corruption or rent-seeking for example). Similarly in some settings it may be preferable to minimize the perception that privatization is unfair, so as to preserve the political possibility of deepening and extending this and other reforms (especially relevant in fragile or emerging democracies).

We conclude that it is possible to analyze the distributional impact, but that the best approach is at the country level. Country level studies can build on but should not be restricted to analysis of particular privatization transactions. The outcomes of particular transactions or events need to be embedded in data on economy-wide determinants and effects of the overall process, and on systematic understanding of the pre- and post-privatization economic environment, including the impact of other reforms, of overall economic policy, of macroeconomic and

[25] Not specifically in terms of shifts in distribution, but in terms of what change in total welfare was brought about by the privatization, and how was this welfare change, positive or negative, allocated among relevant societal actors or groups——the sellers, buyers, consumers, workers, competitors, etc. See the Annex, section a.

political factors and so on. Many of these can and ought to be quantified. But in the end, the contribution of country case studies will depend heavily on qualitative judgments of analysts, and on their ability to put their results and interpretation in perspective by reading and assessing comparable assessments by colleagues in other countries. This is the main prescription we offer to the authors of the case studies.

Annex

An annotated review of the literature

We here summarize in greater detail the findings of the existing literature on the distributional impact of privatization, looking first at studies that have estimated the welfare consequences of privatization, using formal cost/benefit analysis. We then review studies that have assessed distributional effects by other empirical methods. We also look at non-empirical or preliminary approaches, including a synopsis of studies of the distributional effects of privatization in the post-communist, transition region, where data are particularly weak. We review as well a study attempting to assess the macroeconomic effects of privatization in Brazil, and some case studies of privatization in Asian countries.

a. Welfare[26] Consequences ¾ ¾ Studies using counterfactuals

A privatization may produce benefits for the new private owners of a firm while not affecting or, worse, decreasing the total amount of benefits available to all affected actors and the economy at large. The standard illustration is the privatization of an inefficient, loss-making public sector monopoly in an infrastructure sector to a private and unregulated or poorly regulated owner. The result almost certainly would be increased firm profitability, and higher returns to the new shareholders. It might even lead to higher salaries for workers in the privatized firm and expanded job opportunities in the sector, and greater returns to government (over and above the one-time gain from the sales proceeds) through increased tax payments from the more profitable private firm, and from a cessation of flows to cover the firm's debts and losses. All these gains could nonetheless be far outweighed by the welfare losses that might be imposed on consumers and the economy as a whole due to the monopolist's sub-optimal supply of products and services, and/or their excessively high price. Depending on the supply and the price, the overall welfare consequences could easily be negative.

Assessments of welfare consequences of privatization thus look beyond the financial performance of a firm before and after sale. They calculate who won and who lost from the sale, and by how much. To determine whether the observed shifts are due to ownership change, they estimate what would have been the results had the firm remained in state hands; i.e., they compare what actually happened under

[26] "Welfare" refers to the question of whether an action, *A*, leads to an increase (or loss) in the total amount of resources available in the economy. One also needs to know, are the gains to actor *x* from *A* greater or less than the resulting losses suffered by actor *y*; are the total gains to all relevant actors greater or less than the total losses; and how are the total gains and losses allocated among the total universe of actors relevant to this issue?

private ownership to what would have happened had the firm not been privatized. This "what-would-have-happened if" scenario is called the "counterfactual."

Counterfactual construction demands information about firm and market performance before and after the privatization, and their effects on the relevant actors and stakeholders. For the counterfactual to be transparent and realistic the assumptions used in its construction have to be defensible; for example, that technology coming on-line after the privatization, and adopted by the private firm, would have (or would not have) been utilized had the firm remained public. Small or seemingly innocuous assumptions can make a large difference in the projected outcomes. Welfare analysis using a counterfactual has been applied in only a small number of cases, perhaps because of these difficulties.

An outstanding example is the seminal one, that of Galal, Jones, Tandon, and Vogelsang (1994), a study containing many innovations. First, it assesses the impact of ownership change on all relevant actors and stakeholders in the transactions—— sellers (the government), buyers (domestic and foreign), workers, consumers and competitors. To isolate the effects of change of ownership from broader economic shifts and events, it compares what actually happened to a counterfactual of continued but reformed state ownership. The conclusion is that privatization substantially[27] improved economic welfare in 11 of the 12 cases (the exception being a Mexican airline whose new private owners guessed wrong and invested heavily in new airplanes just before a major hike in fuel prices and a downturn in travel—see Table below).. Improvements were mainly due to a dramatic increase in investment, improved productivity, increased prices—an important issue for distribution—and increased competition and effective regulation. In some cases all sets of stakeholders gained, and buyers almost always benefited. Consumers lost in five of the 12 instances; government (and by implication, taxpayers) in three; but the authors estimated the costs as bearable and offset by the positive net welfare change.

[27]The measure used is the "perpetual annuity equivalent." Assume that total net proceeds of a transaction, minus the total net proceeds of the counterfactual case, were invested in an annuity at the prevailing market interest rate in the locale. This would continuously yield an annual sum of *x*; this is the amount of social gain from the sale.

Table 23-1. Winners and Losers from Divestiture in the Twelve Case Studies
(percentages)

Country and enterprise	Domestic						Foreign			World net welfare change
	Government	Buyers	Consumers	Workers[a]	Others	Net welfare change	Buyers	Consumers	Others	
United Kingdom										
British Telecom	2.7	3.1	4.9	0.2	–0.1	10.8	1.2	0.0	0.0	12.0
British Airways	0.9	1.4	–0.9	0.3	0.0	1.7	0.4	–0.5	0.0	1.6
National Freight	–0.2	0.8	0.0	3.7	0.0	4.3	0.0	0.0	0.0	4.3
Chile										
CHILGENER	–1.4	2.0	0.0	0.1	0.0	0.7	1.4	0.0	0.0	2.1
ENERSIS	–1.6	7.6	2.2	3.9	–7.4	4.6	0.6	0.0	0.0	5.2
CTC	8.0	1.0	131.0	1.0	4.0	145.0	10.0	0.0	0.0	155.0
Malaysia										
Malaysian Airline Systems	5.2	2.0	–2.9	0.4	0.0	4.6	0.8	0.8	15.8	22.1
Kelang Container Terminal	37.6	11.5	6.2	7.0	–11.9	50.4	2.9	3.1	–3.0	53.4
Sports Toto Malaysia	13.6	10.7	0.0	0.0	–13.0	10.9	0.0	0.0	0.0	10.9
Mexico										
Teléfonos de México	13.3	11.4	–62.0	15.6	28.3	6.6	25.1	0.0	17.9	49.5
Aeroméxico	62.3	3.9	–14.6	2.4	–2.3	52.9	1.8	–6.2	0.0	48.5
Mexicana de Aviación	3.5	–1.4	–7.7	0.0	3.2	–2.4	–1.3	–3.3	0.0	–7.0

Note: All figures are the annual component of the perpetuity equivalent to the welfare change, expressed as a percentage of annual sales in the last predivestiture year.
a. Includes workers both in their role as wage earners and as buyers of shares.
Source: Authors' calculations.

Source for table, Galal *et al.* (1994), 528]

The study "found no case of workers as a class losing from divestiture, and ten cases where workers gained."(529) Given that in several of the cases relatively large numbers of workers lost their jobs just prior to or following the sale, how did the authors reach this conclusion?

First, they limited their analysis to workers in the divested firms, ignoring any general or indirect employment effects from the sale. Nor did they consider in the counterfactual any additions to employment that might have been made had the firm not been sold. Second, they assumed that workers who retained their jobs suffered no loss; i.e., that the pay, terms, job security and work effort were unchanged. Third, they reasoned that most reductions in workforce were accomplished through incentives for early and voluntary retirement, or generous severance packages, combined with generally lucrative share ownership plans for workers and retirees. The argument is that few or no workers were dismissed without compensation, and these compensation payments more than offset losses from early retirement or even job loss——far more in those cases where workers received shares in firms that later flourished. "(L)abor has not been hurt because it generally had sufficient power to negotiate predivestiture agreements that made them no worse off."(548)

To reach this conclusion they computed the average severance benefit paid in the privatizations, and then computed from labor market data for the country in question the average amount of time it took for those dismissed to find new jobs. Next, they calculated the average wage in the country——and multiplied this by the average number of months unemployed. If the resulting figure was less than the

severance payment, the authors concluded that dismissed employees had not suffered a welfare loss. (To illustrate, assume: [1] Average severance package = $2500.00 US. [2] Average monthly wage in economy = $250.00. [3] Average time taken to find new job after dismissal = 10 months. Likely wage loss exactly equals the severance payment, and thus no welfare loss or gain has occurred.)

This is simple, completely open in noting the short cuts taken, and derives a usable, quantified answer to a most complex question. But, as the authors acknowledge, it has drawbacks:

- It takes workers as a class, or set, and not as individuals. There may be, there certainly were, workers who lost their jobs and found another only many months of unemployment in addition to the national average—or never found another formal sector job at all.
- As noted, it assumes that pay levels, and job terms and security, will remain the same for those who keep their jobs, which may or may not be the case. Labor representatives would vigorously dispute this assumption; they often contend that pay levels, terms of work and especially job security in privatized firms compare unfavorably to those previously prevailing in SOEs. Moreover,
- It says nothing about the pay and terms in the new jobs that people succeed in finding when they are laid off; and
- No value is placed on the psychological costs of job loss.

Hard data on these matters are scarce. Some recent studies from Mexico and South Asia suggest that those who keep their jobs in privatized firms are often awarded increases in pay, accompanied by reduced security of tenure. It is hard to measure the tradeoffs between monetary gains and psychological losses. The extent to which those leaving public enterprise employ enter into enduring unemployment, or find new formal sector jobs, or marginal work in the informal sector, has not been quantified. Galal *et al.* advanced, but did not end, the debate.

Newbery and Pollitt (1997) estimated the welfare consequences of the liberalization and privatization of the UK electricity sector. Readily admitting that the method involves some "crystal ball gazing,"[28] they concluded that (i) there were gains, permanent in nature, equal to five percent of previous total generation costs; but at least in the first few years following privatization (ii) the new private shareholders reaped most of the gains, and both government/taxpayers and consumers lost out, relatively, in the restructuring.[29] They state that government priced the shares at less than what the market would have borne in order to ensure

[28] Galal *et al*(1994, 536) did the same: "In a study of this sort, innumerable choices of parameter values and other assumptions are made on the basis of judgments or educated guesses. This obviously leaves a lot of room for subjectivity."

[29] In a later study using the same methodology, Domah and Pollitt (2000) looked at the welfare consequences of the privatization of regional electricity supply and distribution services in England and Wales. They concluded: Gains occurred, equivalent to three percent lower prices (when compared to a "preferred counterfactual"); government gained about $7.5 billion US from the transactions, in proceeds and net taxes, and that consumers benefited—but only after some time had passed.

political success, and this led to windfall gains for the buyers. Their counterfactual argues that the large declines in input costs in the sector would have come about in any case, that they would have been captured by the firms even had they remained public, and that the SOEs would have passed on even more savings to the consumers than did the privatized firms. In other words, while consumers enjoyed lower electricity costs following privatization, they would have paid yet lower prices had the firms remained public—since retail prices fell far less than costs. The authors conclude that it was the introduction of competition much more than change of ownership that accounted for what gains there were to consumers.

While privatization of UK electricity yielded gains for all actors and stakeholders—in this case lower prices and much cleaner production than pre-sale—more of the gains accrued to the better-off than to the lower income categories. Newbery and Pollitt think that it would have been possible to achieve the same level of efficiency gains with less inequity. Given the public outcry in Britain concerning the windfall gains to shareholders in this privatization (an outcry that helped Tony Blair's Labour party regain power and led to the imposition of a special tax on the profits of these shareholders), the distribution resulting from this transaction failed to pass a key political test. Apparently the electorate cared about the overall fairness of the process; people seemed not to believe that the small gains all consumers enjoyed from the divestiture outweighed the massive gains of the relatively few who owned the equity. Small gains for the many were insufficient to curb the resentment over large gains for the few. This question of the perceived fairness of privatization outcomes is one we shall return to in the larger study.[30]

One of the authors of the ***Welfare Consequences*** study, Jones, (along with Jammal and Gokgur, 1999) applied the method to 81 privatizations in Côte d'Ivoire, covering not just infrastructure firms but a range of companies already operating in competitive markets (in agriculture, agro-industries, and other tradable sectors). For the privatized firms as a group, they concluded that there were substantial benefits: (i) The firms performed better after privatization; (ii) they performed better than they would had they remained under public ownership; and (iii) the set of transactions as a whole contributed positively to economic welfare, with annual net welfare benefits equivalent to about 25 percent of pre-divestiture sales. These results stemmed from a number of effects, including increases in output, investment, labor productivity, and intermediate-input productivity. The study concluded that both efficiency and equity had been improved in the overwhelming majority of the transactions. Regarding distribution, in the privatized set of firms as a whole, "total employment increased by an average of 3.9% per year after privatization while falling by 1.9% per year prior to privatization."(section vii-8) Only in five of the 81 firms did employment fall at all, and that by a total of 87 workers. Moreover, average wages in the privatized firms rose by 8.5% and 6.8% in the first two years following sale, compared to falling wage rates in the several years prior to privatization. In addition, government benefited from increased tax revenues. The study is notable as the first and to date

[30] Leroy Jones postulates, only semi-facetiously, a "political Pareto optimality" when an actor is made better off by a policy without any other actor *realizing* that he or she has been made worse off.

only application of the formal cost-benefit approach, including counterfactual construction, in a low-income country.

b. Studies calculating welfare consequences with less systematic counterfactuals

The 1990s saw a great deal of privatization of water, electricity and telecommunications, and the latter two are joining water in being regarded as necessities. Thus, many questions arise concerning coverage and access, and the affordability of these services under profit-maximizing private ownership. In addition, shifts in consumption and expenditure patterns by income group are easier to assess in utility privatization than in tradables. Most of the studies reviewed in this section were produced under a program of the United Nations University World Institute for Development Economics Research (WIDER), titled **"Fair Deal for Consumers? The Impact of Infrastructure Reforms in Latin America**." All try to estimate the distributional effects of privatization of utilities, though none relies on elaborate counterfactuals.

Peru

Torero and Pasco-Font (2001) applied three techniques to measure the income distribution effects of electricity and telecommunications privatization, and water sector reform short of privatization, in Peru: "Concentration curves" at varying points in time to see how services are distributed among the population; a method that holds consumption constant in order to isolate the effects of price changes on different households; and a third that corrects partially for the limitations of the second, by taking into account increases in access.[31] Results were compared to a simple counterfactual hypothesizing no change of ownership and the continuation of pre-privatization pricing formulae.

The privatized utilities expanded coverage dramatically—in telecommunications, by 167 percent in five years, while electricity costumers increased by 1/3 in the first four years following divestiture. There was less expansion of the reformed but not privatized water and sewerage services. Quality and reliability of all services increased greatly in the privatized firms, with more modest quality improvements in water. On the other hand, prices rose significantly in all sectors, including water. Pre-sale and pre-reform tariff levels had not covered costs in any of the sectors. Investment, especially, had lagged under state ownership.

Comparison of concentration curves pre- and post-sale reveal higher access and better distribution (proportionately higher access gains of the lower income groups than the upper) of telecommunications services following sale, a slight progressive change in electricity, and almost no change in water and sewerage curves. The other two methods indicated that consumer surplus declined, due mainly

[31]. Their chief data sources on consumption are the Peruvian Living Standard Measurement Surveys (LSMS) for 1991, 1994 and 1997, showing the respondents' income and expenditure for various goods and services.

to price increases. The authors concluded that the overall short-term distributional effects of privatization on income were slightly negative, but they varied by sector, with the most privatized firms doing better than the least. Moreover, the post-sale tariff increases were required to cover financial charges and investment costs. To protect lower income consumers, the authors called for different tariffs according to family type and income level.

Chile

Paredes (2001) posited three ways for privatization to affect distribution:

- How government uses the proceeds
- The structure of the sale (to whom, at what price, under what arrangements)
- Post-sale prices and coverage policies

Given the difficulty of estimating a counterfactual indicating the impact of deficit reduction on taxes or inflation, Paredes examined only the second and third points.

Regarding wealth effects: The Chilean government made efforts to enlist the support of affected workers. Both those retained and those laid off could purchase shares, using deductions from future pay, or an advance on severance payments. Moreover, government guaranteed that when these purchasers reached their normal retirement date, should the value of the purchased shares be lower than what they originally paid, the difference would be made up. Workers vigorously exercised this option, taking between 5 and 10 percent of equity—and in the case of the energy firm ENERSIS, 32 percent—in privatized infrastructure firms. In several of these cases, share prices increased dramatically in the first few years after divestiture, yielding a huge return to all shareholders, worker-shareholders among them. Government also offered incentives for first time small shareholders in the general public. A simultaneous reform of the pension system brought private pension fund management companies into the capital market, where they acquired substantial holdings in the privatized companies—and this would likely be of some distributional benefit. Paredes did not calculate the extent to which these measures made the previously prevailing ownership pattern more or less equitable, but he implies that the effect was positive since a number of first-time shareholders were created, and the gains per person were large.

Concerning the access and price impacts, Paredes showed a declining percentage of households lacking services, by income deciles, in the greater Santiago area between 1988 (pre-sale) and 1998 (post-sale). Huge gains were recorded in access in telephone service and especially electricity in the lower income deciles—contrasted to much more modest gains in non-privatized water and sewerage. Nationally, coverage has generally increased for electricity and greatly so for telephone service, due to the introduction of mobile phones, and a government subsidy to rural authorities to underwrite telephone services in these areas. Electricity prices declined significantly following privatization, though how the savings were allocated across different income categories is not discussed. As is often the case, local telephony tariffs rose post-sale, while long distance and international service costs fell. It may be that poorer consumers use local services

relatively more than upper income groups; if this is the case then these price shifts presumably favored wealthier households.

Argentina

(i) Delfino and Casarin (2001) measured the changes in welfare of consumers in the Buenos Aires metropolitan region as a result of the privatization of electricity, telecommunications, natural gas and water and sanitation companies. Large increases in production and coverage were observed following sale, as were large improvements in service reliability and quality. Access increased, especially for the poor. As in Peru, the key distributional issue was the effect of the price increases necessitated by the pre-privatization practice of prices set below cost, and concomitant underinvestment.

Delfino and Casarin document an overall and significant increase in the level of tariffs following privatization. (13) They then ask, what happened to consumer surplus following the privatizations, and how have resulting increases or losses been distributed among income groups? The steps taken to make these calculations are worth reviewing, as they show the levels of effort and imagination required to deal with this subject, and the element of uncertainty that nonetheless remains.

First, using household expenditure survey data, they calculated the amounts households in the greater Buenos Aires region, sorted into income quintiles, spent on each service, pre- and post-sale. Second, they calculated aggregate consumer surpluses pre- and post-sale. Third, they attempted to allocate the gain or loss to the different income quintiles. One problem is that the surveys note the amount of money a household spends each year on some service—say, electricity—but not the precise quantity of electricity obtained for the given level of expenditure[32] ——and one should have a good idea of the quantity consumed in order to get at the distributional issue. Their solution is to estimate a price elasticity of demand figure (a measure of how the quantity of a good sold responds to a change in price) for each of the products in question. Three scenarios are calculated with varying price elasticity of demand numbers between 0 (less elastic) and –1 (more).

Distributional outcomes vary greatly depending on which price elasticity of demand figure is chosen. When the figure is set at 0, for example in the telecommunications sector, the average welfare improvement across all income categories is $53 (US) per household. However, disaggregation by income quintile reveals in this case an increase of $109 for the richest quintile and an absolute loss of $8 for the poorest. (19) The other two scenarios assume more elastic demand, and they show positive welfare changes for all groups——though the benefits to the highest income groups usually exceed those to the poorest quintile.

For electricity, the average consumer spends less post-sale than before privatization. The welfare gain is modest but positive, and does not shift greatly under varying demand elasticity. However, all gains went to the upper four of the

[32] Prices vary according to the amount consumed.

income quintiles; the poorest group actually lost slightly. In gas and water-sewerage, larger price increases—and the need to charge first-time, and generally poorer consumers fees to set up the services—led to welfare losses in the lower income quintiles (note again that the water sector was "reformed" but not privatized).

Taking all four sectors together, and selecting "the most plausible demand elasticities" (these are asserted, not demonstrated), the authors calculated that the average consumer in the fifth and richest quintile obtains an annual welfare gain of $112 (0.25 % of annual income) from privatization, while the average consumer in the first and poorest quintile suffers a welfare loss of $51 (2.0% of annual income). To estimate the total welfare impact of the reforms they multiplied the average welfare gain (per sector) by the total number of consumers, nation-wide.[33] Canceling out gain and losses yields a positive figure of $55 million annually, a very modest sum.

Note that what is offered is an estimate of the monetary income effects of these privatizations. Delfino and Casarin readily acknowledge that the study does not take into account improvements in convenience, safety, quality and reliability of the services. Could these be quantified, given a monetary value, and allocated among income groups, the calculus of consumer surplus and its distribution might change. Note also that the analysis is static; that is, it portrays the direct and immediate distributional effects of privatization, and does not estimate or indicate what might be the longer-term dynamic effects.

To complicate matters further, all of the above refers only to that set of consumers that subscribed to the services prior to divestiture. Additional calculations were needed to measure the welfare impact on new subscribers, post-sale. Once again, the key finding is that lower income groups benefit less (or not at all) than richer groups. A principal reason was that there was no welfare gain for any of the 481,000 new subscribers to electricity services. Why? Because 436,000 of the new subscribers had previously enjoyed illegal free hook-ups to the grid. Their payments post-privatization were all classed as welfare losses, far greater than the gains of the 45,000 new subscribers who had not had illegal connections. Since those with illegal connections tended to be in the lower income quintiles, the short-term distributional effect was negative.

This study prompts a number of questions: Given the overall cumulative welfare improvement, should it not be possible to compensate the lower income losers out of the winners' gains? How is it determined that compensation of this nature is an economically rational and politically desirable policy? How best to go about it?

[33] Recall that their survey data is for the greater Buenos Aires region only. This region dominates the economy, and contains a large percentage of utility consumers. The authors assume similar distributional outcomes in the rest of the country.

(ii) A second study on Argentina (not part of the UN University-WIDER project), by Chisari, Estache, and Romero (1999), employed a "computable general equilibrium" (CGE) model to estimate the macroeconomic and distributional effects of the privatization of the electricity, telecommunications, gas, and water distribution sectors. Despite "well-known limitations," the CGE approach has several advantages: The version they apply is sparing in its demands on information, allows for the assessment of "direct and indirect impacts of all the changes in one utility or the impact of a similar change across utilities," (358) and reveals the interaction between privatization and other major and concurrent macroeconomic shifts, such as a financial crisis.[34]

This study too looked at the effects of privatization in the greater Buenos Aires region, and assumed the changes perceived would "be duplicated when provincial services are privatized." The base year for the study is 1993, the first in which all four of the services were privatized; additional observations were taken for 1994 and 1995. This is a relatively short period of time post-privatization. Moreover, data gaps forced the authors to use information from earlier periods in three or four cases, and necessitated several simplifying assumptions. Still, the conclusion was that "the data are reasonable" and that the analysis was valid.

The conclusion was that privatization yielded positive overall macroeconomic effects, amounting, when spillover effects were included, to a 0.9 percent increase in GDP. These gains increased considerably under effective regulation.[35] Moreover, while general unemployment in Argentina rose from 9.3 percent in 1993 to more than 18 percent in 1995, the authors concluded that privatization was not the explanation for this increase (though this was the opinion of the general public [see above, p. 2] and, given more recent events, doubtless remains the case). Indeed, they argued that privatization probably had a positive impact on employment, but the gains were overwhelmed by job losses following sharp interest rate increases in 1994 and 1995, brought about by regional financial crises.

Based on changes in Gini coefficients, and shifts in access and prices, the study concluded, in contrast to Delfino and Casarin, that: "privatization improves the overall distribution of income" with the poor gaining the most. The crucial factor is that the improvement is "six times larger when regulation is effective." (The model does not empirically test but rather simulates the effects of good and bad regulation in all sectors; see Table 4, 374) Why is this the case? Because their simulation of the process shows gains to labor income, the largest source of income of the less wealthy, as five times greater when regulation is effective. Moreover, the less effective the regulatory system, the more returns to capital income exceed those to labor income. They thus conclude the direct gains of privatization, in terms of

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[34] Note that a third study of the subject is presently underway in Argentina, under the auspices of the Inter-American Development Bank. Conducted by Huberto Ennis and Santiago Pinto, this study examines ownership, employment, access and price effects of the privatization of telecommunications, electricity and water. Results are expected sometime in 2002.

[35] The test of regulatory effectiveness is whether prices are flexible (effective) or fixed (ineffective). [371]

ownership effects and increases in capital incomes, tend to go to the richer segments of society (with some also captured by foreign consumers and the government, which retained a portion of the equity in these firms). The indirect gains (mainly in terms in increased returns to labor) from effective regulation, on the other hand, tend disproportionately to go to the lower income strata. "This suggests that how serious governments are about the fair distribution of gains from privatization reform is revealed by how serious they are about regulation."(376)

Spain

Arocena (2001) assessed the distributional effects of deregulation and partial privatization in Spain's utilities in the period 1996-2000. He found that all households experienced a welfare gain following the reforms, though the poorer households benefited "less than average," implying a negative distributional effect. Lower income groups lost most through tariff rebalancing in telecommunications (i.e., the usual increases in the price of local and domestic service; decreases in the prices of international service). Another factor effecting income distribution was the increase in the fixed charge segment of tariffs in all sectors, as new entrants to the network had to pay an equipment or connection fee. As new entrants tend to be from lower income categories, this increases maldistribution. These costs could and should decrease in the future as competition develops. (abstract)

Government allowed many of the companies to "maintain and even increase the market power they had before liberalization," (6) on the argument that only large firms can compete in the globalized world market. Arocena dismisses this argument; he attributes the outcomes to the "lobbying power of the banks and the energy companies," the weakness of the regulatory institutions created to oversee the liberalized or privatized utilities, and the desire of Spanish authorities to keep the ownership of these firms in national hands. The overall conclusion is that the political power of the incumbent firms overcame the plans of reformers to maximize competition, and this has lessened the positive distributional impact.

Bolivia

Privatization of the largest Bolivian state enterprises was called "capitalization," partly to avoid the negative connotations of the word privatization, and partly to reflect the fact that all money raised from the sale of equity was plowed back into the divested firms—no proceeds went directly to the state treasury.

The scheme worked as follows: following a professional valuation of the firms to be capitalized—including the electricity, gas, telecommunications, and parts of the water and sewerage industries—the firms were put out to a competitive tender. Bidders had to meet a variety of technical and financial criteria. The winning bidder assumed control of all the equity purchased. As all the proceeds went into the firms, the companies' capitalization theoretically doubled. The new private owner in all cases held 50 percent of the new firm. Government quickly turned over most of the remaining 50 percent to newly established, and private, pension funds, in which all

the citizens of the country had a stake.[36] The program thus attracted dynamic and reputable private owners, and capital, into weak and investment-starved firms. In addition, it reformed and re-capitalized the near-moribund pension system, and set aside shares to fund the "Bonasol;" an annual cash payment to all over the age of 65. Note again that no proceeds went to the treasury. Bolivia's relatively strong fiscal position at the start of the process allowed it to pursue this option. The program generated about $2 billion US in proceeds and investment commitments.

Using household survey data, Barja and Urquiola (2001)[37] estimated for urban areas the changes in connection rates pre- and post-capitalization, for telecommunications, water and electricity (gas was not covered). Connection rates rose in all sectors, dramatically in telecom and water, and by a modest 2.9 percent in electricity—but pre-sale electricity coverage in urban areas was already at 96 percent. (17) Were these increases the result of divestiture? Other changes, in regulation and competition enhancement, could explain the results as much or more than change of ownership. No counterfactual along the lines of Galal *et al.* or Newbery and Pollitt was attempted. Rather, Barja and Urquiola compared pre- to post-sale patterns, noting that both periods had similar macroeconomic and political conditions. Trend lines do show break points at about the moment of privatization, again, large for telecom and water, more modest for electricity. Still, they deem the evidence insufficient to conclude that capitalization "caused" the increased coverage.

What about distribution? Since the majority of the lower income people in Bolivia live in the rural areas, and since the clientele of capitalized firms is mainly urban, one could argue that the coverage increases have "bypassed the poor" (23)—— who thus gained less than others or perhaps nothing at all. In urban areas the situation is different: In telecommunications and water the coverage rates of lower income customers increased much more than those of the upper income groups, and "reversed trends of increasing inequality." In electricity, the bulk of the increase in access was in poorer households, as they were about the only urban dwellers not previously covered. The rate of increase under capitalization was much greater than the rate pre-sale.

What happened to prices? Barja and Urquiola list four reasons why prices might rise following reforms:

1. To meet cost-recovery and investment requirements
2. To make up for the disappearance of subsidies
3. To meet the costs of more formal revenue collection and the elimination of illegal connections
4. To deal with price shifts in substitutes or complements

[36] A small percentage of equity was given to the employees in the affected firms.

[37] Note that the same authors are producing a follow-up study on ownership, employment and price effects for the IADB project; and will follow this with a third study on the macroeconomic, political-economy and policy implications of the process for the Center for Global Development study.

Number one was not much of an issue in Bolivia, as liberalization measures had rationalized and increased utilities' prices prior to divestiture. Some prices did increase for this reason post-sale, but changes "were not dramatic." Nor was the second factor important; for a variety of reasons "cross subsidies were less prevalent than in other countries." As for number three—a major issue elsewhere, as we have seen—many of the local electricity distribution firms had been cooperatives or privately-owned, and they had not tolerated illegal connections. Thus, this was not a key issue. Number four could be quite important, but available data are weak. The authors believe that access rather than price changes is the main story in Bolivia.

In electricity, there was "overall real price increases for the residential sector," but they were modest. And the price levels generally declined after 1998. In water, prior to the granting of the concession, consumers were not charged for the first $10m^3$. Following privatization, charges were levied on all consumption, but the price of the first $30m^3$ consumed was quite low; and the price per m^3 rises progressively with amount consumed. This imposed costs on those—presumably the poorer—that had benefited from the free allotment. But the price increases in the water companies not privatized were greater than those set by the privatized firms, suggesting that privatization *per se* was not the cause of the price hikes or any distributional losses in this sector. In telecommunications, privatization was accompanied by increased competition among suppliers of cellular phones. Prices for cellular services fell dramatically; in turn, costs for connection to the fixed line network plummeted as well. (One sees again the power and generally positive effects of competition. Whereas in several other cases first-time customers were charged large connection or equipment fees to obtain a phone, in Bolivia these costs were held down by the ability of the consumer to obtain the competing, cellular service.) The great expansion in coverage led nonetheless to increases in average household expenditures on telephony.

Barja and Urquiola too faced the problem of assessing the distributional impact of price shifts that vary according to levels of consumption. They did not simulate the effects of alternative elasticities; rather they applied a method devised by Price and Hancock (1998)[38] that yields estimates of shifts in consumer welfare based on average prices and average consumption figures. The conclusion was: "the absolute losses of the richest quintile are roughly two or three times that of the poorest." However, relative to household income, the impact was worse for poorer households. Still, their major point is that "large welfare gains must have been induced by increased connection."

In general, Bolivia appears to be a case of relatively positive distributional effects of privatization. In their forthcoming study Barja and Urquiola will examine in more detail why and how this is the case, looking at the distributional effects of the reformed pension scheme, and especially the "Bonasol" payments, which at the

[38]This method was one of the three applied by Torero and Pasco-Font in their study of Peru; see above. The drawback of this technique is that it holds consumption constant, and thus complicates the assessment of the benefits of increased access.

outset paid $250 per person to all over the age 65. As this sum was equivalent to a year's income for the poorest segments of the rural population, this program very likely had a quite positive equity effect.

United Kingdom

Price and Young (2001) looked at the distributional impact of changes in price and especially payment methods following privatization of utilities in the UK. Income inequality has increased in the UK over the last two decades, and energy expenditure is a large item in budgets for lower income citizens. Following privatization of utilities, production costs fell, and all consumers saw lower prices.

In the UK, consumers can choose between two payment methods for electricity, one, paying in advance for a "smart card," entitling the bearer to a set amount of the service; or two, a quarterly settling of the account, following a reading of the meter. Most consumers opt for the second method—in 2000, only eight percent of gas customers, and seventeen percent of electricity consumers used prepayment. The prepayment system is cumbersome and more costly for the utilities, presumably due to the need to install special meters capable of reading the amount left on the card, and shutting off supply when the sum is exhausted. The additional cost is passed along to the "smart card" purchasers.

The distributional issue is that those with lower incomes and higher risk of debt predominantly use the higher-cost prepayment method. Note again that the conclusion is that all consumers, including the lower income groups using the prepayment method, benefited from lower prices following privatization. But the lower income groups using prepayment did not benefit as greatly as the more affluent. If this is the (presumably unintended) outcome in the UK, where legislation specifically enjoined those managing privatization to take particular account of the needs of the elderly, sick and disabled, and those living in rural areas, where information on costs is readily available, and where there are many advocates for the economically disadvantaged, then it seems reasonable to be concerned about how such mechanisms will affect less developed administrative and social systems.

Anecdotal evidence adds to the concern over pricing regimes. Press reports from South Africa (***Washington Post***, 2001, A1,18) indicate that the liberalized, but not yet privatized, electricity utility Eskom has changed its tariff structure in an attempt to cover the costs of production and investment, preparatory to going to market. Eskom sells in bulk to localities, and these set retail tariffs according to the density of the network and the level of demand in each locality. The unanticipated result is increasing and highly vocal discontent among lower income neighborhood consumers who are, reportedly, paying 10 times the price per kilowatt hour of large industrial users and 3.3 times the price of affluent, white, suburbanites. The fact that the restructured utility is still, at least for the moment, state-owned is lost on poor consumers, who blame the higher bills, and more aggressive collection/cut off procedures, on "privatization."

c. Other studies

Brazil

Macedo (2000) looked at privatization's impact on asset distribution in Brazil. Privatization generated enormous sums for the federal and state governments, with net proceeds in the period 1991 to 1999 exceeding $70 billion US. Change of ownership made the companies more efficient, and their profits are bringing increased tax revenues to the governments, both federal and state. But in terms of distribution, the direct gains from the sales went to the wealthier segments of society, to foreign investors and to a labor elite. Opportunities to have the poor directly benefit—through the use of vouchers, reserved tranches or shares for the disadvantaged, or through something like Bolivia's "capitalization" approach—were overlooked.

Privatization provided an opportunity to distribute widely the potential indirect gains. Had the proceeds and increased tax revenues been applied in such a way as to lead to lower interest rates there might well have been increased rates of growth, and subsequent job creation. Macedo says this chance was missed due to the failure of successive governments to hold the line on expenditure and indebtedness. The conclusion is that the "money from privatization went down the drain in the disarray of public finances." (22) The substantial revenues were not applied as effectively as they could have been, and the long-term liabilities of public sectors (national and states') in Brazil increased. Macedo concludes that privatization has probably worsened asset and income distribution in Brazil.[39]

Ramanadhan (1995) summarized eleven case studies of privatization's effects on equity.[40] Recurring themes in the set include:

- problems of "identification and measurement;" i.e., of attributing to privatization that which has been brought about by privatization, and not by some concurrent policy shift or exogenous change, and
- difficulties in calculating the magnitude of the privatization effect, even when correctly identified;
- the lack of attention paid to distributional concerns when forming the privatization programs (broadening ownership is frequently mentioned as an objective but in practice it is usually outweighed by the need to generate revenues and meet deadlines);
- the wealthy tend "to mop up the plums of privatization;"
- shares given or sold to workers tend to be quickly resold. Finally,
- "some inequities….may have to be accepted as the price for the efficiency aimed at by privatization."

[39] One possible response to Macedo's argument is that privatization revenues provided Brazilian governments with an opportunity to improve the fiscal and economic position of the country, and if government squandered that chance, it was hardly the fault of privatization *per se*, but rather a general failure of government policy and practice.

[40] The countries examined were Bangladesh, Chile, East Germany, Guyana, India, Malaysia, Nigeria, Poland, Philippines, Sri Lanka and Thailand.

Several of the cases in the volume dealt with countries where few if any privatizations had taken place at time of writing (e.g., India and Thailand) or where divestitures had been so recent or data so weak that little information was available on the distributional results (e.g., Guyana, Nigeria, Philippines). In contrast, by the middle of 1993, Sri Lankan authorities had fully privatized some 32 firms, mostly commercial and manufacturing companies. Another two-dozen, similar firms were up for sale, though it was not until the late 1990s that some very large enterprises were sold, including the telecommunications company and Air Lanka—renamed by its new owners Sri Lanka Airlines. Kelegama (1995) examined the distributional implications of the methods of sale (and sale price set by the government), the shares given to workers in the affected firms, the effects on labor (mitigated by the fact that the President decreed that no worker should suffer loss of job due to privatization!) the regional impact, the use of proceeds, and the effects on capital market development.[41]

Kelegama concluded that government underpriced the shares of the minority stakes sold on the stock market, to ensure the success of the sales, to broaden ownership among small, first-time Sri Lankan investors, and to avoid overburdening the thin local capital market. The sales were a success in that all the issues were oversubscribed, and restrictions had to be placed on the number of shares any one investor could purchase. But the success came at a distributional price: Despite encouragement to the citizenry at large, most shares were purchased by the wealthy. And while workers in affected firms could buy shares in addition to those they received free, it was mainly firm managers that exercised this option. Thus, not only was it likely that wealth distribution became less equitable, but the resources foregone by government underpricing were large—as evidenced by the fact that the share price of most of the privatized entities rose from three- to eight-fold very shortly after the transactions. This loss to government and taxpayers[42] was somewhat offset by the increased tax revenues flowing from privatized firms.

Kelegama also questioned the distributional impact of the share ownership program for workers in firms being privatized. Some workers reaped huge gains from this program. But those eligible for the share ownership program made up just 20 percent of the total SOE workforce, and a much smaller percentage of the total formal sector workforce, including government employees. And not all worker-shareholders gained, as share prices declined in a few privatized firms. The point is that a small group of workers did very well out the scheme, and this may have

[41]Kelegama is producing an updated version of this study for the Center for Global Development's Distributional Effects of Privatization project, taking into account the later and larger privatizations and the increased information on events post-sale; results are due in 2002.

[42] Of course, the pricing of stock offerings contains an element of art as well as science; share prices could rapidly increase because the buyers anticipate the benefits of improved management, or the low offering price could have been the result of undervaluation by the financial advisors, and not the specific intention of the seller. But when one sees, consistently, large share price increases in the space of the first day or first few days, then underpricing is a near certainty. Megginson and Netter (2001, 366) review five studies documenting "significant, often massive levels of underpricing" in China, the UK, Malaysia and Hungary and eslewhere.

reduced opposition to privatization—but the distributional impact was miniscule at best.

In the same volume, Larroulet (1995) argued that privatization positively affected distribution in Chile. The evidence for this is threefold:

- In the first few years following their sale, the set of privatized firms increased their workforces by 10 percent on average (and the general rate of unemployment in the economy fell from 15 percent in 1985—the first year of the second phase of privatization—to 6.5 percent in 1990).
- In the same period, income distribution improved slightly, with the six poorest deciles increasing their share of income by an average of 0.20 percent, while the top four deciles lost an average of 0.30 percent.
- Ownership and thus asset/wealth distribution improved, as 14,000 "popular capitalism" first-time share buyers entered the market because of privatization, in addition to the shares sold to workers in the affected firms.

Recognizing that factors other than ownership change could account for part of the first and all of the second point; and that the number of first-time share buyers was tiny, Larroulet concluded cautiously that privatization "…..did not have negative repercussions for the redistribution of income, but rather that it enhanced access to capital among sectors that did not traditionally engage in such investments." (237)

Transition economies

The transition from centrally planned to a market economy proved more difficult and more painful than most observers anticipated. Poland, Hungary, Slovakia and Slovenia are looked upon with envy simply for recovering in less than a decade all of the production losses suffered in the initial and difficult transition period. Most countries in this region have now returned to growth, but the turnaround came late for many and has not yet been of sufficient strength to replace all the losses. In some few extraordinarily difficult situations, such as Ukraine, the decline in growth has not yet been halted, much less reversed (see table below).

Table 1

The Transition Recession

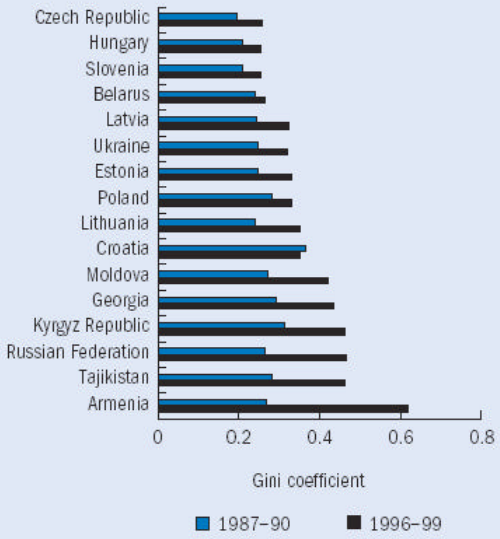
Countries	Consecutive years of output decline	Cumulative output decline (percent)	Real GDP, 2000 (1990 = 100)
CSP[a]	*3.8*	*22.6*	*106.5*
Albania	3	33	110
Bulgaria	4	16	81
Croatia	4	36	87
Czech Republic	3	12	99
Estonia	5	35	85
Hungary	4	15	109
Latvia	6	51	61
Lithuania	5	44	67
Poland	2	6	112
Romania	3	21	141
Slovak Republic	4	23	82
Slovenia	3	14	105
CIS[a]	*6.5*	*50.5*	*62.7*
Armenia	4	63	67
Azerbaijan	6	60	55
Belarus	6	35	88
Georgia	5	78	29
Kazakhstan	6	41	90
Kyrgyz Republic	6	50	66
Moldova	7	63	35
Russian Federation	7	40	64
Tajikistan	7	50	48
Turkmenistan	8	48	75
Ukraine	10	59	43
Uzbekistan	6	18	95
Output decline during the Great Depression, 1929–34			
France	3	11	n.a.
Germany	3	16	n.a.
United Kingdom	2	6	n.a.
United States	4	27	n.a.

n.a. Not applicable.
a. Simple average, except for the index of 1990 GDP, which shows population-weighted averages.
Source: World Bank country office data; Maddison (1982).

Communist countries embarked on their transition with very low-recorded levels of inequality. Distribution quickly worsened, slightly in Central European countries such as the Czech Republic, Hungary and Slovenia, massively in places farther east, such as Russia, Georgia, Armenia and Tajikistan. (see figure A below). What role did privatization play in this increase?

FIGURE A.

Changes in Income Inequality in Selected Transition Economies



Source: World Bank (2000b).

One view (expressed in World Bank, 2002 for example) is that the mounting inequality is an unavoidable element in the transition, brought about by necessary and ultimately beneficial processes, including privatization. They result in:

…rising returns to education, decompressing wages, and emerging returns to risk-taking and entrepreneurship. These forces are welcome despite the increase in inequality because they signal that the market is now rewarding skills and effort, as in more mature market economies.(xiv)

Many would regard this view as optimistic, partial or misleading. Mikhalev (2000), for example, states that in transition economies "privatization shifted assets towards the wealthy," adding that "the faster the privatization of the economy, the more rapid the increase in the share of highly concentrated capital income and in overall inequality."(vii & 11) Moreover, Mikhalev does not believe these shifts have resulted—as yet, at least—in the efficiency enhancement and production gains that might justify the increased inequity. He arrives at this conclusion by noting the gross outcomes (falling production, increased unemployment, large increases in the Gini coefficients) and then deducing plausible contributing factors and linkages from both economic theory and from the observations of observers.

McHale and Pankov (1999) follow a similar approach. They define wealth broadly to include the value of non-marketable job attachments and social security entitlements as well as marketable assets. They suggest that distributive goals were not important in the minds of transition reformers when they embarked upon privatization. Hence, although some of the methods adopted, such as voucher

privatization, had distributive promise, most observers now conclude that the promise was not fulfilled (particularly in Russia and points east, but in institutionally stronger settings as well, such as the Czech Republic) due to insufficient information and skills of shareholders, weak financial, legal and regulatory institutions, and outright theft and fraud. McHale and Pankov believe that the largest gains from privatization, especially in the former Soviet Union, have accrued to the politically well connected and to enterprise insiders. They too deduce their conclusions from the documented declines in production, the rise in unemployment, the increases in gross inequality, and the flood of anecdotal and case-study information suggesting, in almost every country and especially for Russia, that privatization transferred a large amount of property and wealth to a small group of corrupt and/or agile persons (who mostly paid little or nothing for the assets acquired). They then conclude that wealth distribution has worsened following privatization, and because of privatization.

Alexeev (1999) asks: how does privatization effect wealth distribution in Russia? While "empirical evaluation is all but impossible due to the dearth of reliable data," the widespread perception is that most assets and wealth were grabbed by a few; that privatization in Russia greatly contributed to the aggregate increases in inequality. To get at the issue in the absence of data, Alexeev examines the informal distribution of property rights that existed in the communist period. The hypothesis is that those who held the most informal rights prior to the reform—particularly enterprise managers and that set of important officials and persons who held informal title to the best housing stocks in the country—were best placed to transform those informal rights into property and power. This tendency was exacerbated by the way in which the Russian privatization program was organized, the ownership transfer mechanisms employed, and the macroeconomic policies adopted.

Alexeev constructs a "rent-seeking model with incumbency advantage" to test his hypotheses. The workings of this construct show how initial informal property rights of enterprise managers, and the superior housing stocks of officials, would be magnified, with the implication that "wealth inequality significantly increased between mid-1994 and 1997."

Discussing the implications of the analysis for economic efficiency and growth, Alexeev asks: Suppose "the people who are good at rent-seeking are also good at managing capital in a market-oriented environment"? If that is the case, "allocation of capital via rent-seeking may be a good way of conducting privatization." But Russian economic and social history, and information on firm performance in the post-communist period—there is much evidence that new private firms far outperform the privatized enterprises—suggests that good rent-seekers are not necessarily better entrepreneurs. On the contrary: "The immediate effect of rent-seekers standing at the helm of privatized enterprises is to hinder their restructuring," (463) a finding confirmed by a number of others looking at Russia. Alexeev concludes that regardless of its contribution to or hindrance of efficiency enhancement, wealth inequality is dangerous for Russia. It leads to income

inequality that "creates political pressure for redistributive taxation, which hinders growth."

Ferreira (1999) also creates a model of wealth distribution effects of privatization (and other liberalizing reforms) in transition economies. The focus is on changes in returns to different skills and educational attainments, on the development of new markets for the private provision of services previously supplied by the state (education, healthcare), and the direct privatization of previously public industrial assets. In the model, privatization of industrial assets affects both the distribution of wealth and income, since it has an impact on ownership, wages and occupational choices.(379) Even when the shares in privatized assets are given away to all citizen, the short-run effect of privatization will "unambiguously increase expected incomes in the upper and middle classes, but it may lead to income reductions amongst the poor."(391) The assumption, as in Alexeev, is that those who were better endowed and placed in the communist system have little difficulty structuring to their advantage the privatization methods used.

Two chapters in the Ramanadham (1995) volume—that of Bos on East Germany and Rapacki on Poland—assess privatization's impact on equity in transition economies. In East Germany, the very rapid privatization of over 10,000 firms, mostly to West German investors, led to job losses of close to 60 percent of the pre-existing labor force. A principal cause was that wage rates in the former East Germany quickly rose to approximate those in West Germany. The result was a high regional unemployment rate that persists a decade later. Moreover, the transfer of equity to West German investors negatively affected wealth distribution.

Rapacki concluded that privatization worsened inequality in Poland, as it contributed to unemployment and worsening income and wage inequality. These outcomes can be attributed to general liberalization, and the extent to which privatization *per se* is the culprit is not fully known (see the discussion of the article by Behrman, Birdsall and Szekely, below). However, given that the estimated job shedding in privatized firms is about 30 percent, and that unemployment is a major cause of the perceived increases in poverty, Rapacki reasoned that privatization has directly contributed to increasing income disparities, even while acknowledging that almost no information is available on jobs and incomes in the rapidly growing underground economy. The inequality is somewhat offset by new and additional taxes on firms—and their presumably middle- and upper-class owners—to fund severance packages and an unemployment insurance scheme.

Ivaschenko (2002) looks at the factors that caused the large increases in inequality in the transition countries (noted above in Figure A) and concludes that a shift to private sector dominance and liberalization in general are associated with rising income inequality. However, he attributes the increase in inequality more to "deindustrialization" than to privatization *per se*. (Other factors contributing to increased income inequality are high inflation and extent and duration of civil conflict; on the other hand unemployment, degree of government involvement in the economy, and the extent of political rights and civil liberties are *not* so associated.) Ivaschenko concludes that in transition settings "some increase in income inequality …is largely inevitable and should not be considered in the negative

light….Ultimately, it is better to be unequally rich than equally poor. Nevertheless, the policies aimed at facilitating the transition of workers from the public to the private sector, and from the manufacturing sector to services, may be of paramount importance for the distributional outcomes of reforms." (43, 44)

Voucher schemes

At the end of the communist era, the distributional dilemma faced by reformers (and their advisors) in East and Central Europe was as follows: Privatization of the massive amount of productive assets held in state hands was a necessary element in the transition from plan to market; indeed, to many it was regarded as the *sine qua non* of the process.[43] But if the mass of state-owned firms were sold by the "case-by-case" method traditionally employed in the West, who could or would buy them? Most citizens in post-communist countries had no funds to purchase shares or firms; the few who did were thought to have acquired them illegally; and most transition governments, with a few notable exceptions such as Hungary and Estonia, could not contemplate the mass transfer of ownership to foreign investors. The supposed solution, invented by Poles, but applied first in Mongolia and Czechoslovakia before spreading widely throughout the region, was the voucher.

Distributed free or for a small fee, to all citizens or to all adults, the voucher (or coupon as it was often termed) could be exchanged in special auctions either for shares in a firm being privatized, or for shares in private investment funds that accumulated personal vouchers to buy a diversified portfolio of minority holdings. With substantial technical and financial assistance from the international financial institutions, particularly the World Bank, the EU, and a number of bilateral donors, daunting technical and administrative obstacles to the implementation of voucher programs were overcome. Between 1991 and 1996 voucher privatization was applied in 21 of 27 transition countries. In ten of these—Armenia, Bosnia, Czech Republic, Georgia, Kazakhstan, Kyrgyz tan, Lithuania, Moldova, Mongolia and Russia—vouchers were the primary privatization method. Tens of thousands of firms were privatized by this method, 15,000 in Russia alone.

Some few reformers had clearly stated that the purpose of privatization was to sever the links between the state and the productive enterprises. They downplayed any notion that the objective was the equitable distribution of former state property; and some even claimed that efficiency enhancement should be secondary to the essential rupture. But many other leaders in the region raised public expectations by portraying the voucher as the means by which all citizens would acquire a fair and productive share of previously state-owned property.

After initial promise, results turned disappointing. Companies privatized by vouchers, most of which ended up with a mass of diffused, mainly feckless shareholders, failed to restructure, or restructured less than firms with concentrated

[43]For example, Triska (1992, 104), a principal architect of the Czech voucher privatization program, asserted: "Privatization….is not just one of the many items on the economic program. It is the transformation itself."

owners.[44] The most optimistic interpretation is that a primary purpose of voucher privatization—to raise efficiency and production levels in the firms—proved slow to arrive. Distributional results were worse. Given widespread deficiencies in commercial and securities codes and information and legal systems, given the difficulty in enforcing contracts and enacting and implementing prudential regulation in financial and especially capital markets, the millions of first-time, uninformed and diffused minority shareholders were easy prey. Events in the Czech Republic dramatically illustrated the problems.

Czech voucher privatization had in most cases left the incumbent management in place. Seizing the opportunities provided by the gaps in commercial and financial law and enforcement, many managers in voucher privatized firms—in collaboration with investment fund managers—"tunneled" off the assets of companies to personally owned subsidiaries. The liabilities were left in the parent firms, the share prices of which fell precipitously. In the peak period of tunneling, from 1993 to 1996, these practices were very common, and all more or less legal.

Vouchers and the initial lack of concentrated owners were hardly the sole cause of the Czech problem.[45] State-ownership or dominance of the commercial banking system, and the extension of credit on political and not economic terms; acute weaknesses in financial and capital market regulation, and a weak, creditor-friendly bankruptcy and insolvency system all contributed to the problem—but the diffused, informationless shareholders produced by the voucher approach exacerbated the difficulties. A 1998 OECD economic review (1998, 49) concluded simply that the voucher approach had "…impeded efficient corporate governance and restructuring."

The distributional upshot was that the vast bulk of citizens obtained little or no value from the shares obtained through the voucher scheme. Large amounts of the property privatized through vouchers ended up in the hands of a small group of domestic managers/fund managers/investors. Wealth distribution certainly worsened. The dashed expectations of the voucher approach eroded popular support for market-oriented reforms. Poor restructuring in the firms privatized through vouchers contributed to the Czech Republic's weak economic performance, vis-à-vis Hungary and Poland, from 1996 to 2000. In contrast, the group of firms sold to foreign investors generally prospered, to the benefit of the workers and communities involved. However, one must note that sensible institutional, policy and legal reforms enacted in the late 1990s[46] have borne fruit. The Czech Republic is today number one in the region in terms of attracting direct foreign investment, and among Central European countries it has the lowest rate of unemployment and the best GDP growth rate in 2001. Proponents of the original approach could argue that the

[44] To restructure is to cut costs, change product lines, and find the new investments necessary to shift to market-oriented production. The findings are reviewed in Djankov and Murrell (2000).

[45] As is revealed by the experience of Slovakia, which cancelled the second phase of its (identical to the Czech) voucher scheme, and sold most remaining firms, at very low prices, to a group of supporters of the Prime Minister of the day. These owners were certainly concentrated, but their restructuring track record proved equally poor.

[46] Many of them by a supposedly leftist Social Democratic government that had capitalized on discontent with privatization to achieve power in 1998.

downturn was short-lived and—in line with the World Bank argument given above—necessary to attract and retain the investors and entrepreneurs that are behind the present prosperity. However, they did not anticipate that, paradoxically, direct sales to concentrated owners, who put the assets to productive use, had a larger, more positive distributional effect (through the increases in jobs and salaries) than sales through vouchers.

d. Privatization's effect on labor and labor income

Consider the following views on privatization expressed by labor union representatives in India in 1999. They acknowledge the undeniable: Far too many Indian state-owned enterprises (SOEs) are inefficient, unprofitable, fundamentally sick, and kept alive only by government subsidies and soft credits. However, they argue that:[47]

Privatization is not necessary. SOEs need not run at a loss; all they require is good managers, less political interference, competent boards of directors, and especially more rational pricing policies.[48]

Privatization's purpose is to weaken organized labor. Privatization always hurts labor since it benefits mainly, or only, the domestic elite and foreign trans-national firms. The aims of privatization are to reduce labor costs and numbers, and break union power.

Politicians and bureaucrats make the errors that cause SOEs to perform poorly, but **only labor is asked to pay the costs of reform.**

Privatization is not a homegrown product; the IMF, the World Bank and other IFIs impose it on India.

Workers dismissed as a result of privatization have great difficulty finding other work; when they do, it is almost always at much lower salaries, with fewer or no benefits, and much reduced job security. Only public sector employment gives workers a life of dignity and respect. Thus:

Privatization is exploitation, as it replaces unionized, permanent and pensionable staff with lower cost and less secure contract and casual, unorganized labor.

This indictment is not a rarity. Worldwide, proponents of labor have been the most vigorous and persistent critics of privatization, consistently portraying as negative its effects on income distribution and worker welfare.[49] Not enough is known empirically about the issue to form definitive judgments; the following statements lie between propositions and conclusions.

- Any serious attempt to address the deficiencies and losses of SOEs, including efforts taken before or even as a substitute for privatization, is likely to involve downsizing

[47] Summary of views presented in an annex, "View point of the labour ," in, Goyal (2000,. 88-92).

[48] Many Indian SOEs are monopolies (rarely natural monopolies). Prices for their products are often set, by government, at less than full cost recovery levels for social and political reasons. Labor leaders argue that giving SOEs latitude to set their own prices would eliminate most or all of the losses, and end the problem. They neither acknowledge nor discuss the costs and welfare losses this would impose elsewhere in the economy.

[49] For example, in a "Trade Union Response to Globalisation," Howard (2001, 115) states that "several government privatization programmes, adopted at the behest of the Bank and the Fund, have resulted in massive retrenchments, decreased services (often affecting women particularly badly) and increased prices, and have failed to improve overall economic efficiency."

of the workforce, often significantly so. Government owners have persistently treated SOEs as employment generators and maintainers—estimates of 20 to 30 percent overstaffing are common.[50] Salih (2000, 187) reports that in Sri Lanka (in 1992) the percentage of staff greater than those required for efficient and effective operation in eight examined SOEs was estimated as 53 percent. Just prior to its demise, the severely troubled and state-owned Air Afrique today had 4200 employees for eight aircraft, while industry leader, and private, Ryan Air maintains a staff of 1400 for 21 planes, a difference of 458 employees per aircraft. Prior to privatization, the wage bill in Argentine railways was 160 percent of the firm's total revenues. Cao et al. report (1999, 112) that "SOEs in China are overwhelmed with excess employment." Myriad similar examples could be given.

- Governments have been aware of this for 25 years or more, but seldom have mustered the will or applied continuously the mechanisms to deal with the problem.
- Many large and costly—both financially and socially—labor force reductions have been effected prior to or instead of privatization. The number of workers in Brazil's railway fell from a peak of 160,000 to 42,000 *before* the privatization transaction began; in Argentine railways the corresponding number fell from 92,000 to 18,600; in Korea Tobacco from 12,300 to 8,600; in the Sydney Water Corporation from 12,700 to 6,700 workers. Almost 10 *million* Chinese SOE workers were laid off in a restructuring prior-to-ownership change program in 1996, and another 10 million were displaced in 1997 (Cao et al., 113). While numbers of dismissals for later years have not been published, the Chinese SOE restructuring program has continued, and indeed accelerated.
- Labor unions and representatives, sub-national governments, and private investors mostly prefer to have the government attack workforce size well in advance of divestiture rather than leave it to the new private owner: Unions because they think (usually correctly) that they will be able to extract more lucrative severance terms out of government as opposed to private negotiators[51]; the investors because they normally wish to avoid starting off their tenure with a bitter, public, potentially nasty dispute over jobs and separation payments (but a number of private buyers have taken on the downsizing task post-sale, with surprising success).
- Governments themselves are often keen to address downsizing in advance of sale, to keep social peace and in hopes of increasing the sales price for the leaner firm, thus muting or forestalling protests about "selling for a song the family silver."

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[50] A common measure of overstaffing is the existing management's assessment of the number of workers needed to achieve full and profitable production, compared to existing numbers. Contrasting numbers of employees and labor costs of public and private firms in the same line of business, or estimates of post-sale labor needs by potential private owners, often produces much larger percentages of overstaffing.

[51] Salih (2000) notes that Sri Lankan unions insisted on large increases in severance payments, and demanded that any employee who wished to leave would be eligible. Government caved in to the demands, but lacked the means to pay. It eventually resorted to stipulating that nobody should be dismissed due to privatization "more because it cannot afford to pay the large compensation demanded, rather than through altruistic concern for the workers." (198)

- But while trade unions may find government downsizers marginally preferable to private owners, they would far prefer no downsizing whatsoever; and they have everywhere mobilized their members in opposition to privatization.

In the last decade the International Labor Organization (ILO) published several studies on the impact of privatization on workers. Van der Hoeven and Sziracki (1997), de Luca (1998), and Joshi (2000; all three edited volumes) analyzed the social and employment effects of privatization in a number of countries and regions through out the world, including, among others, Korea, Germany, Mexico, Czech Republic, sub-Saharan Africa, Australia, and five countries in South Asia. Not surprisingly, the studies report a very wide variety of approaches and outcomes. In a first set of 27 privatization cases reviewed in these volumes, we tease out of the often confusing numbers the following—fourteen cases with post-sale job losses, averaging 27 percent of the pre-sale workforce; two cases where "significant" (but unquantified) job gains were observed, and eleven cases where little or no change in employment levels was noted. In a second set of seventeen cases, job losses were reported in seven, averaging a substantial 44.6 percent of the pre-sale workforce. Job gains were seen in four instances, averaging 23 percent. In the remaining six cases, there were either no numbers given, or little change in workforce numbers observed.[52]

These data, in conjunction with single country and sometimes single firm case studies from a variety of regions and sectors, with findings from several survey reviews, and a wealth of anecdotal and indirect evidence from around the world, suggest that: While a surprising number of privatizations result in the maintenance or increase of the number of workers, and while most privatizing governments actively promote employment maintenance and creation in their privatization methods, measured employment losses post-sale tend to be greater than measured employment gains (and these losses are in addition to the sometimes substantial decreases enacted pre-privatization). Thus, in the short-run at least, the direct effect of SOE reform and privatization on employment is negative.

Given that those in the lower classes derive more of their incomes from employment sources (than do the upper classes), loss of jobs would inevitably lead to less equitable distribution. As noted, detailed information is lacking regarding what happens to those who are dismissed from SOEs as part of the divestiture process. How many find other jobs, after how long a search, and at what rates of pay, benefits and job security? The attempt made by Galal *et al.* (1994) to estimate the average time off of those dismissed, and the income losses involved (see above), no matter how rough, is the only effort encountered that tries to get at this issue.

Behrman, Birdsall and Szekely (2000) conducted an econometric study of the impact of liberalizing economic reforms on wage differentials in Latin America in

[52] Megginson *et al.*(1994) and Boubakri and Cosset (1997) both found employment *increases* in the set of privatizations they analyzed, but these were mainly firms privatized by public offering. Since only well-performing companies, meeting stock exchange listing requirements, are sold in this manner, this suggests "selection bias;" and is not a generalizable finding.

the 1990s. They were not examining whether privatization contributed to unemployment; rather, they asked: what were the causes of the increasing wage inequality seen in the region in the last decade? Their analysis suggests that privatization *per se* reduced wage inequality. Indeed, privatization mitigated the disequalizing effects of liberalizing reform in the financial sector, the tax regime, and capital markets. They suggest that the largest relative job losses due to privatization are found in the middle management ranks, and not in the classic blue- collar, or manual laborer positions, a finding encountered in several other studies.[53]

[53] La Porta and Lopez de Silanes (1999) found relatively greater dismissal levels among white rather than blue-collar workers in privatized SOEs on Mexico. Manadhar and Bajracharya (2000, 125) discovered the same result in Nepal, where mid-level managers, accountants, and supervisors suffered disproportionate amounts of dismissals. Perhaps these posts were more likely to be filled by expendable political appointees?

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