

The Privatization of Public Utilities:
What are the Gains? Why the Popular
Opposition?

Randall S. Wood

12th May 2004

<i>CONTENTS</i>	1
-----------------	---

Contents

1 Background	2
2 Introduction	2
2.1 Why Privatize at All?	4
2.2 What makes Public Utilities Special?	5
3 What are the Economic Effects of Privatization?	6
3.1 Effect on the Industry: Efficiency Gains	6
3.2 Overall Effect on GDP	7
3.3 Fiscal Effect: Proceeds from Privatization	9
3.4 Growth	11
3.5 Productivity	11
3.6 Welfare	13
3.7 Labor and Employment	16
3.8 Income Distribution	18
4 Why the Opposition to Privatization of Public Utilities?	24
5 How Can We Improve the Privatization Process?	26
5.1 Improvements that Provide Economic Gains	27
5.2 Reforms to Address Inequality and the Poor	27
Lump Sum Redistribution and Taxation	29
Universal Service Clauses	29
5.3 Timing and Regulation: the Ukraine Case	30
5.4 Sequencing of Reforms	31
5.5 Corporate Governance	31
5.6 Competition	32
6 Conclusion	33

1 Background

This paper was born out of my experience in Nicaragua, where in 2002 the privatization of the country's water resources was leading to a fierce polemic. Nicaragua was obliged to privatize some of its water distribution network – notably two dams and reservoirs in the north of the country – as part of an IMF-sponsored structural adjustment program. The obligations were not well received by the Nicaraguan people, who remember all too well what happened a few years earlier when under similar circumstances the electricity generation and distribution system were sold to foreign investors: everyone is convinced prices increased dramatically while no perceived improvement to service was detected. The idea of privatizing the water system seemed like the First World playing bully, the IMF granting the rights to something so fundamentally necessary as water to a first-world corporation.

Privatization plays a central role in most structural adjustment programs under IMF or World Bank control, indicating economists seem to think privatization has some economic merit, yet the people who live in poor countries where public utilities are being privatized seem to nearly universally oppose it. There is clearly a disconnect, and wanting to understand it was one of the reasons I decided to return to graduate school in the first place. This paper takes a necessarily broad look at the literature and research concerning the privatization of public utilities, with the goal of making some sense of the disconnect between policies that promote it and popular opposition to the effort. There is a wealth of literature available, some looking at the microeconomic aspects, some the macroeconomic aspects, and some looking at the micro-macro connections that occur as a result, but fewer pieces that attempt to combine the various issues. In establishing what the various economic impacts of the privatization of public utilities are, and who we can expect the winners and losers of privatization to be, I hope to make some sense about why those who urge privatization and those who resist it seem to be speaking different languages. Finally, to overcome the disconnect this paper looks at how privatization programs can be improved, and what aspects need to become more fundamentally integrated in privatization programs. Reassessing the status quo of privatization is clearly crucial to the successful implementation of future programs.

2 Introduction

A wave of privatizations, some led by IMF programs and some not, swept the world starting in the 1990s. Says John Nellis, "More than one hundred

countries, on every continent, have privatized some or all of their state-owned companies, in every conceivable sector of infrastructure, manufacturing and services. Including the very large number of firms privatized in Central and Eastern Europe (CEE) and the former Soviet Union (FSU), an estimated 75,000 medium and large-sized firms have been divested around the world, along with hundreds of thousands of small business units. Total generated proceeds are estimated at more than US \$735 billion. Every country, including India, Russia, China, Vietnam, Cambodia and Laos, that still retains a significant number of publicly-owned firms, is privatizing some or most of them (save for Cuba and Democratic People's Republic of Korea" (Nellis 2002). According to Alexander Dyck, nearly \$1T in assets have been transferred from government control to private control over the past 15 years (Dyck 2001). And there must be some economic advantage to privatization, if to date, the majority of firms privatized have not been subsequently re-nationalized (Nellis 2002).

Privatization is a key part of the so-called "Washington Consensus" and both the IMF and the World Bank include privatization of some or all state-owned enterprises as an integral part of their structural reform packages. The World Bank is the leader in promoting privatization as an economic reform policy, but the IMF has cooperated closely with the World Bank in this regard. The majority of IMF programs in recent years have included some form of conditionality on privatization (Davis et al. 2000).

In fact, even China, the longtime stalwart of the planned economy, has accelerated the privatization of tens of thousands of state-owned businesses that were once mainstays of the Communist party, and has led foreign and private investors buy majority stakes in large enterprises. A high-ranking state official, Li Rongrong, director of the state agency that manages assets, indicated that apart from certain strategic industries (in both the economic and the military sense of the word), the Chinese government intended to encourage private sector involvement in what's being heralded as one of the most major breaks from party doctrine since 1949 (Pan 2003). Clearly there is a case for using privatization if it is used so frequently (Davis et al. 2000). Yet, privatization is a sensitive issue, and tempers run high in regard to the distributional effects of privatization, particularly on the poor. Serious political opposition has centered on the uncertainty faced by workers and consumers regarding the impact privatization will have on employment and prices, and the popular press is quick to capitalize on the political sensitivity of the issue (Paredes M. 2001).

2.1 Why Privatize at All?

Privatization is widely thought to be a valuable policy instrument that leads to a greater good. Privatization of public resources injects new value into public assets and increases the privately-held capital base of a country. Governments that implement privatization as part of their reforms use it as a mechanism to pursue a variety of objectives, both macroeconomic and fiscal.

Governments undertaking privatization have pursued a variety of objectives. In some cases, privatization is a means of achieving gains in economic efficiency, given the extensive prevalence of poor economic performance of public enterprises in many countries and limited success with their reform. Privatization can also be a mechanism for improving the fiscal position, particularly in cases where governments have been unwilling or unable to continue to finance deficits in the public enterprise sector, such as in Argentina. Liquidity-constrained governments facing fiscal pressures have sometimes privatized with a view to financing fiscal deficits with the proceeds. And privatization can also be a means of developing domestic capital markets, which is also correlated with growth (Davis et al. 2000).

Privatization can lead to greater factor productivity in most cases. This is important, as in developing or transitional economies, factor productivity is typically notably lower due to inefficient allocation of existing factors and the use of antiquated technology and management techniques, among other reasons. Privatization can be a means to address those issues. And if successful, the increased overall factor productivity will lead to better growth. The conventional wisdom is that the profit incentive will spur private organizations to improve production processes in a way the government, lacking those incentives, would be unable to do (Laban and Wolf 1993).

But fiscal limitations are in many cases, the catalyst for privatization more than the desire to promote more efficient production processes. Argentina's case is a good example. In 1989, Argentina began the long process of privatizing its infrastructure services not because of a well thought-out desire to improve the efficiency of these services but rather because of a pressing need to reduce the financial burden they presented to the government, as well as the desire to increase the private sector's involvement in financing a much-needed expansion (Romero et al. 1999). Chinese officials cited similar concerns, hoping that private sector participation would release the government from having to maintain industries that have been economic burdens. The revenues earned from the sale of these industries were to be used to strengthen other elements of

the system such as under-funded health care, pension, and welfare systems (Pan 2003).

2.2 What makes Public Utilities Special?

There are three types of privatization: governments can privatize industries in the competitive sectors; this has occurred even in developed countries like the United Kingdom. Governments can sell off public utilities, and they can outsource services like trash collection to private contractors. The privatization of energy, sewerage, and telecommunications services fall naturally into this latter category. This paper focuses on the second case: the privatization of public utilities.

Public utilities such as facilities that obtain and distribute water, generate and distribute electricity, and provide services such as telecommunications, sewerage, and waste removal, provide natural targets for proponents of privatization. However, the provision of electricity and water is a different matter. These public utilities are natural monopolies and government intervention – in one form or another – is traditionally thought to be both desirable and essential, in order to ensure the overall welfare of society. But in the case of natural monopolies, once privatized, governments have not relinquished their ability to intervene, as they retain the ability to regulate these industries. For this reason, the effect of privatization on efficiency is not clearly shown in the empirical data. Different studies have shown that both private and public ownership have economic advantages, and that regulation is an extremely important factor in determining what the gains will be under each type of ownership. But studies show the single most important factor in efficiency, regardless of whether an industry is state-owned or privately-owned, is the existence of competition. This indicates that privatization may not be necessary to achieve gains in some sectors (Vickers and Yarrow 1991).

Government intervention in the marketplace is typically appropriate when externalities or natural monopolies are present. But the form of this intervention is not necessarily obvious. Privatization is the most drastic of interventions - it is the wholesale transfer of control and ownership to private organizations whose incentive is profit (Sappington and Stiglitz 1987).

The privatization of water resources is without doubt the most politically sensitive. According to Sara Grusky at the activist group Globalization Challenge Initiative, IMF loan agreements in 12 out of 40 countries imposed privatization of water resources or full cost recovery. This increases the pressure – and the consequences of – privatizing water resources, as compliance with IMF conditions are frequently paramount to

access to additional sources of help or revenue, such as World Bank loans and programs (Grusky 2001).

Grusky listed countries where the IMF had imposed the privatization or cost alone or with cost recovery policies. They range from Angola, Tanzania, Senegal, Rwanda, São Tome and Principe, Niger, Benin, and Guinea-Bissau in Africa, to Honduras, Panama, and Nicaragua in Central America, and Yemen in the Middle East. The privatization is typically implemented in the context of Poverty Reduction and Growth Facilities (PRGFs) though it is occasionally implemented in the context of stand-by arrangements (in the case of Panama), post-conflict policies (Guinea-Bissau), or staff-monitored programs (Angola). The loans granted to these countries are conditional, based on the the adjustment of electricity and water tariffs (Angola), water and sewer tariffs (Nicaragua), the placement of public utilities under private control (Rwanda: electricity, Senegal: urban water distribution, Niger: water, Benin: unspecified public utilities). In sum, eight of the twelve countries identified are part of sub-saharan Africa, and privatization is required in the conditional requirements of half the countries, while in four countries the conditional requirements demand both privatization and cost recovery (Grusky 2001).

3 What are the Economic Effects of Privatization?

The question of whether or not to privatize is essentially the question of whether goods can be most efficiently provided by the public sector or the private. In 1986 Sappington et. al. elaborated the Fundamental Privatization Theorem, which developed criteria under which the government would be unable to provide goods any more efficiently than the private sector could. The primary difference between the two modes of production is the right to intervene, which is to say, the right to determine production arrangements and implement major policy changes when it is necessary to do so. Under private ownership, creditors are provided this right through bankruptcy provisions, as are major financial interests, through hostile takeovers. Under public ownership the right to intervene belongs to the government, though under slightly different circumstances. But if the government is unable to improve upon the performance of the private market in the provision goods, it is safe to say privatization is not the most reasonable policy solution (Sappington and Stiglitz 1987).

3.1 Effect on the Industry: Efficiency Gains

Empirical evidence from several studies conducted in the late 1980s make a strong case for the ability of privatization programs to increase the

efficiency of firms.¹ In competitive environments, efficiency is clearly improved by a move to private management, but the case for natural monopolies is not as clear-cut. Some studies have found a clear advantage in private ownership and others have found a clear advantage in state ownership; still others have been unable to distinguish much of a difference between them. The most influential factor is without a doubt regulatory policy, a point supported by before-and-after comparisons of state-run industries before and after major shifts of regulatory policy. The case of British Steel is a good example. British Steel, a protected nationalized monopoly, experienced notably improved performance upon the establishment of regulatory reforms in the early 1980s which emphasized financial constraints. Competitive conditions are perhaps just as important as the regulatory environment in determining incentives and efficiency of privatized industries (Vickers and Yarrow 1991).

3.2 Overall Effect on GDP

If efficiency indeed increases as the provision of public utilities is transferred from public to private management, then we would expect an increase of revenue to the privately run firm, which the government should expect to tax in order to replace some of the revenue lost in selling off the enterprise. But conclusions as general as this one are difficult to make in the absence of good quality time series data, and as a result policy conclusions must be hedged (Trujillo et al. 2002).

Trujillo et. al. managed to overcome this shortcoming econometrically by estimating pooled-data models ignoring country-specific effects. The macroeconomic dependent variables were GDP per capita, total public investment, total private investment, total gross domestic investment and current public expenditures, and public deficit, using 1999 World Bank Development Indicators data expressed in 1995 constant prices. Three types of privatization were analyzed: divestiture (sale of the asset), concessions, and greenfields (new construction) projects, and the projects were divided into two categories: privatization of public utilities such as water and telephone, and privatization of the transport sector, such as the development and maintenance of roads and ports (Trujillo et al. 2002).²

¹Vickers points out this is in spite of the difficulty of measuring key variables such as allocative efficiency and the difficulty of finding parallel cases, the limited time frame of series data, and so on.

²Trujillo points out a serious shortcoming in the data set: while most of the economic data refers to the central government alone, infrastructure-related activities are often developed by public enterprises that finance themselves outside of the central government's budget and are thus not reflected in the figures. This significantly limits the scope of this analysis.

Trujillo et. al. found that the effect of privatization differs significantly according to the project – particularly the infrastructure type – and the method by which it is privatized. Furthermore, the impact of privatization in the transport sector is frequently distributed over time. For utilities, divestitures and greenfield projects have significant, positive effects, but for concessions they do not. For transport, only divestitures seem to have a relevant impact on GDP per capita, which may be because only complete divestiture can be interpreted as a strong commitment to allow the private sector to run the business. The same effect is seen when measuring the effect of privatization on private investment, although in this case country specific factors interpreting degree of political stability and corruption play an important role. In sum, greenfield projects lead to crowding out of private investment but concessions lead to increased private investment (Trujillo et al. 2002).

Privatization also tends to crowd out investment in the case of utilities but not in the case of transport. This may reflect that a strong transport sector helps attract investment in other industries. Testing for change in public investment, it was shown that privatization of public utilities leads to a decrease in the expenditures on public investment in all cases. On the other hand public investment is reduced in both cases. Finally, testing for the effect on recurrent government expenditures demonstrated that privatizing public utilities reduces recurrent expenditures while in contrast, privatizing transport utilities actually raises recurrent expenditures. This seems to indicate that some sort of subsidies are necessary to make privatized transport services viable, while privatizing public utilities leads to significant cost reductions and a diminished need to provide subsidies to the industry. Likewise, the privatization of public utilities leads to increases in public investments but reduces recurrent government expenditures, i.e. there is a crowding-in of public investment for privatization of utilities and a crowding-out for transport (Trujillo et al. 2002).

The most interesting finding of their econometric analysis is that macroeconomic effects of the privatization of public utilities are not the same for the utilities and transport sectors. There was no significant GDP per capita gain in the privatization of public utilities, while there was a positive effect in transport. This may reflect the fact that reforms in the utilities sector are used by governments to raise matching resources from private operators for the utilities sector, while in the transport sector, private investment allows governments to reduce their commitment in terms of future expansion (Trujillo et al. 2002).

The results are summarized in the following table:

Privatization therefore has, with some caveats, a positive change on a

	Privat. of Utilities	Privat. of Transport
GDP/capita	not significant	positive
Public Investment	positive	negative
Recurrent Public Expenditures	negative	positive

Table 1: Summary of Macroeconomic Effects of Privatization

country's GDP per capita. Trujillo et. al. found that the effect of privatization on GDP per capita was neutral at worst, and more frequently was positive. But Trujillo found no clear net positive effect on the public sector account. As this is inconsistent with the traditional literature to this date – as the next section of this paper shows – it makes evident the importance of careful evaluation when implementing privatization plans in either the transport or public utility sectors (Trujillo et al. 2002).

3.3 Fiscal Effect: Proceeds from Privatization

There are two principle channels through which privatization can influence the fiscal accounts of a country: the revenue earned through the initial sale of a resource or utility, and the subsequent revenue that can be earned from taxation of that same entity. Examination of the differential between the revenue earned initially when that resource was under public ownership, and the revenue to be earned by privatizing and then taxing is important to determine the effect of privatization, as revenue streams can be used to address the imbalances privatization can cause. Where privatization increases the profits of a firm relative to when it was publicly-owned, for example via improved efficiency, that strengthens the case for privatization as a useful mechanism to promote economic growth. However, even if privatization doesn't increase a firm's profits for developing countries with a penchant for defaulting on loans or a history of high inflation, selling off publicly-owned enterprises may be the best way of raising government revenue. The alternative, issuing bonds, may for some developing countries involve granting an interest rate so high that they are financially impractical (Vickers and Yarrow 1991).

An IMF study found conclusively that privatization led to growth of fiscal revenues, reduced transfer payments from the government to state-run industries, and in some cases reduced deficits. This study was hampered by the lack of adequate data on government transfers to state-run industries. IMF data is equally promising in regards to labor productivity and growth in countries that undergo privatization programs. There is solid economic evidence that privatized firms are more efficient, particularly when they operate in competitive sectors (Davis et al. 2000).

Contrary to Trujillo's findings, other researchers have completed studies that show privatization of non-financial enterprises has important macroeconomic and fiscal effects on transitional and developing economies. Fiscal receipts grow notably, of course, but the gain from these receipts depends on how that source of income is utilized. In a study of several countries performed by the IMF in 2000 the results seem to indicate this income is saved rather than spent. Davis finds that the impact of IMF deficit-reduction programs already in place in those countries studied may have been responsible for the results of the study. The difficulty in identifying and quantifying the causality is one reason it is not easy to easily make conclusions in this case (Davis et al. 2000).

Proceeds from privatization have been substantial in many cases, but the relationship is not easily defined and the fiscal effect of privatization can be radically affected by several factors, including actions prior to the sale, the process by which a state-run enterprise is made available to the private sector, and the political and economic regime in which privatization is conducted. First of all, receipts from privatization can be used to show the government's economic position is improved, as the sale of a state-run enterprise provides a positive shock to the government's balance sheet. But privatization has longer-term implications in terms of revenues foregone and the reduced responsibility of the government to invest. It is in any case clear that governments which have privatized state-run enterprises should invest the one-time proceeds from the sale of an enterprise in sectors that would otherwise be adversely affected by the loss of those government revenues, and should use the money it would have otherwise needed to invest in the state run enterprise in growth sectors (Davis et al. 2000).

How governments use the proceeds from selling state-run resources is essential. Of course, proceeds from privatization are in most cases completely fungible, and governments typically use proceeds from the sale of a state-owned enterprise to increase targeted expenditures, to reduce net debt by settling arrears or building up assets, or using the temporary inflow of liquidity to cushion the adverse effect of simultaneous fiscal policies that tend to accompany restructuring packages or bail outs, like fiscal contraction. In general however, the evidence of recent privatization programs shows that governments tend to invest, not spend, the receipts from privatization, although that decision may be largely due to IMF constraints that specifically limit deficit spending (Davis et al. 2000).

3.4 Growth

The link between privatization and growth is more tenuous, and Dani Rodrik points out that even though we'd like to see a clear correlation between privatization and growth, we're unable to draw clear correlations between economic growth and *any* economic policy without including a large number of caveats about the economic context in which policies are implemented (Rodrik 2003). This is highly unsatisfying. On the other hand, one IMF study found a strong correlation in regressions analyzing privatization and economic growth (Davis et al. 2000).³

Rodrik points out successful growth strategies are based on a two-pronged effort: a short run strategy whose goal is to stimulate growth, and a medium- to long-run strategy whose goal is to sustain economic growth. Stimulating growth at the beginning means providing a good climate for private investment and empowering poor people to take advantage of the opportunities, while sustaining economic growth makes paramount the implementation of strong institutions. Indeed, China experienced rampant economic growth in the late 1970s and India in the early 1980s in spite of economic policies that little resembled the tenets of the Washington consensus. Rodrik concedes that the *higher order* elements of the Washington consensus – property rights, sound money, fiscal solvency, market-oriented incentives – are common to all growth strategies. But economic growth is also achievable using different methods, as the Chinese and Indian cases make all too clear (Rodrik 2003).

3.5 Productivity

Tetsushi Sonobe and Keijuro Otsuka examined the productivity gains in the hundreds of township and village enterprises (TVEs) once publicly-owned but privatized in the 1980s in the context of increasing importance of transactions conducted in free markets. Hypothesizing that privatization has led to a productivity gain for all enterprises subjected to privatization, the authors examined the capital-labor ratio growth and labor productivity growth functions for both the garment and metal casing industries in the Yangste River area of China (Sonobe and Otsuka 2003).

Sonobe and Otsuka determined that privatization did indeed lead to enhanced productivity, though not infrequently with a time lag of several years and in some cases it could only be inferred in the short run. The time period in which Sonobe and Otsuka performed their research precludes their being able to make any other conclusions. The productivity gain was

³Importantly, Davis points out that privatization may be serving as a proxy for one or more missing variables that represent regime change.

greater in industries where products and materials were more efficiently transacted in free markets, and the productivity growth in the manufacturing sectors studied was achieved by improving management incentives without sacrificing market efficiencies. This leads us to believe that productivity can indeed be enhanced by privatization, but not necessarily in the case of public utilities (Sonobe and Otsuka 2003).

Sonobe and Otsuka accessed the productivity effect of privatization in the garment industry by specifying a growth function of form

$$G(V) = f[G(K), G(L), PS_{1995}, \Delta PS_{1996}, \Delta PS_{1997}, X] \quad (1)$$

where $G(V)$, $G(K)$, and $G(L)$ are growth rates of real value added, real capital stock, and the number of workers, respectively from 1995 to 1998. PS_{1995} is the ownership share of private owners in 1995, which represents the base year, and ΔPS_{1996} and ΔPS_{1997} represent the growth in the share of private owners in 1996 and 1997 respectively. X captures the effect of the other independent variables. By calculating growth rate of value rather than physical quantity, it takes into account both production and transaction efficiency. To avoid collinearity between $G(K)$ and $G(L)$ the equation was transformed into the following estimable form:

$$G(V/L) = a_0 + a_1 PS_{1995} + a_2 \Delta PS_{1996} + a_3 \Delta PS_{1997} + a_4 X + a_5 G(K/L) + u \quad (2)$$

The resulting analysis of the data shows a clearly positive and significant effect on the growth of labor productivity, supporting the hypothesis that privatization improves production efficiency but more so after a slight time lag: the data showed little growth in 1997. Similar analysis of the casting industry showed the productivity growth was weaker but certainly present, and followed the same general pattern. Initial weak productivity growth in 1997 was explained in terms of transaction efficiencies once provided by the Chinese government when the industries were state-owned and lost upon privatization, when the burden of reforming the connections became the responsibility of the new management. Privatized public utilities like the electric distribution industry may or not endure similar challenges (Sonobe and Otsuka 2003).

Although the data analyzed by Sonobe and Otsuka were obtained from competitive sectors, not the public utility sector, it is reasonable to conclude that for similar reasons, management incentives lead to greater production efficiency in any manufacturing or distribution process, and that similar gains in efficiency could be expected from the public utility sector provided such incentives were available.

3.6 Welfare

The welfare effect of privatization, particularly the welfare effect on the poor, is not easy to determine, given the difficulty of determining ex ante, the results of a given privatization program. Antonio Estache, Andres Gomez-Lobo, and Danny Leipziger point out that privatization of public utilities doesn't necessarily lead to welfare losses to the poor through higher consumption tariffs and the like. Rather, the poor may in some cases be the group that most benefits from privatization of privatized public utilities (Estache et al. 2000).

First of all, existing status quo arrangements for providing public services do not necessarily benefit the poor as much as they should. Poor households that are forced to locate alternative sources for their utilities – water and electricity, primarily – sometimes are forced to pay prices higher than they would were they formal customers of the public utility. Privatization, through the provision of competition, would help these households to become part of the formal market. Subsidies, too, do not necessarily help the poorest households. Studies show the middle class tends to be the main beneficiary of existing subsidies for political reasons (Estache et al. 2000).

The gains and losses due to privatization accrue differently if the process is conducted in the framework of adequate regulation; indeed, in the case of utility privatization, regulation is the most important factor. Chile makes an interesting test case with regard to the subject. After being negatively affected along with all of Latin America during the Great Depression, Chile turned to import substitution industrialization (ISI), which was conducted largely by the *Corporación Nacional de Fomento* (CORFO), an agency designed to foment national development. From the 1940s to the 1970s, CORFO became involved in electricity, steel, petroleum, sugar, forestry, and even fishing products. By the late 1960s it had grown involved in auxiliary sectors such as freezing and packing, training, and telecommunications, as well. The Allende government oversaw the greatest growth of state involvement in the production process as it sought to redistribute national wealth through socialist programs and increased state involvement. The Pinochet government, after ousting Allende in a military coup, began to privatize many of the state industries in an effort to reduce the massive fiscal deficits. In this regard, Chile was one of the forerunners of privatization in Latin America. During the first phase of privatization from 1974-1978 the government privatized nearly 500 state-run enterprises, either by returning them to their original owners prior to being confiscated, or by selling those enterprises which were deemed to be potentially competitive. This occurred in the absence of an adequate regulatory environment. A second round of privatization

occurred in 1985, and extended to some producers of tradable goods such as nitrates and sugar, and others considered traditional natural monopolies such as the telecommunications and electricity generation and distribution sectors. This second round of privatization was much more important due to the non-competitive nature of the firms and the impact on prices and quality of services, since the firms were natural monopolies. Regulation was consequently more important (Paredes M. 2001).

Two separate studies that attempted to determine the welfare effect of having privatized public utilities indicate similar welfare effects and note particularly a gain in consumer surplus in privatization schemes that occur in controlled and regulated environments. In the case of the privatization of the Chilean telephony system, the consumer welfare gain was estimated at US\$2.3 billion, which is 145% higher than the market value of the sale of the company in 1987. The privatization of Chilgener, the Chilean electricity generating entity, led to a welfare gain of about US\$18.2 million, equivalent to 21% of Chilgener's 1987 market value. Similar data was available for Enersis, the electricity distributor in Santiago. Profits rose after privatization, due to cost reductions achieved through the reduction of electricity pilfering and improvements in the invoicing system which were direct results of the change in ownership (Paredes M. 2001).⁴

How does one estimate changes in welfare that result from privatization? In the case of the privatization of Enersis, price regulation that required gains in efficiency be passed onto the consumer in the form of price reductions, it's relatively straightforward: we calculate the change in consumer welfare by looking at price fluctuations, and correct it to reflect the welfare changes of consumers who had previously enjoyed free electricity and were now forced to pay for it. The calculations show a gain in social welfare of around US\$84.3 million in 1993 prices, equivalent to 31% of its value at the time of privatization. A comparison of the welfare gain due to privatization in the context of adequate regulation versus the welfare losses due to the same regulation shows the value of good regulation far outweighs its cost: in the case of the privatization of the Chilean telephony system, the ratio was 10:1 (Paredes M. 2001).

Distributional effects that result from privatization have three channels. One is through taxes and particularly the inflation tax, the second is the redistribution of wealth that results from the transfer of ownership of large entities to private parties regardless of whether firms are sold at subsidized prices, and the third is through prices and the coverage

⁴Paredes points out that political support played a large role in the improved ability of Enersis to improve its efficiency, and that a similar privatization in Argentina showed much less gains to welfare primarily because the political system didn't allow the new owner to improve its efficiency – namely by making it difficult to enforce the law.

policies of public utilities. The Chilean government was criticized for the first round of privatizations because of the redistribution of wealth. As a result, in the second round of privatizations it included stipulations that permitted the workers to draw advances against their future severance package to buy shares of the firm. This program enjoyed widespread participation. Coverage of telephony and sewerage services provides another measure of how welfare improved after privatization, but the analysis is made more difficult by the implementation of a government subsidy that encouraged the increase in coverage to under-served regions of the country. Finally, prices influenced wealth distribution after privatization. Before privatization, inefficiencies in the utility services led to higher prices. In the telecommunications sector, prices did rise after privatization, and the regulator gradually transferred subsidies from long-distance callers to local callers. A similar rate hike occurred in the water distribution sector, though that was a full ten years after privatization had occurred. In sum, the Chilean case shows that regulatory problems did not offset the gains accrued by the gain in efficiency and rather promoted a better redistribution of wealth, that privatization can lead to improved services to the poor under some conditions, and that programs implemented to help the poor can be effective regardless of whether utilities are publicly or privately provided (Paredes M. 2001).

Using a different methodology, Lorena Alcazar analyzed the effect of the failed privatization of the water system (SEDAPAL) in Lima, Peru. When Alberto Fujimori came to power in 1990 the sewer and water system in Lima, Peru was in a state of near-total collapse. Water is scarce in the arid region where Lima is located, and leakage, waste, and contamination of water sources led to greater scarcity, rationing, and frequent interruptions for 75% of the users of the system. About a third of the city had no access to water at all, and SEDAPAL was unable to expand or maintain the system due to inability to collect the money owed it by consumers and by inefficient metering. But the privatization of the water system was partial, not complete. Some reforms were implemented but complete privatization through a proposed concession to a private company was never implemented due to severe political pressure. Alcazar was forced to calculate what the benefits to Peru would have been had the privatization – in this case, a concession to a private operator – been signed and fully implemented, comparing the actual and projected data in a partial equilibrium cost-benefit model (Alcázar et al. 2000).

There were several assumptions made in the projected case, including that the private operator would have improved SEDAPAL's efficiency with a resulting decrease in intermediate inputs of 5%, and that both efficiency of labor and the opportunity cost of capital would have remained the same. Estimating the demand curve based on a known elasticity (-0.30 for

metered residential customers and -0.20 for non-residential customers), Alcazar calculated the predicted consumer surplus under both scenarios and determined that even subtracting gains paid to foreign investors, the total improvement to domestic welfare would have still been US\$557.80 million, or 40% of SEDAPAL's annual sales in perpetuity. Consumers would have gained about US\$251 million annually as a result of increased coverage and more continuous service as projected under the concession, and because employees under the concession would have been permitted to take part in 5% of the ownership. The benefits accruing to Peru would be greater still if one took into consideration the externalities and direct social benefits, such as improvements in health and time savings from not having to form queues for water at public distribution points (Alcázar et al. 2000).

Sensitivity testing of the model showed that changing initial assumptions about ownership, initial price increases and elasticities have negligible effects on consumer surplus. Only if the private owner is as inefficient as SEDAPAL was would the consumer welfare decrease significantly. The reforms actually enacted in Lima still led to a welfare gain, but had the concession been granted the gain would have been 4.5 times greater (Alcázar et al. 2000).

Because privatization presents a significant opportunity for the redistribution of income and wealth, analyzing it in terms of its implicit tax and subsidy aspects is convenient. Consumers are most immediately affected by the level and structure of newly privatized firms, and as such, regulation is an important factor in determining how they will be affected. One hypothesis is that state-run monopolies reduce inequalities because they surpress urban/rural price differentials that emerge naturally from economies of density through the use of explicit or implicit cross-subsidies of high-cost (i.e. rural) consumers. Privatization and the promotion of competition is likely to bring to an end these subsidies unless the government imposes explicit taxes and subsidies on the newly privatized industry (Vickers and Yarrow 1991).

3.7 Labor and Employment

Anecdotal evidence which is quickly seized upon by the masses as well as the popular press indicate that privatization leads to nearly immediate job loss. As this affects the sector of the population whose main source of income is wages, the result is increased income inequality and disgruntled workers. It is quite clear that privatization in Latin America has led to the loss of jobs. In Argentina, privatization between 1987 and 1997 led to 150,000 jobs lost; in Mexico privatization of public firms was typically

followed by a dismissal of half the workforce; in Brazil, the privatization of railways led to a reduction of more than 90,000 jobs, and in Nicaragua, the privatization that resulted as part of a government-led transition from a command-economy to a market economy led to the dismissal of 15% of the labor force (Nellis et al. 2004).

But economic studies show the effect on labor is more ambiguous than a clear loss of jobs. Because prior to privatization, public industries try to maintain employment even at the expense of efficiency, privatization typically leads to unemployment in some sectors and has an adverse impact on some groups of workers. However, some IMF data shows that aggregate unemployment actually decreases in the long term following privatization (Davis et al. 2000).

Public sector firms are more likely than private sector firms to have exaggerated wages above what the market would have borne naturally. But this is due largely to political reasons: the public sector is typically more interested in employment for welfare reasons, and in seeking to maximize social welfare a public sector firm is inclined to employ additional workers beyond the point where their marginal cost is equal to their marginal revenue. Over-employment in publicly-owned firms can arise as a result of clientelism as well. Clientelism is the underhanded process through which government agents use employment opportunities as a mechanism in order to exert political pressure. Given an initial condition of over-employment, one can thus assume that upon privatizing a state-run industry, the workforce will experience a reduction in numbers, as the new owner improves the efficiency of the production process (Bhaskar and Khan 1995).

V. Bhaskar and Mushtaq Khan provide one of the best controlled- or nearly-controlled studies of the effect privatization has on employment. In Bangladesh half of the state's 31 jute mills were privatized. The decision as to which jute mills were to be privatized was made using non-economic criteria, which successfully isolated the effect of ownership on the model. Bhaskar and Khan proposed the following mechanism for modeling the effect of privatization on employment:

$$\alpha_i + \delta_t + \gamma W_{it} + (\beta + \theta_i) O_{it} + \varepsilon_{it} \quad (3)$$

in which α_i represents the firm-specific effect, δ_t is the period effect, w_{it} is the real wage, and ε_{it} is a factor that corrects for white noise. O_{it} is a dummy variable that takes 1 when the firm is publicly owned and 0 when it is not, and β is a parameter that reflects the average effect of public ownership on employment. Because the pressure to increase employment may be due to market factors outside the scope of the study, the factor θ

captures the individual firm-specific coefficient and in most cases has an expected result of zero. Because the wage rate across firms is uniform at any given moment the wage term γw_t can be safely absorbed by the period effect θ_t . Taking the differential of this equation leads to the following equation, which they used to evaluate the effect of privatization on jute firms in Bangladesh.

$$\Delta \ln(E_{it}) = \Delta \delta_t + (\beta + \theta_i) \Delta O_{it} + \Delta \varepsilon_{it} \quad (4)$$

Because the selection of jute firms to be privatized was exogenous to the model, the terms ΔO_{it} is uncorrelated with θ_i as well as with the error term $\Delta \varepsilon_{it}$ and the authors used an ordinary least-squares regression of the percentage change in employment upon the privatization dummy to determine unbiased estimates of β .

Not surprisingly, privatization didn't affect all groups within the labor pool equally. Rather, the white collar workers, administrative staff and some clerical staff experienced the most negative effect of privatization. Permanent manual workers – the ones who actually produce the jute – were less affected but nonetheless experienced a decline in numbers, as they were replaced by an equal number of casual (non-permanent) workers, leading to no net change but rather a redistribution of the composition of the workforce (Bhaskar and Khan 1995).⁵

3.8 Income Distribution

The Eastern European countries that made a transition from planned to market economies in the early 1990s experienced dramatic changes in output and income distribution as part of the process. While the drop in output led to an unprecedented increase in overall poverty throughout the region, the decline was not permanent. In fact, after several years output began to increase again in several countries. But income distribution remained skewed even after overall poverty began to diminish. Poland's Gini coefficient rose over the period from 1982 to 1993 by 7.3 percentage points, Hungary's by 5.9, and Russia's by 5.9, with no evidence that the trend is being reversed. So it is clear that while the decline in output was a largely transitional effect experienced during the context of the change to a market economy, the change in income distribution was not (Ferreira 1997).

⁵Interestingly, one purpose of Bhaskar and Khan's study was to determine through the effect on the labor pool, whether or not jute mills – and thus the Bangladesh economy in general – was subject to a clientelist political economy. Their results show it was indeed.

It has been well established in the literature that income distribution in countries is relatively stable across time, though it varies between countries remarkably. Therefore the growth of inequality experienced in Eastern Europe can be attributed to the change in distribution of assets, as income is determined not only by one's assets and the rate of return to those assets. Change in the distribution of assets during the transition to a market economy is the factor that leads to change in income, and therefore to the change in how that income is distributed across society. Francisco Ferreira, studying the changes in Eastern Europe, identified three mechanisms through which income is redistributed as a result of privatization:

- the privatization of public assets
- the development of new markets in privately-provided substitutes to public services, such as telephone services, schools, and health care
- changes in the returns associated with different skills, for example due to education.

Using a dynamic model of wealth distribution and occupational choice, Ferreira analyzed the effect of privatization on these channels of resource allocation. In the model, agents choose between salaried employment in the inefficient public sector or choosing to be entrepreneurs in the more profitable but more risky private sector, in which greater availability of public capital (such as universal health care that protects entrepreneurs too) improves the possibility of their success (Ferreira 1997).

The model yields a steady state in which the poorest actors, for lack of capital, are confined to working for wages in the public sector, while those with better access to capital or credit find investment opportunities. As such, even if privatization is designed to be equitable in nature, the wealthiest sectors of the population gain unambiguously from the process because they are the sector most able to channel the opportunity into profit, while the impact on the welfare of the poor depends on the effect privatization has on the public wage rate. If privatization leads to a greater loss of capital stock than labor, the wage will fall. It is important, then, that privatization plans take into consideration the need to move public employees to alternative, productive occupations. The effect on the poor is similar where new markets in schooling or health care arise: the wealthy will have available the resources to pay for better education and other opportunities that presumably lead to more future wealth. The model shows inequality will rise as a result of privatization unless somehow people can be assisted in moving from public employment to a more productive private sector employment (Ferreira 1997).

Whenever average income rises but not for the poor, income inequality grew in a classic equity-efficiency trade-off. In those cases, privatization does not guarantee an overall higher social welfare, which may have political implications as well. These can be avoided if the government, in the course of privatizing state-owned enterprises, ensures that three things happen:

- The state continues to produce goods and services such as law and order, primary education, basic health care, and rural infrastructure, where market failures are likely.
- New profitable opportunities in the private sector are available to the poor as well
- Provisions to ensure minimum standards of welfare are put in place.

(Ferreira 1997)

Nellis et. al. write that when a recently privatized institution restructures and attempts to improve efficiency, the job loss that results tends to affect most negatively the sector of society most dependent on wages. As a result, income distribution widens to the detriment of the poor (Nellis et al. 2004).

There are many diverse channels through which distributional effects are propagated. Consumers are first affected by changes in both the level and structure of newly privatized enterprises, and as such, the creation of a privatized monopoly which is not subject to price controls will likely exacerbate inequalities. Many privatization efforts, such as some undertaken in Great Britain, have included mechanisms to allow enterprise employees to acquire shares in the organization on favorable terms. This may help address the inequality of distribution issue by compensating the employees for potential losses that accrue after privatization (Vickers and Yarrow 1991).

Privatization is also an opportunity for some – typically the best connected politically – to improve their own situation by capitalizing on the rare opportunity to extract income or assume ownership of key, valuable assets during the privatization process. The advantages of this opportunity are greatest in regimes where the reform is extensive, where barriers to asset appropriation are high, and in small countries that are growing quickly. China, a country whose economy is of a limited-market type, and where privatization has been delayed and is progressing slowly, fits these criteria aptly, and as such, two decades of economic reform have led to opportunities for rural officials to greatly expand their income under certain circumstances. Walder points out this is not the result of

privatization *per se* but rather the product of market reform under certain political and structural conditions (Walder 2003). Thus, privatization that facilitates the transfer of assets to the well-connected will worsen the equality of income distribution, and regulation and transparency are essential tools to prevent it.

But the effect on income distribution doesn't necessarily have to be negative. On the contrary, there are strong reasons to believe privatization will lead to a decreased inequality and actually provide gains for the poorest sectors of society.

Privatization can affect the costs poor households are forced to confront via several different mechanisms. The first of these is through revenue collection. If the privatized utility company substantially increases its ability to collect revenue poor households that were accustomed to slipping between the cracks will face higher costs as they are suddenly obliged to pay for their consumption. This effect can be substantial: the implicit subsidy to poor households in some urban areas of Colombia by not billing them for their consumption represented 6% of the total subsidies in the electricity sector, and 24% of all subsidies in the water and sanitation sector. On the other hand, high numbers of deaths and injuries due to illegal electrical connections being improperly handled may lead those same households to appreciate the value of being formally connected to the system. "Willingness-to-pay" studies in Latin America corroborate this sentiment (Estache et al. 2000).

But the raising of prices that typically accompanies privatization of public utilities is just as harmful to the poor, and is nearly inevitable owing to the privatized utility's need to generate revenue and become self-sufficient. The eradication of price subsidies that consumers enjoyed when public utilities were state-owned can lead to higher costs for the poor. These costs, which represent a higher portion of their consumption basket than they do for the rich, tends to widen economic inequality. The literature places a strong emphasis on the existence of competition to stimulate lowered resulting prices and therefore gains for the poor. In Chile, the liberalization of the long-distance telecommunications market led to a drop in call prices of 50%. And in Argentina in 1997 the wholesale price of electricity dropped from 48.76 US\$/MWh to 25.67 US\$/MWh, a drop of close to 50% over five years after being privatized. In both these cases, the existence of adequate competition was essential (Estache et al. 2000).

Privatization can in some cases, actually lessen inequality but putting an end to unfair tariff structures and subsidies that benefit the better politically-connected – typically the urban middle class. A careful study of Colombia's subsidies in 1992 showed that 38% of all public sector subsidies were spent on utility services representing 1.4% of GNP, 80% of

which benefitted mostly middle class households. In Panama, two thirds of households received some kind of water subsidy while only 16% were classified as poor or extremely poor. In Honduras, 80% of a subsidy for electricity was spent on households that consumed more than 100 kwh when it was in fact trying to target those that consume less than 300 kwh. The fact that so many households were able to qualify for the subsidy even when they were at the high end of the range shows the subsidy benefitted the middle class more than the poor. In these cases and others, existing tariff structures served mostly to benefit the urban middle class, and the result is increased – not decreased – inequality. Privatization in these cases would help redress the imbalances. (Estache et al. 2000).

Omar Chisari, Antonio Estache, and Carlos Romero investigated the effect of utility privatization in Argentina using a general equilibrium model in which they compared data from 1993 to 1995 under different scenarios to demonstrate the effect of good regulation on the distributional impact of a privatization program (Romero et al. 1999).

The model was developed as follows: consumer utility was modeled as a Cobb-Douglas production function for all goods except retail trade, which is considered to be proportional to other goods and services. The model incorporates issues of quality in production, and an increase in service failures – such as power outages – increases the buyer's cost. Income comes from wage labor in both the private and public sectors and from public sector transfers. In the model, the labor market is not in equilibrium, meaning that unemployment is certainly a possible outcome of reforms, and the model takes into consideration as well efficiency gains experienced by privatized utilities (Romero et al. 1999).

Before looking at the specific distributional effects of privatization, Chisari et. al. report the following overall conclusions from the research:

Gains from efficiency that result from state run enterprises passing into private management clearly benefit all income groups, and on average represent a 41% improvement over what households tend to spend on utility services. This benefit is gained even when the regulator allows the new owner to keep most of the gains as profit. Effective regulation increases the benefit by around 16% on average. The model shows that the direct gains accrue almost twice as quickly to the wealthier sectors of society than to the poorer sectors. This is the result of large domestic owners of capital capturing quasi-rents from the sale of services. But effective regulation decreases that disparity, causing indirect gains to be redirected in favor of the poor (Romero et al. 1999).

The economic gains are distributed through both supply and demand. The supply side of the economy gains through the liberation of resources which results from improved efficiency, including gains in quality of

service. The demand side enjoys increased consumption and sometimes lower prices as a result of the same improvements to efficiency (Romero et al. 1999).

In addition to their use of the Gini coefficient, Chisari et. al. develop the following welfare indicator – an estimate of equivalent variation, the amount of income necessary for a consumer to maintain the same level of utility he would achieve from a reduction in price at the initial income level – to determine the distribution effect of privatization on the different income groups, which takes into consideration both changes in quality and changes in price. If $v(p, M, \gamma)$ is used to represent the indirect utility function of a participant in the economy, where p is the price vector, M is the participant's revenue, and γ is a quality or quantity variable which can be used to represent rationing of a service, then a decrease in price from p_0 to p_1 can be represented as follows: (Romero et al. 1999).

$$v(p_0, M + EV, \gamma) = v(p_1, M, \gamma) \quad (5)$$

The equivalent variation for an equivalent monetary compensation for a quality improvement or increased access to public service from α_0 to α_1 is:

$$v(p, M + EV, \alpha_0) = v(p, M, \alpha_1) \quad (6)$$

With this in mind it becomes apparent that the relative importance of the cost of a service to one's household budget and the distribution of factor ownership across income classes are the two fundamental causes of distributional change during privatization. That implies that utilities, particularly gas and electricity, are more important for the poorest income classes, while the rich tend to spend more than the poor on water. Telecommunication services are more important to the middle classes than to other sectors of the population (Romero et al. 1999).

Chisari's research shows that overall privatization leads to less income inequality as is reflected in the Gini coefficient, which decreases by 24%. Under efficient regulation the poor gain more than they would under inefficient regulation, as the gains to labor are more substantial. The poor gain significantly from improvements in gas and electricity efficiency, which form large parts of their consumption basket, and gain as well – though not as much – from improvements to the water system. But only improvements to quality and efficiency tend to better the position of the poor sectors. Improvements to labor efficiency tend to increase unemployment, while the rich are not exposed to the risk of job loss and profit from their ownership of capital. For that matter, improvements to quality and efficiency benefit all income groups, and more so in the context of good regulation (Romero et al. 1999).

4 Why the Opposition to Privatization of Public Utilities?

Privatization of public utilities has been fiercely criticized for having worsened, not improved, the lives of citizens in poor countries. The principle objection to privatization is the fact that profit-seeking organizations are unlikely to take the poorest and least advantaged people into consideration when developing or repairing infrastructure. Particularly in the public utilities sector, the immediate result of privatization seems to be a rate hike for the middle class and abandonment of services in regions that yield less profit, which not surprisingly, are home to the poorest citizens (Penketh 2002).

In 2002 when the Tanzanian Electric Supply Company “Tanesco” was privatized the results were scandalous. A small African engineering company by the name of NET Group Solutions beat the competition to run Tanesco. It was subsequently discovered that not only was the firm too small to adequately manage Tanzania’s national energy grid, but that the firm’s Tanzanian partner was president Mkapa’s brother in-law. Some of the names on the firm’s payroll were school-aged children. But the government resisted inquiries into the matter once the scandal was breached, rejecting a parliamentary demand to reveal the details of the Tanesco management contract (Akande 2002).

The impact of such negative publicity generated by scandals of that sort directly impacts continued privatization of other resources in Tanzania. Other developing world countries face the same challenge. One of the conditional structural reforms necessary for Tanzania’s inclusion in the HIPC⁶ initiative was the privatization of DAWASA, the Tanzanian water authority. To favor the sale, the Tanzanian government raised \$145M to upgrade DAWASA - ironically, effectively furthering its debt. Critics claim the water improvement project has little to do with enabling better access to clean water for the poor and everything to do with finding a buyer for DAWASA (Akande 2002).

Just as contentious as the supposed effect on developing countries’ poor is the perception that World Bank and IMF policies are benefitting a handful of first-world water corporations whose interests involve maximizing profits, not looking after the needs of the disadvantaged. Barlowe and Clarke describes the recent wave of water privatization schemes in developing world countries as the “quiet imposition of a for-profit system of water delivery” which leaves “millions of people without access to water” (Barlow and Clarke 2004).

⁶Highly indebted poor countries

4 WHY THE OPPOSITION TO PRIVATIZATION OF PUBLIC UTILITIES?25

The concern is warranted. There are ten major corporations which have been gaining traction in developing world countries. The three largest firms – the French firm Suez and Vivendi (now Veolia Environment), and the German firm RWE-AG are involved in over a hundred countries and provide services to over 300 million customers. Not far behind those two leading firms are Bouygues SAUR, Thames Water, and Bechtel-United Utilities, all of which have grown exponentially over the past ten years. The revenue of these companies has far outpaced the economies of the developing world countries in which they operate (Barlow and Clarke 2004).

It is easy to suggest these companies have won the contracts because they are the engineering and utilities firms best able to take advantage of them. But Barlowe and others find fault with the fact that the renovation of water systems in developing world countries is so frequently contingent on privatization of the systems, and cite “huge profits, higher prices for water, cut-offs to customers who cannot pay, little transparency in their dealings, reduced water quality, bribery, and corruption” as the results (Barlow and Clarke 2004).

Failed water privatization schemes are numerous and well documented: In Bolivia in 2001, a failed initiative involving a Bechtel subsidiary that caused water prices to triple immediately after privatization led to public outrage and the famous “water war” (Bechtel subsequently sued the Bolivian government for lost profits). In Buenos Aires, Argentina, the Suez program was terminated in July 2002 after Suez’ subsidiary, Aguas Argentinas, raised water rates by 20% instead of dropping them by 20% as promised and laid off half of the workforce. In Senegal, SAUR runs the water distribution system on a for-profit basis with “cost recovery” as a principal objective. Other examples of water privatization schemes are well-known in Mexico, South Africa, and elsewhere. It’s easy to use the anecdotal evidence to rally support against privatization schemes, and the popular discontent and perceived negligence of first world corporations doing business in third world countries puts the future of World Bank programs as a whole at risk (Barlow and Clarke 2004).

Privatization is a contentious topic, but nowhere more contentious than in Latin America, where public support for privatization has dropped more quickly and more precipitously than in any other region, leading even to violent demonstrations. Infrastructure privatization is most passionately opposed for the generation/extraction and distribution of electricity and water, and passenger rail sectors. A large part of the problem is the perceived loss of national sovereignty, an issue particularly dear to most Latin Americans. But it is also commonly believed that privatization leads to increased unemployment and rapid increases of important basic commodities like water or electricity. The suspicion that important public

industries were privatized fraudulently or amidst an environment of collusion leads to the sensation that the people are being cheated. Unfortunately, the gains from privatization are small for each affected taxpayer and accrue in the medium term, while those who are most directly affected by privatization – for example, those who lose their jobs during enterprise restructuring – tend to be visible, vocal, urban, and highly organized. This combination in the context of good political mobilization can be potent (Nellis et al. 2004).

Accordingly, a survey carried out by Latinbarómetro in 17 countries in 2001 showed an overwhelming majority of Latinamericans believe privatization had not been beneficial. This majority had increased since the previous survey. While anti-privatization sentiment had diminished in Colombia, Peru, Brazil, and Ecuador, it was stronger in Uruguay, Bolivia, Chile, Mexico, Venezuela, and Argentina. In clear preference for the welfare state, more people disagreed with the statement “the state should leave economic activity to the private sector” than in 1998 with no exception. The opposition to privatization took the form of violent protests against water privatization in Cochabama, Bolivia (leading to the cancellation of the concession), and against electricity privatization in Arequipa, Peru (where the sale was abandoned) (Nellis et al. 2004).

John Nellis et. al. explain the disconnect between public discontent and economic gains from privatization as follows:

- Privatization is an easy target to attack. Because the negative results are so visible it is easy to rally support, and the economic counter argument is difficult to explain clearly.
- Privatization is failing to live up to its claims, which were oversold by governments who have claimed privatization is a sort of panacea for economic ills.
- Those who are immediately and negatively affected by privatization tend to be organized and vocal. These tend also to be members of social classes that were previously protected, and by opposing privatization they seek to protect their own interests. This is easy to do by portraying their own loss as exemplary of an overall loss to society (Nellis et al. 2004).

5 How Can We Improve the Privatization Process?

If privatization yields economic benefits but is nonetheless so contentious as a result of its perceived and actual negative effects, there is certainly

room for improvement that will lead to a smoother process or quicker enjoyment of the economic gains from privatized utilities.

5.1 Improvements that Provide Economic Gains

First of all it is important to ensure that the privatization process leads to gains in the first place. Otherwise the trouble will be for nothing. For privatization to increase efficiency, three conditions are necessary; in their absence privatization will not necessarily lead to economic gains:

First, the privatized firm must have unitary control rights, which means the government must be willing to relinquish its control *from within the firm*. It has been well established that state-owned industries are unable to implement the reforms they need to gain efficiency if the state continues, in any way, to direct operations at some level. Next, it's essential that privatized firms face budget constraints, if they are not to continue along the same fiscally imprudent paths they did when they were publicly-owned. To omit this step is to never let the privatization process achieve its economic gains. Lastly, the government must put in place a legitimate non-corruptible judicial system and transparent bankruptcy procedures. In fact, failure to ensure the above reforms are in place before privatizing will likely ensure an inefficient government bureaucracy is replaced by an inefficient private bureaucracy (Tornell 1999).

5.2 Reforms to Address Inequality and the Poor

Because of the political sensitivity surrounding the issue of privatization of public utilities, it is important that any government contemplating privatization ensures the needs of the poor are taken into consideration. The public outcry that will result if it is perceived that privatization has led to a net welfare decrease for the most vulnerable will certainly be politically devastating, and a true welfare decrease for the poor will be more troublesome still.

It is clear that for any privatization program to function well the public must clearly perceive that is to their benefit and that privatization is indeed functioning. That means privatization programs should occur in the context of a vigorous and well thought-out regulatory framework that takes into consideration property rights, contract enforcement, commercial dispute settlement through commonly-accepted, peaceful, and lawful means, independent and well-staffed regulators that will ensure natural monopolies, once privatized, will not be used to the advantage of the owner and the disadvantage of the public. That necessitates adequate bankruptcy and insolvency law as well as a public

administration that can be considered predictable, competent, and trustworthy. The importance of this framework then makes obvious that the countries that could derive the most gains from privatization are the same countries that have the weakest institutions and the least competent public sectors (Nellis et al. 2004).

Any effort to improve the quality of privatization programs should thus emphasize the following aspects: the generation of suitable competition and build transparency into the system to ensure privatization is carried out fairly and efficiently. Full disclosure is obviously an important part of this process, but monitoring and access of information by the press is equally important. The inclusion of service obligations into provision contracts is a valuable tool to ensure the poor continue to receive service. Creative strategies have been implemented in some cases to take advantage of inexpensive labor in poor areas, such as a program in Argentina that made efficient use of the low-income population in some neighborhoods to provide the labor for establishing and maintaining water connections. Minimizing the losses of laid-off workers is more important than other considerations because of the high visibility of the impact and the social volatility of the lay-offs. Nellis et. al. recommend making special provisions to compensate laid-off workers without compromising the government's fiscal position, such as financial incentives for workers that leave voluntarily or the establishment of a fund to provide technical support, business training, and small loans with which civil servants can start their own private sector businesses. Equally important is the use of publicity campaigns to explain the advantages of privatization in the face of such widespread negative publicity (Nellis et al. 2004). Some of these approaches are discussed in further detail below.

Importantly, recent research shows that policies that are developed expressly to help the poor can be effective whether the government or private industries are given the responsibility of implementing them. In Chile, a program of subsidies developed and implemented to address the needs of the poor in regard to sanitation was initiated in the pre-privatization era and continued until after privatization was complete. Likewise, programs that intended to increase telephone coverage in rural areas utilized private firms to implement the subsidies. It is not necessarily the case that in order to help the poor the government needs to be in control. If the government is an effective regulator it can accomplish the same goals by acting through private entities (Paredes M. 2001).

Lump Sum Redistribution and Taxation

Governments intent on redistribution policies to benefit the poor typically rely on lump-sum transfers to the poor using tax mechanisms. In the developing world however, the tax system is inefficient and incomplete, and the ability of governments to allocate resources fairly and efficiently is limited at best. Moreover, because taxes tend to distort consumption, causing welfare losses, their cost – known as the cost of public funds – is greater than the actual amount of money transferred, sometimes by as much as 35 percent. The Ramsey pricing rule states taxes should be applied to products whose demand elasticity is low, as the resulting distortions are minimized. Using a two part tariff in the utility industries opens up the possibility of using the Ramsey rule to redistribute away from the poor. Moreover, it opens up the possibility of tailoring welfare programs to the utility industries, linking them to consumption of utilities. It may be that the consumption of certain goods by poor households is important enough to warrant government interaction, and in the case of public utilities, it may be politically unavoidable (Estache et al. 2000).

Universal Service Clauses

Any regulatory framework requires some fine tuning to ensure the specificities of an economy are taken into consideration, and social concerns as emotionally charged as those that come into play when one talks about privatizing public utilities require some delicate balance.

Argentina, in granting utility concession contracts, considered two mechanisms to ensure that the needs of the disadvantaged were met: universal service obligations and obligatory service clauses. Obligatory service clauses require providers to provide a service to all (in the case of water or telephone) or requires the whole public to accept a service (in the case of sanitation and again, water). Universal service obligations grants access to the whole community at a sufficiently low or affordable rate. Obligatory service is applicable when some consumers face greater costs due to their geographical location, or when some consumers risk loss of access to a resource due to their own immobility such as in the case of the disabled. Universal service arises when the product is essential, when some consumers can not afford it at current prices, and when the consumers' inability to gain access to the resource entails their exclusion from technological progress or the development of a modern society. These policy provisions were enacted in Argentina in the context of the privatization of the telephony system in the late 1980s with relative success and the concept can be adopted elsewhere to ensure that

privatization doesn't leave some citizens without important utilities (Chisari and Estache 1999).

5.3 Timing and Regulation: the Ukraine Case

One of the most important lessons learned over the past few decades' experience of privatization is that a privatization program put into place without carefully considering its impacts can be more detrimental to societal welfare than no privatization at all.

The case of the Ukraine is exemplary. The Ukraine, upon independence, inherited a top heavy public sector comprising a broad range of economic activities. The IMF has funded several activities in the Ukraine but provided the funds conditionally, emphasizing privatization. But the focus of the conditionality has typically been quantitative targets such as the number enterprises privatized or the amount of fiscal receipts generated through privatization processes. The conditions are now more explicit and focus on strengthening the process, and especially the transparency of the privatization procedure. The shift in policy came about due to the recognition of the shortcomings that came about in the earlier privatizations and the benefit – particularly to the fiscal account – that privatization has brought to the Ukraine (Elborgh-Woytek and Lewis 2002).

Several weaknesses emerged in the Ukrainian experience, including widespread collusion among bidders and cases where only minority shares were sold while the government retained at least a blocking minority in a large number of enterprises. In several cases, managers of enterprises have taken control of the company by channeling ownership through a proxy. Further complications have included political interference, conflicting objectives of the SPF (State Property Fund: the state entity responsible for conducting the privatization), and general difficulties with business conditions. Particularly, the SPF was charged with the conflicting goals of both revenue maximization, procedurally sound privatization, and government insistence on specific social and industrial policy objectives (Elborgh-Woytek and Lewis 2002).

The increased role of conditionality stressed the capability of the authorities to monitor the program, resulting in implementations that tended to be superficial. Fund conditionality in the area of privatization targeted the elimination of fiscal subsidies, the financing of fiscal deficits with the proceeds of privatization, and efficiency gains. But efficiency gains were at risk if privatization did not lead to enterprise restructuring, which was more often than not undertaken in the absence of an adequate regulatory framework. To cope with this shortcoming the IMF has shifted

its policy conditionality from specific targets to procedural improvements, and now focuses less on the number of value of enterprises privatized to a focus on processes, and in particular, transparency. This redirection of focus reflects the realization that the gains from privatization are best measured in the longterm, which is not consistent with a focus on budgetary receipts as was previously the norm in IMF programs (Elborgh-Woytek and Lewis 2002).

The advantages of focusing on transparency are many. It attracts a wider pool of potential investors through minimizing to the extent possible the asymmetry of information, and attracts more serious bids by eliminating collusion among bidders. In the same way, it eliminates the risk of underhanded deals between government officials and their cronies in the private sector (Elborgh-Woytek and Lewis 2002).

5.4 Sequencing of Reforms

But the sequencing of privatization reform is also extremely important, and we have unfortunately come to realize its importance as a result of our mistakes. In the early 1990s, the Eastern European countries and countries of the former Soviet Union began to privatize firms quickly, thinking market institutions would develop in tandem as soon as firms were privately owned. This has not necessarily been the case and has led to a dramatic about-face in regards to the issue of when and how to privatize public firms, though little empirical work has accompanied the policy turnaround. Scott Wallsten developed an economic model which tested the effects of establishing a regulatory authority before and after privatizing telecommunication firms, and found that the establishment of a regulatory authority led to increased investment, and improved penetration of both fixed telephones and cellular phones. This increased willingness to invest under established regulatory environments is thought to reflect the willingness of investors to require a lower risk premium under those conditions, and a higher risk premium in countries where regulation is scant or lacking (Wallsten 2002).

5.5 Corporate Governance

Alexander Dyck adds that privatization is unlikely to provide many improvements to economic performance in the absence of an appropriate corporate governance strategy. In the absence of good corporate governance, unscrupulous business people can do more damage than inefficient governments. For example, in Chile, managers of the largest privatized electricity company stole more than 850 times the price given to

minority shareholders in a takeover bid; in Russia the controlling shareholder of the Yukos Oil corporation took home 30% of the revenue while refusing wage increases to the workers, defaulting on tax payments by claiming Yukos couldn't afford them, and neglecting to reinvest any profits in the ailing company. In the Czech Republic, several firms were stripped of their valuable assets and left with debt, disgruntled workers, and cheated investors. A comparison between the approach taken by Poland and the approach taken by the Czech Republic is enlightening (Dyck 2001).

Poland limited the extent of voucher privatization and focused first on establishing an institutional structure that regulated financial and information intermediaries, created incentives to monitor companies' financial returns, and ensured securities were more stringently regulated. But in the Czech Republic, the lack of regulatory authority oversight generated ample opportunities to "tunnel out" companies (transfer company assets to personal accounts). Banks delayed bankruptcy proceedings owing to their own sizeable investment in firms, which caused a marked decrease in accountability in the system, and the securities and exchange commission, for lack of independence, was unable to control financial intermediaries, which had free reign of the privatization process. It's abundantly clear that privatization is likely to lead to some disappointments overall unless government oversight of privatized companies ensures otherwise. It's important that advisers and both public and private investors are protected by arming them with good information and a system in which accountability is paramount (Dyck 2001).

5.6 Competition

The same author in 1999 developed a model that showed that perhaps competition is more important than privatization in the first place. Analyzing different scenarios of telecommunications performance in 30 African and Latin American countries between 1984 and 1997, he found through regression analysis that privatization was negatively correlated with telephone line penetration and connection capacity unless the privatization was conducted in the presence of a regulator. The existence of competition was a much more positive stimulus: competition was significantly associated with increases in the per capita number of telephone mainlines, payphones, connection capacity, and with decreases in the price of a local call. Using this criteria, privatization of some public utilities may not be the panacea some think it is (Wallsten 1999).

6 Conclusion

Privatization is essentially an issue of ownership, and the question whether private ownership can lead, in and of itself, to economic gains. The answer is, at best, a qualified 'yes.' John Nellis wrote in 2002 that after a decade of intense privatization it has become all too clear that private ownership alone is not enough. While in Central Europe and the Baltics, privatization of public firms has led to economic gains, elsewhere – especially in developing countries whose institutions are weak – that has not necessarily been the case, and Latin Americans on the whole oppose the practice. In those countries where institutions are weak, underdeveloped, or easily corrupted, rapid- and mass privatization schemes put mediocre assets in the hands of people who are unable to properly manage them. The result in some cases has been stagnation and decapitalization rather than a strengthened economic outlook (Nellis 2002).

But John Nellis and a host of researchers make quite clear that privatization can still lead to economic gains for societies that work to move to a markets-based approach, even in the public utility sector. To achieve these gains, privatization alone is not enough. At a minimum, it's necessary for the government to step back and play the part of the regulator, letting the privatized firm fend for itself economically. Likewise, it's important that sound legal and institutional frameworks be set in place before the privatization process takes place. Privatization is an opportunity to redress economic imbalances and provide services even to the poor, but it is essential governments have the foresight and the willpower to ensure this economic opportunity is neither lost, nor mismanaged. As the riots in Bolivia and elsewhere show, the people need to be convinced privatization will improve their lot in life, and will accept nothing less.

References

- Akande, W. (June 6, 2002). Water privatization in africa. *Yellow Times.org*.
<<http://www.yellowtimes.org/article.php?sid=369>>.
- Alcázar, L. et al. (2000, November). Institutions, politics, and contracts: The attempt to privatize the water and sanitation utility of lima, peru. Technical report, The World Bank.
- Barlow, M. and T. Clarke (January 2004). Water privatization: The world bank's latest market fantasy. *Polaris Institute*.
<<http://www.globalpolicy.org/socecon/bwi-wto/wbank/2004/01waterpriv.htm%>>.
- Bhaskar, V. and M. Khan (1995, March). Privatization and employment: A study of the jute industry in bangladesh. *The American Economic Review* 85(1), 267–273.
- Chisari, O. and A. Estache (1999). Universal service obligations in utility concession contracts and the needs of the poor in argentina. Policy Research Working Paper WPS2250, The World Bank, Universidad Argentina de la Empresa, and European Center for Applied Research.
- Davis, J. et al. (2000). Fiscal and macroeconomic impact of privatization. Occasional Paper 194, IMF.
- Dyck, A. (2001, Spring). Privatization and corporate governance: Principles, evidence, and future challenges. *World Bank Research Observer* 16(1), 59–84.
- Elborgh-Woytek, K. and M. Lewis (2002, May). Privatization in ukraine: Challenges of assessment and coverage in fund conditionality. Policy Discussion Paper L32, P31, IMF.
- Estache, A. et al. (2000, 31 May - 2 June). In *Infrastructure for Development: Private Solutions and the Poor*, London, UK. World Bank and ECARES, Universite Libre de Bruxelles.
- Ferreira, F. H. (1997, May). Economic transition and the distribution of income and wealth. Technical report, The World Bank. First Draft.
- Grusky, S. (2001, February). IMF forces water privatization on poor countries. internet. <<http://www.ratical.org/co-globalize/waterIMF.html>>.
- Joskow, P. L. et al. (1994). Competition policy in russia during and after privatization. *Brookings Papers on Economic Activity. Microeconomics* 1994, 301–381.
- Laban, R. and H. C. Wolf (1993, Dec.). Large-scale privatization in transition economies. *The American Economic Review* 83(5), 1199–1210.

- Nellis, J. (2002, July). Time to rethink privatization in transition economies? Discussion Paper 38, IFC and World Bank. <<http://ifcln1.ifc.org/ifcext/economics.nsf/AttachmentsByTitle/dp38/FILE/dp38.pdf>>.
- Nellis, J. et al. (2004, January). Privatization in latin america. Policy Brief vol. 3 no. 1, Center for Global Development.
- Pan, P. P. (November 12, 2003). China accelerates privatization, continuing shift from doctrine. *Washington Post*. Reproduced at <<http://www.globalpolicy.org/socecon/ffd/fdi/2003/1112chinaprivatization.htm>>.
- Paredes M., R. (2001, June). Redistributive impact of privatization and the regulation of utilities in chile. Discussion Paper 2001/19, UNU World Institute for Development Economics Research (WIDER), Helsinki, Finland.
- Penketh, A. (August 21, 2002). Children are victims of privatization, warns charity. *Independent*. <<http://www.commondreams.org/headlines02/0821-01.htm>>.
- Rodrik, D. (2003, Oct). Growth strategies. Technical Report Working Paper 10050, NBER, 1050 Massachusetts Avenue, Cambridge MA 02138.
- Romero, C. et al. (1999, May). Winners and losers from utility privatization in argentina: Lessons from a general equilibrium model. *World Bank Economic Review* 13(2).
- Sappington, D. E. and J. E. Stiglitz (1987, March). Privatization, information, and incentives. Technical Report 2196, NBER.
- Sonobe, T. and K. Otsuka (2003, April). Productivity effects of TVE privatization: The case study of garment and metal casting enterprises in the greater yangtse river region. Working Paper 9621, NBER.
- Tornell, A. (1999, July). Privatizing the privatized. Working Paper 7206, NBER.
- Trujillo, L. et al. (2002, October). Macroeconomic effects of private sector participation in latin america's infrastructure. Working Paper 2906, World Bank.
- Vickers, J. and G. Yarrow (1991, Spring). Economic perspectives on privatization. *The Journal of Economic Perspectives* 5(2), 111–132. published by the American Economic Association.
- Walder, A. G. (2003, April). Politics and property in tranistional economics: A theory of elite opportunity. Technical report,

Asia/Pacific Research Center Institute for International Studies,
Stanford University, Stanford, CA.

Wallsten, S. (1999, May). An empirical analysis of competition,
privatization, and regulation in africa and latin america. Technical
report, World Bank.

Wallsten, S. (2002). Does sequencing matter? regulation and
privatization in telecommunications reforms. Technical report,
Development Research Group, The World Bank.