Privatization and Development

Scenario Papers on Privatization

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Agriculture, Land and Agribusiness Privatization, **along with** ***Privatization in the Extractive Industries, Infrastructure Privatization, Privatization in the Manufacturing and Industrial Sectors,*** **and** ***Privatization of Social and Municipal Services*** **are part of a broader scenario analysis and planning exercise for USAID. They are designed to foster discussion on the future direction of USAID's privatization efforts and are neither reference guides nor privatization retrospectives. Because these papers are part of an effort to maintain a dialog over the future direction for privatization, we welcome comments. In addition to these five papers, USAID is funding two research efforts on the impact of privatization: (a) a white paper summarizing the overarching themes in the literature on the impact of privatization; and (b) a broader issues paper, being prepared by Development Alternatives, Inc., focusing on key unsettled issues of privatization in areas such as: the rationale for and measurement of privatization, fiscal and efficiency impacts, mass privatization and corporate governance, indirect and partial privatizations, regulation, and the political economy of privatization. The white paper, prepared by Price Waterhouse LLP, (Privatization: Its Past and Future as Seen in the Literature), will be available after April 15, and the DAI piece (Privatization: A Review of Unsettled Issues) in May 1996. Both papers will be available through the Economic Growth Center's Office of Economic and Institutional Reform (G/EG/EIR).**

Agriculture, Land and Agribusiness Privatization

I. Introduction and Methodology[1]

Agriculture, Land and Agribusiness Privatization uses the technique known as "scenario planning" to analyze privatization in the agriculture, agricultural land and related upstream and downstream agribusiness sectors. First it reviews the last five years of privatization activity in these sectors. Second it identifies "drivers" or trends that have powered privatization and uncertainties that may hinder future progress. Finally it constructs "scenarios" or possible models of future developments in agriculture, land and agribusiness privatization.

Scenario planning draws on the work of Peter Schwartz, Pierre Wack, Clem Sunter, Paul Schoemaker and others.[2] It is, as Paul Schoemaker has explained, "a disciplined method for imagining possible futures." Scenario planning attempts to avoid errors in predicting change by dividing our knowledge into things we know something about and things that are unknowable or uncertain. In attempting to discern the future, conflicting projections are made based on available knowledge as to facts and uncertainties in an effort to stimulate thinking and avoid the danger of assuming that the future will always replicate the past. The method, first used extensively by Royal Dutch/Shell in the 1970' s as part of its process for generating and evaluating strategic options, has achieved global popularity with companies and even government agencies, including the Department of Transportation and the President's Science Advisory Council, where it was used to analyze infrastructure investment and the impact of the energy crisis, respectively.

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[1] This paper was written by Carana Corporation, under subcontract to Price Waterhouse LLP for the United States Agency for International Development (USAID) under the Privatization and Development Project (USAID Contract No. DPE-0016-Q-00-1002-00).

[2] See for example: Peter Schwartz, **The Art of the Long View**. New York: Doubleday, 1991; Pierre Wack, *Scenarios: Unchartered Waters Ahead,"* **Harvard Business Review**, September-October 1985, pp. 72-89; PJ.H. Shoemaker and C.A.J.M. van de Heijden, *"Integrating Scenarios into Strategic Planning at Royal Dutch/Shell,"* **Planning Review** 20 (1992), pp.41-46; Clem Sunter, **The World and South Africa in the 1990s**. Cape Town, South Africa: Human and Rousseau Tafelberg, 1987; and Paul J.H. Schoemaker, *"Scenario Planning: A Tool for Strategic Thinking,"* **Sloan Management Review**, Winter 1995, pp. 25-40.

Here, we use scenario planning as a way of trying to stimulate and focus thinking as to the future of privatization and the future role of multilateral and aid agencies, governments and practitioners in the privatization process. In reading these papers, we hope that readers will consider:

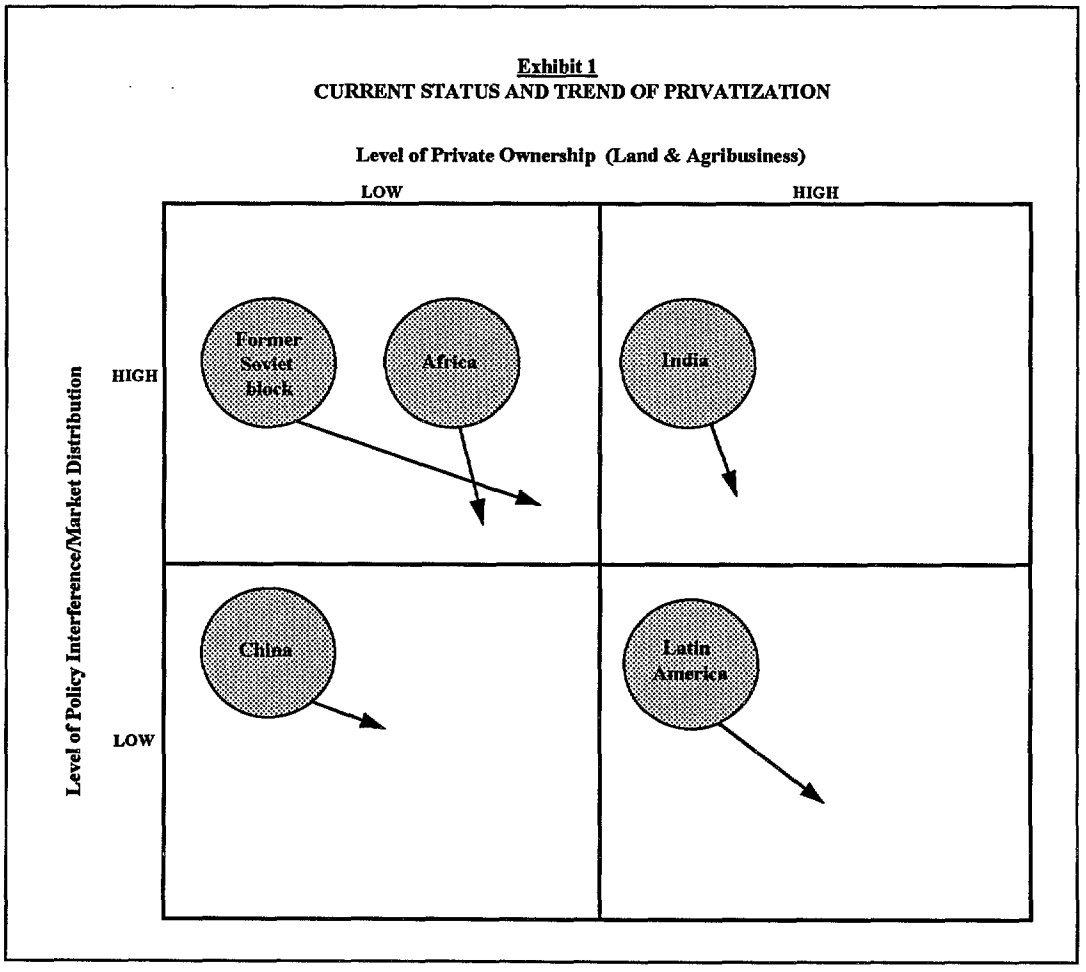
- As a stakeholder in the privatization process, what constitutes for you a desirable privatization scenario? How does this differ from or complement the privatization scenarios provided in this paper?

- What actions can you take to help shape the path privatization takes over the next decade? For example, what should be priority actions in building regulatory institutions, social safety nets, and capital markets?

II. Profile of Privatization Experience To-Date in the Agricultural Sector

The matrix in Exhibit 1, below, seeks to summarize and contrast the situation and direction of agricultural and agribusiness privatization in different regions. The vertical axis measures the degree of state interference in the functioning of markets while the horizontal axis measures the degree of private ownership of land and agribusiness. The exhibit illustrates different starting points for different regions, although the trend is generally towards more freely functioning markets and private participation.

Exhibit 1
CURRENT STATUS AND TREND OF PRIVATIZATION

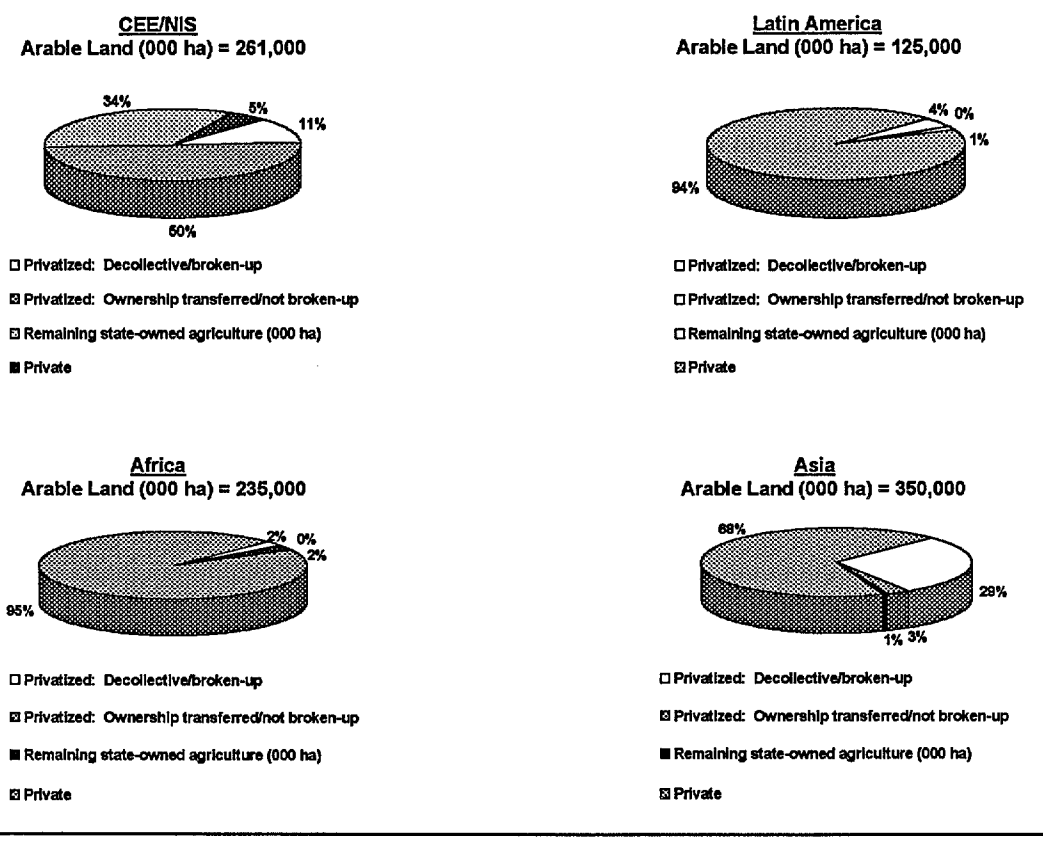


Ironically, a "Communist" country—China—has been among the more successful in allowing markets to function, albeit without much private ownership. The former Soviet Union and Eastern Europe still score relatively poorly on both dimensions despite major efforts to privatize. The problem is that the change of ownership has largely been nominal while government interference in agricultural markets and systems is still high. Africa and India are examples where direct state ownership is modest, but extensive controls are exerted through government policies and upstream/downstream agribusiness. The major difference is that in Africa, these policies have had a more disastrous effect. In Latin America, the situation is comparatively better on both axis, but government policy distortions tend to be more of a problem than state ownership. Nonetheless, Exhibit 1 shows that all regions are away from government interference.

Land and Agriculture

As evident from Exhibit 2, land and agriculture privatization activity since the 1980s has been highly concentrated in Central and Eastern Europe and the former Soviet Union (CEE/NIS) and Asia. Approximately 61 percent of the arable land in CEE/NIS has undergone some form of privatization (almost half of this in Russia) while in Asia 31 percent of agricultural land is under some form of private ownership (85 percent of this in China). By contrast, the equivalent percentages for land in Africa and Latin America over the same time period are only 3 and 5 percent respectively.

Exhibit 2
PRIVATIZATION OF LAND AND AGRICULTURE SINCE 1980



The regional differences highlight the fact that while all agriculture was nationalized and collectivized in the former Soviet Union, Eastern Europe (except Poland) and China, in most of the rest of the world agriculture has remained largely private. Exceptions include selected large-scale agricultural estates in a number of developing countries which were expropriated or collectivized for political reasons (e.g. Cuba, Mozambique, Nicaragua, Chile, Peru, Ethiopia).

Despite the fact that agriculture remained private in much of the rest of the developing world, in the 1970's and 1980's it was indirectly controlled through government monopolies of upstream and downstream supply and procurement or marketing activities, price controls and other policy interventions. This will be further described in the agribusiness section below.

Methods of Agricultural Privatization

The principal privatization method in the former communist countries has been the corporatization of the collectives through the creation of joint-stock companies, where individuals such as employees, pensioners or former owners are given shares in a joint stock company that in turn owns the land or other assets. Individuals or groups of individuals are also allowed to leave the collective with their share of property in order to establish smaller private farms, and in some cases to sell their shares.

In practice, this approach has resulted in relatively little change in structure or in the way the large farms operate in the former communist countries.[3] Despite limited change on large farms, an important feature of the CEE/NIS model, has been the growing role of private farming on small garden plots. For example, in Russia it is estimated that the small scale private sector (9 percent of arable land) accounts for the production of 70 percent of fruits and vegetables, 45 percent of meat, 90 percent of potatoes, 6 percent of grain, and 40 percent of milk. In Kazakhstan, surveys suggest that private farms and plots now represent even higher percentages of most commodities.

A variant of corporatization has been Chinese decollectivization, based on sweeping reforms introduced in 1978 and later imitated by Vietnam and Laos. Under the new Household Responsibility System, commune production teams contracted farming to individual households. By allocating land to each household, devolving decision-making to each unit, and allowing private marketing of surplus output in excess of state quotas, agriculture was effectively decollectivized and central planning largely eliminated.[4] About 150 million households, or an estimated one third

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[3] Most corporatized farms continue with almost all members and property in place, and with few changes in agricultural practices. Individuals have found it difficult to establish family farms, sometimes because they are assigned marginal lands, other times because of the enormous scale of equipment and facilities and the practical difficulties of dividing them up. Efforts by foreign donors to facilitate farm restructuring have been labor intensive, limited in number and not widely replicated. Thus, for most collectives in the former Soviet Union and CEE countries such as the Czech Republic and Slovakia, privatization has been more a change of form than of substance. Exceptions to this approach, as discussed further below, include Albania, Romania, the Baltics, the former Yugoslavia, and some Caucasian Republics where most collectives were quickly broken up into small holdings.

[4] The impact of the decollectivization of Chinese agriculture was dramatic with agricultural output expanding 86 percent from 1980 to 1990, despite lower levels of state investment. Increased agricultural output helped fuel the rapid growth of the overall economy (through rural investment in non-agricultural activities and increased demand for goods and services). However, by the late 1980's growth rates of agricultural output have

of all agricultural households in the world, have been affected. Unlike Russia, the state still nominally maintains ownership, but individuals have control of the use of their land.

The opposite of decollectivization is the Chilean[5] model, in which agriculture was privatized while also providing clear ownership rights to the land. State farms were returned to former owners, broken up and transferred to small scale farmers or auctioned. Farmers ended up with complete control over both land (which they could buy and sell) and their own operations, with the overall result being a complete restructuring of agriculture.[6]

Programs for the distribution of state or large private holdings to landless agricultural households are another method for the privatization of land and agriculture. Although relatively popular in the 1960's and 1970's, this method has not been very common in recent years. Most programs, which have been driven by issues of social equity, have proven to be very expensive, slow and ineffective. In the few countries where land reform has recently been emphasized, socioeconomic equity has been a top political priority, such as Zimbabwe and South Africa (where transferring more land to blacks has been promised), the Philippines (where land reform has been a cornerstone of election campaigns by post-Marcos governments) and El Salvador (where land reform was carried out during a civil war).

Another method for the privatization of land and agriculture is the spontaneous break-up of state land and farms. In Albania and parts of Romania, for example, peasant farmers seized from the collectives the small plots which their families had previously owned, forcing the government to legalize this process. This form of decollectivization has also taken place in Mozambique, Ethiopia, Nicaragua, when small farmers seized land from disintegrating collectives.

Throughout the developing world, millions of households have also squatted on state and underutilized private lands, although the extent of this practice is impossible to measure. This process is often tacitly accepted by governments and represents a form of *de facto* privatization. In some cases, such as the massive transmigration program in Indonesia or the opening up of the Amazon region to settlers, the process of moving families on to underutilized state land is formalized.

Programs to provide the small scale landholder with clearer title to their land are another method of encouraging private ownership. The most dramatic initiative of this type has been in Mexico where the status of communally owned, but state dominated *ejidos*, has been changed to more clearly define property rights and facilitate the sale, leasing or joint development of land. In Peru, a major program is underway to register land held by small scale land holders. Similar programs are being tested throughout the CEE/NIS.

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been much more moderate. Since decollectivization there have been no further major breakthroughs in terms of technology, development of land markets, or systemic changes to allow for sustained productivity growth.

[5] Chile is one of the few countries in Latin America where the state owned or controlled a high percentage of the agricultural land (amounting to more than 50 percent of the total).

[6] When combined with changes in the policy framework (further discussed below), Chilean agriculture was transformed from its stagnant inward orientation into a booming export oriented driver for the overall economy.

Most of the methods outlined above have involved the transfer of land, shares or rights of use at no cost or at most at a nominal cost. Cases where land and agriculture have been sold for cash are relatively few. In several African countries, a number of large agricultural plantations have either been sold or are in the privatization pipeline. In Sri Lanka, efforts have only been partially successful in selling off large tea, rubber and coconut plantations. Banana plantations have been sold in Belize and integrated citrus operations in Uruguay and Panama. A common characteristic of most of these transactions is that the plantations are sold as is, without break-up into smaller units. Moreover, of the significant number of agricultural estates which have been on the market, for example in several African countries, Bulgaria, and Sri Lanka, 60 percent have not yet been sold.

On a worldwide basis, only 10 percent of productive agricultural land remains in state hands, mostly in the NIS. However, as implied above, privatization cannot be effective as long as the traditional policy bias against agriculture continues and governments resist providing clear title to land (see the text box below for further discussion of these two issues).

Elimination of policy bias against agriculture- This policy bias, prevalent until recently in most of the developing and transitional economies, was intended to transfer resources out of agriculture in order to finance industrialization and provide low cost food to urban populations. Specific mechanisms have included price controls and government procurement and supply monopolies (which rigged the terms of trade). The stagnation of agriculture and declining food output per capita in much of the developing world is largely attributed to this negative policy bias. In recent years, buoyed by examples such as China and Chile, many countries have been moving towards a more neutral policy framework.[7] For example, in Latin America, almost all countries have eliminated at least some price controls on farm outputs. However, in Africa policy changes have been slower and less consistent.

Land ownership and markets- Except for the limited number of cases where the focus has been on titling or registration, most privatization initiatives have not established clear private ownership of the land or the unrestricted right to buy and sell land. China is an extreme example where land remains state owned, and what has been privatized is the right to farm the land. Many countries with laws allowing private ownership of land, still impose restrictions on its sale or inheritability. For example, in Russia, agricultural land can be held privately only as long as it is "efficiently" used for agriculture. Numerous CEE, African and Latin American countries limit foreign ownership, the size of holdings and the time frame in which land can be sold. Chile, and more recently Peru, are examples of countries which have eliminated most limitations on the private ownership and sale of land.

Agribusiness

In recent years, the principal privatization push in agribusiness has been on dismantling the various ways in which governments have effectively monopolized or otherwise controlled both upstream (inputs, credit) and downstream (procurement, storage, processing and distribution) linkages to agriculture. It is estimated that between 1980 to 1996, at least 75 developing and transitional economies have acted to increase the choices available to farmers, eliminate or reduce price

[7] A few countries such as India and Indonesia had a policy bias to ensure food security. Although successful in increasing food output, the high cost has also encouraged these countries to move towards a more neutral policy framework.

controls and subsidies, and eliminate other barriers to private competition in agribusiness. Many observers believe that these initiatives to liberalize the distribution and intermediary functions have a much greater impact on the sector than the privatization of selected state food, beverage and tobacco product companies (really packaged consumer products).

In the CEE/NIS region, vertical and horizontally integrated monopolies for each type of product controlled the flow and handling of products from the farm to the consumer. In recent years, most countries in the region have separated retail stores from these state structures and either sold them for cash in small scale auctions or transferred them to the workers collectives. This has resulted in tens of thousands of relatively small transactions. The private retail sector has also been augmented by tens of thousands of street and bazaar vendors and new stores.

The basic processing and distribution functions of integrated state structures in the CEE/NIS, such as grain silos, flour mills, bread factories, produce warehouse complexes and agro-chemical distributors, have been deemed too strategic to either segment or privatize. However, in practice, remaining state structures and monopolies are finding that they have very little business.

For these types of intermediary activities, the most important aspect of privatization has been opening up the field to new entrants by eliminating the state's ability to limit competition. The state structures and private "monopolies" dominate only as long as the government obligates suppliers and end-users to utilize their services and prohibits others from competing.[8] Once the vestiges of central planning are eliminated, the small scale private intermediaries rapidly increase their market share.

In Kazakhstan, for example, it has been estimated that private intermediaries have a 60-90 percent market share, depending on the product. However, privatization of the remaining state structures is still needed in order to minimize their ability to unfairly distort markets, for example, by restricting licenses for the importation of agricultural chemicals or channeling donor supplied fertilizer and food aid at below market prices to state entities.

In a similar vein, the focus in Africa and Latin America has been on dismantling state marketing boards and other state entities with procurement, marketing and supply monopolies for both food and export crops. Although marketing and distribution monopolies are being tackled in at least 25 African countries, the process is still far from complete. In Africa, different approaches are being taken to either reduce the monopoly powers of the marketing boards and input monopolies, or to dismantle them altogether (see text box).

[8] For example, anecdotal evidence suggests that more and more output is coming from private plots and farms which seek alternative market channels, usually small-scale private truckers and traders. Even state or former state farms are also seeking alternative market channels once they are no longer forced to supply their old buyers (who offer poor services and do not pay). Farms have no money to pay for fertilizer from the state chemical distributors and seek out private traders or suppliers willing to barter.

Kenya, which has 40 marketing boards and agencies, has begun liberalizing the marketing of maize, milk sugar and coffee by allowing competition. In Zambia, marketing boards are being dismantled. In Ghana, where the purchasing monopoly of the cocoa board has been eliminated, the board competes for business by raising financing on international capital markets to lend to farmers. Countries such as Malawi, Senegal and Ethiopia are moving to liberalize input distribution by permitting private competition and reducing subsidies.

Latin America has been more aggressive in tackling these procurement, marketing and supply monopolies. For example, all Central American countries have acted to liberalize the handling of grains, widely considered the most sensitive food product, by facilitating private trade, and, in Honduras, by privatizing state grain terminals (see text box). Most countries have also been permitting competition in the distribution of agricultural inputs.

In Nicaragua and El Salvador, where state control of agribusiness was much broader, monopolies for the marketing of a wide range of other crops have been eliminated and the state structures largely dismantled. Argentina eliminated its powerful meat and grain boards. In sugar, where state ownership and control has been especially common, there has been a general movement throughout the region to both liberalize and privatize the industry.

In both Africa and Latin America, the elimination of distribution monopolies has been accompanied by a change in price policies. Since the 1990s the tendency has been towards providing minimum prices or price bands (to protect farmers from low international prices) instead of implicitly establishing price ceilings through the monopoly system.

In Asia, the pattern has been different. In countries such as India and Indonesia, private upstream and downstream activities are gradually being permitted. However, since overall incentives to farmers have been high (to ensure food security), liberalization primarily involves the slow elimination of subsidies and the opening up to imports. In China, decollectivization effectively eliminated the state's control over marketing except for the grain quota (effectively a tax).

Privatization of more sophisticated food and related industries (packaged consumer products) has required completely different privatization methods from upstream agribusiness activities. Almost all developing and transitional economies have tried pursuing privatization by facilitating imports and new entrants to compete with protected industries and selling state food and beverage companies for the highest possible price, often to foreign investors.

The facilitation of imports has rapidly expanded the range of choices for consumers. Sale of SOEs has been especially important in the former communist countries and Africa where many of the highest profile privatization transactions have been the sale of food processing and beverage companies. This largely involves manufacturers of products with locally recognized brand names (or which can serve as a launching pad for foreign brands). In a few cases, they also involve potential exporters. For example, in CEE/NIS, tobacco, confectionery (chocolate and cookies/crackers), sugar, edible oils, and packaged dairy products have attracted the interest of multinational consumer product companies seeking to penetrate new markets. In Africa, breweries, flour mills and sugar producers have been among the first state companies to be sold.

Latin America and Asia have had less state ownership of downstream food and beverage industries. In Latin America, Nicaragua is still in the process of privatizing about 57 processing companies the Sandinistas nationalized. Other transactions have included miscellaneous holdings,

often acquired through default by state development banks, which are sold piecemeal through private offerings. The sugar industry is probably the largest exception since the state ended up owning most of the sugar milling industry in the region. In Mexico alone, 47 sugar mills have been privatized. All Central American countries, Panama, Venezuela, Bolivia, Ecuador, Peru, Barbados are among other countries privatizing sugar mills.

As with other aspects of agribusiness, the Asian experience with privatization of food and beverage industries is unique. In the case of China, these industries are mostly owned by townships, but can be considered quasi-private. In most other countries, food processing is largely private, with the exception of Myanmar where it is 70 percent state owned.

Milestones

Privatization affecting agriculture and agribusiness has clearly been shaped by a number of catalytic developments in Latin America (Chile), Asia (China) and the NIS (Russia). Moreover, the World Bank's own approach to agricultural development has changed, helping to shape events (see Exhibit 3).

Exhibit 3: Milestone Privatizations in the Agricultural Sector

1974	**Chile**: The first country in recent times to privatize state owned and controlled agriculture and agribusiness. The elimination of the policy bias against agriculture was replaced with more neutral policies. The dramatic growth of agricultural exports, as the basis of rapid economic expansion, had a catalytic impact on conventional thinking in Latin America and elsewhere on the role of agriculture and the state in economic development.
1979	**China**: Introduced sweeping reforms which effectively decollectivize agriculture and devolved control over production and marketing to the individual household. Although land and agribusinesses remain technically state owned (at the local level) markets function relatively freely. The remarkable improvement in per capita grain production and its impact on overall economic performance, have influenced thinking worldwide about the state role in agriculture.
1983-1985	**World Bank**: First major wave of structural and agricultural structural adjustment loans which press for reforms of agricultural pricing and subsidy policies, and the liberalization of procurement and marketing monopolies. By the early 1990's over 50 countries had received such loans conditioned on reform of agriculture and agribusiness.
1991-1992	**Russia** issues decrees requiring collective and state farm members to decide on private or other forms of ownership, and providing rights of ownership for small plots. This establishes the model for other major NIS countries and initiates a process in which state control over agriculture and agribusiness begins to unravel.

Stakeholders

Privatization of agriculture and agribusiness in developing and transitional countries is highly contentious and emotionally charged. Not only is a majority of the world's population directly

affected, but land and agriculture also have enormous symbolic and political importance in most countries. The various stakeholders who have often conflicting interests in the process, are outlined in the text box.

- Agriculturists
  - Smallholders who own or hold rights to small plots of land and whose major concerns are access to markets, credit and inputs, and pricing.
  - Managers/owners of traditional large scale agriculture, including former state farms and collectives or large landowners who utilize their holdings relatively inefficiently, and who often strive to maintain the status quo and fight off pressures to distribute land.
  - Modern integrated agribusinesses, including foreign and export oriented agribusinesses investing in production and processing, for whom priority concerns are the ability to import/export freely and contract small farmers or laborers, and have access to land.
  - Landless agricultural laborers and tenant farmers seeking better wages, crop distribution and ownership of the land they work.
- Agribusinesses
  - State monopolies and enterprises struggling to avoid privatization, or more importantly, the opening of markets to private competition.
  - Small scale intermediaries (often operating in a gray market) such as truck drivers, traders, wholesalers who ironically prosper from the inefficiencies of state intervention, but are usually trying to avoid regulatory impediments.
  - Modern private agribusinesses, both domestic and foreign, investing in new and privatized facilities, and focusing on domestic and export markets.
  - Technology suppliers, usually international, promoting equipment, know-how and inputs, whose primary interest is access to markets and sales.
- Government officials and politicians
  - Those depending on rural political support and tend to support land reform and a pro-agricultural policy bias.
  - Those depending on urban political support who tend to emphasize low food prices.
  - Line ministries and agencies that control the state apparatus related to agriculture who tend to justify large-scale state intervention in agriculture.
  - Central bank, economy, privatization and finance ministry officials whose primary interest is the fiscal situation and macroeconomic policies.
- End-users
  - Consumers of food, especially urban and social institutions, whose main concern is availability and low prices.
  - Large commercial domestic and foreign buyers of agricultural products whose main concern is steady and reliable supply, quality and price, as well as access to alternative supplies (other countries).
- International donors
  - Multilateral and bilateral providers of financial and technical assistance, promoting the "conventional" wisdom of the time.
  - Providers of food aid whose interest is to move volumes of surplus agricultural products.
  - NGO's with a variety of missions and special interests, but often focusing on the interests of smallholder agriculture and landless rural households.
- OECD countries
  - Farm groups lobbying to prevent market access to competitors from developing and transitional economies.
  - End-users and equipment suppliers lobbying for easy access to low cost supplies and new markets.
  - Politicians and interest groups concerned with the impact of economic crises and stagnation in developing/transitional countries, especially risks of illegal immigration, financial default, and political backlash.

III. Key Drivers Shaping Privatization of Agriculture and Agribusiness

The basic underlying trends, which have shaped the direction of agricultural and agribusiness privatization (or constrained) the process, are outlined below:

D_1 Conventional thinking regarding agriculture's role in economic development has been changing, requiring a completely different policy framework and state role

State control of agriculture was justified as the means of breaking the cycle of underdevelopment and colonial dependence on primary commodities. The belief was that by drastically changing the terms of trade against agriculture, governments could generate the economic surplus needed to develop modern industry. This basic philosophy was used to justify extensive nationalization and state control of agricultural production and marketing, as well as the imposition of direct and indirect taxes (including exchange controls) and price controls. These interventions were dramatically successful in transferring resources out of agriculture.[9] But such policies severely depressed investment in agriculture (regardless of whether agriculture was private or state owned).

Over the past 15 years, a very different vision of the role of agriculture has emerged as the new conventional wisdom. The new consensus tends to advocate a "neutral" policy framework in which macroeconomic policies do not discriminate in favor of any particular sectors. By the early 1990s, a majority of developing and transitional countries were adopting a package of macroeconomic reforms, with major implications for agriculture and agribusiness, including:

- Realistic and easily convertible exchange rates
- Elimination of price controls at the producer and consumer level
- Elimination of export taxes and simplification of exporting
- Simplification of import controls and lowering of barriers
- Market interest rates for all sectors
- Reduced government budget deficits

This policy package drastically changed the terms of trade and underlying economics for agricultural and agribusiness operations, though the results remain unclear. For example, Asia experienced a 13 percent increase in agricultural output between 1990 and 1994. Latin America experienced minimal growth in agricultural output between 1989 and 1993, before showing improved performance in 1994(while imports of agricultural products surged). In Africa, agricultural output growth has not kept up with population growth rates. Statistics for agricultural output in the CEE/NIS have generally been dismal although CEE output rebounded in 1994-95 while statistics probably under-report private sector output.

The lack of a rapid supply response from agriculture is used as an argument by reformers that the process has not gone far enough (see below), while opponents use it to argue that the new policies are not working and should be reversed.

[9] One World Bank study estimates the net transfer of resources in developing countries amounted to 46 percent per year between 1960-1984.

D_2 Changing attitudes towards peasants and private intermediaries have been encouraged by the actions of millions of entrepreneurs in responding to market signals.

Until recently, most policy makers have tended to view peasants as backward, risk averse, and satisfied with subsistence. Policy distinctions between subsistence (or food crops) and commercial agriculture (or cash crops), based on the assumption that the latter is market oriented while the former is not, were prevalent in the 1970s and early 1980s. Subsistence farmers were treated paternalistically and used as justification for a number of state interventions theoretically aimed at improving their situation, such as marketing boards (to protect against price fluctuations) and elimination of private intermediaries (ostensibly to eliminate middleman exploitation). Meanwhile, state investments were largely aimed at supporting large scale agriculture.

Empirical evidence, however, shows that smallholders both respond rationally to market signals and have the highest productivity levels per unit of land. Given only the smallest policy encouragement, private producers in China, the NIS, Africa and elsewhere have responded by producing and marketing more than enough food to offset the declining state sector.

As cracks have appeared in state distribution monopolies, individual truck drivers and small scale traders and wholesalers (often acting at least partially illegally) have helped move products to the market and provide inputs to farmers through barter arrangements. The actions of these entrepreneurs help create momentum for sustained privatization in the CEE/NIS, China and elsewhere by making the remaining state agribusiness sector increasingly redundant.

Despite evidence to the contrary, many countries still assume that large-scale agriculture is likely to be more productive and successful. In the CEE/NIS, the tendency has been to try to preserve the large farms, even though the tiny family plots are clearly accounting for much of the output. In Africa, large estates are being privatized as is, rather than being broken up into smaller units. Part of the justification for preserving the structure has been that the existing equipment and facilities are only useful on large-scale farms, and cannot be easily subdivided.[10]

D_3 Changing consensus regarding agribusiness systems and the role of markets focuses privatization on the elimination of state monopolies and the encouragement of new competitors

Implementing the new vision for agriculture (D_1) requires the dismantling of state controls, which block market signals from reaching farmers and intermediaries. Privatization in this context becomes more of a process of eliminating price controls and state procurement/marketing/supply monopolies than of transferring the ownership or management of assets to the private sector.

Empirical evidence demonstrates that as statutorily mandated vertical links are broken by allowing farmers greater choice, large numbers of new private intermediaries tend to emerge (many of them truckers and small scale traders). Similarly, elimination of import controls brings in new

[10] In countries where agribusiness and farming have always been private, more creative organizational structures have emerged. Many large agribusinesses have found that investing in immense farms, especially in politically risky countries, ties up significant capital with at best modest returns. Instead, they invest in a processing or packing facility, possibly a nuclear or model farm (to ensure a minimum level of high quality supply) and then contract out the rest to small farms. The implication is that while privatizing governments still seem biased towards large-scale agriculture, over time the private sector itself will undoubtedly restructure the way agriculture is organized.

competition in the supply of agricultural imports as well as packaged food and beverages.

Although at least 75 countries have sought to eliminate monopolies and price controls, in only about one-third of these cases has the process been thoroughly implemented. In others, interest groups have been able to ensure that exceptions are made for "strategic" commodities or inputs and to maintain price controls on the most sensitive food products.

D_4 The political importance given to food security has both facilitated and constrained agricultural and agribusiness privatization.

The failure of most past interventionist policies to achieve food security helps strengthen the position of those advocating liberalization and privatization. [11]

In the former Soviet Union and elsewhere, predictions of starvation from the collapse of state structures have not materialized. Production on private plots, combined with imports, has been sufficient to provide for basic needs, although meat consumption has declined and grain consumption has increased. Private intermediaries, though primitive and fragmented, have been able to ensure that urban markets are generally well supplied.

On the other hand, many policy makers particularly in the CEE/NIS reform, simply refuse to accept the concept that food security can be achieved by relying on the market and private enterprise. This fear manifests itself in two directions: the possibility that countries will be unable to feed themselves if world surpluses disappear and the belief that private channels will not be able to supply vulnerable social groups with food at prices they can afford.

D_5 The fiscal crisis faced by most transitional and developing countries forces a change in policy orientation.

For much of the late 1970's and 1980's, commercial governments, commercial banks and donors delayed fiscal crises through the monetization of national debt, loans and aid. Donors now condition aid on structural change[12] and high taxation has been revealed as an ineffective method to solve fiscal problems. Governments have thus reduced agricultural subsidies and delegated activities to the private sector, not always because they believe in it, but because they cannot afford any other route. This fiscal crisis is likely to continue.

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[11] In the period 1979-1992, among 109 countries classified as low and middle income by the World Bank, only 10 countries had annual increases in food production per capita of over 1.5 percent. These included "liberalizers" and "privatizers" such as Chile, China, Malaysia and Morocco, as well as countries providing high levels of subsidies to farmers (India and Indonesia). In contrast, 49 countries had negative per capita growth in food production.

[12] In helping countries deal with their financial crises, foreign donors have been conditioning support on the adoption of more liberal macro-economic policies as well as on specific measures aimed at sectoral restructuring. For example, the World Bank has been active with both Structural Adjustment Loans and Agricultural Adjustment Loans, each of which have numerous policy and structural reform conditions for disbursement.

D_6 Land tenure has been primarily driven by political, not economic, reasons.

Distribution of land among landless rural households has usually been driven by considerations of social equity. In recent years, most land reform programs have been introduced following a dramatic change in government. For example, in Africa, land reform has been of greatest importance to Zimbabwe and South Africa. In Asia, land reform has been pushed the hardest in the Philippines, while in Latin America, Nicaragua and El Salvador introduced land reform in the midst of civil wars.

Other than these special cases, the scope of land reform programs has been very modest. Where the state owns little land, more equitable land distribution may require the redistribution of private holdings. This has proven to be politically difficult, slow and expensive, especially when efforts are made to compensate former owners. Furthermore, the results of redistribution have been unsatisfactory.

In CEE/NIS, and elsewhere in the developing world, donors have provided significant assistance for a clearer system of title to land on the theory that secure tenure will encourage more investment, the development of land markets, and bank lending using the land as collateral. However, the correlation between secure titling and the achievement of these objectives is uncertain. For example, properly structured leases have allowed successful farmers to expand and invest in many regions of the world. In Mexico, where the secure tenure for ejidos was supposed to dramatically change behavior, results appear to be disappointing. In Chile, the failure of commercial banks to lend to small farmers despite secure titles has led to the establishment of special credit programs.

Many countries have imposed limits on who can own agricultural land and how much land anyone may own. For example, a number of Latin American countries and the Philippines have size limits on private holdings, although these have been recently eliminated in Chile and Peru. Many countries in the CEE/NIS have imposed limits on land ownership by foreigners, while Latin American countries sometimes prohibit foreign ownership near borders. Finally, countries that have recently privatized or distributed land, may limit its sale for a period of time due to fears that it will otherwise be rapidly concentrated in few (foreign) hands.

D_7 Higher levels of political involvement by rural households have an impact on agricultural policy and privatization.

Democratization in much of the world, or at least freer flow of information and increased responsiveness by leaders to public opinion, has affected policy makers' attitudes towards privatization. Increasingly, politically active rural populations are preventing policies that transferred resources out of agriculture. In fact, more and more governments have been tending towards a policy bias favoring agriculture or at least the rural population, sometimes resulting in renewed government intervention and subsidies (e.g. small farm lending in Chile). At the same time, political parties, such as Agrarian parties in the CEE/NIS, have exploited dislocations from rapid privatization and liberalization to delay change.

IV. Uncertainties or Potential Discontinuities

While present trends suggest that most countries will continue to privatize and liberalize their agricultural and agribusiness sectors, a number of fundamental uncertainties suggest the possibility of unforeseen developments, which could derail or significantly change the direction of the process.

U_1 Will access to OECD markets be significantly closed to developing and transitional economies?

Developing economies have traditionally exported primary commodities. World Bank and FAO statistics suggest that about 50 countries depend on agricultural products for at least 20 percent of their exports, and 33 of these for over 50 percent. A major aspect of the trend towards liberalization has been a renewed emphasis on agricultural exports as a means to generate foreign exchange as well as to stimulate overall growth and offset low levels of domestic demand.

Continuation of this trend is premised on continued access to world markets. Although the Uruguay round of trade agreements assumed a slow dismantling of import barriers, especially in OECD countries, governments may instead elect to follow local constituencies. For example, the US is attempting to limit the import of Mexican tomatoes, which seems inconsistent with NAFTA. If OECD countries, under pressure from their powerful farm lobbies, fail to liberalize access to their markets, governments dependent on agriculture may be forced to look at other ways of supporting their own rural populations.

U_2 Will isolationism prevail in the United States, resulting in the elimination of support for international lending agencies and economic assistance?

The United States has always had periods of isolationism which in the near future could manifest itself in terms of the elimination of support for foreign economic assistance, both bilateral and to multilateral agencies. Given the leadership of the US and multilateral agencies in the move towards privatization, such isolationism could be followed by other OECD countries and significantly change the course of economic thinking in developing and transitional economies.

U_3 Will consensus attitudes toward the state's role in agriculture and agribusiness change once again?

There is no real competing model to the liberal model of free markets. However, because of hardships during transition, or poorly implemented policies, many thinkers are searching for a "third way" much akin to what used to be known as democratic socialism that combines elements of market and state driven systems. This can include emulating the EU model of private agriculture with very high levels of regional protectionism and state bias in favor of agriculture.

U_4 Will current trends result in cataclysmic social explosions, environmental disasters or food shortages, as often predicted?

Despite predictions to the contrary, projected social explosions have generally not materialized. However, history demonstrates that dissatisfaction can spread rapidly. Thus, if recent outbreaks of violence in rural China were to spiral out of control, whatever emerged as a result would fundamentally affect thinking regarding privatization of agriculture and land tenure.

Unfulfilled are predictions that the world's ability to increase production of food could not keep up with population growth. However, desertification, erosion, chemical contamination, salinization and other trends resulting from current agricultural practices and policies, have encouraged

renewed concerns about the sustainability of agricultural development and the world's ability to feed itself.

OECD countries face significant budget pressures, as well as pressure from trading partners, to limit the level of agricultural subsidies. Reduction of subsidies may reduce or eliminate commodity surpluses. A few years of bad weather or regional disasters could lead to food shortages or famines which would in turn lead to renewed calls for food security as a top policy priority.

U_5 Will technological breakthroughs significantly change the economics of agriculture, especially for smallholders?

Empirical evidence demonstrates that small scale farmers have the highest level of productivity per unit of land, largely due to intensive labor inputs. The Chinese experience suggests that private control of land at first rapidly increases productivity, but that productivity levels off. However, the Indian experience and more recent African examples suggest that technological advances can lead to sustained increases in output. These technological advances have generally required relatively high levels of chemicals and credit, making implementation expensive and complex. Many of the world's smallholders cannot afford the cost of the inputs, especially as subsidies are eliminated. If less input intensive, but high yielding technology packages were to be developed for small scale agriculture, productivity frontiers for smallholders could be significantly raised. This would also further change the economics of agriculture in favor of smallholders.

V. Scenarios

Scenario One: Small and private is beautiful

Over the next ten years, the process of privatization and liberalization leads to a virtuous circle in which the positive response by farmers and agribusinesses encourages further liberalization and privatization. For economic, rather than political, reasons most agriculture is done on relatively small farms, but linked to larger and more sophisticated agribusinesses.

Private, smallholder agriculture plays an increasingly important role over the next decade in a wide range of food and cash crops. Technological breakthroughs allow smallholders to greatly improve yields while minimizing the use of expensive inputs. Agricultural practices are environmentally more sustainable. Thus, the overall trend is towards small scale commercially-oriented farming.

Chinese households are granted increased property rights over their land, consolidating the position of small scale, private farms. Former collective farms in Eastern Europe and the former Soviet Union continue to break up into smaller, more manageable units. Land ownership and land markets develop allowing the more successful private farmers to expand their small holdings.

In Africa, land reform policies in Zimbabwe and South Africa partially break up large commercial farms. But supply contracts with modern agribusinesses (which provide know-how) ensure that output and productivity are not negatively affected. Elsewhere on the African continent, smallholder agriculture responds to liberalizing policies to invest in new tree crops and increased production of food. In Africa and in Latin America, commercial farms and agribusinesses increasingly contract with small farms rather than tie up capital in land and relatively low margin agriculture.

Elimination of government procurement and supply monopolies results in farms receiving better prices and increasing output, changing product mix and abandoning marginal areas. Large numbers of private intermediaries greatly increase the level of trade, helping surplus producing areas access deficit markets, while providing inputs and credit to farms. Over time, these give way to increasingly sophisticated agribusinesses.

Based on international agreements, OECD countries continue to lower their subsidies for agriculture while easing the access to imports. Transitional and developing countries are able to increase exports. However, world competition remains fierce, supplies are more than adequate, and prices increase only slowly. This is of particular value to food deficit countries whose import bills remain manageable.

While competition dampens agricultural price increases, liberalization leads to rising rural incomes. Urban food prices decline in real terms. Rising rural incomes increase demand for other goods and services, stimulating broad based growth and absorbing surplus rural labor. Rising rural incomes also help to restrict population growth as educational levels rise and women marry at a later age. Over the longer term, there is also a slow consolidation of small farms as the more efficient producers buy out the less efficient and as higher percentages of the population find gainful employment in other sectors.

Scenario Two: Back to the future

Disillusion with the results of initial privatization and liberalization measures (often resulting from their partial implementation) results in an increasing spiral of greater state intervention in agriculture and agribusiness.

Initial liberalization results in rural households retaining more production for their own consumption in CEE/NIS and Africa, reducing the flow of food to cities. Food prices increase dramatically in most developing and transitional economies as price controls and subsidies are eliminated. Furthermore, OECD countries reduce their stockpiles and world prices for basic grains continue to rise from their current high levels. Food importing countries must significantly curtail their imports.

Farms do not fully respond to higher prices because of inefficient or partially monopolistic intermediaries that continue to offer farmers low prices. This is particularly acute in CEE/NIS and Africa where farm access to markets is little changed. For example, in Moldova, perishable fruits and vegetables must be sold for whatever truck drivers or canneries are willing to pay, since the only other option for farmers is to let the produce rot.

The supply response by farmers is also limited by the lack and cost of credit, as well as the increased cost of inputs. For example, many African farmers used to receive free inputs. Now these must be purchased, but the farmers lack credit or the security of being able to market their output.

Meanwhile, former state farms and agroprocessors (especially in the CEE/NIS) continue with the same management as before privatization. They fail to recognize the need to completely reorient their businesses to capitalize on new market opportunities and overcome competitive threats. These entities operate at very low levels of capacity and efficiency, and increasing numbers go into bankruptcy. Political pressure for governments to rescue these companies mounts.

With rising food prices and shortages, urban populations riot over the price of food. Governments impose price controls on basic food items. This in turn leads to even greater problems at the farm level.

Meanwhile in countries with high population densities relative to arable land, efforts are made to restrict the flow of migrants to already overwhelmed cities. The situation of poor landless laborers becomes increasingly desperate. Their standard of living continues to decline as international competition squeezes wages while the state discontinues social programs. Environmental degradation, deteriorating infrastructure and population growth means less available land per capita, while OECD countries have shut off opportunities for emigration.

OECD countries have also further closed their markets for agricultural products. Mexico, the CEE/NIS and other countries which had (or were promised) preferential access to OECD markets feel betrayed. Not only are lower exports reducing rural incomes, but the ability to import is also further eroded. While countries are struggling to make the transition to market based economies, international financial and technical support begin to dry up. OECD countries have their own economic problems and domestic politics forces cuts in economic assistance.

As rural poverty intensifies, rural violence becomes more common. This ranges from simple

banditry to violent takeovers of land and more organized revolts. Demagogues appear in key countries to take advantage of the situation by promising to address people's concerns with simplistic solutions. New rulers try to control economic forces by decree. When agriculturists and private agribusinesses respond by reducing, hiding or smuggling output, the state is forced to intervene further creating a cycle of increased state control of markets and production.

Privatization in the Extractive Industries **along with** ***Agriculture, Land and Agribusiness Privatization, Infrastructure Privatization, Privatization in the Manufacturing and Industrial Sector,*** **and** ***Privatization of Social and Municipal Services*** **are part of a broader scenario analysis and planning exercise for USAID. They are designed to foster discussion on the future direction of USAID's privatization efforts and are neither reference guides nor privatization retrospectives. Because these papers are part of an effort to maintain a dialog over the future direction of privatization, we welcome comments. In addition to these five papers, USAID is funding two research efforts on the impact of privatization: (a) a white paper summarizing the overarching themes in the literature on the impact of privatization; and (b) a broader issues paper, being prepared by Development Alternatives, Inc., focusing on key unsettled issues of privatization in areas such as: the rationale for and measurement of privatization, fiscal and efficiency impacts, mass privatization and corporate governance, indirect and partial privatizations, regulation, and the political economy of privatization. The white paper, prepared by Price Waterhouse LLP, (Privatization: Its Past and Future as Seen in the Literature), will be available after April 15, and the DAI piece (Privatization: A Review of Unsettled Issues) in May 1996. Both papers will be available through the Economic Growth Center's Office of Economic and Institutional Reform (G/EG/EIR).**

Privatization in the Extractive Industries

I. Introduction and Methodology[1]

Privatization in the Extractive Industries uses the technique known as "scenario planning" to analyze privatization in the hydrocarbon, industrial and noble metals sectors. First it reviews the last five years of privatization activity in these sectors. Next it identifies "drivers" or trends that have powered privatization and uncertainties that may hinder future progress. Finally it constructs "scenarios" or possible models of future developments in privatization in the extractive industries.

Scenario planning draws on the work of Peter Schwartz, Pierre Wack, Clem Sunter, Paul Schoemaker and others.[2] It is, as Paul Schoemaker has explained, "a disciplined method for imagining possible futures." Scenario planning attempts to avoid errors in predicting change by dividing our knowledge into things we know something about and things that are unknowable or uncertain. In attempting to discern the future, conflicting projections are made based on available knowledge as to facts and uncertainties in an effort to stimulate thinking and avoid the danger of assuming that the future will always replicate the past. The method, first used extensively by Royal Dutch/Shell in the 1970's as part of its process for generating and evaluating strategic options, has achieved global popularity with companies and even government agencies, including the Department of Transportation and the President's Science Advisory Council, where it was used to analyze infrastructure investment and the impact of the energy crisis, respectively.

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[1]This paper was written by Price Waterhouse LLP for the United States Agency for International Development (USAID) under the Privatization and Development Project (USAID Contract No. DPE-0016-Q-00-1002-00).

[2] See for example: Peter Schwartz, **The Art of the Long View**. New York: Doubleday, 1991; Pierre Wack, *Scenarios: Unchartered Waters Ahead,"* **Harvard Business Review**, September-October 1985, pp. 72-89; PJ.H. Shoemaker and C.A.J.M. van de Heijden, *"Integrating Scenarios into Strategic Planning at Royal Dutch/Shell,"* **Planning Review** 20 (1992), pp.41-46; Clem Sunter, **The World and South Africa in the 1990s.** Cape Town, South Africa: Human and Rousseau Tafelberg, 1987; and Paul J.H. Schoemaker, *"Scenario Planning: A Tool for Strategic Thinking,"* **Sloan Management Review**, Winter 1995, pp. 25-40.

Here, we use scenario planning as a way of trying to stimulate and focus thinking as to the future of privatization and the future role of multilateral and aid agencies, governments and practitioners in the privatization process. In reading these papers, we hope that readers will consider:

- As a stakeholder in the privatization process, what constitutes for you a desirable privatization scenario? How does this differ from or complement the privatization scenarios provided in this paper?

- What actions can you take to help shape the path privatization takes over the next decade? For example, what should be priority actions in building regulatory institutions, social safety nets, and capital markets?

II. Profile of Privatization Experience To-Date in the Extractive Industries

Globally, governments have resisted private participation in the hydrocarbon and mineral resource sectors by designating these industries as "strategic" and often placing them under the exclusive control of the state. For example, by the mid-1970's there were more than 90 state oil companies worldwide, including 27 of the world's top 50 oil and gas companies.[3] The extractive sectors have been considered strategic not only because they are major contributors to GDP, the treasury, and employment, but also because they are symbolic of sovereignty and state power. Until recently, for example, constitutional prohibitions restricted private participation in the production and processing of hydrocarbon resources in Mexico and Brazil. The mining sector presents a similar picture. According to a 1990 survey, three out of the top ten (and ten out of the top thirty) mining companies were state enterprises or companies effectively controlled by a state.[4] Even in Chile, after 15 years of aggressive denationalization of the economy, the national copper company, Codelco, remains in the public domain.

Nonetheless, as shown in Figures 1 through 3, private participation in the resources sector increased in the 1990 to 1995 period. In the hydrocarbon sector, many developing world oil-producing countries have at least initiated a process of denationalization. Led by Argentina, which aggressively privatized its oil sector in 1992 to 1993, proto-privatizers have promulgated legislation to liberalize domestic hydrocarbon markets, deregulate the import and export of crude oil and petroleum products, and create new opportunities for private sector operations. Private, largely foreign, firms have worked for many years as field or refinery operators on a contractual basis.[5] Since 1990, state retrenchment in the sector has opened the door to private ownership, beginning with the divestiture of downstream activities (petrochemical plants, refining operations, transportation and storage facilities) and, increasingly, private participation in exploration and production. Private operators have been allowed to bid on permits to develop new or existing producing areas. To complement liberalized exploitation regimes, and attract private capital and technology, developing countries have accelerated the offering of exploration areas; the acreage available for exploration by private oil companies has doubled during the past ten years.

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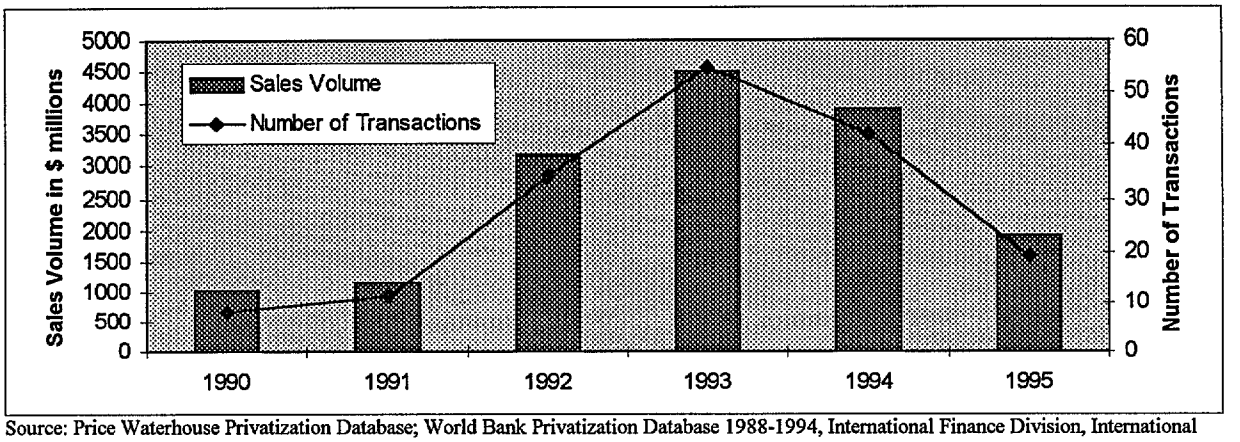
[3] *Reform and Privatization in the Hydrocarbon Sector,* Chakib Khelil, World Bank, Paper presented to the Society of Petroleum Engineers Annual Technical Conference, New Orleans, 25-28 September 1994.
[4] 1992 study by Raw Materials Group, Stockholm (tel: 46.8.744.0065); "Competition for investment: implications for Africa," *Mining Journal*, 09.29.95.

[5] Under service contracts in upstream transactions, for example, a private company is paid in local currency for operation of a field, supplying the national oil company (NOC) with all crude oil. The NOC pays the operators a per-barrel fee, allocating the oil to its refineries.

Figure 1: Privatizations: Oil, Gas & Mining Sectors
Developing and Transition Economies 1990-1995



Source: Price Waterhouse Privatization Database; World Bank Privatization Database 1988-1994, International Finance Division, International Economics Department, World Bank.

In the mining sector, an increasing number of nations have opened their resources to foreign mining companies. Since 1985, over 90 nations have adopted new mining laws or are revising existing laws. Complementing these changes, liberalization of investment laws has allowed foreign ownership of state-owned mineral enterprises for the first time in decades. In a number of countries, including Botswana, Ghana, Chile, and Indonesia, private investment in the minerals sector already surpasses public investment.

Figure 2: Milestone Privatization Transactions in the Extractive Industries

1990-1992	• Argentina initiates denationalization of its hydrocarbon sector • Chile privatizes its mining industry (excluding Codelco) • Peru privatizes its minerals sector • Argentina's YPF auctions 91 drilling areas • China sells equity shares in petrochemical operations • Argentina divests YPF in public offering
1993-1994	• Nigeria sells NNPC oil field rights for $ 500 million • Russia privatizes non-fuel minerals • Poland sells its gas distribution network • Ghana floats Ashanti Goldfields in London and Accra • Russia transforms its oil and gas sectors into joint stock companies
1995-1996	• Pemex begins divestiture of downstream facilities • Indonesia offers Tambah Timbah tin mine • Brazil to sell CVRD in public offering

Source: Price Waterhouse Privatization Database; World Bank Privatization Database 1988-1994, International Finance Division, International Economics Department, World Bank.

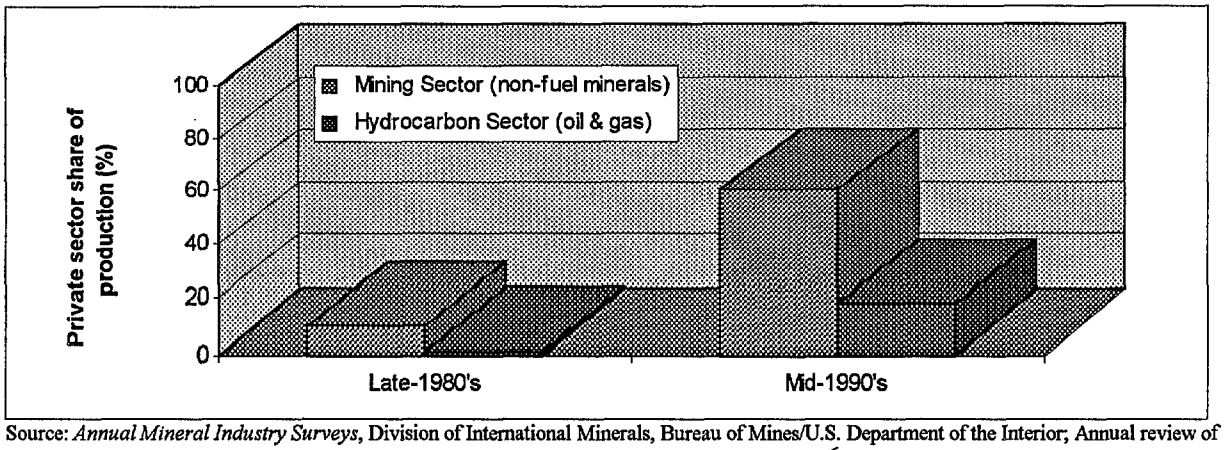
Privatization's successes have barely affected the overall private share of world production. State oil companies still control some 71 percent of world hydrocarbon production, a percentage unchanged from the mid-1980's. This is because the relative proportion of public-private ownership has remained constant in countries which produce much of the world's oil and gas: Saudi Arabia, Iran, the United States, Kuwait, China, Venezuela, Mexico, Norway. Transformation of Russia's national oil conglomerate into joint stock

companies is a dramatic exception. By October 1995, nine Russian oil companies figured among the world's fifty largest oil companies with Gazprom estimated to be the world's single largest upstream producer.

Excluding OECD and Middle East producers, the effect of important privatizations on public sector control of hydrocarbon production is statistically more significant. As shown in Figure 3, partial and complete privatization of state oil companies in Argentina, Brazil, and Russia in the early 1990's have boosted private operators' share of oil and gas production from essentially zero in the mid-1980's, to close to 18 percent in 1994.

Also illustrated in Figure 3, privatization of important national mining industries in developing and transition economies-- Chile, Peru, Brazil, Colombia, and Russia in particular-- has greatly increased the private sector's share of total minerals output. In countries with important mining sectors, private operators control an estimated 60 percent of minerals production; excluding China from the sample, the private sector share increases dramatically. As recently as eight to ten years ago, significant private sector minerals production (in the developing world) was limited to a few countries, including South Africa, Namibia, Gabon, Indonesia, and Papua New Guinea.

Figure 3: Private Sector Share of Extractive Industries Production: Developing and Transition Economies



Source: *Annual Mineral Industry Surveys*, Division of International Minerals, Bureau of Mines/U.S. Department of the Interior; Annual review of Top 50 Oil Companies (December 18, 1995; December 11, 1989) *Petroleum Intelligence Weekly.* [6]

As reflected in Figure 4, methods of privatization of the extractive industries has been in favor of increasing private participation. Figure 4 presents this movement from narrow contractual arrangements to outright private ownership of mining and hydrocarbon facilities. Fee-for-service contracts and leaseholding have diminished while production sharing agreements have become more prevalent. Governments have begun to divest large-scale enterprises, often world class facilities attracting broad international interest, through public offerings. Figure 4 also illustrates the importance of sector-wide denationalization of

[6]Private sector share of mining production is calculated from an unweighted average of private ownership of mining production capacity for principal (national) export minerals in the following countries: Chile, Bolivia, Peru, Brazil, Colombia, Venezuela, Guinea, South Africa, Ghana, Zaire, Zimbabwe, Namibia, Gabon, Russia, Poland, Kazhakstan, China, India, Indonesia, and Papua New Guinea. These figures do not include the coal sector which remains largely state-controlled in the world's largest producers: China, Colombia, India, Indonesia, and Poland. Hydrocarbon figures based on production figures for the following countries: Venezuela, Mexico, Algeria, Indonesia, Brazil, China, Egypt, Nigeria, Russia, Argentina, Colombia, and Malaysia.

Russia's massive extractive industries, including the transformation of some 380 minerals enterprises into joint stock companies by year-end 1995.

Figure 4: Methods of Private Sector Participation in the Extractive Industries

	1980's		1990's	
	Minerals	Hydrocarbons	Minerals	Hydrocarbons
Leaseholding/ Service Contract	High	High	Low	Low
Sale of Facilities (sale and tender)	Low	Low	High	High
Joint Venture/Production Sharing Agreement	Low	Low	Medium	Medium
Transformation into Joint Stock Company	Low	Low	High	Medium
Public Offer (domestic and international)	Low	Low	Medium	Medium

Source: Price Waterhouse Privatization Database; World Bank Privatization Database 1988-1994, International Finance Division, International Economics Department, World Bank.

III. Key Drivers Shaping the Privatization Experience

D_1 Chronic fiscal crises and pressure from external creditors has forced national governments to scale back their financial obligations to state-owned enterprises.

- In 1986 internal feuding among OPEC countries resulted in an increase in petroleum production, which, coupled with finite demand, lead to a 50 percent drop in the world oil price. Falling petroleum revenues had a dramatic impact on the profitability and viability of many state oil companies, many of which held high debt to equity ratios. Falling income from key export sectors had dramatic effects on national budget balances, affecting governments' ability to offer financial relief to public enterprises.
- Declining revenues among oil producers produced consistent balance of payments deficits since the early 1990's, yielding a foreign reserve shortage to match the generalized capital shortfall.[7] For mineral exporting states, a decade of rising oil prices and debt service payments, followed by a sagging market for important mineral ores in the late 1980's, yielded fiscal and current account crises of equal if not greater magnitude.
- Mineral exporters reliant on Soviet assistance and export agreements within COMECON-- the NIS., Romania, Guinea, Cuba, and Vietnam-- have faced conditions of extreme fiscal stringency since the breakup of the Soviet Union.
- Reliance on external financing has exposed debtor countries to increased pressure to open the resources sector to private sector participation. Pressure has come from international donors, including conditionalities stipulating the privatization of key sectors, as well as from private creditors. In Brazil, private investors backing a gas pipeline project linking Bolivian gas fields with several of Brazil's urban centers have conditioned their participation on the demand that the Brazilian national oil company (Petrobras) not have managerial control of the project.

[7]Even Saudi Arabia, holder of the world's largest oil reserves, ran a consistent current account deficit from 1983 to 1993.

D_2 In the petroleum sector, development costs are rising as exploration and production activities push into new, unexploited zones, or squeeze increased yields out of mature areas.

The per barrel cost of increasing output from producing deposits up to estimated capacity (capacity costs) is expected to rise from 15 to 100 percent among major OPEC producers before the turn of the century. Costs among most non-OPEC producers are even higher. Maintaining production at current levels, and keeping crude production declines to a minimum, require substantial investments.

- New projects are becoming more technically demanding as exploration and production in remote areas require more infrastructure, such as offshore operators moving into deeper water. Boosting productivity from mature wells through secondary recovery techniques, including water flooding and gas injection, also increases capacity costs.
- As exploration becomes increasingly uncertain, operators suffer negative cash flows of increasing duration, a charge cash-strapped national oil companies bear with more difficulty.

D_3 Enterprise competitiveness in the mining sector depends increasingly on economies of scope, notably the exploitation of new technologies.

The mining sector faces production challenges analogous to those in the petroleum sector. Maintaining productivity levels in the minerals sector demands continuous investments in technology such as longwall techniques and computer-based monitoring to compensate for higher development costs. New extraction and processing technologies have transformed the commercial potential of ventures in several minerals sub-sectors.

- In Namibia in the mid-1970's, RTZ Corporation, the world's largest copper producer, walked away from a $20 million investment in the Hiab copper project, deeming the project to be non-viable. New technology for producing copper-- solvent extraction-electro-winning-- has modified the economics of the copper project, and drawn American and Australian investors into what will be the biggest single investment made in Namibia.
- At Bolivia's Minera Yanacocha, the introduction of modern cyanide-leaching technology, the fruit of a recent Bolivian-American joint venture, has transformed what had been considered commercially unexploitable reserves into the largest single gold producer in Latin America.

D_4 Evolving environment standards have altered the economics of the extractive industries.

- New environmental legislation has increased the fixed costs of exploration and production activities, including expenditures for impact studies, technologies to ensure environmentally safe operations, and (in the case of mining) future land reclamation.[8]
- Environmental standards have created new markets for low sulfur and ash content coal-- requiring the application of advanced clean coal technologies. Consequently, the competitive position of countries such as Indonesia, much of whose coal is "environmentally friendly," has improved dramatically.

[8]The economic impact of environmental legislation in the United States has been drastic. Some 1,000 coal mines in high-sulfur coal areas have closed, nearly all of them east of the Mississippi, leaving a national total of 2,500. By contrast, in the low-sulfur coal mining states of Colorado and Wyoming, highly automated mining operations have increased employment by about 2 percent (NYT, 2.15.96:A1).

- Clean-burning natural gas is replacing oil as a primary energy source throughout the developing world.

D_5 Globalization has allowed sophisticated operators to capture the comparative advantages of different production environments and differentiated taxation and concession regimes.

- To capture value-added through vertical integration, while overcoming rising domestic production costs, private copper mine operators in Chile have established joint-ventures with smelting facilities in neighboring, lower-labor-cost Peru.
- Participation by American firms Alcoa and Reynolds in Jamaica's bauxite industry has made it possible-- through the establishment of a sophisticated internationally-integrated production system-- for the local mining industry to overcome an absence of processing and energy technology. Jamaican bauxite ore now crosses the Atlantic to an aluminum smelting facility in Ghana, whose abundant hydroelectric reserves make it an ideal processing platform.
- To support Chile's efforts to increase its gas consumption, Argentina's privatized hydrocarbon conglomerate (YPF), in collaboration with private consortia, has undertaken a number of major pipeline initiatives. These projects have included an 1100 km pipeline from the Neuquen basin to Conception, and north to Santiago.

D_6 In developing and transition economies, demographic growth, industrialization, and the needs of an emerging middle class have yielded a surging demand for energy.

The rapidly expanding demand for energy, natural gas in particular, has necessitated massive investments in infrastructure, and the modernization of gas distribution networks. A boom in oil and gas pipeline construction worldwide has resulted, prompting the development of numerous joint ventures to complete the work.

- Over the next two or three years, pipeline construction is estimated to surpass 66,000 linear miles (including North America, Western Europe, and Australia). Total construction cost for these projects is approximately $30 billion. Close to 60 percent of projected pipeline construction will be in Latin America and Asia.[9]

D_7 Lessons from early privatization experiences encourage greater acceptance of private sector participation in the resources sector.

Successful privatization experiences generate intra-regional bandwagoning effects. In Latin America, YPF's new profitability,[10] Chile's investment grade mines, and the anticipated listing of the Peruvian

[9] Source: "World's Developing Regions Provide Spark for Pipeline Construction," Oil & Gas Journal, 02.05.96:pp.27-31.

[10] Two years after its privatization in 1993, the YPF workforce is just over one tenth of its former size. Total production costs per barrel have fallen from between $6 and $7 per barrel before privatization to between $3 and $4 per barrel in 1995; revenue per worker has grown from less than $10,000 a year to more than $600,000. The company is now profitable and in 1994 recorded record net income of $538 million on sales of $4.19 billion.

mining concern Buenaventura on the NYSE have created constituencies for change and have accelerated the policy learning process.

- IFC investment officers working with a hesitant Zambian government, for example, now argue the case for the privatization of Zambian Consolidated Copper Mines drawing on the powerful lesson of Ghana's 1994 flotation of Ashanti Goldfields (rather than falling back on more distant experiences, such as Chile's, which may be less convincing for African decision makers).

D_8 Governments in many regions of the world have been eager to secure their energy security and reduce their vulnerability to supply shortfalls.

Energy security continues to be an important geostrategic issue for certain countries. South Korea, for example, has had difficulty in competing for oil imports during the two oil shocks in the 1970's and the Persian Gulf crisis of 1990-91. Similarly, Taiwan's reliance on sea-bound imports of oil renders the country patently vulnerable to a crippling blockade.

- The perceived need to control national power supplies has led decision-makers in gas producing countries to resist the granting of real independence to the upstream energy sector. Even aggressive privatizers such as Argentina still hold a 27 percent stake in ten transmission and distribution companies hived off from the state-owned gas company, *Gas del Estado*; gas production (which satisfies 40 percent of primary energy demand) remains a monopoly under the Secretary of Energy.
- But countries dependent on international energy imports have sought out private participation to develop existing reserves of oil, gas, and coal reserves. Indonesia has aggressively opened hydrocarbon exploration and production to foreign operators in an effort to manage its growing energy demand--half of national gas production is consumed domestically-- and reduce costly oil imports. Development of the Natuna offshore gas field, a $40 billion joint venture with Exxon signed in 1994, provides a recent example.

D_9 Pressures to maintain controls over domestic energy prices have capped the potential profitability of investments in gas and heavy crude oil production and distribution (in cases where the output of these ventures is destined primarily for domestic consumption).

To satisfy social and developmental objectives, energy prices in many developing and transitional economies are not set according to economic pricing rules. Prices for electricity and heat are set below long-run marginal cost. Pricing regimes set below production cost offer few incentives to improve energy efficiency and discourage potential investors.

Further, the purchase of modern technology and waste removal have curtailed much of the environmental pollution which characterized YPF production while under state control.

IV. Key Uncertainties

U_1 Will nationalist and patronage politics obstruct further private sector participation?

Privatization in the extractive industries remains politically sensitive. Nationalist sentiment continues to resist private exploitation of the national patrimony. Moreover given the extractive industries' massive capital and technological requirements, private involvement in the oil, gas, and mining sectors suggests foreign participation, further abrading national sensitivities.

- News that future receipts from petroleum sales would serve as collateral for the $40 billion loan-guarantee package from Washington unleashed an outcry such that President Zedillo was obliged to affirm that Petroleos Mexicanos (PEMEX) had a "strategic character" and was not for sale. As the Zambian Minister for Mines and Mineral Development recently declared, "When you talk about privatizing the Zambia Consolidated Copper Mines, you are talking about privatizing Zambia."[11]
- In Russia, development of the resources industry has been held hostage to infighting within the Duma over the perception that privatization has concentrated assets in the hands of a select few.[12] Sixty billion dollars in prospective foreign investment in the oil sector in Russia has not moved forward because of failure to pass acceptable legislation concerning production sharing agreements. Moreover, a number of proposed joint ventures for oil and gas exploration and production in Azerbaijan, Kazhakstan, Turkmenistan, and Uzbekistan have been jeopardized by Russian insistence that any off-shore drilling in the Caspian Sea be subject to the approval of all states in the region. Control of future pipeline routes constitutes the real stake in this dispute, with Russian interests eager to have crude flows pass through an existing pipeline running across Chechnya to the Black Sea port of Novorossisk.

U_2 Will poorly defined legal rights make investors wary of increasing their participation in the extractive industries?

New standards and codes of practice under emerging regulatory regimes impose new burdens of responsibility on resource production operations. But legislation has not always clarified future environmental liabilities.

- Peru's anticipated sale of Centromin, the country's largest producer of zinc, lead, and silver, collapsed in May 1994 because of unresolved environmental liabilities from past operations. Although 160 firms were invited to take part in the process, no investors bid.
- In Papua New Guinea, conflicts with landowners and legal challenges to its exploration and exploitation leases forced the subsidiary of an Australian mining operator to abandon its stake in the Mount Kare gold prospect and sell its 51 percent stake to the minority shareholder.

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[11]"Zambia: Mining," *Institutional Investor*, September 1995: S 12.

[12]In the infamous loans-for-shares program, the country's largest banks received shares in leading enterprises in exchange for loans to the treasury. A number of other privatizations have also engendered controversy, including the recent sale of Norilsk Nickel, the world's largest nickel producer, to Oneximbank. When the bank tried to exercise control over the company, Norilisk managers appealed to the Duma, which pressured the government to revoke the transaction. *WSJ*, "Russian Privatization drive Faces Severest Test to Date," 02.07.96: p.A11.

U_3 Will political costs associated with labor displacement dissuade policy makers from restructuring critical mining industries thus retarding private sector participation?

Restructuring of important mining sectors in anticipation of privatization will entail the laying off of tens of thousands of laborers. In transitional and developing economies, high unemployment rates and the absence of secure social safety nets may make it politically impossible to undertake the downsizing necessary to attract future investors.

- Well-mobilized labor unions in Eastern European coal producing regions have and will continue to represent potent political obstacles to reform of these important sectors.

U_4 Will geopolitical tensions constrain natural resource development?

- Chinese belligerence towards Taiwan and friction with its South China Sea neighbors may disrupt investment in the region.
- In the United States, protectionism and foreign policy, for example, the 1994 cancellation of Conoco's pipeline deal in Iran and recent Helms-Burton legislation over Cuba, may disrupt joint venture

V. Scenarios

Scenario One: Globalization and Privatization Intensify

State disengagement from the hydrocarbon and mineral sectors continues globally over the next decade. The forces that have created opportunities for private sector participation in the oil, gas, and mining industries such as fiscal stringency, rising costs and energy security concerns intensify.

In the hydrocarbon sector, oil producing countries rely increasingly on private sector capital and technology to slow declining production in mature wells, increase capacity and satisfy fiscal demands. Privatization follows the pattern of previous experience: first divestiture of downstream facilities and incremental liberalization of concessioning regimes, followed by a full opening up of exploration and production areas. Exploration acreage will continue to be made available to foreign operators in the oil sector. And profit sharing exploration and development licensing arrangements will replace fee-for-service contracts.

Private capital and technology play an increasingly important role in minerals production. Leveraging their capital and technological resources, the world's major international mining companies continue to acquire shares in ongoing concerns and win exploration and exploitation rights in undeveloped areas. To circumvent past environmental liabilities, international investments are made primarily in new production. As output from mature sources declines, global minerals production becomes increasingly concentrated in the hands of a discrete number of powerful global operators.

At the same time, important local private operators gain a heightened profile in regional mining sectors, adding considerable momentum to the privatization process. Increasing access to capital through Western project finance and stock exchange listings buoys prominent local enterprises. In Latin America, dynamic private mining groups in Chile, Peru and Bolivia, their cross-border investment power multiplied through joint ventures with international concerns, take advantage of liberalized mining regimes and regional trade agreements. In Africa, powerful regional operators created through vanguard privatizations assert themselves around the continent. Newly privatized Ashanti Goldfields undertakes feasibility studies throughout West Africa and acquires mining operations in Mali, Guinea, and elsewhere. Recapitalized through joint ventures and partial divestiture, units of Zambia Consolidated Copper Mines become aggressive operators throughout the Southern African copperbelt.

Similarly, a number of powerful regional operators profit from liberalization of the oil and gas sector and soaring global energy demand. Consortia formed between Latin American and international operators continue to undertake numerous transnational gas and oil pipeline projects. Benefiting from dramatic regional growth, regional investors in Southeast Asia also take advantage of the progressive privatization of public domain hydrocarbon and mining operations to develop regionally powerful enterprises.

Regional dynamics shape the topography of privatization in the extractive industries. In Latin America, a political consensus toward modernization of the extractive industries along a free market model of development sustains the regional commitment to private participation in the sector. Privatization continues with vigor in the minerals sector in countries such as Bolivia, Chile, Colombia, Ecuador, and Peru. In addition, the region's biggest hydrocarbon producers, Mexico, Venezuela, Brazil, and Colombia, which collectively hold close to 80 percent of the Western Hemisphere's estimated oil reserves, begin to open their resource sectors to private participation. In each of these countries, the hard first steps have already been taken. Domestic and foreign operators take advantage of opportunities in downstream activities and, progressively, move into exploration and production.

East Asia's undeveloped reserves, rising demand for energy, and eagerness for national energy security trigger a wave of private sector participation in the oil and gas sector. Across the region, governments look for private sector assistance to ease the burden of expensive fuel and mineral imports. China is the locus of much of this activity. The coincidence of dramatic industrial expansion and transition to a consumer economy, manifested in rapidly growing demand for petrochemical products, yields a Chinese oil deficit of some 600,000 barrels a day; the country's net external requirements rise to nearly 3 million barrels per day by 2010.[13] Rapid development of the country's hydrocarbon reserves are a high priority for Beijing. Western consortia are solicited to squeeze the most out of declining northeastern oil fields like Daquing and Shengli, and to develop the Tarim Basin's largely unexplored 220,000 square-miles.

Poland, Hungary and the Czech Republic move through the preparatory stages for membership in the European Union and enter as full members before 2005. Western European investors move aggressively into these countries to take advantage of minerals opportunities through greenfield development activities. Joint ventures and assets sales drive modernization and expansion of gas distribution networks in Central Europe.

Foreign participation in development of the NIS's massive mineral and hydrocarbon reserves increases dramatically in the next decade to counter a dramatic decline in production and geological exploration. An investment shortfall, and the need to introduce new technologies in the countries' substantial coal industry lead to numerous joint ventures across a number of minerals and oil subsectors. Capital and foreign exchange imperatives facing Russia produce a compromise over pipeline routes for Caspian output and encourage a surge in joint venture production.

In Africa, ongoing political instability in parts of the continent deters prospective investors. But a generalized African fiscal crisis, aggravated by falling levels of foreign assistance, creates unprecedented pressure on the continent's decision-makers to reconsider public monopoly management of these capital- and foreign reserve-intensive sectors. International technical assistance helps eliminate obstacles such as unfavorable investment environments and ill-defined environmental and property rights regimes. The minerals sector is the focus of most private sector activity, particularly in Southern Africa's copper and cobalt zones. Aggressive investors, particularly those with experience in the region like Anglo American, enter into increasingly important joint ventures from Namibia to Mozambique.

Scenario Two: Downward Spiral and Economic Barriers

The pace of privatization in the extractive industries around the world will slow during the next five to ten years due to a downward spiral of political and economic forces.

The opening of highly-visible hydrocarbon and mining sectors to private operators proceeded as a matter of expediency in the early 1990's, but national commitment was not well-grounded and backsliding begins before the process is well underway. In regions such as Africa, where domestic entrepreneurs do not play a significant role in minerals privatization, denationalization slows dramatically for lack of a powerful political constituency. Throughout Africa, near-term considerations (tax revenues, employment, patronage) overwhelm longer-term capital and technology imperatives. A jump in commodity prices prompts a policy shift echoing earlier precedents: following an increase in diamond prices in 1994, and a 5 percent real improvement in national GDP, the government of Namibia arrogated 50 percent of De Beers Centenary AG's diamond mine, with no capital investment in the project. Mineral reserves and select concession

[13]Calder, Kent (1995), "Asia's Empty Tank," *Foreign Affairs*, March/April, Vol. 75, No.2, pgs. 55-69.

agreements are discussed in a number of countries to provide the government with a revenue boost, and to resolve immediate resource supply problems, but broad sectoral reform is non-existent. The cautious approach of the government of Zambia relative to the country's major single enterprise, Zambia Consolidated Copper Mines, is illustrative. Zambia offers the development of an important feeder mine to Anglo American Corporation, but retains control of the main processing operation, and resists divestiture of the rest of the industry. In sum, minerals privatization in Africa is opportunistic and piece-meal, undertaken to resolve short-term production bottlenecks. As such, private investors only pursue opportunities in exceptionally well-mineralized countries where high returns and relatively low development costs compensate for the continent's inhospitable investment environment.

The accrued welfare costs of economic adjustment prompt a revisionist backlash in a number of countries. Politicians elected in Poland, Russia, Turkey, and elsewhere declare their intent to slow the pace of economic denationalization. These governments place a ceiling on consumer prices for heat thus discouraging potential investors. Low opportunity costs for coal, primary energy fuel in many of these countries, further reduce the pressure to boost mining sector efficiency. Foreign investors remain hesitant, awaiting restructuring of the minerals sector. However, dismissing tens of thousands of workers in the coal industry remains a political impossibility in economies with double-digit unemployment, such as those in Central and Eastern Europe.

The resources sector continues to face challenges on environmental grounds. Domestic and international awareness of severe environmental degradation from past mining and processing activities prevents significant mineral production activities from coming on-stream in Central Europe and the former Soviet Union. Institutional reforms to clarify and structure these liabilities are slow in coming due to an absence of experience in drafting such legislation. Political considerations compound the difficulties. Uneven enforcement of new environmental standards threatens the economic viability of minerals operations in a number of countries, with negative effects on mining sector employment. The application of modern techniques for dispute settlement, and mechanisms for the coordination of management and labor, founders for similar reasons.

The regions which present the greatest opportunities for future resources sector investment face highly uncertain political conditions. In Russia, private participation in the oil and gas industry, particularly foreign participation, remains limited. Nationalist sentiment remains a potent force. Unresolved regulatory and taxation issues continue to inhibit profound reorganization and recapitalization of the extractive industries. The participation of foreign operators in the oil industry is limited to fee-for-service arrangements, not production sharing contracts. And access by international consortia to certain oil-rich regions such as Tyumen province in Western Siberia-- responsible for almost two-thirds of the entire Soviet output in 1988-- continues to be bedeviled by complex political relations between Moscow, local authorities, and domestic oil companies.

Numerous joint ventures formed to exploit the Caspian basin's massive hydrocarbon reserves remain vulnerable to a number of political conflicts. Private operators are unable to develop secure export routes for extracted oil and gas. Political conditions in the region-- secessionist violence in Chechnya, war between Armenia and Azerbaijan, civil instability in Georgia, and America's mercurial relations with China-- make it unlikely that identified export routes will be viable. The Caspian's estimated 25 billion barrel reserves remain unexploited.

Competition for secure energy sources in East Asia makes the future course of private hydrocarbon investment in the region highly uncertain. American and European oil production fall some 15 percent from 1995 levels and competition for non-OPEC hydrocarbon resources intensifies. Energy security

concerns among East Asia nations are particularly acute, driven by the rising fuel needs of ASEAN members, and an energy-deficient, increasingly nationalistic, China. Movement toward energy self-sufficiency in these countries is impeded by uneven commitment to energy conservation and the political risks inherent in overland gas pipelines from Eurasia. Violent tensions in the South China Sea over territorial rights-- five nations challenge China's claim to four-fifths of the atolls of the Spratly Islands, which contain substantial reserves of oil and gas-- continue to erupt. An extended confrontation in the South China Sea threatens the viability of exploration and production offshore of Vietnam, the Philippines, Malaysia, and Indonesia. Important ventures such as the $40 billion development of the Natuna gas field under a joint venture between the Indonesian oil company (Pertamina) and Exxon-- a difficult negotiation which required the intervention of the United States government-- are delayed by many years.

Infrastructure Privatization, **along with** *Agriculture, Land and Agribusiness Privatization, Privatization in the Extractive Industries, Privatization in the Manufacturing and Industrial Sector*, **and** *Privatization of Social and Municipal Services* **are part of a broader scenario analysis and planning exercise for USAID. They are designed to foster discussion on the future direction of USAID's privatization efforts and are neither reference guides nor privatization retrospectives. Because these papers are part of an effort to maintain a dialog over the future direction for privatization, we both welcome and solicit comments. In addition to these five papers, USAID is funding two research efforts on the impact of privatization: (a) a white paper summarizing the overarching themes in the literature on the impact of privatization; and (b) a broader issues paper, being prepared by Development Alternatives, Inc., focusing on key unsettled issues of privatization in areas such as: the rationale for and measurement of privatization, fiscal and efficiency impacts, mass privatization and corporate governance, indirect and partial privatizations, regulation, and the political economy of privatization. The white paper, prepared by Price Waterhouse LLP, (Privatization: Its Past and Future as Seen in the Literature), will be available after April 15, and the DAI piece (Privatization: A Review of Unsettled Issues) in May 1996. Both papers will be available through the Economic Growth Center's Office of Economic and Institutional Reform (G/EG/EIR).**

Infrastructure Privatization

I. Introduction and Methodology[1]

Infrastructure Privatization uses the technique known as "scenario planning" to analyze private sector provision of infrastructure services. First it reviews the last five years of privatization activity in the infrastructure sectors. Next it identifies "drivers" or trends that have powered privatization and uncertainties that may hinder future progress. Finally it constructs "scenarios" or possible models of future developments in infrastructure privatization.

Scenario planning draws on the work of Peter Schwartz, Pierre Wack, Clem Sunter, Paul Schoemaker and others [2] It is, as Paul Schoemaker has explained, "a disciplined method for imagining possible futures." Scenario planning attempts to avoid errors in predicting change by dividing our knowledge into things we know something about and things that are unknowable or uncertain. In attempting to discern the future, conflicting projections are made based on available knowledge of facts and uncertainties in an effort to stimulate thinking and avoid the danger of assuming that the future will always replicate the past. The method, first used extensively by Royal Dutch/Shell in the 1970s as part of its process for generating and evaluating strategic options, has achieved global popularity with companies and even government agencies, including the Department of Transportation and the President's Science Advisory Council, where it was used to analyze infrastructure investment and the impact of the energy crisis, respectively.

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[1] Price Waterhouse LLP wrote this paper for the United States Agency for International Development (USAID) under the Privatization and Development Project (USAID Contract No. DPE-0016-Q-00-1002-00).

[2] See for example: Peter Schwartz, **The Art of the Long View**. New York: Doubleday, 1991; Pierre Wack, *Scenarios: Unchartered Waters Ahead,"* **Harvard Business Review**, September-October 1985, pp. 72-89; PJ.H. Shoemaker and C.A.J.M. van de Heijden, *"Integrating Scenarios into Strategic Planning at Royal Dutch/Shell,"* **Planning Review** 20 (1992), pp.41-46; Clem Sunter, **The World and South Africa in the 1990s**. Cape Town, South Africa: Human and Rousseau Tafelberg, 1987; and Paul J.H. Schoemaker, *"Scenario Planning: A Tool for Strategic Thinking,"* **Sloan Management Review**, Winter 1995, pp. 25-40.

Here, we use scenario planning as a way of trying to stimulate and focus thinking as to the future of privatization and the future role of multilateral and aid agencies, governments and practitioners in the privatization process. In reading these papers, we hope that readers will consider:

- As a stakeholder in the privatization process, what constitutes for you a desirable privatization scenario? How does this differ from or complement the privatization scenarios provided in this paper?

- What actions can you take to help shape the path privatization takes over the next decade? For example, what should be priority actions in building regulatory institutions, social safety nets, and capital markets?

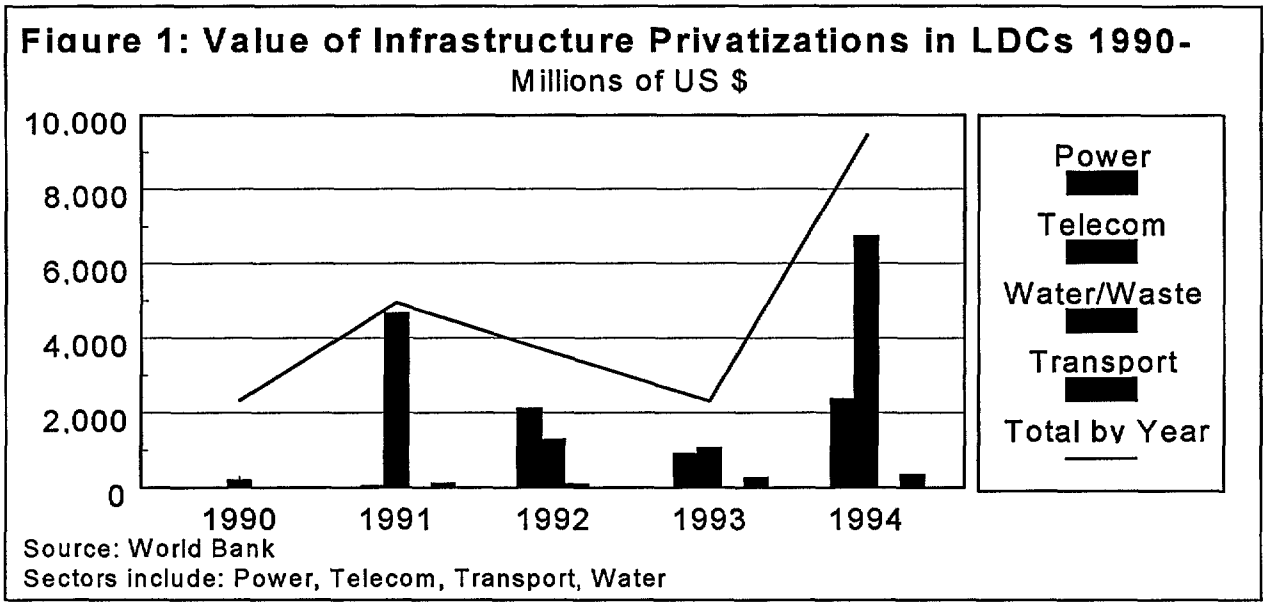
II. Profile of Privatization Experience To-Date in Infrastructure

The World Bank estimates that developing countries currently spend about $200 billion annually on investments in infrastructure, including power, water and wastewater, telecommunications, and transportation, which in turn includes roads, railways, ports, airports. Rapid economic development and continued population growth have bolstered the need for new and improved infrastructure in developing countries. "Mega-cities," such as Mexico City and Bombay, for example, have put increasing strains on water and transportation systems while rural areas have increasingly demanded better access to infrastructure services.

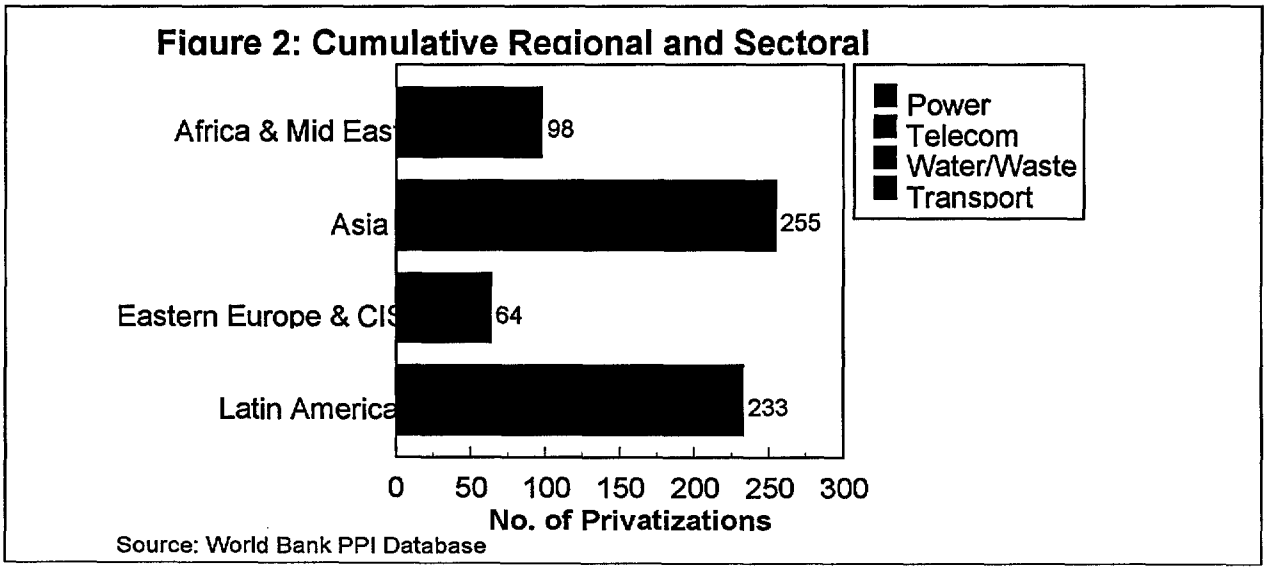
Debt-service obligations and donor pressure for fiscal restraint have constrained the public sector's ability to finance the growing demand for infrastructure services. The private-sector has begun to bridge this gap through the financing, operation and management of infrastructure improvements. Since 1984, 54 countries have privatized more than 286 infrastructure companies. At least 272 private greenfield projects are currently underway in some 52 countries.[3]

As illustrated in Figure 1, revenues from privatization transactions and new investments in infrastructure have grown dramatically since 1990. The majority of this growth has resulted from private sector participation in the telecommunications sector, where costs of new technologies such as satellites and cellular networks have contributed to higher transaction values relative to other sectors. Out of the approximately $22 billion spent on infrastructure privatization in developing countries by the end of 1994, telecommunications accounted for approximately $15 billion, followed by the power sector which contributed over $5 billion.

[3]"The Emerging Infrastructure Industry", World Bank PPI Group, 1995.



As illustrated in Figure 2, measured by number, Asia leads the world in infrastructure privatization, though measured by dollar amount privatizations in Latin America far exceed those in Asia, Africa, Eastern Europe and the former Soviet Union combined. Much of this difference can be attributed to the monetary value of activity in the telecommunications sector in Latin America (approximately three and one half times greater than Asia), where large privatizations, such as the global stock offerings of Mexico's Telmex and



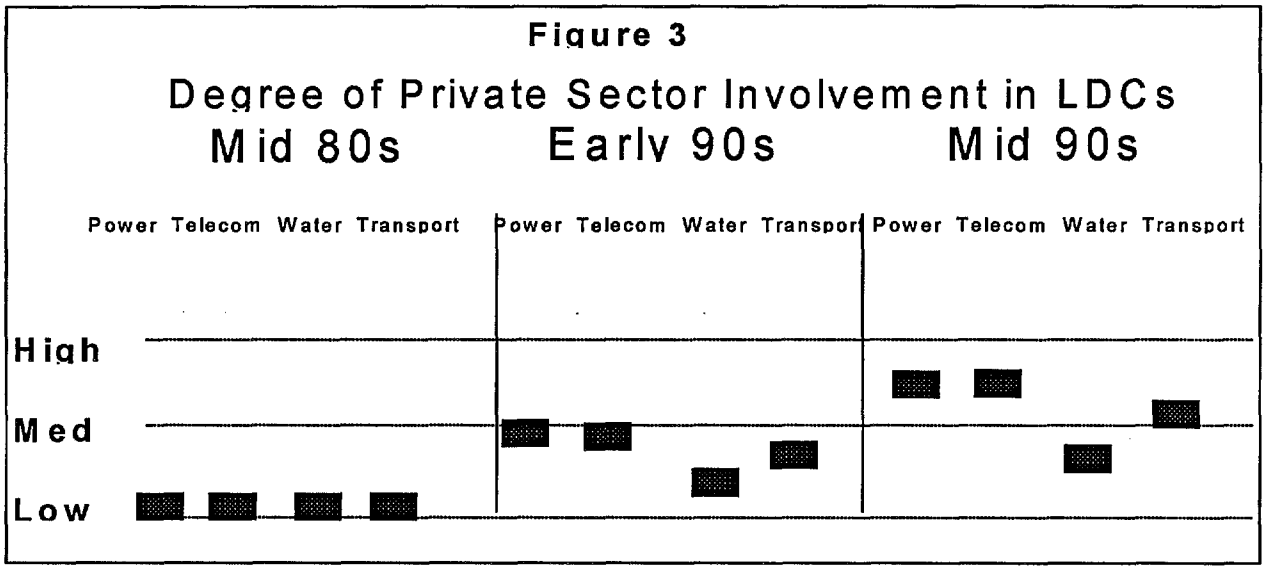
Chile's CTC, contributed a large portion of regional privatization revenues.

The largest number of privatizations in all regions is in the telecommunications sector, followed by power, then transport and water. Revenues from privatization varied according to region. In Latin America, for example, although telecommunications accounted for only 13.3% of the total *number* of private sector infrastructure privatizations, that sector contributed 73% of *revenues and new investment* activity for infrastructure privatizations in the region. Similarly, in Africa, the power sector accounted for 22.4% of total privatizations but produced 86% of the regional privatization revenues.

Degrees of Private Sector Involvement: Privatization Volume and Number

Overall, the level of private infrastructure investment has increased in each sector over the last ten years. Aggregate private sector investment in infrastructure is currently greater than $15 billion per year, approximately 7 percent of the $200 billion total in annual infrastructure spending (public and private) in developing countries. The International Finance Corporation estimates that this proportion may double by the year 2000.[4]

Figure 3



Private sector investments have focused on "network" industries such as power and telecommunications rather than integrated sectors such as water[5]. In part, this is because network technologies, such as cellular phones and movable generators have lowered barriers to entry by allowing new entrants to offer services independently of existing networks.

[4]World Bank Development Report

[5]Network industries are those whose component parts (e.g., generation, distribution and transmission in power or long distance and local networks in telecoms) may be separated into separate business units for purposes of commercialization or privatization.

The water sector, by contrast, has not benefited from technologies that supplement existing piped networks. The integrated nature of the sector itself has made it difficult for governments to unbundle a water utility into discrete elements. By contrast, the government could give a private transport provider building and operation rights for a portion of a highway or separate the provision of power into generation, distribution, and transmission. Consequently, the number of market entrants in the water sector has been limited to a small group of international investors with the capability to operate both upstream and downstream.

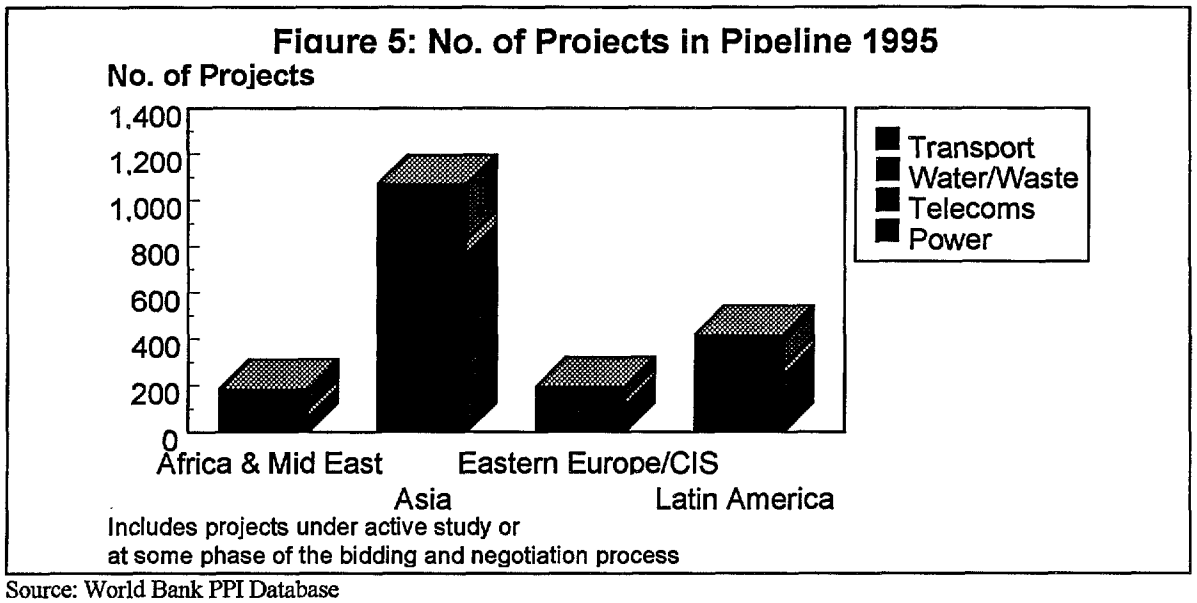
As illustrated in Figure 4, the private sector has invested in landmark infrastructure projects, which have demonstrated that private sector infrastructure investment is both feasible and desirable. The increased volume of private sector activity over time has thus had a reinforcing effect as ground breaking projects increase government and investor confidence. Conversely, when projects go awry (e.g., the Bangkok toll road, India's Dabhol power, Venezuela's aborted water concessions) both governments and investors may rethink their views.

Figure 4: Milestone Privatizations in the Infrastructure Sector

Year	Transaction	Sector/Region/Modality	Significance
1988	Hub River	Power/Pakistan: BOOT —30 years	first World Bank guarantee for a private sector project
1992	Toluca Toll Road Refinancing/ Mexico's private toll roads	Transport/ Mexico BOT—10 years	first project financed in international capital markets using
1993	Buenos Aires Water Concession	Water/Argentina Concession—30 years	largest concession in the water sector $4 billion with of new investment over 30 years.
1994	Lumut Power Generation Facility	Power/Malaysia BOO	first infrastructure privatization to be financed exclusively with local capital and denominated in local currency

The Pipeline

Figure 5 is an estimate of the number of privatizations under active study or in the bidding or negotiation process as of 1995. However, the total number of privatizations between 1996 and 2006 is likely to be much greater than the pipeline figure as demand and technological developments accelerate.



Source: World Bank PPI Database

The World Bank, for example, has estimated infrastructure investment demands in Latin America and Asia and the Pacific as follows:

Projected Infrastructure Demand Over the Next Ten Years, $ Billions per Year

Region	Telecoms	Transport	Water/Sewage	Power (incl. gas)	Total
Asia & Pacific	26	61	15	47	149
Latin America	10	14	12	24	60

Several factors will affect future private investment in infrastructure, including the need to rejuvenate existing facilities and the need to meet additional demand flowing from population and economic growth. The growth in demand will reinforce the need for capacity expansion and improved utilization. Thus, the next several years should continue to see private investment in infrastructure grow relative to public investment where there is a political mandate for privatization,

Methods of Private Sector Participation

Private sector infrastructure development is not a new phenomenon. From the end of the last century to the middle of this one, primarily private American, Canadian and European companies financed the railroads, power plants and telephone systems of Latin America and parts of Asia. For example, in 1930, American Foreign Power (AFP), the holding company for General Electric's overseas utilities, owned power utilities in eleven Latin American countries, China and India.[6]

[6]"Is Foreign Infrastructure Investment Still Risky?", Harvard Business Review, October 1995.

Resurgent economic nationalism and a belief in the efficacy of state ownership encouraged many governments to expropriate foreign owned infrastructure in the 1950s and 1960s. By the end of the 1960s, most of AFP's assets throughout Latin America and in China were nationalized. A similar course of events followed throughout the Third World. For example, Indonesia nationalized Dutch interests in power, rail and communications soon after independence and ITT's subsidiary, Indosat, in 1980 after a falling out with the Suharto government.

The resurgence of private ownership and operation of infrastructure beginning in the late 1980s was aided by a shift away from statism and economic nationalism along with a recognition of successes in Chile, the UK and New Zealand. Nonetheless, the private sector still faces those same underlying risks that AFP faced. In managing these risks, the private sector has developed various methods of allocating risk between the public and the private sector. Where the private sector's risk is the lowest, the public sector's is the highest, and *vice versa*. The spectrum of privatization ranges from very little private sector risk (hence opportunity) and no ownership or investment responsibility — in management and service contracts — to moderate risk and investment responsibility without ownership — in leases, concessions and build-operate-transfer schemes (BOT)— to the maximum amount of risk (and potential reward): transfer of public ownership through the sale of assets. Licenses, or private sector permits to provide investments and services outside an existing network (e.g., cellular phones), may also be considered a form of private participation. Because these involve private ownership of assets (e.g., relay towers), the risk levels are similar to the transfer of existing assets.

The choice of a particular method of private sector participation depends on numerous factors, including how open the sector is to competition as well as the level of risk the private sector is willing to assume. A method of private participation that leaves ownership in the private sector, but permits private sector participation (such as licensing in the telecommunications sector) may be more politically expedient than the direct sale of a state owned carrier.

Direct transfer to the private sector may be appropriate in sectors where competition is feasible. In Argentina, for example, in the early 1990s, the government permitted numerous generating companies were opened up to private investment, each competing to sell electricity to the national grid. In Ukraine, the government is experimenting with a public sector variation on this arrangement, whereby generating companies would begin to compete to sell their electricity to the national utility. Governments may also choose to grant an operator exclusive rights to operate part of a network as a prelude to future competition. In Venezuela, the government granted GTE an exclusive operating concession lasting several years with the hope of generating private sector investment in the telecommunications sector.

Short of private ownership, governments have attempted to introduce private sector participation through concession agreements and build-operate-transfer (BOT) arrangements. In Cote d'Ivoire and Guinea private sector operation of the state-owned water company reverts to the government after a fixed period of time. Concessions have also been used in the power and transportation sectors. The BOT method of private sector participation has been used primarily in the power and toll roads sectors. Unlike the concession, where the state constructs and owns the facility but permits the private sector to operate it for a period of time, BOT refers to "greenfield" investment in which the private sector finances, constructs and operates the project. Following the term of the contract, the asset reverts to the government.

The method of private sector participation varies by region. In Africa, where governments are more interventionist and private providers more risk averse, private participation methods such as management contracts and concessions, particularly in water. Where governments are less interventionist, such as in Latin American and Asian countries methods such as direct sales and BOT arrangements are more common.

Key Stakeholders

Privatization in infrastructure affects a number of key stakeholders. Each exercises a varying amount of influence, depending on the sector and region in which the stakeholder functions.

- governments — e.g., regional bandwagoning, public spending limits.
- developers/sponsors—e.g., attempting to negotiate profitable deals. users/customers—e.g., driving service requirements for ports and railroads.
- donors—e.g., setting conditionalities as part of structural adjustment loans.
- financiers/investors — e.g., ensuring sound project structure and payback period.
- export credit agencies — e.g., providing enhanced credit and extended loan tenor.
- management and labor of existing companies — e.g., demanding compensation for retrenchment, share ownership

III. Key Drivers and Uncertainties Affecting Privatization Activity

Drivers

Privatization in infrastructure has been helped, or hindered, by a number of variables — or "drivers" — which can be classified in one of five categories: political, economic and financial, social/demographic, institutional and regulatory, and technological.

D_1 Ideological shifts

- The collapse of Marxist ideologies and the move from statism to free market economics has driven private sector participation in infrastructure in the 1990s. Laws facilitating the introduction of private participation in infrastructure, such as Mexico's private sector toll road program in the early 1990s or the Philippines' BOT power sector laws, have opened the gates to new private investment. In contrast, China's current caps on power sector equity returns (12%) and foreign ownership (49%) remain an obstacle to private sector involvement.

D_2 Donor pressure

- Donor agencies have been putting increasing pressure on governments to encourage private sector participation in infrastructure development. In loan packages and technical assistance programs, donors, with the backing of Group of Seven nations, have used contractual conditions in aid packages to encourage private participation. For example, the US aid package for Mexico following the devaluation of the peso and the crash of the *bolsa* in 1994, required commercialization of the water and transport sectors as a condition for the loan disbursement.

D_3 Regional bandwagoning

- As more states have embraced free-market policies, ripple effects have been felt throughout neighboring regions. States that have not introduced new private sector investment, in the telecommunications sector for example, face the choice of emulating their neighbors or becoming technologically obsolete. Regional organizations such as the Southern Africa Transport and Telecommunications Commission (SATCC) create a forum for sharing technology and sector efficiency issues.

D_4 Fiscal imperatives

- Government provided infrastructure services are frequently characterized by pricing that does not reflect long run marginal costs. For example, in the 1980s, average power tariffs were one half the cost of new supply. Enterprise debts that could not be self-financed mounted According to the World Bank, in the railroad sub-sector, it was not uncommon for recurrent government subsidies to amount to as much as 1% of GDP.

- The cost of subsidization has increased as debt-laden enterprises became increasingly dependent on government subsidies. Additional government borrowing risk higher long-term interest rates, potential inflation, and economic stagnation.

D_5 Market liberalization and the globalization of commerce

- The introduction of global competition has further exposed inefficiencies of SOEs. For example, after South Africa assumed membership in GATT in 1995, there was a noticeable increase in shipping congestion in the state-run port of Cape Town as traffic increased due to a drop in import duties. Carriers faced with increase waiting times for berths threatened not to use the port, or to quit South Africa altogether.

D_6 Globalization of capital markets, financial innovations and development of local capital markets

- Reductions in exchange and capital controls have increased the availability of capital to finance infrastructure privatization. Developments in non-recourse financing, where the project's cash flows secure debt obligations, encourage lenders and investors to assess the credit risk of a project solely based on cash flows. Private and public guarantees spread risk.

- Securities, such as American Depository Receipts (ADRs) and Global Depository Receipt (GDRs)[7] have allowed infrastructure enterprises, such as the China's Huaneng power plant Chile's CTC Telecommunications, to tap international capital markets through public stock offerings. Similarly, the advent of Rule 144A in the United States has facilitated the placement of emerging market infrastructure debt with large institutional investors.

- The growth of a local capital markets and institutional investors has also facilitated the growth of infrastructure privatization. Private pension funds in Chile and a large pension fund in Malaysia, the Employee Provident Fund, have provided substantial capital for private sector investment in those countries' power sectors.

D_7 Institutional and regulatory capacity

- Developing institutional capacity has also driven private investment. In Pakistan, for example, the creation of a single central point of contact, the Private Power and Infrastructure Board (PPIB), between a developer and all the agencies of the government has eliminated multiple layers of bureaucracy. Contrast this with India, where Enron was required to work with thirty government agencies to implement the Dabhol Power BOT.

- Independent regulatory agencies have encouraged private investment by disinterestedly defining rights and obligations and allaying investor fears about political risk. In contrast, inadequately defined regulatory relationships, such as the relationship between municipal and regional governments in Venezuela, caused the bidding process for water concessions to collapse.

D_8 Demands of a new middle class

- Growing per capita income has also bolstered demand for improved infrastructure services. A developing middle class has demanded better communications and transportation, thus encouraging the development of such premium services as cellular phones and toll roads. This, in turn, has enabled governments to introduce commercial fees for services and facilitate private sector participation. In China and India, and throughout Southeast Asia, private participation in the power sector has rapidly

[7]These are receipts traded on US and international markets, respectively, representing shares of foreign companies held in a repository in the issuer country.

expanded as governments seek ways to meet demands of economic growth and the rise of a new middle class. Likewise, rising incomes have precipitated growing urbanization, increasing both quality and capacity requirements for infrastructure services.

D_9 Technological Know-how

- The ability of the private sector to design and manage infrastructure efficiently is another key driver. For example, in Africa and Latin America, only a few, large private international operators have consistently demonstrated the know-how to manage complex water networks.

D_{10} Technological advancements: peripheral networks

- Significant advancements in technology have allowed private providers of infrastructure to operate beyond the boundaries of national networks: cellular phone systems, satellites, and alternative sources of energy such as wind and biomass are some examples.

IV. Key Uncertainties

Many uncertainties may affect the direction of private participation in infrastructure over the next ten years, including:

U_1 Ideological commitments. Will government policies towards private participation in infrastructure, particularly towards sub-sectors which are natural monopolies or public goods, continue their free-market bent?

- Will populism, nationalism, or environmentalist parties foster resistance to foreign participation and private control of public goods?

- Will governments continue to allow developers to supplement existing networks with improved services for select users (e.g., electric generators providing electricity directly to industrial users)?

- Will labor movements generate sufficient support to stop private participation in existing networks? Will management and employee participation schemes attenuate resistance to privatization?

U_2 Technologies. How will new technologies affect infrastructure privatization? Will new technologies continue to alter government's role?

- Technologies — such as wireless communications — which were latent 10 years ago have exploded. What other latent infrastructure technologies are there on the horizon that could have a proportional impact in the next 10 years?

- Will technology outpace regulation? Governments struggling to implement regulatory regimes are faced with a multitude of technological innovations affecting their control of activities within their borders.

U_3 Availability of capital. Have the financial barriers been dismantled that once characterized international capital? Will international capital markets continue to fund infrastructure privatization? What will be the role of local markets?

- A global return to mercantilist or protectionist policies, capital and exchange rate controls could significantly hinder foreign direct and portfolio investment.

- Will local institutional investment, such as in Chile, Thailand and Malaysia, continue to facilitate the financing of domestic, private infrastructure? Will local capital markets develop sufficient liquidity to strengthen the credibility of employee share ownership programs?

U_4 Opportunity costs of investment. What country and sector specific developments in advanced economies may direct capital away from emerging markets?

- Will high yield alternatives and booming stock markets in advanced economies divert institutional and individual investment away from developing country infrastructure?

- How will regulatory changes in developed economies, for example, increased liberalization in the telecom and power sectors in the US affect developer and investor appetites for international projects?

V. Scenarios

Scenario One: PPI Accelerates: Drivers Propel Strong Growth through 2006

From 1996 until 2006, state disengagement continued in the infrastructure sector, while the breadth and depth of private sector involvement increased in each sector and in each geographic region. Despite some resistance to private sector participation from populist and environmental movements, the factors that drove private participation in the 1990s continued to propel it after the turn of the century: technological innovations in the telecommunications and power sectors, free market political ideologies, and institutional development.

Each sector experienced a high level of private sector participation in comparison with the mid-1990s. After quadrupling in value between 1986 and 1995, the global telecommunications sector quintupled in value during the subsequent decade. In 2006, the value of the sector stood at $2.1 trillion. More than one third of this value was attributable to the privatization of national carriers in developing countries, as well as increased new private investment in data and wireless networks.

Growth in the global power sector proved equally strong. Between 1996 and 2006, nearly $2 trillion was required to finance rehabilitation, capacity expansion and private greenfield investment. According to estimates, East Asia alone accounted for more than $500 billion of investment requirements. In comparison with the previous ten years, growing demand, combined with the forces described below, elicited a high degree of private sector participation in the operation and financing of generation, distribution and transmission facilities.

Between 1996 and 2006, the water sector experienced the most dramatic increase in investment demand over the preceding decade. The World Bank suggested that between 1995-2005 more than $600 billion in new network investments was required in developing countries alone. Investment demand sparked large growth in the number of international tenders. Private sector competition increased as a growing number of local private operators began to compete with the dominant international players.

Investment requirements in the transportation sector increased five-fold between 1996 and 2006. Both cargo and passenger transport were affected by burgeoning urban population growth and increased flows of trade resulting from a worldwide decrease in import duties effected by the WTO regime.

Technology remained a key driver behind private sector participation, particularly in the telecommunications and power sub-sectors. However, transportation and water sectors were less dynamic. Cellular, satellite and microwave communications proliferated as competition exerted downward pressure on prices. With the completion of Motorola's 66 satellite Iridium project in 1998, worldwide access to voice and data services improved substantially. The system allowed both analog and digital units to switch to satellite mode for communications. The project encouraged numerous governments that had formerly resisted network improvement to subscribe to the system and collect a portion of the usage fees. Other catalysts, such as the rise in demand for mobile personal communications systems also encouraged governments to improve existing voice and data networks.

In power, a range of technological improvements opened the door to increased private participation, including: efficient, non-corrosive coal-fired turbines, movable generation plants and alternative energy

sources. All of these helped the private sector provide low-cost solutions to meet growing capacity demands.

Continued free-market oriented policies in countries in Latin America and Southeast Asia, coupled with an increased private sector orientation in Southern Africa, the Mahgreb, Eastern Europe and the NIS bolstered privatization prospects through 2006. In 1994, Morocco opened its power generation sector to private, foreign operation. Tunisia appeared poised to follow suit soon after. As the Mahgreb's association with (and possible membership in) the EU appeared imminent, the region had incentives to keep budget deficits under control, extending private sector infrastructure laws to other sectors. The EU exerted a similar influence on Eastern Europe: public spending constraints increased private sector participation. In Asia, China's control of Hong Kong influenced China's decision to lift earlier caps on profitability and ownership in infrastructure. The World Bank, IMF and other multilaterals encouraged favorable policies towards private sector development — helping to solidify the confidence of international lenders.

The demonstration effect also reinforced political decisions to implement private sector participation in infrastructure. Hungary's M1 toll road, linking Western to Eastern Europe, in the early 1990s served as a catalyst for increased private involvement in the transportation sectors of Poland and the Czech Republic. Likewise, new privatization in South Africa's ports and telecommunications sectors set a positive precedent for the Southern region. Increased cooperation in regional organizations such as SATCC, Mercosur and APEC facilitated the privatization learning process among members and associate countries.

Finally, as private sector participation increased, a complementary development gained momentum: the growth of institutions to attract and sustain investment. With encouragement and technical assistance from donors, as well as by observing other regional governments, institutions were put in place to ensure transparency and strengthen private-public partnerships.

In 1995, the lack of transparency surrounding the conclusion of the Dabhol power plant deal between Enron Corporation and the government of Maharashta, India caused a significant popular revolt — nearly canceling the contract on the multi-million dollar BOT. In order to simplify its relationship with potential private operators, by 2000 the Government of India implemented uniform bidding and negotiation procedures, coordinated by one designated institution, to act as a one stop shop for potential investors. Similarly, the strengthening of institutions that monitor and regulate entire sectors occurred as a result of donor assistance and regional learning. The power sectors in Kyrgyzstan and Ukraine, for example, underwent restructuring and commercialization which required strong, independent institutions to oversee and monitor the newly commercialized sectors.

Scenario Two: Regulatory Backfire: Past as Prelude? 1996-2006

From 1996 until the end of the century, the breadth and depth of private sector involvement in infrastructure increased in each sector and in each geographic region. However, the global boom in BOTs, the slew of long-term concessions, and the general government disengagement that reached its apex in the late-1990s hit a wall in 2001. Populist political groups in numerous developing countries alleged that Obelisk, a European-based power and water developer, was reaping excessive profits from "usurious" prices charged to governments for power and water supply. Sparked by anti-foreign sentiment, these political movements asserted that Obelisk had benefited from concluding opportunistic deals in countries

with uncertain regulatory environments. The company's advantages in technological and industry know-how over the regulator prompted allegations of "regulatory capture".

Environmental contamination, resulting from Obelisk plant engineering flaws in Vietnam, Poland, Ukraine and Kenya, exacerbated the disaffection. Large water reservoirs in Vietnam and Poland became contaminated and electric generation plants emitted profuse amounts of carbon monoxide into the atmosphere. Hundreds of citizens developed respiratory and intestinal ailments.

This chain of events provoked an international outcry. Populist groups, primarily environmentalist and nationalist parties in each of the four countries, blamed the engineering failures on unstable regulatory regimes and favorable "pioneer" investment laws granted during 1997-1998, the time when governments were most aggressive in encouraging foreign investment. During this period, many developers in the power sector were able to complete construction of medium-sized generators (500 megawatts) in as little as five months—with minimum construction and design supervision.

Social groups, such as disaffected labor unions in Poland, also used the events as momentum to build their political cause against the private, particularly foreign, provision of infrastructure. Moreover, in those countries whose national governments had not fully demonstrated their free-market commitments—Ukraine and Vietnam, for example—populist movements already had a sympathetic ear.

Popular resentment towards private participation in infrastructure even spread to countries where Obelisk did not operate. Although Obelisk did not have water or power plants in India, environmentalists groups, still haunted by the memories of the Union Carbide disaster in Bhopal, appealed to the ruling BJP nationalist party, which threatened to curtail all private (read foreign) investment in "public" goods such as water, power, transport and telecommunications. Other national leaders, such as Kenneth Kaunda in Zambia, threatened to nationalize all forms of foreign investment.

Between 2001 and 2002, national parliaments in each of the four affected countries passed stringent legislation in an attempt to correct the lax design and safety standards and liberal infrastructure investment laws that had prevailed throughout most of the preceding decade. A reverse regional bandwagoning effect occurred: national governments—in Cambodia, throughout Eastern Europe, throughout Southern Africa (South Africa excepted) and in Central America (Mexico excepted)—adopted much of the same stringent legislation for private and foreign investment in infrastructure.

Private international developers, who were not even remotely associated with Obelisk's projects, were scrutinized by developing country governments. Many high priced, long-term agreements (such as power purchase agreements) were canceled as governments demanded tariff revisions. Litigation followed regarding who would bear the costs of compliance with the new safety and environmental requirements.

Project lenders and investors became reluctant to finance or re-finance infrastructure concerns whose asset lives extended beyond five years. The huge costs imposed by the cost of long-term financing forced many pending privatizations to be canceled. The prohibitive costs also raised high barriers against fledgling international operators from Argentina, Chile and India.

Repercussions of the new investment environment were not as severe in the transportation and telecommunications sectors. Most of the privatization underway in these sectors— toll road BOTs and

expanded cellular networks—did not have the same "public good" profile as investments in the power and water sectors. Nor did Obelisk have any substantial interests in these sectors. Private investment continued, albeit at a slower pace. However, as in the power and water sectors, the cost of capital for transport and telecommunications remained high, as lenders expressed fear that governments might implement similar restrictions in those sectors.

Privatization in the Manufacturing and Industrial Sector, **along with** ***Agriculture, Land and Agribusiness Privatization, Infrastructure Privatization, Privatization in the Extractive Industries*** **and** ***Privatization of Social and Municipal Services*** **are part of a broader scenario analysis and planning exercise for USAID. They are designed to foster discussion on the future direction of USAID's privatization efforts and are neither reference guides nor privatization retrospectives. Because these papers are part of an effort to maintain a dialog over the future direction of privatization, we welcome comments. In addition to these five papers, USAID is funding two research efforts on the impact of privatization: (a) a white paper summarizing the overarching themes in the literature on the impact of privatization; and (b) a broader issues paper, being prepared by Development Alternatives, Inc., focusing on key unsettled issues of privatization in areas such as: the rationale for and measurement of privatization, fiscal and efficiency impacts, mass privatization and corporate governance, indirect and partial privatizations, regulation, and the political economy of privatization. The white paper, prepared by Price Waterhouse LLP, (Privatization: Its Past and Future as Seen in the Literature), will be available after April 15, and the DAI piece (Privatization: A Review of Unsettled Issues) in May 1996. Both papers will be available through the Economic Growth Center's Office of Economic and Institutional Reform (G/EG/EIR).**

Privatization in the Manufacturing and Industrial Sectors

I. Introduction and Methodology[1]

Privatization in the Manufacturing and Industrial Sectors uses the technique known as "scenario planning" to analyze privatization in light manufacturing, non-agricultural chemicals, ferrous metals and durables. First it reviews the last five years of privatization activity in these sectors. Next it idents "drivers" or trends that have powered privatization and uncertainties that may hinder future developments, and finally by constructing "scenarios" or possible models of future developments in privatization in the manufacturing and industrial sectors.

Scenario planning draws on the work of Peter Schwartz, Pierre Wack, Clem Sunter, Paul Schoemaker and others.[2] It is, as Paul Schoemaker has explained, "a disciplined method for imagining possible futures." Scenario planning attempts to avoid errors in predicting change by dividing our knowledge into things we know something about and things that are unknowable or uncertain. In attempting to discern the future, conflicting projections are made based on available knowledge as to facts and uncertainties in an effort to stimulate thinking and avoid the danger of assuming that the future will always replicate the past. The method, first used extensively by Royal Dutch/Shell in the 1970s as part of its process for generating and evaluating strategic options, has achieved global popularity with companies and even government agencies, including the Department of Transportation and the President's Science Advisory Council, where it was used to analyze infrastructure investment and the impact of the energy crisis, respectively.

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[1] This paper was written by Price Waterhouse LLP for the United States Agency for International Development (USAID) under the Privatization and Development Project (USAID Contract No. DPE-0016-Q-00-1002-00).

[2] See for example: Peter Schwartz, **The Art of the Long View**. New York: Doubleday, 1991; Pierre Wack, *Scenarios: Unchartered Waters Ahead,"* **Harvard Business Review**, September-October 1985, pp. 72-89; PJ.H. Shoemaker and C.A.J.M. van de Heijden, *"Integrating Scenarios into Strategic Planning at Royal Dutch/Shell,"* **Planning Review** 20 (1992), pp.41-46; Clem Sunter, **The World and South Africa in the 1990s**. Cape Town, South Africa: Human and Rousseau Tafelberg, 1987; and Paul J.H. Schoemaker, *"Scenario Planning: A Tool for Strategic Thinking,"* **Sloan Management Review**, Winter 1995, pp. 25-40.

Here, we use scenario planning as a way of trying to stimulate and focus thinking as to the future of privatization and the future role of multilateral and aid agencies, governments and practitioners in the privatization process. In reading these papers, we hope that readers will consider:

- As a stakeholder in the privatization process, what constitutes for you a desirable privatization scenario? How does this differ from or complement the privatization scenarios provided in this paper?

- What actions can you take to help shape the path privatization takes over the next decade? For example, what should be priority actions in building regulatory institutions, social safety nets, and capital markets?

II. Profile of Privatization Experience To-Date in the Industrial Sector

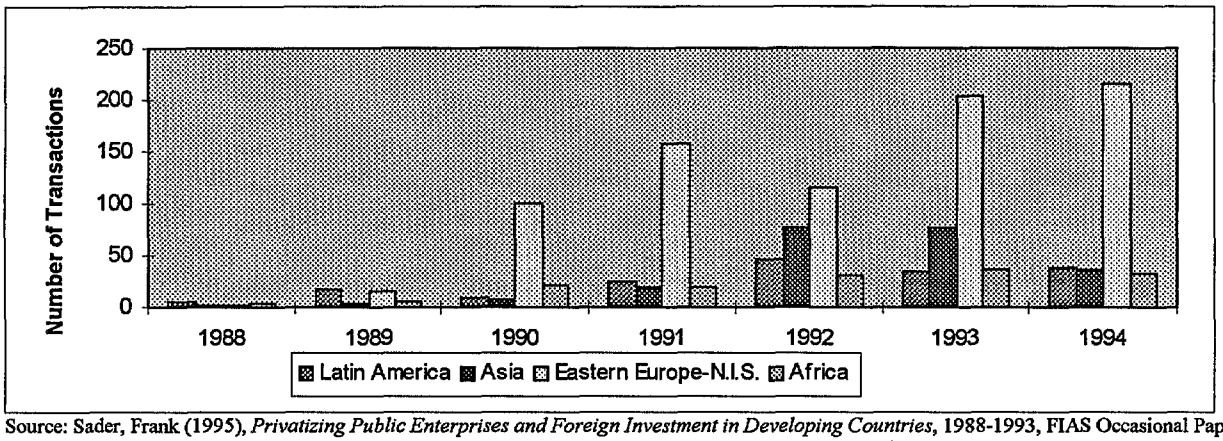
A critical factor in the long-term revitalization of manufacturing in developing and transitional economies has been the restructuring of the large industrial conglomerates in favor of smaller-scale enterprises. This trend has been particularly important in Eastern Europe. In 1989, for example, over 90 percent of Czechoslovakia's industrial labor force worked in enterprises with at least 1,000 employees. Two years later, liberalization, the restructuring of large public sector firms, and privatization had prompted an eight-fold increase in employment in firms with less than 500 workers. Benefiting from private capital, managerial expertise, and technological upgrading of processes, the productive output of divested enterprises has evolved to meet consumer demand and respond to opportunities in liberalized regional markets. Some of the milestones in industrial privatization are enumerated in Figure 1.

Figure 1: Milestones in Industrial Privatization 1985-1995
Developing and Transitional Economies

1974-1985	**Chile:** • Initiated large-scale privatization in the industrial sector. • The first phase (1974-1983) involved returning firms once-nationalized to their original owners; some 240 firms were re-privatized in this manner. • A final phase of the privatization program began in 1985, divesting most of the remaining 40 large industrial enterprises under state control (generating a total revenue of approximately $1.4 billion).
1988	**South Korea:** • Privatized the state's most profitable steel plant, Pohang Iron & Steel Co., and invited employee share ownership. • The program reserved 75 percent of offered shares for low-income investors; a further 20 percent were set aside for the steel company's own employees. Employee share ownership became a requirement in every future new issue.
1989	**Hungary:** • Initiated privatization in Central and Eastern Europe. • Sold 164 enterprises total for $4.3 billion between 1989 and 1993. • Focused on revenue generation rather than on mass privatization through vouchers.
1992	**Czech and Slovak Republics:** • Implemented first waves of mass privatization, paving the path for similar programs in Russia, Lithuania, Moldova, Kazakhstan, Ukraine, and Kyrgyzstan. • The programs aimed to distribute state property equitably at an accelerated pace, to restructure enterprises by pro-active shareholders (both through investment funds and individuals), and to deepen competition and capital markets. • Over 1400 firms were divested through a voucher-distribution scheme.
1992	**Russia:** • Between November 1992 and April 1994, the government divested more than 16,000 firms in the industrial sector through mass privatization programs.

Since vanguard privatization programs in Chile, Mexico, and Argentina in the late 1980's, the divestiture of state-controlled enterprises in the manufacturing sector has transferred an increasing share of gross industrial output to private investors and managers. According to World Bank estimates, almost 1,400 privatization transactions took place in the industrial sector between 1988 and 1994, excluding the results from mass privatization programs (see Figure 2).

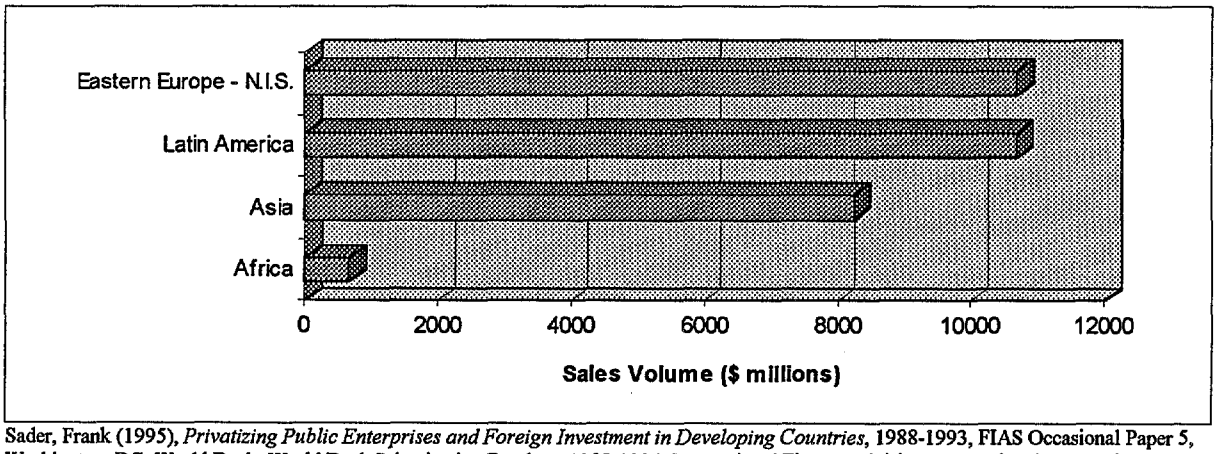
Figure 2: Industrial Privatization Activity
Developing and Transitional Economies 1988-1994



Source: Sader, Frank (1995), *Privatizing Public Enterprises and Foreign Investment in Developing Countries*, 1988-1993, FIAS Occasional Paper 5, Washington, DC: World Bank; World Bank Privatization Database 1988-1994, International Finance Division, International Economics Department, World Bank. Figures do not include results from mass privatization programs.

Whereas early divestitures in the late 1980's involved relatively small enterprises, privatization activity in recent years has included the transfer of important national firms to private sectors owners and managers. From 1991 to 1993, average privatization transaction values relative to total industrial GDP increased dramatically: more than 40-fold in Africa; some 400-fold in Latin America; and 1000-fold in Asia. In sum, the sale of state-owned manufacturing enterprises during this period has generated more than $30 billion for public treasuries (see Figure 3).

Figure 3: Sales Volume - Industrial Privatization 1988-1994
Developing and Transitional Economies



Sader, Frank (1995), *Privatizing Public Enterprises and Foreign Investment in Developing Countries*, 1988-1993, FIAS Occasional Paper 5, Washington, DC: World Bank; World Bank Privatization Database 1988-1994, International Finance Division, International Economics Department, World Bank. Figures do not include results from mass privatization programs.

Since the early 1980's, privatization of manufacturing enterprises, and coincident growth of liberalized private sectors, have reduced state control of industrial production in developing and transitional economies. Figure 4 illustrates this evolution.

Figure 4: State-Owned Enterprise Percentage Share of Industrial GDP

	Early 1980's	Early 1990's
Latin America	20	8
Asia	30	15
North Africa	40	28
Sub-Saharan Africa	30	25
Eastern Europe - N.I.S.	90	28

Source: Figures *Early 1990's*: World Bank (1995), *Bureaucrats in Business: The Economics and Politics of Government Ownership*; Figures *Early 1980's* extrapolated from estimations provided by regional experts, and discrete country data: Waterbury, John (1993), *Exposed to Innumerable Delusions: Public Enterprise and State Power in Egypt, India, Mexico, and Turkey*, New York: Cambridge University Press; Lieberman, Ira et. al. (1995), *Mass Privatization in Central and Eastern Europe and the Former Soviet Union: A Comparative Analysis*, Washington DC, World Bank; World Bank (1995), *Bureaucrats in Business, Ibid.*. The figures are estimates intended to show relative magnitudes, not precise comparisons.

In Latin America, divestiture of medium and large-scale enterprises has transferred some of the continent's most important manufacturing concerns to private operators. Brazil's *Usinas Siderurgicas de Minas Gerais* and CSN, two of the largest steel milling companies in the world, were sold through international public offerings for some $1.5 billion each. Following Chile's early lead, Mexico, and Argentina have almost completely denationalized their manufacturing sectors. Revenues generated from privatization in Latin America represent more than a third of total sales realized from divestitures in the manufacturing sector world wide (see Figure 3). More than $11 billion of this, representing some 40 percent of (post-Brady) commercial debt outstanding in Latin America, has been applied to national debt reduction.

The dramatic denationalization of manufacturing sectors across Europe's transitional economies has accounted for some 60 percent of all transactions completed from 1988 through 1994 (excluding the results of mass privatization programs). Following modest beginnings in Hungary in 1990, industrial privatization in Central Europe and the N.I.S. has progressively gained momentum through the advent of mass privatization programs. Since 1992, sectoral and country-wide programs have transferred some 18,000 small, medium-and large-sized manufacturing enterprises out of the public domain. Ongoing, large-scale privatization programs -- such as Poland's, which is expected to transfer thousands of public companies to privately managed National Investment Funds beginning in 1996 -- can be expected to further reduce state control of light and industrial manufacturing in the former communist countries.

In Asia, the divestiture of industrial enterprises has generated more than $8 billion in revenue. An accelerating trend towards greater private sector participation in key industrial sectors has included countries historically resistant to denationalization. For example, Malaysia, the Philippines, India, and the Republic of Korea have all taken steps to open their manufacturing sectors to private operators. Developing regional capital markets are assisting this process, manifested in an increasing number of public offerings. East Asia's transitional economies have also moved towards greater private sector participation in manufacturing.

Since 1990, Vietnam has focused on "corporatizing" the country's public sector, selling part of a company's assets to form a state-private, joint-venture company; in three years this program reduced the number of wholly state-owned enterprises from 12,000 to 7,000. The country's first public offering in 1993 resulted in the sale of a prominent textile and footwear manufacturer to domestic investors. China has generally eschewed the sale or liquidation of public enterprises. But liberalization has prompted rapid growth of the private sector, shrinking the state's share of total industrial output. The country has become a principal destination for joint venture investment in the region, uncertainty over taxation and tariff policies notwithstanding. B-share issues on the Shanghai and Shenzhen stock markets, which are reserved for

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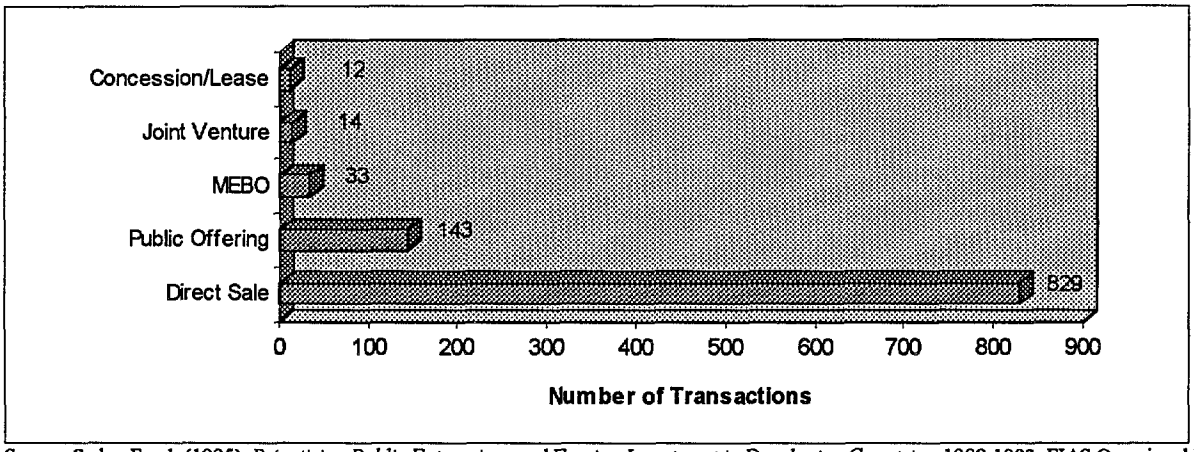
foreigners, represent another investment window for private capital. In addition, 14 large manufacturing enterprises in all branches have been listed as H-shares on the Hong Kong stock exchange, to raise capital and to expose state enterprises to international management expertise. The government has also allowed private investors to increase their participation in a number of sectors. Rural enterprises, often owned by township or village governments but managed independently of central state control, have emerged across China and are now responsible for an increasing percentage of light manufacturing output.

The privatization of manufacturing enterprises in Africa and the Middle East has proceeded at a slower pace than in other regions of the world. However, several countries have moved aggressively to reduce state control of important industrial sectors. Turkey, for example, has pursued privatization of its cement producing industry, generating close to $2 billion in revenues from the sales. In 1994, Morocco sold 51 percent of *Société Nationale d'Investissement*, a national holding company controlling ventures in a variety of industries. The transaction included sales of equity to foreign investors, as well as an offering on the Casablanca Stock Exchange, earning the government some $186 million.

In Sub-Saharan Africa, the absence of a political consensus in favor of privatization as well as relatively weak investor interest in the continent's inefficient and aged industrial plant, have yielded a modest record of completed privatizations in the manufacturing sector. Generally inhospitable laws and regulations and a dearth of operational experience have further slowed the privatization process. These constraints notwithstanding, governments across the continent have at least initiated the denationalization of manufacturing sectors. In the last five to ten years, bankrupt enterprises have been liquidated, private operators have taken over enterprises through leasing contracts, and nationally important industrial enterprises have been sold.

The private sector has participated in former state-run manufacturing through concessions and leases, public offers, joint ventures, management and employee buyouts, public offers, and mass privatization. Figure 5 profiles the distribution of privatization techniques used in completed transactions during the 1988 to 1993 period.

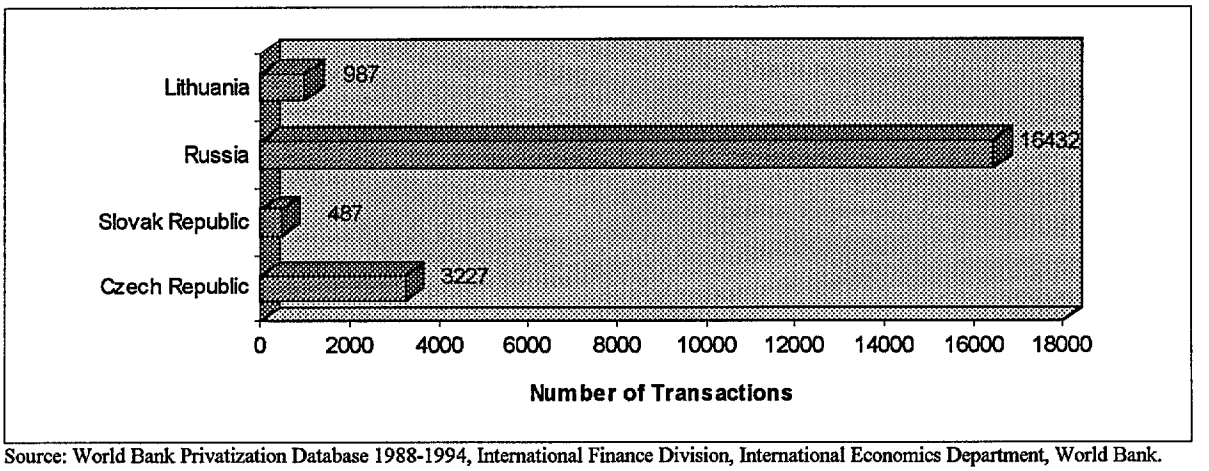
Figure 5: Distribution of Privatization Techniques
Developing and Transition Economies 1988-1993



Source: Sader, Frank (1995), *Privatizing Public Enterprises and Foreign Investment in Developing Countries*, 1988-1993, FIAS Occasional Paper 5, Washington, DC: World Bank; World Bank Privatization Database 1988-1994, International Finance Division, International Economics Department, World Bank.

Figure 6 shows mass privatization results from a number of countries in Eastern Europe and the N.I.S..

Figure 6: Mass Privatization Results 1992-1994
Select Countries in Eastern Europe and the N.I.S.



Source: World Bank Privatization Database 1988-1994, International Finance Division, International Economics Department, World Bank. Lieberman, Ira et. al. (1995), *Mass Privatization in Central and Eastern Europe and the Former Soviet Union: A Comparative Analysis*, Washington DC, World Bank; World Bank.

The distribution of privatization techniques mirrors the pattern of private sector participation in the manufacturing sector (not including large-scale programs in European transition economies). The preponderance of direct sales, for example, reflects the large number of small and medium enterprises divested in early privatization programs. Since 1991, an increasing number of nationally important firms have been transferred to private hands. Public offerings have made it possible for governments to access the volumes of capital necessary to complete such large-scale transactions, while reserving equity shares for privileged domestic constituencies. Further, the development of regional capital markets and innovative financial arrangements (ADRs, H-shares in China, simultaneous domestic and international offerings) have made the issuance of equity a viable privatization instrument for governments in all regions of the world. In Europe's transitional economies, the advent of mass privatization programs has helped to transform the region's industrial landscape in a remarkably short period of time. Large-scale privatization initiatives have proven a quick means for increasing private participation in all branches of manufacturing, even in capital poor environments. Moreover, these techniques are often used in combinations. In Russia, some companies have complemented mass privatization voucher distribution to employees and management with strategic sales to core investors, followed by an IPO in the local capital market.

III. Key Drivers Shaping Privatization Activity in the Industrial Sector

Economic, political, social and technological factors have structured the course of privatization activity in the industrial sector over the last decade.

D_1	Limited budgetary resources, coupled with increasing costs and poor performance of state-owned enterprises, lead governments to privatize.

Preferential operating conditions, soft budget constraints, and non-commercial operating objectives yielded a pathology of malperformance among state-owned enterprises in developing and transitional economies during the 1960's and 1970's. Chronic public enterprise inefficiencies have contributed to rising public deficits and vast increases in public borrowing. Coupled with balance of payments crises beginning in the

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late 1970's and early 1980's, the subsidization of monolithic public sector enterprises has proven increasingly untenable. Governments have turned to privatization to ease conditions of fiscal stringency.

- In the mid 1980's, state enterprise sector deficits averaged at least 4 percent of GDP in countries from all regions of the world. For example: Argentina, 4.5 percent; Brazil, 4.4 percent; Egypt, 9.9 percent; 10.2 percent; and Malaysia, 8.18 percent. Similarly, in 1988, subsidies to state-owned industrial firms in Czechoslovakia amounted to 13.5% of GDP.

D_2 Recognition by governments of the efficiency and welfare gains associated with denationalization of important manufacturing industries.

Ideological and historical (post-colonial) prejudices against private sector participation in key industrial sectors which prevailed in the 1960's and 1970's have begun to dissipate. In addition, successful experiences around the world suggest that transferring inefficient, unprofitable public enterprises to the private sector, in a competitive market environment, will have positive long-term welfare consequences. The World Bank, among others, has focused increasing energy on documenting and disseminating these experiences.[3] This has helped to create a growing consensus on the limits of government (see D_3 below).Complementing the divestiture of industrial enterprises, governments have liberalized manufacturing sectors, ceding an increasing share of industrial output to private operators.

D_3 Changing multilateral and aid agency politics and policies.

Starting in the late 1970's, an international policy consensus has emerged around acknowledgment of the deleterious effects of centralized economic management. Policy recommendations derived from this consensus have focused on state withdrawal from productive sectors.

- Reflecting this global policy shift, bilateral and international agencies have revised their policies on public sector management of industrial production in developing economies. Since the early 1980's applied research and program activities have supported the privatization of manufacturing enterprises, and the establishment of competitive market conditions in industrial sectors.

D_4 Globalization of capital markets and growth of emerging markets investment.

Globalization of capital markets, regional liberalization, and the appearance of Western institutional investors eager to invest in emerging markets have created a vast pool of international funds available for investment in privatized companies.

- In 1973 average foreign exchange trading represented some $15 billion a day. Ten years later, daily foreign exchange transactions had increased to $60 billion-- soaring to $900 billion a day in 1993. The most recent figures suggest that daily turnover exceeds $1.3 trillion.[4]

[3] Studies have included: Welfare Consequences of Selling Public Enterprises: An Empirical Analysis, Does Privatization Deliver?: Highlights from a World Bank Conference, and Bureaucrats in Business: The Economics and Politics of Government Ownership.

[4] *The Economist*, "Survey: The World Economy" 12 (Oct. 7, 1995).

- Latin America and Asia remained principal destinations for foreign investment capital. For example, Mexico's stock market capitalization soared from $23 billion at year-end 1989 to more than $200 billion at the end of 1993. Similarly, capitalization of the Buenos Aires stock market increased ten-fold from $4 billion to over $40 billion during the same period.[5]
- African capital markets have also experienced rapid growth. Twelve Western financial institutions have formed Africa funds which, by early 1995, had a market value of over $1 billion. Two African stock markets (Nigeria and the Ivory Coast) registered 1995 gains exceeding 100 percent in dollar terms.

D_5 Globalization and liberalization of product markets generate competitive pressures, raising the opportunity cost of retaining enterprises in the public sector.

Globalization of product markets, accompanied by regionally liberalized trading areas, have created highly competitive markets for manufacturing enterprises. Exposure to export competition from developed countries has obliged public (and private) manufacturing firms to upgrade technological and production processes, establish new quality standards, and look for new market opportunities. Achievement of these objectives demands that public enterprises, operating in previously protected markets, gain access to private sector capital, technology, and managerial expertise.

D_6 Local capital markets have developed, evolving toward international standards.

The advent of mass privatization programs, coupled with increasing use of domestic and international public offerings, have accelerated the growth of local capital markets.

- Mass privatization programs in Eastern Europe and the N.I.S. have introduced, practically overnight, wide-spread private ownership of equity instruments and a network of financial intermediaries.
- A number of African stock markets completed important regulatory reforms. Exchanges in Zimbabwe, Ghana, and Nigeria all enjoyed growth of at least 10 percent in 1995. Abidjan's market capitalization was up almost 780 percent at year-end 1995. Similarly, market capitalization of the Johannesburg exchange has increased more than 11 percent since the beginning of 1996.
- In China, stock listings increased from 15 in 1991 to 381 at year-end 1995. Market capitalization of the Shenzhen and Shanghai exchanges exceeded 2 billion dollars at the end of 1994. Moreover, foreign investor access to Chinese equities has increased markedly since the introduction of H shares on the Hong-Kong exchange in 1993.

D_7 Ownership diversification strategies have become an increasingly important element of successful privatization programs.

The distribution of voucher certificates in the context of mass privatization programs has facilitated the rapid transfer of assets, as well as fostered support for privatization among critical domestic constituencies. Further, making equity shares available on a preferential basis broadens popular ownership of privatized assets.

- Voucher programs have been widely implemented in the transition economies, particularly in the Czech and Slovak Republics, Poland, Russia, Mongolia, Lithuania, Croat and Kazakhstan. In the Czech and

[5] *The Economist*, "Survey of Latin American Finance" 9 (Dec. 9, 1995).

Slovak Republics, nearly 8.5 million citizens participated in the first wave of voucher auctions for purchase of shares in over 1,400 state enterprises. In Mongolia, voucher-based privatization resulted in the transfer of 80 percent of the state-owned assets to private hands between 1991 and 1993. In Russia, 150 million citizens purchased shares in over 8200 firms between 1992 and 1993.

- Similarly, Bolivia has implemented a capitalization program to develop public support for privatization, promote equitable wealth distribution, and stimulate capital market development.[6] The program permitted 51 percent of company shares to be distributed to citizens through a national share distribution program.
- Malaysia established non-voucher-based-unit trusts to encourage equity ownership among its indigenous population (*bhumiputra*). The program permitted individual *bhumiputras* to purchase shares at M$1/unit with a matching advance from banks of 90 units for the initial 10 units purchased. By July 1984, about 1.6 million individual *bhumiputras* invested more then M$1.1 billion in the scheme.
- Zambia is seeking to divest 150 state enterprises, accounting for 80 percent of formal economic activity, over the next five years. Aside from selling majority shares to strategic investors, a minority stake of some of the larger state enterprises (up to a maximum of 30 percent) will be reserved for Zambian citizens. In the interim of selling shares to majority shareholders, minority stakes are to be held by a Privatization Trust Fund and later offered to Zambian citizens through discounted initial public offerings on the Lusaka exchange.

IV. Key Uncertainties Shaping Privatization Activity

Economic and political variables interact to create uncertainties which may condition the course of industrial privatization in industry.

U_1 Will the political consensus in favor of private sector participation in manufacturing be sustained?

A nationalist backlash may undercut the contemporary consensus in favor of privatization and deregulation of national manufacturing sectors. Further, as economies booms, reduced fiscal pressures may lead to reduced incentives to privatize.

- Stalling of privatization activity in Hungary and Poland due to political constraints evidences a possibility of reduced pace of privatization in Eastern Europe. Political support for denationalization in Vietnam has weakened. In Russia, resurgence of nationalization may emerge with wariness towards validity of how revenues have been generated from privatization.[7]

U_2 Will governments, with assistance from international development agencies, properly recognize the importance of and develop institutional solutions to provide social services for employed and redundant workers?

The course of future privatization activity in the manufacturing sector may depend on the development of secure social safety nets and labor redeployment programs. In transition economies, state enterprises have in the past provided a range of social benefits, including housing, education, and health care. In the absence

[6] Capitalization defined as proceeds from privatization reverting back to the company to finance future investment.

[7] *The Economist*, "Russian Privatization: the Rearrangers", 80 (Feb. 24, 1996).

of national, or affordable private, social service provision, governments and labor leaders fear that privatization may cut thousands of citizens off from basic public goods (assuming that private investors will be disinclined to bear all of these social responsibilities). Similarly, restructuring of public industrial enterprises, prior to or following privatization, will necessitate the laying off of redundant workers. Most developing and transition economies do not have effective labor redeployment programs, and few offer formal unemployment benefits beyond that offered to a narrow section of the population.[8] In the absence of viable solutions, mounting social costs associated with enterprise divestiture could easily derail further privatizations.

- Gorki Automobile Zavod (GAZ), a giant manufacturing company in Russia, functions like a medium-sized city. GAZ owns 95 percent of the housing stock in the district, numerous day-care facilities, schools, and heating plants serving a population of 270,000. Resolution of liabilities associated with these social responsibilities was a crucial issue in privatization preparation.
- Some countries have applied strict employment protection conditions to privatization transactions. In Malaysia, privatized firms are not allowed to lay off any employee for five years following divestiture.
- In 1990, General Electric (GE) obtained majority ownership of one of Hungary's premier manufacturing enterprises, the Tungsram Company. More than 5,000 employees left the company in the first two years following privatization. GE and the government of Hungary established a system to identify employment opportunities and provide training for Tungsram's retrenched workers, and to assist with self-employment opportunities.[9]
- In recent years, governments in a number of countries-- Tanzania, Cameroon, Pakistan, Ukraine, the Dominican Republic, Paraguay, and Uruguay-- have had to slow the pace of privatization programs because of an inability to provide adequate social protection measures.
- Labor opposition to worker retrenchment has been a critical factor retarding privatization programs in Bangladesh, India, Sri Lanka, and Thailand.

U_3 Will self-interested corporate governance behavior by insiders slow the pace of enterprise restructuring and rationalization of the manufacturing sector?

In Europe's transition economies, mass privatization has made possible the rapid transfer of tens of thousands of enterprises to private hands, and helped "depoliticize" the industrial sector. To build support for the transaction, politically important constituencies were allowed to purchase equity shares on a preferential basis. In Russia, for example, 73 percent of all firms were privatized in a way that allowed managers and workers to buy 51 percent of their company's voting equity at a nominal price. These insiders have at times shown their preference for noncompetitive markets rather than face the possibility of job losses from competition.

- At Zil, the Moscow-based car maker, incumbent, ex-Soviet managers recently ousted directors who had been installed by reform-minded private investors. At the Kuznetsk Steel Works in Siberia, private

[8] Mathieson, John, et. al. (1994), *Mitigating the Social Impact of Privatization*, Paper prepared for the USAID Bureau of Global Affairs, Privatization and Development Project, Prime Contractor: Price Waterhouse, Washington DC: SRI International.

[9] International Management & Development Group, Ltd. (1991), Prospects for Establishing a Workforce Enhancement and Redeployment Model, Reconnaissance Report submitted to Tungsram Company, LTD, Alexandria, VA: IM&D.

investors who acquired a controlling stake in the steel milling concern have faced fierce opposition to proposed reforms from Soviet-era managers fighting to preserve their positions.[10] In addition to creating obstacles to managerial reform, these conflicts wither domestic political support for privatization, and dissuade future investors.

U_4 Will the strong trend toward global product markets continue?

In a number of OECD countries, protectionism has emerged as a reaction to the potential migration of manufacturing industries to lower-cost production platforms in developing economies.

- Newly privatized manufacturing concerns in Eastern Europe are beginning to capture an increasing share of the automobile components market. In the face of this challenge, German industry leaders have warned that 100,000 jobs in the automobile manufacturing sector are at risk. Germany's automobile construction industry has the highest cost base in the world. Many jobs in the sector could move to Central Europe as the restructuring of newly privatized manufacturing companies proceeds.

U_5 Will the strong trend toward globalization of capital markets continue?

Liberalization of international capital markets is a relatively recent phenomenon, and one that is still in the process of developing. As a response to weakened control over domestic monetary policy, governments (or regional bodies) could initiate efforts to limit transnational capital flows.

- Romania recently banned five banks from dealing in foreign exchange. Private banks have persistently quoted weaker rates for the leu than the central bank's reference average, undercutting the government's efforts to fix the price of the leu.

[10] *Financial Times*, "Russia's Future Played Out In Steel Mill" 2 (Mar. 4, 1996).

V. Scenarios

Scenario One: Completion of Transformation

Private sector investors and operators take control of an increasing proportion of manufacturing output around the world during the next decade. Two critical forces continue to drive the state from direct control of national industrial production: fiscal constraints on subsidies to SOEs and the challenge of maintaining competitive manufacturing enterprises in a global product market.

The international consensus in favor of diminished state involvement in productive sectors is sustained. In Latin America, privatization programs build on acquired momentum, buoyed by successful past experiences and investor confidence. Large-scale manufacturing enterprises already transferred to private hands (Brazilian steel and computer firms, Argentinean electronics companies) become aggressive investors in neighboring countries which have been slower to privatize, entering into joint ventures and taking shares in divested enterprises.

Private participation in manufacturing expands dramatically in East Asia. China broadens joint-venture programs with foreign operators and begins the divestiture and liquidation of the country's 150,000 to 200,000 public enterprises. Employee-manager buyouts are common among smaller manufacturing firms. Larger companies are progressively transferred out of state hands through public offerings; domestic constituencies obtain equity stakes on a privileged basis. The state's share of industrial output falls to 25 percent at the end of the century. Swollen by shares from divested public enterprises, Shanghai emerges as the financial center of the region. Stock market capitalization elsewhere in the region surges on the strength of new privatization issues and secondary market activity. The movement toward direct-contribution pension schemes also helps to boost local demand. As has already been the case in Latin America, local equity issues dwarf the market for ADRs.

Mirroring the renaissance of China's private sector, a significant proportion of industrial enterprises in the region's smaller transitional economies are transferred to private management during the next decade. In Vietnam, foreign investors continue to participate with public sector conglomerates in joint ventures (initiating the migration of high-technology manufacturing to Vietnam from higher-cost platforms in the region). The opening of a stock market in Vietnam in 1997 accelerates the country's divestiture program. Foreign investors are allowed to take minority equity stakes, complemented by discounted share sales to targeted constituencies.

Direct state control in the management of manufacturing firms in Eastern Europe falls to levels approximating those in the West. Poland completes its mass privatization program in 1997. Bulgaria and Romania complete their mass privatization programs. After the year 2000, Poland, Hungary, and the Czech Republic join the European Union as full members. Leveraged through participation in divestitures, joint ventures, and post-privatization acquisitions, foreign investment drives an evolution in the structure of Eastern European manufacturing. Higher-value engineering products (precision instruments, electrical products, micro-computer production) capture an increasing share of regional industrial output.

In Russia, the final transfer of large-scale manufacturing enterprises to private management is completed. Medium and large-sized enterprises, transformed into joint-stock companies in earlier mass privatization programs, are progressively restructured and made more competitive. The purchase of industrial assets by Russian banks leads to the emergence of important indigenous financial and industrial groups. Elsewhere in the N.I.S., mass privatization programs diminish state control of industrial output. Countries in the region with substantial large manufacturing sectors, including Kazhakstan and Ukraine, supplement these large-

scale programs with joint ventures. Newly-privatized Russian industrial and financial groups are active participants in these transactions.

In regions where industrial privatization activity has been uneven in the past, in Africa and parts of South Asia, unyielding fiscal pressure obliges governments to rationalize productive sectors. Commercially viable manufacturing enterprises are sold to domestic and international investors, while bankrupt companies are liquidated. The adaptation of ownership diversification programs to the African context adds momentum to the denationalization process (attenuating criticism that privatization has further concentrated industrial assets in the hands of racial minorities or foreigners). Taking advantage of well-developed domestic stock exchanges, South Africa and Zimbabwe launch public offerings which include deeply discounted share offerings to low-income groups. Other countries experiment with collective investment programs, such as Zambia's Privatization Trust Fund, which provide flexibility for governments as they transfer managerial control of industrial enterprises to private operators.

In all regions of the world, international development agencies continue to play a proactive role in all phases of the denationalization process: revision of investment and property rights regimes, deregulation of productive sectors, liberalization of trade regimes, enterprise restructuring and unbundling of industrial conglomerates, enterprise valuation, and identification of appropriate modalities for divestiture. Governments and development agencies work together to mitigate the social impact of privatization (thereby reducing employee opposition to divestiture) by designing systems to provide affordable social services, providing temporary income support, putting into place labor-redeployment programs, and reforming pension systems.

Support for capital markets development also proves essential to further privatization of the industrial sector. In the many countries without stock markets, over-the-counter arrangements make possible the implementation of ownership diversification schemes. Broadened usage of risk-mitigating financial instruments, such as equity-linked bonds, helps to ensure popular participation in privatization programs and assuage government fears of program failure. Regional stock markets emerge as critical vehicles for the realization of ambitious industrial privatization strategies. The implementation of institutional reforms moves smaller, regional stock exchanges toward compliance with international securities standards and increased integration with global capital markets.

Scenario Two: Muddling Through

Despite the growth of industrial privatization activity through 1997, activity slows dramatically between 1998 and 2006. Flagging economic growth in the developed world curtails much of the portfolio and direct investment available to finance the privatization of industrial concerns earlier in the decade. Moreover, public suspicions of the privatization process increases as specialized interests, including powerful families and organized crime groups, begin to dominate newly privatized enterprises, and even entire sectors. In some countries, particularly in the N.I.S. region, the weakness of competition laws exacerbates this development. Furthermore, redundant labor that is never fully absorbed into the economy in the early 1990s grows restless and foments further opposition to privatization.

Between 1997 and 2000, international capital, which has financed privatization acquisitions in the developing world, turns inward. Prolonged volatility in emerging stock markets prompts large institutional investors, such as mutual and pension fund managers, to divert substantial funds towards safer, domestic equities. In the debt markets, high yielding securities in G7 economies make it difficult for recently privatized firms, such as those that have been acquired through the voucher programs in Russia and

Poland, to attract debt investors. International capital which have helped finance emerging market privatization in the early 1990s are no longer in abundance.

Foreign direct investment in state-owned enterprises also lags as a result of the G7 recession. Governments such as those in Bangladesh and Zambia, which hope to find strategic investors and joint-venture partners for their state-owned durables industries, postpone privatization programs. With sagging domestic profits, many US and G7 manufacturing firms suspend plans for expansion in the developing world. A gradual decline in Japanese foreign direct investment in Southeast Asia between 1995 and 1999 also heightens the problem of attracting foreign financing and strategic expertise for the privatization of Vietnamese cement factories.

Slow economic growth in advanced economies provoke projectionist cries from populist groups who have been adversely affected by low-cost imports from recently privatized industrial concerns. European Union (EU) labor groups allege that low cost textile imports from Morocco and Tunisia and glass from Eastern Europe are robbing EU citizens of their jobs. As a result, the EU imposes a 25 percent import quota on all textiles and most light manufacturing products. Newly privatized companies which have been behind the export-led growth of their domestic economies are hurt by the closing of their top export market. In textile producing countries such as Turkey, the government threatens to re-nationalize the Sumer Holdings conglomerate that was privatized in 1996.

Between 1995 and 1999, industrial production in developing countries drops nearly 40 percent as export markets tighten and rich country demand declines. Many governments call into question the efficacy of the privatizations programs which they initiated in the early 1990s. "Big Bang" approaches--such as Poland's sectoral approach in the early 1990's --and mass privatization programs are no longer in vogue. Most developing countries agree that any privatization done after 1997 would have to be on an incremental, case-by-case basis given the existing economic and financial climate. China, which had once considered launching an aggressive privatization program in its industrial sector, opts instead for a long-term strategy of efficiency improvements and gradual commercialization.

Labor unrest grows significantly, particularly in N.I.S. and parts of Africa. While the first wave of redundancies resultedfrom the initial privatizations between 1990-94, a second wave occurs as a result of large-scale restructuring of the former state-owned enterprises that occurred between 1997 and 2000. Groups that are not reabsorbed into the economy, effectively lobby against future privatization programs. Labor riots ensue after employees are unable to trade in shares that they receive in employee share ownership programs due to the illiquidity of local stock exchanges.

Finally, in countries with weak competition laws and opaque corporate governance structures, popular suspicion reinforces existing labor opposition towards privatization. Close-knit organizations such as families and clans gain control of a large portion of industrial output. Furthermore, in the absence of state-owned enterprise welfare schemes, industrial groups begin to extend their reach beyond business and pervade all aspects of society, including social and legal services. Citizens not benefiting from the pervasive nature of the groups' activity join with labor to oppose future privatization and to encourage the development of transparency and regulation in the existing industrial sectors.

Privatization of Social and Municipal Services **along with** ***Agriculture, Land and Agribusiness Privatization, Infrastructure Privatization, Privatization in the Extractive Industries*** **and** ***Privatization in the Manufacturing and Industrial Sector*** **are part of a broader scenario analysis and planning exercise for USAID. They are designed to foster discussion on the future direction of USAID's privatization efforts and are neither reference guides nor privatization retrospectives. Because these papers are part of an effort to maintain a dialog over the future direction of privatization, we welcome comments. In addition to these five papers, USAID is funding two research efforts on the impact of privatization: (a) a white paper summarizing the overarching themes in the literature on the impact of privatization; and (b) a broader issues paper, being prepared by Development Alternatives, Inc., focusing on key unsettled issues of privatization in areas such as: the rationale for and measurement of privatization, fiscal and efficiency impacts, mass privatization and corporate governance, indirect and partial privatizations, regulation, and the political economy of privatization. The white paper, prepared by Price Waterhouse LLP, (Privatization: Its Past and Future as Seen in the Literature), will be available after April 15, and the DAI piece (Privatization: A Review of Unsettled Issues) in May 1996. Both papers will be available through the Economic Growth Center's Office of Economic and Institutional Reform (G/EG/EIR).**

Privatization of Social and Municipal Services

I. Introduction and Methodology[1]

Privatization of Social and Municipal Services uses the technique known as "scenario planning" to analyze privatization in health care, housing, education and municipal services. First it reviews the last five years of privatization activity in these sectors. Next it identifies "drivers" or trends that have powered privatization and uncertainties that may hinder future developments. Finally it constructs "scenarios" or possible models of future developments in the privatization of social and municipal services.

Scenario planning draws on the work of Peter Schwartz, Pierre Wack, Clem Sunter, Paul Schoemaker and others.[2] It is, as Paul Schoemaker has explained, "a disciplined method for imagining possible futures." Scenario planning attempts to avoid errors in predicting change by dividing our knowledge into things we know something about and things that are unknowable or uncertain. In attempting to discern the future, conflicting projections are made based on available knowledge as to facts and uncertainties in an effort to stimulate thinking and avoid the danger of

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[1] This paper was written by Abt Associates under subcontract to Price Waterhouse LLP for the United States Agency for International Development (USAID) under the Privatization and Development Project (USAID Contract No. DPE-0016-Q-00-1002-00).

[2] See for example: Peter Schwartz, **The Art of the Long View**. New York: Doubleday, 1991; Pierre Wack, *Scenarios: Unchartered Waters Ahead,"* **Harvard Business Review**, September-October 1985, pp. 72-89; PJ.H. Shoemaker and C.A.J.M. van de Heijden, "*Integrating Scenarios into Strategic Planning at Royal Dutch/Shell*," **Planning Review** 20 (1992), pp.41-46; Clem Sunter, **The World and South Africa in the 1990s**. Cape Town, South Africa: Human and Rousseau Tafelberg, 1987; and Paul J.H. Schoemaker, *"Scenario Planning: A Tool for Strategic Thinking,"* **Sloan Management Review**, Winter 1995, pp. 25-40.

assuming that the future will always replicate the past. The method, first used extensively by Royal Dutch/Shell in the 1970's as part of its process for generating and evaluating strategic options, has achieved global popularity with companies and even government agencies, including the Department of Transportation and the President's Science Advisory Council, where it was used to analyze infrastructure investment and the impact of the energy crisis, respectively.

Here, we use scenario planning as a way of trying to stimulate and focus thinking as to the future of privatization and the future role of multilateral and aid agencies, governments and practitioners in the privatization process. In reading these papers, we hope that readers will consider:

- As a stakeholder in the privatization process, what constitutes for you a desirable privatization scenario? How does this differ from or complement the privatization scenarios provided in this paper?

- What actions can you take to help shape the path privatization takes over the next decade? For example, what should be priority actions in building regulatory institutions, social safety nets, and capital markets?

II. Profile of Privatization Experience To-Date

A. Introduction

The results of privatization in the public services sectors are mixed. In health care services, the private share in financing and provision is significant, especially for the poorer countries.[3] Little has been done, however, to structure the public-private partnership productively and problems persist in all methods of paying health care providers.[4]

In the housing sector, the transitional economies of Central and East European (CEE) countries and the republics of the former Soviet Union (the new independent states — NIS) have made great strides in privatizing state-owned housing, though the process is incomplete. In education, private financing may play a significant role, even in societies dedicated to public education. However, private provision is typically limited to post-secondary or vocational training. In other sectors, such as public transit, private service provision is widely accepted, if not yet the norm.

Common to all public services sectors is the lack of hard data that would allow for an assessment of trends and accomplishments. Only for housing do we have any reliable data that permit comparisons over time. In the health care sector, some progress has been made in compiling statistics on spending, but so far only for 1990. International data on the public-private mix in service provision are lacking. Thus, while the available evidence suggests that progress has been made in privatization, quantification is impossible.

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[3] Appendix A, annexed to this report, summarizes the current status of health care services in eight of the world's major regions.

[4] Appendix B, annexed to this report, summarizes the strengths and weaknesses of alternative methods of paying health providers.

B. Health Care

Privatization in the health care sector in terms of shifts in the private/public mix can be assessed in a number of ways, principally:

- *Financing* — who pays for preventive and curative services and through what mechanisms?
- *Provision* — who employs the different types of health care providers like doctors and nurses, and who owns the treatment facilities?
- *Utilization* — do people go to private or public providers?

As shown in Exhibit 1, health care is financed in four ways: two — out-of-pocket and voluntary (or private) insurance — are private, two — compulsory (or social) insurance and financing out of general revenues — are public. In terms of the provision of health care, we can distinguish three forms: by the government, by private not-for-profit providers, and by private for-profit providers. The distinction between the two categories of private providers is useful, since not-for-profit providers may have some of the same motivations and concerns as their government counterparts, yet they share the concern for cost recovery and financial survival with for-profit providers.

Exhibit 1: The private-public mix in health

Financing source/ Service provision	**Public**	**Private non-profit**	**Private for profit**
Public	Ex.: General tax revenues used for direct public provision	Ex.: Public insurance contributions used to purchase the services of non-profit providers	Ex.: General revenues used to purchase services of private for-profit providers
Private	Ex.: User fees paid for private use of public facilities	Ex.: User fees paid for non-profit facilities	Ex.: Private insurance payments to providers in private practice

Source: Jeff Muschell/WHO Task Force on Health Economics, Privatization in Health, p. 4

In addition, health care providers typically use other services, which may be provided by the public or private sector. Such services include diagnostics, laundry, food preparation, but also dentistry and pharmaceuticals. Privatization in these downstream activities is an important element of overall privatization in the health care sector, but shows only indirectly in the financing/provision matrix.

The *1993 World Development Report* compiled the most recent and comprehensive data set on sources of finance for 130 countries.[5] These health care expenditure data suggest that the share of public spending rises with rising incomes, rapidly at the lower end of the income spectrum, and then levels off for high per capita incomes in the OECD countries. The data are summarized in Exhibit 2:

[5]World Bank, *World Development Report 1993: Investing in Health*. New York, NY: Oxford University Press, 1993. xii + 329 pp.

Exhibit 2: Global health expenditure, 1990

Demographic region	Per capita health expenditure (dollars)	Public sector health expenditure as percentage of regional total	Percentage of GNP spent on health
Established market economies	1,860	60	9.2
Formerly socialist economies of Europe	142	71	3.6
Latin America	105	60	4.0
Middle Eastern crescent	77	58	4.1
Other Asia and islands	61	39	4.5
India	21	22	6.0
China	11	59	3.5
Sub-Saharan Africa	24	55	4.5
Demographically developing countries	41	50	4.7

The importance of social insurance (considered a public-sector form of financing) varies across and within country groupings. For the low-income countries, social insurance covers between 5 and 10 percent of the population, accounting for around 5 percent of total health expenditures. In the middle-income countries, it may cover from less than 10 percent to 90 percent of the population, and account for less than 10 percent to over 60 percent of national health expenditures.[6]

The pace and patterns of active privatization in the health care sector have varied greatly across countries. For example:

- The Czech Republic intends to transfer 70 percent of existing hospital beds to the private sector (both for-profit and not-for-profit) by 1996;
- Chile introduced privately owned and operated health insurance funds (ISAPREs) in the 1970s, and also offered vouchers to individuals to reduce the cost differential between public and private health care providers; it has recently been changing the regulatory framework to curtail certain negative effects of these schemes (such as "cream skimming" by rejecting higher-risk clients) and to promote competition among suppliers;[7]
- Several countries have used contracting with private providers for particular services: teams of general practitioners in private practice in Namibia are providing surgical care in rural areas under contract with the Ministry of Health; Zimbabwe has used contracts with nine hospitals to provide services to selected population segments;

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[6] Beyond information on health expenditures, little information is available that allows for international comparisons at a given point in time or over time. For example, data on the "market share" of private vs. public providers have been collected for a few countries only. Such phenomena as the private provision of services by public sector employees in public facilities, authorized in some countries, have not been explored systematically. Some utilization data exist, for example, in the context of the World Bank's Living Standards Measurement Surveys (LSMS), but they are usually too general to allow for any analysis of public vs. private.

[7] *1993 World Development Report: Investing in Health,* p. 162

- Some countries have begun to allow private sector activity in public sector facilities; public hospitals often have private pay beds in government hospitals (e.g., Indonesia, Mexico, Tanzania, Zimbabwe);
- Mozambique allows the medical staff in government facilities to operate private clinics outside of normal working hours.

Using a simplified version of the financing/provision matrix introduced above, Exhibit 3 presents rough estimates of the shift from the upper left-hand cell down and to the right. (The population to which these percentages apply corresponds to roughly 85 percent of the world population.)

Exhibit 3: Illustrative privatization trends

Financing source/ Service provision	Public	Private
Public	1985: 50 percent 1995: 40 percent	1985: 15 percent 1995: 15 percent
Private	1985: 15 percent 1995: 15 percent	1985: 15 percent 1995: 25 percent

Milestones of privatization activity

It is difficult to single out specific events that account for the growing privatization in the health services sector. The fundamental changes in the political and economic regimes in the CEE/NIS regions were the most important factor in the growing privatization of the health services sector. Similarly, China's decision to experiment with new forms of (private) health services delivery in the 1980's represented a major milestone.[8]

Another milestone has been the Bamako Initiative, launched in 1988, which seeks to leverage modest fees paid by members of local communities who use a health center or pharmacy. These fees, managed by a local elected committee, are reinvested in additional drugs through a revolving fund, or are used for incentive payments to health workers. While the experience so far has been encouraging, questions remain about the sustainability of these programs after donor assistance ends.

[8] In the 1980s China initiated health reforms that entailed a rapid increase in the importance of the private sector in both health financing and provision. The government sold many of the village health centers, which were then converted into private clinics. Yet the reforms raised costs to consumers, discouraging many low-income victims from seeking treatment for varioyus diseases, including tuberculosis. Following an increase in t untreated tuberculosis as a result of charging for treatment, the government launched a national tuberculosis control effort and provided appropriate incentives to providers.

Methods of Privatization

A number of approaches are being used to strengthen the private sector's role in health care. Exhibit 4 offers an overview of privatization methods on the provision side. The text box below defines these methods in greater detail.

Exhibit 4: Privatization Methods

Privatization technique	Key regions/countries	Tendency
Divestiture of public assets	CEE/NIS, China	Level to declining
Privatization of input supply	CEE/NIS	Level to declining
Public contracting with private sector providers	Africa, South East Asia	Growing

Divestiture of public assets

The examples provided above for types of privatization actions include the divestiture of public assets to private for-profit or not-for-profit providers. This type of privatization has been largely limited to the CEE/NIS countries, and China. In the CEE/NIS region, specifically, divestitures include hospital beds as well as facilities for dentists, primary care physicians, and small-group practices. A major element in several countries, such as Kazakhstan, was the privatization of pharmacies. In Kazakhstan, the former state-owned pharmaceutical distribution system was broken up and individual pharmacies were sold to individual operators in an attempt to establish a system of governance that would encourage strong customer orientation and performance. Dental practices and primary-care physicians were privatized in Kazakhstan and Ukraine. Finally, Kyrgyzstan established private small-group practices (APTKs).

Privatization of input supply

As noted, privatization has progressed in the area of input supply services, such as food preparation, laundry, maintenance, and diagnostics. In the NIS, this type of privatization also involved a shift in the overall management structure of hospitals, because traditionally nurses had also been responsible for maintenance. This rubric also includes quasi-privatization of supply, with greater management and financial autonomy for hospitals, and the establishment of oversight mechanisms using boards of directors.

Public contracting with private sector service providers

Several countries are using contracts with private sector service providers, both for profit, such as profit-making hospitals or GP groups, and not-for-profit, such as NGOs operating hospitals or health centers, to provide services. This option may involve straight public financing, or may use some combination of public and private financing.

Privatization of financing

In general, privatization of health service financing is a concept that applies only to countries in which the government finances a significant portion of total health expenditures either through a social insurance or from general revenues. In many countries, especially the poorest ones, much of the financing comes from private sources, typically in the form of out-of-pocket costs. In Sub-Saharan Africa, for example, total health expenditures per capita amount to $2 (1990), with over half of that from private sources.

In the NIS, health care financing relied primarily on mandatory employer-based health insurance, in effect a Soviet-era notion. Reforms aimed at establishing increased incentives for quality and efficiency by shifting to a capitation (poll tax) basis. Reforms also stressed increased consumer choice through the application of user charges (Odessa and South Kazakhstan). Subsidies were tied increasingly to means testing. In Tula and South Kazakhstan, the introduction of managed care will provide some demonstration of the impacts of a capitation approach to financing. The privatization of health financing through increased reliance on voluntary insurance presents difficult regulatory and administrative challenges to ensure adequate coverage, equity as well as efficiency. The health care debate in the U.S. has highlighted many of these challenges.

C. Housing

The provision of affordable and adequate shelter has been one of the key objectives of governments in developing and transitional economies. Virtually all countries therefore have some government participation to ensure minimal accomodations.

The major trend in developing countries has been a shift away from direct government participation in the construction of shelter to government participation in housing finance. For example:

- Sri Lanka's Million Houses program (originally 100,000 Houses) had started out as a construction program, but then shifted to a subsidized program providing small loans to households for construction or rehabilitation of their own homes. The program has evolved toward a greater separation of loans and grants, enabling financial institutions to participate on a commercial basis.
- Chile has used vouchers (grants) to complement housing loans on commercial terms to promote improvements in the shelter sector.
- In other countries, governments have taken steps to encourage savings programs earmarked for housing construction.

The most significant development in this sector was in the CEE/NIS. On the eve of the economic reforms that swept through the CEE/NIS regions, the state owned two-thirds of the housing stock in Russia.[9] Exhibit 5 shows the relevant percentages for selected countries.[10] Yet over a five-year period through 1994, Russia sold almost ten times as many housing units than Great Britain did in its "Right to Buy" program over a thirteen-year period (11 million vs. 1.2 million). While Great Britain sold about 20 percent of its social housing over that 13-year period, Russia sold roughly 25 percent of its state-owned housing in a single year (1993).[11]

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[9] Conditions differed greatly across the countries before the reforms, as did approaches to privatizing housing and implementing other reforms to move the housing sector toward a market-oriented system. In Russia, the problems were deep-seated: much of the housing stock was of poor quality, rents were heavily subsidized, and there were extreme housing shortages. In Ukraine, monthly payments for housing and communal services were about $1 per month, including heat, gas for cooking, water, wastewater disposal, garbage collection, and maintenance. These payments covered about 4 percent of the cost of producing these services. Housing construction in Russia was in the hands of large state-owned companies, the *kombinats*. Housing finance systems were limited to construction financing, typically involving a large advance to the *kombinats* to begin construction, and little in the way of penalties for late completion. As a result of these "maladroit incentive systems", a large number of buildings languished unfinished, with work proceeding sporadically. (Struyk, Raymond J. (ed.), *Economic Restructuring of the Former Soviet Bloc: The Case of Housing*. Washington, D.C.: **The Urban Institute Press**, 1996, p. 29),

[10] State ownership of the housing stock did not universally predominate. Bulgaria, Hungary and Slovenia surpassed the U.S. rate of private home ownership (65 percent).

[11] The percentages of privatized units relative to total stock of housing units eligible for privatization for selected real estate markets were as follows: Barnaul: 26.9 percent; Moscow: 30.4 percent; Nizhny Novgorod: 19.0 percent; Novgorod: 20.5 percent; and St. Petersburg 33.0 percent.

Exhibit 5: Tenure distribution of the housing stock prior to reform (Percent)

Country	State rental	Cooperatives	Individually owned	Other	Total
Russian Federation (1990)	67	4	26	3	100
Armenia (1980)	53	4	43	—	100
Estonia	60	12	26	2	100
Bulgaria (1985)	16	—	84	—	100
Czech Republic (1988)	38	18	41	3	100
Hungary (1990)	23	6	71	—	100
Poland (1990)	35	25	40	—	100
Slovak Republic (1988)	25	20	53	2	100
Slovenia (1991)	33	—	67	—	100

[a] Includes enterprise and government agency provided housing.
Source: Struyk (1996), p. 8

Exhibit 6 shows the results for the countries that engaged in active privatization of housing units. All countries achieved a significant reduction in state ownership in the housing stock, mostly through unit-by-unit privatization to the tenants.

Exhibit 6: State rentals as a percent of all housing

	Before transition	1994	No. of housing units privatized (1,000)
Russian Federation	67	43	11,000
Armenia	53	27	170
Estonia	60	10*	n.a.
Hungary	23	14	306
Slovenia	33	19	135

* estimate for mid-1995
Source: Struyk (1996), p. 26

Methods of privatization

The housing reforms in the CEE/NIS involved several components. First, countries devolved responsibilities to local governments, often to the point of exceeding local capabilities. In several countries, local governments set the conditions for privatization, such as the level of discounts on market prices for the privatization of housing units. Elsewhere, the methods of housing allowance programs were in the hands of local authorities. Second, several countries introduced reforms to raise rents gradually to market levels, alleviating the impact on individual families through a targeted and means-tested housing allowance programs (see text box for additional information).[12]

[12] For example, as of late 1995, the typical three-person family unit in Ukraine reports a monthly income of $50. Its monthly bill for housing and utilities was $30 (for a three-room apartment). In an agreement with the IMF, the government made the rapid increase in prices for housing and utilities the central element of its reforms. (Housing subsidies account for some 75 percent of the budget deficit.) Yet even at 60 percent cost recovery, more than one-half of all families would have to pay more than half of

The actual privatization of housing units targeted sitting tenants, who were offered their units at a deep discount or sometimes for free.[13] The new owner has full title to the unit, and is able to sell or rent it on the open market. Most of the units involved, however, are in multi-family buildings; the new owner does not necessarily acquire the right or responsibility for maintenance and management. Most of the programs permit individual units in a multi-family dwelling to be privatized; only four countries required condominium associations to be in place and set a minimum number of tenants in a building to apply before privatization could proceed. Since a significant number of tenants — perhaps more than half — opted out of the privatization program,[14] maintenance and management typically remain with public sector organizations. The coexistence of individually owned and state-owned rental units in the same building and the attendant issues regarding maintenance and management will require continued policy attention.

In Russia, housing privatization sparked activity in the secondary housing market. Real estate transactions — sales and exchanges — rose. The increase in the number of units on the market had a moderating impact on housing prices. The development of a competitive secondary housing market seems to have absorbed some of the inflationary demand pressure. This activity also translated into increased residential mobility.

Privatization also extended into the housing construction and financing industries. In construction, the *kombinats* were restructured into smaller companies. This process was hastened by the contraction in construction activities during the economic slump that accompanied the initial phases of adjustment. By 1994, housing production had dropped to between 15 and 60 percent of the 1988 levels.

The development of an effective housing finance system in the CEE/NIS region has been hampered by the high levels of inflation which many of these countries experienced in the process of adjustment. State savings banks, such as in Russia, which had the monopoly on long-term housing lending, experienced large losses on their loan portfolios. In several countries, fundamental change has occurred, holding out the promise of the emergence of a market-oriented housing finance system. Banks responded to the impact of inflation with innovative mortgage products, such as the "dual index mortgage" or "dual rate mortgage."

D. Municipal Services and Education

Virtually the full range of municipal services can be considered as candidates for privatization., including:

- solid waste management, refuse collection and final disposal;
- street cleaning;

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their income for rent and utilities. A housing allowance program lessened this burden by reimbursing households for any expenditures exceeding 15 percent of the family income.

Vaughan, Roger J., "A History and Overview of Ukraine's Housing Subsidy Program." Kiev/Washington, DC: USAID/PADCO, November 1995.

[13] Some critics have charged that the programs often involved unnecessary give-aways and argued that the government should have been more patient in selling these units. For example, a World Bank team estimated that the market value of the state rental units in Hungary exceed the assets of the entire financial system.

[14] Struyk (1996, p. 27) suggests that many tenants were reluctant to embrace the longer-term financial responsibilities of home ownership. They were aware of the extensive repairs and rehabilitation many of the buildings required and had misgivings about the prospective property tax burden

- water/waste-water management;
- public transit;
- parking;
- public safety;
- prisons;
- road construction and maintenance;
- recreation

Examples of private provision of services abound. Many communities in OECD countries as well as elsewhere rely on contracts for solid waste management. In developing countries, refuse collection is often privately operated, with much of the income derived from recycling of materials in the trash. In Guatemala City, for example, the city dump is the hub of considerable economic activity centered on recycling, reuse, and processing of waste materials.

In mass transit, the jeepneys in Manila offer a powerful illustration of the potential of market provision of services. Elsewhere, opening the public transit sector to private operators has failed to create the disruptions and problems some predicted. Often, private and public operators exist side-by-side, with private operators offering a premium service (cleaner buses, guaranteed seats) at a premium price over the public system. Several countries, including the Côte d'Ivoire, have contracted out water and wastewater management.

Privatization in the area of public safety often proceeds on a neighborhood basis. At one end of the spectrum, individual homeowners may hire security guards. At the other end, neighborhood associations may pool resources to hire a private police force to patrol the area — often combined with physical design features that impeded access to the neighborhood.[15] Exhibit 7 summarizes the private provision of municipal services.

[15] Such arrangements are of course quite common in wealthy settlements anywhere. In the U.S., they have recently extended into central business districts and neighborhoods in the cities in the form of "special improvement districts". These districts collect revenues in the form of surcharges on property taxes or special fees from residents and business, and spend them on improved policing, street cleaning and hygiene measures.

Exhibit 7

Selected services	Public contracting	Direct private provision
Solid waste management (refuse collection, treatment, and disposal)	Growing use, but requires adequate regulatory and monitoring capabilities	Only in a few instances; often related to tourism development; some incidence of self-financing operations relying on materials recovery; possible links to private electricity generation
Water/waste water management	Limited examples, including Côte d'Ivoire	Selected instances; tourism-development related
Public transit	Little direct contracting with public financing; concessions	Common in developing countries (jeepneys, tuk-tuks, trishaws, dolmuses, etc.)
Public safety	For selected neighborhoods	Selected instances; tourism-development related
Recreation	Some involvement of NGOs in managing national parks and other sites	Common, for example, amusement parks

Privatization of education has received worldwide attention. At the primary and secondary levels, most of the debate has focused on the privatization of educational *finance*, which would then be expected to entail increased private sector participation in the *provision* of education. An example of this is an education voucher that the student could spend at the school of choice.

Proponents of such schemes have argued that private schools outperform public schools. For example, a comparative study of private and public secondary education in Colombia, the Dominican Republic, the Philippines, Tanzania and Thailand found that private school students generally outperform public school students on standardized math and language tests. It also found indications that unit costs of private schools were lower than those of public schools.

Opponents of vouchers have cited likely inequities (the creation of elite academies for a few and second-rate schools for the majority, "cream skimming," and difficulties of ensuring equal access on geographic grounds), as well as high costs and administrative difficulties. Experiments with voucher programs have not been fully persuasive that these difficulties can be overcome even in a country with strong administrative capabilities like the U.S.

In many developing countries, individual initiative among teachers and other education workers has introduced an element of privatization. Anecdotal evidence abounds that teachers in schools with standardized tests are deliberately withholding information in the public environment, but offer make-up classes and private tutoring for an additional fee. In many cases, parents are expected to furnish much of the material used in education. No systematic assessment has been made of the prevalence and significance of such practices, yet they are clearly important.

As in other areas, developing countries as well as transitional economies have pursued some of the hoped-for beneficial effects of privatization through decentralization — devolving much of the responsibility for program design and supervision to local bodies. While such approaches introduce

a greater degree of consumer choice, they basically retain the public sector monopoly in the financing and provision of public education.

III. Key Drivers Shaping Privatization in Social and Municipal Services

D_1 The search for increased efficiency.

The magnitude of problems in the social and municipal services sector in developing countries and transition economies places a premium on obtaining the highest return on any expenditures for this sector. The assumption is that "[the] private sector is free from the administrative and political constraints commonly associated with public bureaucracies. From this perspective, privatization is seen as a way to improve resource management and thus lead to more efficient and effective services delivery." [16]

D_2 Focusing government on social objectives.

Governments will always have a strong role in the social and municipal services sector, given the public good element and its role in human resource development. But increasingly governments are recognizing that there are multiple ways to ensure that these objectives are adequately addressed. Moreover, to the extent that some activities can be shifted to the private sector, savings incurred from individuals willing and able to seek service provision from the private sector allows the government to redirect resources toward providing more services to the poor.[17]

D_3 A growing understanding of public/private interaction in social services.

While we are still far from having a good appreciation of the best forms of private/public sector interaction in the social services sector, particularly in health care, and may even lack the basic information at this point to achieve such an understanding, the growing interest in this issue is promising. As more relevant data are collected, and more research on modalities and impacts is conducted, governments at all levels will have a better understanding of choices and their implications.

D_4 Budgetary pressures continue to increase.

Subsidizing health care, shelter and municipal services directly is expensive. In Ukraine, for example, government subsidies necessary to cover production costs of housing and communal services accounted for roughly three quarters of the 1995 national budget deficit.

In addition to the drivers above, other drivers shaping privatization specifically in the housing sector include:

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[16] Muschell, 1995, p. 5

[17] *Ibid.*

D_5 Demand for housing and adequate services is increasing.

As information begins to flow more freely about market conditions and opportunities, people are less and less likely to accept inadequate housing.

D_6 The privatization of housing units and other support for an expanded private sector role in the financing and provision of housing services remains politically popular.

The privatization of state-owned housing units continues to be politically popular. In Sri Lanka, the late R. Premadasa rose from Minister of Housing to Prime Minister to President due largely to his popularity as architect of the Million Houses Program, which involved innovative approaches to housing finance in support of individual initiative rather than public housing construction.

D_7 The sometimes haphazard or ad-hoc approach in housing privatization has left key issues unresolved, which are likely to burden past and future privatizations.

Many of the tenants in state-owned housing refused to participate in the early rounds of the privatization program in spite of the minimal asking prices. One possible reason for this is tenants' awareness of the costs of maintaining often poorly constructed property. The shoddy quality of much of the construction means extensive repairs and rehabilitation, especially as rising utility prices place a premium on such features as energy efficiency. With respect to the organization of maintenance and management, the emerging secondary housing market will put greater pressure on owners to worry about factors that diminish the value of their property. Sharing multi-family dwellings with tenants of state-owned units who lack these incentives may curtail interest in acquiring further units. The continuing role of public sector bodies in maintenance and management therefore may act as an inhibitor to continuing privatization. These factors will gain further importance as maintenance fees are raised to recover costs.

Finally, additional trends pushing privatization in the area of municipal services include;

D_8 Providers of services are becoming increasingly sophisticated in packaging their services and making them attractive to government officials.

The more experience international water management companies gain in managing municipal systems, the easier it will become for them to overcome local apprehensions and resistance. They also have developed much greater sophistication in developing attractive and feasible financial packages. This trend will be particularly pronounced in the area of water/waste water management and public safety. Providers in these fields operate virtually on a global scale.

D_9 Municipal and other levels of government will continue to lag in developing the necessary technical, regulatory and administrative capabilities to ensure adequate supervision and control.

Because governments often lack the necessary capabilities to supervise private providers of municipal services, they are at risk when negotiating contracts. The typical government reaction is procrastination and an endless search for information and assurances that risks are contained or, better yet, eliminated. A growing body of experience on a global scale will be important in dealing with such resistance.

IV. Key Uncertainties in Social and Municipal Services Privatization

The biggest sources of uncertainty in these sectors are:

- the lack of systematic knowledge about the potential of private enterprise in these sectors,
- the pitfalls and dangers of "wild" privatization (such as unauthorized private service provision by public sector employees in public facilities), and
- cost-effective options for creating and enforcing a legal and regulatory framework that safeguards public policy concerns while promoting private enterprise and consumer choice.

With respect to the privatization of health care financing, most of the concerns are related to equity issues. Such schemes may compromise the "right to health" for the poor. They may introduce hardships for those who need costly services. After all, demand for health services is often driven by factors beyond the control of the individual. Other problems in the area of private financing include the potential for cost escalation as a result of indemnity insurance. Moreover, voluntary insurance allows "cream skimming," leaving the most difficult situations for some form of public support.

Given the strong public-good elements in health care, and the informational asymmetries in the market, the development of an effective regulatory framework and of mechanisms to monitor performance and enforce these regulations are critical. The objectives of such a framework are complex, including:

- ensuring quality through licensing and accreditation;
- promoting equity in access to and use of services;
- maintaining competition and combating abuses of market power, in particular in subsectors in which natural or effective monopolies exist; and
- providing adequate consumer information to promote choice.

In health, as in other sectors, one of the main concerns during the privatization process in developing countries and transitional economies is the regulatory preparedness to establish performance standards or deal with monopolies. Other issues are the existing administrative capabilities regarding licensing, accreditation, surveillance, etc.

In the absence of effective regulatory oversight or effective self-regulation by professional bodies, medical providers have a tendency to manipulate asymmetric information shifting both the quality and the quantity of services away from the social optimum. Linked to that is the tendency to develop increasingly refined treatment options. Finally, in rural areas or for specialized services there may be a natural monopoly (or quasi-natural monopoly). In the absence of appropriate regulatory oversight, such situations can easily result in abuses of market power, resulting in excessive services or underservicing, depending on the financing options in place.

In developing countries, one of the major concerns in the health area is the extent and impact of the AIDS epidemic. In a number of countries in Sub-Saharan Africa, AIDS has its greatest impact on the younger, better educated, and affluent segment of the population. In economies that are already short of skilled and motivated human resources, the losses can be devastating to the economy as a whole. But whether even this catastrophic trend would have an appreciable impact on the appropriate private/public mix in the health sector is virtually impossible to say. It may reinforce

the notion that the externalities of prevention are sufficient to warrant a greater role for the public sector.

As for housing, a major uncertainty concerns the resolution of the maintenance and management issue which may affect the long-term development of secondary markets by creating or maintaining risks associated with owning property in multi-family dwellings. The emerging secondary market for housing in the CEE/NIS has been establishing market prices. Market prices makes it more difficult to continue the initial schemes of transferring ownership at extremely favorable conditions. Pressure has therefore been building to charge more, which of course raises questions of equity and may slow down the pace of further privatization. At the same time, there may be some gains on the income front, as well as improvements in the system of long-term housing finance.

Governments in the countries of Eastern Europe and the NIS have generally accorded a lower priority to reforms in the housing sector. They tended to treat this sector as a "shock absorber" as they proceeded with the restructuring of macroeconomic policy and industrial privatization. It is difficult to imagine that this basic policy posture will change, but continuing budgetary pressures may force a more hard-nosed approach in some countries.

V. Scenarios

Scenario One: Restructuring Productively

Given the growing interest in privatization and the most appropriate role for the private sector in health care, the WHO takes the lead in coordinating a number of international comparative research studies throughout the remainder of the 1990s. These studies provide a much clearer idea of the ways in which private provision and financing function in different environments. They also catalogue the principal characteristics of legal and regulatory frameworks and supervisory procedures in countries at different levels of development.

The studies increase understanding in both the procedural aspects of private-sector involvement in the health sector and their appropriate legal/regulatory and supervisory base. An increasing number of countries adopt policies that integrate private and public sector provision and financing more effectively. Given the already significant presence of private-sector providers in the poorer countries, the most important changes occur in the development of innovative voluntary insurance mechanisms that take into account the ability to pay. At the same time, privatization of productive assets in the health sector continues in an orderly fashion in the former Soviet Union, including the gradual reduction of the number of health care workers.

By the year 2010, the majority of developing countries and transitional economies have restructured their health care sector to rely more systematically on private provision and financing, and to focus the government on oversight, consumer information, and the improvement of health care for the poorest segments of society.

Privatization proceeds increase in other social sectors, helped in part by overall improvement in the macroeconomic picture in transition economies. As governments learn from experience, their approaches to housing privatization become more sophisticated. They complement housing allowance schemes for renters by similar schemes for households acquiring their units at prices that are closer to the market. With this support, the slowdown of inflation and the overall improvement of economic performance and prospects, the banks' willingness to provide long-term housing finance increases. At the same time, experiments with the privatization of maintenance and management are successful as a result of increased understanding of incentives.

As a consequence of these developments, more tenants decide to acquire their own units. Privatization proceeds apace, albeit under conditions that differ from the early phases. By the year 2001, only a small portion of housing units is still in the hands of the state.

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Scenario Two: Disillusionment and Retrenching

Several events in the latter part of the 1990's cast doubt on the wisdom of promoting the role of the private sector and private-sector financing mechanisms in health care in developing countries and transitional economies. In francophone Africa, decentralized financing schemes inspired by the Bamako initiative had already encountered difficulties in the wake of the devaluation of the CFA franc. These difficulties mount as donor support is gradually reduced. Shortages in medicaments are followed by the collapse of a significant number of the rotating financing schemes. Disillusionment with these developments pushes governments to strengthen the role of the state, even though budgetary realities imply that many of these initiatives are cosmetic. The burden of financing health care providers is placed on the shoulders of poor consumers.

In the former Soviet Union, privatization is increasingly perceived as the source of massive job losses of medical personnel. A number of scandals sour the public on the new private sector providers. At the same time, financial difficulties of some of the newly organized private-sector entities also affect their ability to pay suppliers of inputs, further creating disruptions in the supply of medical services and pharmaceuticals. Governments at both the central and local levels see no alternative to reabsorbing many of these providers into the public sector side of the health care system.

In Asia, gaps in the regulatory framework and supervision of new voluntary private-sector insurance schemes result in the same problems that Chile encountered — cream skimming, inequitable treatment of consumers at risk, rising premiums as insurers follow the lead of providers in dispensing care and adopting new treatments and technologies. As a result, governments in a number of countries broaden the role of social insurance schemes and contain the further growth of private sector schemes.

As the CEE and other transition economies face growing pressures to price housing units for purchase by the tenants more in line with secondary market trends, this leads governments to tighten conditions under which tenants can acquire their dwelling units. Housing allowance schemes remain restricted to renters, offering families qualifying for such allowances a choice between continuing to rent at affordable rents, or to seek financing in the market for purchasing their unit. Banks that have entered the mortgage market suffer losses as borrowers default, given continuing economic difficulties. Sources of long-term housing finance dry up for most of the population.

At the same time, secondary markets establish a sharp price gradient between units in multi-family homes in which most units are privately owned and those in buildings that remain predominantly (state) rental units. Lower prices for the latter group reflect in part the difficulties in ensuring adequate maintenance and management, as well as in financing required investments to improve such features as energy efficiency. Renters in multi-family dwellings that retain a majority of rental units therefore have fewer incentives to seek ways to purchase their units.

Thus, while privatized housing units remain in private hands and some conversion continues, the momentum of housing privatization is lost. A large number of units remains in government hands. Managing these assets becomes one of the most difficult tasks for local management, prompting demands for increased central government involvement.

Elsewhere, government support for private housing finance is largely viewed as another government give-away with disastrous consequences for loan servicing and repayment. Banks that were initially enthusiastic to participate in such schemes turn to the government for reimbursement for abnormally high loan losses and gradually withdraw from this market.

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APPENDIX A: Regional Typology of Private Health Care Services

OECD Countries	
CURRENT MAJOR PATTERN	Varying mix of provision ranging from mostly private (Japan) to mostly public (UK, Scandinavia). Financing by social and public insurance; very limited private insurance (except in USA and Switzerland). Public expenditures as a share of total health expenditures generally high (70 - 95%) and rising.
HISTORICAL BACKGROUND	Modern personal health services started in mid-19th century, mostly by private initiative. Initial developments were generally ambulatory, with some state provision of hospital care. With industrialization and economic growth gradual expansion and shift to hospitals. Comprehensive, mostly private infrastructure established by 1930s. Incremental development of third party payment systems — a mix of social insurance and public financing, with limited private insurance — achieving universal coverage by 1950s and 60s.
MEDICAL SYSTEMS	Modern health care dominant. Traditional medical systems of little importance. Alternative therapeutic systems in the private sector are flourishing. Reflects a demand for more holistic and personal care.
SOCIOECONOMIC ENVIRONMENT	High income market economies. Moderate growth. Industrialized and heavily urbanized. High level of human resources.
POLICY DIFFERENCES	Historically the political and social pressures have been for the expansion of health care availability to the whole population by public intervention Major concerns are cost control and equity, leading to greater state control and regulation, e.g.: global budgets. Government role in financing dominates, with experimentation with increased competition in provision and widespread private ownership.

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Latin America	
CURRENT MAJOR PATTERN	Pluralistic mix of social insurance funds, public and private provision. Public and social insurance facilities predominate at hospital level and in rural areas Insurance coverage varies, reaching 100% in some richer countries (Brazil). Public funding under considerable pressure during 1980s economic crisis. Recent expansion in private insurance in urban areas and in private tertiary facilities Some experimentation with innovative financing mechanisms in some areas including HMOs
HISTORICAL BACKGROUND	Historically treatment provided by traditional healers (curanderos). Religious and voluntary organizations established hospitals in urban areas during colonial rule. Social insurance funds covering workers — started after 1924 in all countries — typically built their own facilities. After WW II, Ministries of Health (MOH) concentrated on public health care and serving remaining population, mostly rural. Parallel private sector, predominantly ambulatory and urban, always existed with most physicians working in both sectors. Social insurance coverage gradually increasing, with the financing of private sector provision becoming more common
MEDICAL SYSTEMS	Formal sector dominant, with modern medical care available to most of the population. Traditional medicine has always existed, derived from indigenous Indian cultures. Now declining and restricted to underprovided rural areas. Does not appear to receive much institutional financing.
SOCIOECONOMIC ENVIRONMENT	Low to middle income economies. Mixed, mostly poor growth during 80s, but better prospects in 90s. Moderate industrialization. Mostly urbanized. Moderate level of human resources.
POLICY DIFFERENCES	Early approaches reflect Iberian traditions. Later emphasis on social insurance encouraged by ILO advice. Social insurance agencies have usually acquired considerable autonomy from MOHs. This has limited the deepening of insurance coverage and caused inequity in access to medical facilities. Some concern about cost escalation in recent years, but this is limited.

Caribbean	
CURRENT MAJOR PATTERN	Government services predominant, especially at tertiary level. Private general practitioner services important for primary health care. Some private practice by government hospital specialists. Financing usually out-of-pocket, but private insurance schemes developing. Social insurance introduced in Barbados, with incorporation of GPs into public service
HISTORICAL BACKGROUND	Hospital-based public services established during colonial rule, financed from general revenues and generally free. MOHs active in public health functions. Private services typically limited to ambulatory formal and informal provision. Few attempts to introduce social insurance.
MEDICAL SYSTEMS	Significant systematized traditional medical systems absent, with exception of indigenous forms in Hispaniola. Health care predominantly modern, with some informal folk practices in rural areas
SOCIOECONOMIC ENVIRONMENT	Small, middle income economies, many microstates. Highly export and tourist dependent. Variable economic record, with some countries enjoying high and sustained growth. Some rural populations, but usually with access to urban facilities. High level of human resources.
POLICY DIFFERENCES	Traditionally governments have regarded medical care as a merit good, requiring state provision, especially in English speaking islands. In recent years, economic difficulties have resulted in more interest in private sector activity and possible partial privatization.

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Sub-Saharan Africa	
CURRENT MAJOR PATTERN	Generally low level of government health service provision. Rural areas particularly underprovided. NGO sector makes a major contribution to health services provision, 25-50% in many cases, and often better distributed to underserved and rural areas. Traditional healers the major accessible source of care for many rural populations. Formal private services generally small, and restricted to urban areas. Little current expansion because of lack of demand. Formal sector of workforce small, and insurance coverage very low. Shortages of personnel in many countries.
HISTORICAL BACKGROUND	Publicly-provided modern health care services established during colonial rule, but restricted to urban and administrative elites. NGOs, originally religious missions, important in extending services to peripheral areas. Large parts of the rural population remained dependent on traditional providers. Alternative insurance-based services established in some countries, often for white settler populations. Resource constraints have prevented significant expansion in government services in recent decades.
MEDICAL SYSTEMS	Wide diversity of traditional medical systems, but no major systematized and organized forms. Generally not recognized or supported by governments, so almost exclusively in private sector. Widely available, and used in both rural and urban areas. Modern health care often hospital based and not accessible to everyone.
SOCIOECONOMIC ENVIRONMENT	Heterogeneous group of economies but many low income. Poor growth with declines and considerable economic crisis in many countries. Little industrialization. Mostly rural populations, dependent on subsistence farming. Low level of human resources.
POLICY DIFFERENCES	Initial policies following colonial period have been to expand free government services to whole population. In francophone Africa there have been more experiments with social insurance, but this has been more as a benefit for important groups. Government services now facing major resource constraints because of adverse macroeconomic conditions. Crisis is forcing consideration of alternatives, but there are difficulties with poor administrative infrastructure and human resources.

Middle East	
CURRENT MAJOR PATTERN	Public / private mix varies across countries, and corresponds to attitudes to private sector activity in general. A growing private ambulatory sector exists in all, but the extent of private hospital provision varies from little (Tunisia) to extensive (Egypt). Private sector shows considerable urban bias in all cases.
HISTORICAL BACKGROUND	Approach to health care provision generally reflects overall economic strategies. Private provision has always been significant, but several countries have attempted to expand free government health services to whole population (Tunisia), while others have predominantly relied on the private sector (Jordan). Little experience with social insurance, except Lebanon and Jordan. Most have faced resource constraints, and private sector has generally filled gap. In recent years fiscal crisis has forced more attention to private sector development.
MEDICAL SYSTEMS	Some traditional medical systems, but these are of declining importance. Modern health care is generally available.
SOCIOECONOMIC ENVIRONMENT	Range of low to middle income economies. Varied economic strategies: laissez-faire (Lebanon) to considerable state control (Tunisia, Syria). Several facing economic difficulties, and need for economic liberalization. Mixed growth. Moderate industrialization. Semi-urbanized populations Moderate level of human resources.
POLICY DIFFERENCES	Spectrum of policies. Private practice is always permitted. Little active support of the private sector, with some just ignoring it. Most countries have regulated prices and fee levels through administrative measures, but the ability to control the sector via insurance does not exist. Public intervention is usually limited to direct provision and widespread insurance coverage has not often been a policy goal.

South Asia	
CURRENT MAJOR PATTERN	Rich diversity of providers. Significant public provision, especially in the hospital sector, but generally inadequate, particularly in rural areas. Large, widespread private sector consisting of formal and informal providers. Significant private hospital provision in urban areas. Some work based social and private insurance, but restricted to formal sector in cities, and overall coverage still low.
HISTORICAL BACKGROUND	A great diversity of providers has long existed. Colonial administrations established basic health services located predominantly in urban areas. Governments have expanded these, but funding has generally been insufficient to meet demand. Considerable freedom for private sector activity, and no shortage of medical personnel. Formal private sector services have continually expanded at both primary and tertiary levels, and in urban and rural areas. Likely overprovision of ambulatory, care and drugs for most of population, but with poor quality
MEDICAL SYSTEMS	Modern health care widely available and predominant But several formal and established systems of traditional medicine, including ayurveda, unani, etc. These are often professionalized, receiving official support and provided on a highly organized basis. Other systems also available, including homeopathy.
SOCIOECONOMIC ENVIRONMENT	Low income economies. Moderate economic growth. Small, but growing industrial sector. Mostly rural. Moderate level of human resources, and ample supply of medical personnel.
POLICY DIFFERENCES	

Southeast Asia	
CURRENT MAJOR PATTERN	Mixed picture, ranging from mostly public provision (Vietnam, Burma) to mostly private (Thailand). In all the market-oriented societies, private services are showing considerable expansion, on the back of rapidly rising incomes. Insurance systems of increasing importance, with some countries attempting to achieve universal coverage (Malaysia, Thailand).
HISTORICAL BACKGROUND	Colonial administrations established network of modern health care services, financed from general revenues. Extent varied, more in British than French or Dutch colonies. Since then, some have been able to considerably expand public services, while others have relied more on private initiative. Little use of social insurance, except in Philippines, until 1980s. Private insurance previously at low levels, but increasing in urban and formal sectors.
MEDICAL SYSTEMS	Rich heritage of both Indian and Chinese originated traditional medical systems, as well as indigenous forms. Continues to survive alongside other providers, but not as highly developed as in S. or E. Asia. Some official support, but not always. Modern health care services widely available and accepted.
SOCIOECONOMIC ENVIRONMENT	Range of low to middle income economies. With a few exceptions have enjoyed high economic growth in recent years. Generally market-oriented and trade dependent, with considerable reliance on private sector activity. Rapid industrialization with moderate, but growing, level of urbanization. Rural economies often well-integrated into cash economy. Moderate to high level of human resources. Resource constraints not a problem in the more successful economies.
POLICY DIFFERENCES	

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Eastern Europe and Former Soviet Union	
CURRENT MAJOR PATTERN	Medical services currently a predominantly public sector activity. Underfunding and poor quality seen as major problems. Restrictions on private provision being relaxed. Present health systems currently in transition.
HISTORICAL BACKGROUND	Historically development of health services was similar to those in Western Europe. After WW II health systems brought under central state control. Health care publicly provided free and private provision of services discouraged, if not banned. Little experience of insurance schemes, private or social.
MEDICAL SYSTEMS	Modern health care services widely available. Other therapeutic systems not greatly important or available.
SOCIOECONOMIC ENVIRONMENT	Low to middle income economies. Currently undergoing transformation from centrally-planned to market-oriented systems. Facing considerable economic difficulties, with declining living standards. High level of human resources.
POLICY DIFFERENCES	Health reforms largely of secondary importance in comparison with other economic reforms. Existing systems seen as being underfunded and of poor quality. Fundamental changes being considered in most countries, with a shift to systems more akin to those in W. Europe. Introduction of social and private insurance and encouragement of greater private sector activity likely.

Source: Berman and Rannan-Eliya (1993), p. 26 ff.

APPENDIX B: Strengths and Weaknesses of Alternative Methods of Paying Health Providers

PAYMENT METHOD	STRENGTHS	WEAKNESSES
Fee for service	Provider's reward closely linked to level of effort and output	Tends to cause cost inflation
	Allows for easy analysis of provider's practice	Creates incentives for excessive and unnecessary treatment
Per case (for example, using diagnostic-related groups)	Provider's reward fairly well tied to output	Technical difficulty of forcing all cases into standard list can lead to mismatch between output and reward
	Gives provider incentive to minimize resource use per individual treated	Providers may misrepresent diagnosis in order to receive higher payment
Capitation (per patient under continuous care)	Administratively simple; no need to break down physician's work into procedures or cases	Gives provider incentives to select patients based on risk and to reject high-cost patients
	Facilitates prospective budgeting	May create incentives for provider to underservice accepted patients
	Gives provider incentive to minimize cost of treatment	Difficult to analyze provider's practice
	Allows for consumer clout if patient can select own provider	
Salary (straight payment per period of work)	Administratively simplest	Loss of patient influence over provider behavior unless patient choice links provider salary to patient satisfaction
	Facilitates prospective budgeting	Can easily create incentives for provider to underservice patient and to reduce productivity

Source: World Development Report 1993, p. 124