THE QUESTION OF GOVERNANCE IN THE PRIVATISATION OF INFRASTRUCTURE

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Introduction

The Inter American Development Bank (IADB) estimates that for the economies of Latin America and the Caribbean to grow at annual rates of 5% the same percentage would have to be invested for infrastructure, energy, transportation, telecommunications, and water and sanitation infrastructure. This translates into annual investments of nearly US $70 billion. When one considers the dilapidated state of the infrastructure in many countries of the region, investment needs may be even greater.¹

It is estimated that multilateral and bilateral sources supply only 10% of investment needs, with the private sector supplying about 15% and government the remaining 75%. The capacity of government to satisfy this 75% demand is limited, not only because there are pressing social needs, but also because growth of public expenditure is increasingly constrained by the overriding need to maintain macroeconomic stability. Increasingly the state has been giving up its role of planner, financier and manager, and assuming that of grantor (privatisation, concession, management) and regulator or overseer of the provision of services by the private sector. To facilitate this the multilateral funding agencies are now providing direct financing to the private sector with or without government endorsed guarantees. This private sector participation is being promoted not only through its financing but also because of its catalytic effect in attracting outside financing through risk guarantees and umbrella protection on perceived political risk.

Infrastructure Situation

Developing countries now invest around $200 billion a year on infrastructure. About 80% of this amount is provided by government tax revenues (i.e., approximately 50% of the total yearly government investment), around 10% of this expenditure is borrowed by the government from bilateral and multilateral sources, and the rest of the money comes from publicly guaranteed commercial financing and private sector investments.

The present system of infrastructure investment puts a heavy burden on public finances as the predominant sources of finance – tax revenues and government borrowings – rely on the government’s ability to generate capital and secure lines of credit. Moreover, the present system of infrastructure financing presents an almost unilateral allocation of risks, as the government is liable for most of them. Actual demand for infrastructure investment in developing countries is around 3-6% of GDP.
However, this amount tends to increase, as the rapid pace of urbanisation in these countries requires investments in water supply, waste treatment and disposal.

The current situation dictates the need for additional funding sources as Governments simply do not have the funds in place and the credit line required to finance the entire infrastructure required. One possible source of funding for infrastructure is for the private sector to increase its participation. Its participation in the provision of infrastructure services does not only bring new funds, thereby decreasing the burden on government financing, but also encourages risk sharing and augments the efficiency of infrastructure provisions. The possible private-sector participants of infrastructure projects are firms seeking overseas business (e.g., construction companies and operators) and firms seeking high-yield investments (e.g., investment banks and pension funds).

In the late 1980's, there was greater participation of the private sector in infrastructure. This occurred in two ways: through the privatisation of state-owned infrastructure providers and through market deregulation and policy reform that allowed new facilities to be constructed and to compete for the delivery of services. This participation has resulted in annual infrastructure investments in developing countries of about $15 billion (i.e., 8% of the amount spent on infrastructure). Tables 1 and 2 show the potential savings worldwide that can be accrued from privatisation of infrastructure.

**Aim and Scope**

Despite the fact that private participation in infrastructure is becoming widespread in Latin America and the Caribbean, knowledge of the form the process can take and its implications is limited by the small number and abstract nature of theoretical predictions, as well as by the

<table>
<thead>
<tr>
<th>Sector</th>
<th>Savings</th>
<th>Source of Inefficiency</th>
</tr>
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<tbody>
<tr>
<td>Power</td>
<td>90</td>
<td>Under Pricing</td>
</tr>
<tr>
<td>Water</td>
<td>13</td>
<td>Under Pricing</td>
</tr>
<tr>
<td>Water</td>
<td>5</td>
<td>Illegal Connections</td>
</tr>
<tr>
<td>Railway</td>
<td>15</td>
<td>Under Priced Passenger Service</td>
</tr>
<tr>
<td>Total</td>
<td>123</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Ingram and Fay, n.d.
Table 2. Potential World-wide Savings Due to Increased Service Efficiency for Selected Infrastructure Sectors (US$ billion)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Savings</th>
<th>Source of Inefficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>15</td>
<td>Annual investment requirements created by improper maintenance</td>
</tr>
<tr>
<td>Power</td>
<td>30</td>
<td>Transmission, Distribution and generation losses</td>
</tr>
<tr>
<td>Water</td>
<td>4</td>
<td>Leakage</td>
</tr>
<tr>
<td>Railways</td>
<td>6</td>
<td>Excess fuel use, overstaffing, and locomotive unavailability</td>
</tr>
<tr>
<td>Totals</td>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ingram and Fay, n.d.

dissimilar and relatively recent nature of the various privatisation experiences. What is obvious is that the successful participation of the Private Sector in infrastructure demands that the Government becomes reliably committed to appropriate limits on its power to intervene in the operations and finances of the entity and does not behave opportunistically. Achieving the public interest goal of the privatisation process requires a commitment to planning the structure of post-privatisation governance ahead of time. If this is not accomplished the investor, particularly in the case of Direct Funding Investment (DFI), will shift to another country where there is better governance and the investment climate for infrastructure more suitable.

The paper focuses on the commitment, governance and regulatory issues that are key for the successful participation of the private sector in infrastructure in terms of:

- the attraction of the requisite investment; and
- the attraction of investment at cost/price that maximises national welfare

The study identifies the barriers to private involvement and offers some suggestions for effective and efficient involvement. The purpose of this study is to contribute to an understanding of the implications of good pre-privatisation and post-privatisation governance for the private participation in infrastructure in the Commonwealth Caribbean.
Infrastructure and Government
Opportunism

Excludability and Subtractability

When one is considering the private participation in infrastructure and the subsequent charging of user fees, it can be characterised in terms of its *excludability* and *subtractability*. Excludability refers to the capacity to exclude someone from benefiting from the service, whilst subtractability is the ability of one person’s use to affect others; in fact subtract from the potential.

Figure 1 serves to describe certain types of infrastructure in the Caribbean with respect to these characteristics and provides some examples to assist in this process.

Public utilities are in the top right hand corner of the grid, because of their high excludability and high subtractability. In many respects good governance can greatly affect these structural features even when the entity is in private hands. In Jamaica, for example, the Jamaica Public Service Company Limited, an electrical power utility has been privatised. However, the state of excludability is being reduced by government passiveness in the “garrisons,” where there are an abundance of illegal utilities connections and poor collection of fees. This behaviour deprives the company of legitimate recovery of costs and profit commensurate with the risk undertaken. If not prevented by government action, this amounts to a form of administrative expropriation.
<table>
<thead>
<tr>
<th>Toll Bridge:</th>
<th>Public Utilities</th>
<th>Urban Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Demerara Harbour Bridge, GUYANA</td>
<td>Close Channel Irrigation</td>
<td>Main arteries:</td>
</tr>
<tr>
<td></td>
<td>- Hounslow &amp; Pedros Plains, JAMAICA</td>
<td>- Eastern Main Road, TRINIDAD</td>
</tr>
<tr>
<td></td>
<td>Transportation Systems</td>
<td>- Spanish Town Road, JAMAICA</td>
</tr>
<tr>
<td></td>
<td>- Jamaica Urban Transport Corporation</td>
<td>- East Coast Road, Demerara, GUYANA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Open Channel Irrigation</td>
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<tr>
<td></td>
<td></td>
<td>- Tapakuma Irrigation Scheme, GUYANA</td>
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<tr>
<td>Highways:</td>
<td></td>
<td></td>
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<tr>
<td>- Nelson Mandela Highway, JAMAICA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rural Roads</td>
<td></td>
<td></td>
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</tbody>
</table>

**Figure 1**

**EXCLUDABILITY**

- **Low**
- **High**

**SUBTRACTABILITY**

- **Low**
- **High**
Services with High and Low Excludability

It is beneficial to draw a distinction between those services with high excludability and those with low when analysing the role of the legal and regulatory frameworks, institutions and governance in general in guaranteeing that markets and the private sector supply the services. In developing countries, in general, the services with the low excludability, such as the road systems are usually termed as impure public goods. For those goods, exclusion may be feasible but not always desirable, since the marginal cost of using roads is zero, except in the case of congestion.3

According to Ordover and Uribe (1999), near the end of the “pure public goods spectrum, governments will be active not only in regulation and monitoring, but also in publicly providing the good”. On the other hand because of the high excludability, public utilities tend to fall more into the range of publicly provided private goods. This is mainly because the incremental supply of these utilities services has a positive marginal cost, and the cost of exclusion could be greater than the benefit. This is particularly so in the case of potable water supply and sewerage systems.

In public utilities, which include services like telecommunications, electricity, and water and sewerage, bottleneck facilities or networks coexist with a potentially competitive supply, markets for the service do exist, and the final service to the consumer can be commercially priced. This makes utilities more suitable for privatisation.

Structural Features

However, three additional characteristics are common to both types of infrastructure. These are large sunk costs, economies of scale, and high consumption by many consumers. The three structural features foster government opportunism for the investing company cannot easily liquidate or transfer its assets. There are few suppliers and in the Caribbean generally these are monopolies, and the consumers represent the political base and full constituency of the government. After investing, there is a temptation by the government to obtain political mileage by expropriating the supplier’s sunk cost by administrative measures. This may take the form of restricting the operating firms pricing flexibility, requiring the firm to undertake special investments, influencing purchasing and employment patterns, or restrict the movement of capital. According to Spiller and Savedoff (1999) while the government may uphold and protect traditionally conceived property rights, it may still attempt to expropriate through regulatory procedures, that is, disallowing costs, lowering prices, or requiring special investment patterns or purchases.

As the Caribbean governments now seek DFI for the traditional public works projects such as the “Highway 2000” project, which is supposed to link the Montego Bay to Kingston in ninety minutes in Jamaica and the “Berbice River Bridge” project in Guyana. One must therefore examine the specific features of the form of infrastructure when considering governance. Whereas with utilities the excludability and the “essential” nature of the service make charging and collection of user fees relatively easy in most cases, the level of use of the roads and bridges combined with leakages may make the investor’s obtaining the required return on investment difficult. The longer life of the works investment, along with the fact that once the investment is sunk there is generally no need for further investment and recapitalisation make the risks more severe.
Spiller (1993) observes that in 1962 when the Jamaican government informed Jamaica Telephone Co. that it wished to renegotiate the terms of its license on expiry in 1966, the company stopped all investment and eventually sold out. Suspending investment is a completely rational act for a utility suddenly faced with uncertainty over its future regulatory regime. In the case of a company holding a concession on a highway or owning a bridge the most it can do is to stop maintenance, if legally possible. In other words, as much as 97% of its life cycle cost could be sunk, as there is virtually no facility operating costs, only maintenance. The investor therefore has little flexibility after the completion of the construction and installation phase of the project.

Successful participation of the private sector in infrastructure demands that the Government become reliably committed to appropriate limits on its power to intervene in the operations and finances of the entity and does not behave opportunistically.

Creating Incentives for Private Participation

Background

Given the large sunk costs, lengthy time period for recovery and the associated financial, political and regulatory risks that accompany investment in infrastructure, investors' confidence need to be raised and bolstered by governmental commitment not to renege on contractual arrangements and concentrated efforts at reducing perceived and actual risks through:

(a) The amendment of the regulatory framework via legislative and judicial reformation and the creation of independent administrative bodies outfitted with technically qualified expertise, and

(b) Ongoing policy reform via the creation of a stable macro-economic environment, public disclosure of relevant information, and liberalization of capital markets.

Despite the global trends towards privatisation and the increased interest amongst investors, they continue to perceive that they face great risks and it is for this reason that risk measurement, reduction, and allocation are of importance. The primary focus of this section will be on methods of reducing actual and perceived risk in order to attract investors.

The risks that an investor will face are generally categorized as follows:

- Political and Regulatory Risks
- Demand and Construction Cost Risks,
- Exchange and Interest Rate Risks

Political and Regulatory Risks

The political and regulatory risks that are ubiquitous in the private investment argument are categorized by Smith (1999) as follows:

- Traditional political risks: expropriation, currency convertibility and transferability and political violence;
- Regulatory risks: these include those risk brought about by the enforcement of regulatory rules both at the industry level as well as the national level; and
• **Quasi-commercial risks:** occur when partially owned or operated agents of government fail to keep up to their end of the bargain with private investors either because they fail to forward payments due or perform certain duties under contract

Governments taking the following measures can generally reduce these risks:

- Commitment to *international treaties* which enhance government credibility;

- Coverage of political and regulatory risks through various means of *insurance*;

- Issuance of *guarantees* by governments or multilateral development banks;

Other steps that can be taken by the government can include *credibility enhancement measures*, which would indicate the level of seriousness in the government's commitment to the modernization of the state. Typically, Constitutional and Judiciary Reforms and the involvement of independent Regulatory Institutions are elements in the formula. In addition, commitments covering the range of issues of concern to the investor can be anchored through contracts, and strategies that would increase the bargaining power of the entrepreneur can be adopted. Additionally, there can be an agreement that disputes can be settled through international arbitration. This is nothing new as many construction contracts include a clause covering international arbitration. However, in many Caribbean countries, such as Jamaica, the Arbitration Act would have to be amended so as to make arbitration final and not subject to Judicial Review, except for findings in law.

**International Treaties**

The ratification of bi-lateral, regional or multilateral treaties into local legislation serves to enhance the credibility of governments. The reason for this is that it offers substantive protection of private property and makes clearer the provisions regarding the settlement of international investment disputes. More importantly, investor confidence is heightened when a country is party to certain international investment treaties as:

...they constitute an important constraint on signatory states, as few countries will take treaty commitments lightly ... aggrieved investor's state can pursue its treaty rights against the offending state, ... treaties allow investors to pursue ... rights against the offending state directly without aid or intervention of their home state ... (Smith 1997)

Governments should therefore seek to increase their commitments to such treaties as it offers standards of protection to potential investors. Granted not all issues are standardised in their dealings across countries and whilst treaties do act as a buffer to losses that can result from political violence, they are limited in its scope. Commitment to such treaties, however, reduces perceived risks by investors and hence reduces required risk premiums.

**Political Risk Insurance**

The choice to buy insurance depends on the perception of the investor or lender of the perceived country risks that he might face. Agencies such as the United States Overseas Project Insurance Corporation (OPIC) and the
Multilateral Investment Guarantee Agency (MIGA) are two of the major entities that provide coverage to investors for attenuating risks associated with offshore investment.

The availability of insurance coverage against political risks brings to the forefront issues relating to adverse selection, moral hazard and the level of commitment by governments given that risks borne by the government would be reduced by this action by investors.

The prudent selection and operation of projects by investors could be weakened by the existence of coverage of political risks by insurers; likewise it does little to strengthen the resolve of the host country to abide by its commitments (Levy and Spiller 1996). Political risk insurance increases the cost of the project and all parties therefore need to carefully examine the costs of investments and ensure that risk measurement and allocation are accorded appropriately.

**Guarantees**

Guarantees can be used to reinforce the commitment of governments and government entities. They can be third party being provided by sovereign governments or multi-lateral development banks. Their main advantage over insurance is that they can be crafted to meet a broader range of risks.

Depending on constitutional and other requirements some sovereign guarantees are enforceable as contracts and represent contingent liabilities of the government until they are called or expired. Irwin et al (1997), however, feel that if not properly designed, guarantees can blunt the private investors’ incentive to choose only good projects and to run them efficiently.

**Credibility Enhancement Reforms**

Reforms pertaining to limitations on government discretionary powers, which affect property rights, mitigate against traditional political risks and act as a positive indicator to the investing public of government embrace of the importance of protecting property rights. The agreement by a majority of the CARICOM member states to the establishment of a Caribbean Court of Justice which replaces the Privy Council as the highest Court of Appeal in the region may have the effect of creating a perceived risk, as foreign investors have a degree of comfort in having judicial disputes settled in an industrialised country, such as the United Kingdom.

To complement the overall thrust of gaining credibility, hence reducing perceived risk by potential investors and demands for heavy guarantees, the establishment of independent agencies such as independent central banks, competition regulators and utility regulators is usually recommended.

**Demand and Construction Cost Risks**

Regardless of the country, there is always the probability that construction costs will overrun estimates, which exposes a firm to risks of this nature. Some of the causes of the variances are outside of the control of the firm. These include strikes, force majeure, bureaucratic delays, unavailability of materials, and delays caused in the satisfying of statutory requirements.

In the case of prices, government can compensate the firm for any unreasonable variations based on a price list included with the proposal. However, a mechanism can be in
place to cover unreasonable variation caused by excusable and compensatory delays.\textsuperscript{7}

Demand risk quite often is dependent on government policies, which can increase employment, increasing income and, thus provide for a higher standard of living. In Jamaica, whilst the demand is there, given the high level of unemployment, consumers will find it difficult to pay user fees. This is particularly so in the water sector where, even though funds may be available for the provision of potable water supply and sewage systems, private investors are unwilling to venture. In this situation, unless the factors which would diminish project value can be substantially incorporated in its assessment, and unless the demand can be projected during the life cycle phase, which may be as long as 2 years from inception, funds will be diverted to other sectors and countries.

Least Present Value of Revenue (LPVR) auctions can be used to mitigate demand risk, particularly for road projects, where use may not meet projections. The LPVR reduces the risk faced by investor due to fluctuations in demand and leakages beyond their control as termination of the franchise occurs when the present value of user-fee equals the winning bid. Unlike the fixed term lease, the life span of the lease under LPVR is not determined at the time of the award.

Use of the LPVR can sometimes result in the organization not investing enough in socially valuable marketing efforts, but by complementing LPVR franchises with other regulatory innovations, such as appropriate monitoring and accountability procedures or systems which penalize for non-compliance to minimally acceptable service quality, this problem can be mitigated.\textsuperscript{8}

However, the simplest approach is for the government to commit itself to ensuring that the private owner receives a minimum level of revenue when demand is lower than expected.

**Exchange and Interest Rate Risks**

A major incentive for investors would be for the government to bear exchange or interest rate risks. This has additional benefits primarily because they will have financial incentives to adopt macroeconomic policies that tend to prevent depreciation in the currency and interest rate increases. However, the status quo in Jamaica and Guyana are already burdensome interest rates, but the probability still exists for increases in the exchange rates of both countries. Unlike conventional wisdom, this scenario can be beneficial for the investor if he maximises the use of local resources. The downside of this argument though is that once cost is sunk, he will have greater difficulty in recouping his investment because of lower value of the local currency and user fees. This can be treated in a similar manner to the demand risks.

**Policy Plan for Industry in the Caribbean Context**

Theodore (1992) points out that the Caribbean public sector firms do not really operate within a competitive environment partly because of the small size of the countries, and partly because of the genesis of state ownership in the region. He concludes that it is unlikely that special efforts will be made to actively foster competition because of the same small size. As a consequence we are more likely to see privatised monopolies. This places a great challenge to government for both pre-privatisation and post-privatisation governance.
He opines that if a regulatory agency cannot get the firms under its jurisdiction to set prices that reflect scarcity values, or to allocate resources in a manner that keeps marginal productivity in line with resource costs, then the privatisation effort will not be able to lay claims to administrative efficiency.

However, the major driver behind privatisation efficiency is the introduction of competition in the market and this paper argues that unless privatisation is followed by a policy of market liberalisation, a monopolistic position may be unaffected by privatisation. For, it is the rigours of competition that deters inefficient management of privatised entities. If one examines the conventional argument that privatisation is efficient because of market responsiveness, cost efficiency, productivity and economical application of capital, which are key to optimising profit, characteristics which are not found in public enterprises, there is still the possibility of political interference with the profit maximising goals of private enterprises, as well as the possibilities of using profit incentives to guide the management of state-owned enterprises. In dismissing the conventional wisdom Willig (1999) points out that political interference is particularly likely through the regulation of private infrastructure enterprises. And private-public partnerships might be particularly attractive candidates for profit-oriented incentives. The major differences in the performance of public and private entities are based on “the inevitability of political influence over the operations of public enterprises, and the haphazard relationship that must be expected between political agendas and economically efficient performance.” The fact of the matter is that the small size of the Caribbean countries that Theodore (1992) refers to may make the question of liberalisation irrelevant. Privatisation in the region require regulatory regimes in order to control potential abuses of power by the new private monopoly.

Another approach in examining the claim that privatisation by itself is more efficient is to look at it from the perspective of property rights economics. Whinecop and Keyes (2000) suggests that the more attenuated the property rights of a person in an asset which he or she is responsible for managing, the less incentive the person has to manage efficiently. An asset will be used more efficiently if a person who can capture gains from its efficient use, and who bears the cost of his decision regarding the use of the property rights owns the property rights in the asset. The property rights of citizens in assets owned by the state are highly attenuated. However, in the Caribbean most of the acquisition of infrastructure through privatisation has been by corporations. As a result persons who do not own its “residual claims” manage them. In a corporation it is the shareholders who have property rights in the corporation’s residual claims, and most importantly they are able to sell these interests. One can then conclude that the incentives created by private ownership of the corporation’s residual claims must create the incentives for efficient asset management, and provide means to discipline inefficient managers. There is therefore a need to control the opportunism of managers, which may be reflected in price. Thus regulation is necessary to curb market power, as the fundamental economic characteristics of the market in the Caribbean are inconsistent with the workings of competition and contestability.

To some extent competition can be introduced in the Caribbean environment through structural reforms that either allow entrants to compete with the incumbent integrated infrastructure or by separating the potentially competitive parts from the natural monopoly core. In the larger Caribbean countries it could
be quite feasible to open the generation of electricity, power and potable water supply to competition, whilst holding the distribution and transmission as a monopoly.

In Guyana, traditionally, the Bauxite Industry and the New Amsterdam Town Council sold excess electricity generation to the national grid. Today, private companies independent of the privatised monopoly are determining whether or not they could generate hydropower economically to be sold to the national grid. In addition, new and improved technology in the telecom-communications industry makes it very advantageous for privatisation. Its costs are both low and falling rapidly. However, the industry cost and tariff structures are kept remarkably opaque, and as a result too many tariffs in price-elastic market segments remain excessively high. Competition should be encouraged by the supporting companies to establish cellular telephone services with reasonably priced access to the line plant of the monopoly. In addition, restrictions should not be placed on calls being made through the Internet.

Telecommunications monopolies should be encouraged to unbundle the horizontally integrated components such as the distribution of telephone instruments and equipment, along with the installation of equipment and systems. At the time of privatisation, the Guyana Telecommunications Corporation held a monopoly on the supply, distribution and installation of all telephone instruments and equipments. This generally took the form of rentals, which meant that during the life of the product, the company recouped far in excess of the cost. Unbundling prior to privatisation appears to be more favourable. However, it should be appreciated that the company may be worth more as a monopoly and thus reduce public debt by a larger amount.

What is extremely important is that in any agreement for the private participation in infrastructure there is enough flexibility for competition to be gradually introduced into the market.

In concluding this discussion on the introduction of competition, it is necessary to point out that if an industry is to be broken in to potentially competitive firms, the assets need to be identified and allocated, as do contracts, liabilities, employment and pension assets. The financial structure must be designed and tested for robustness, pro forma accounts prepared, and a past listing of accounts relating to the assets of the new firm created to convince financial analysts of the commercial viability of each proposed firm (see Newberry 2000: 380-420).

The special features of infrastructure provide additional political incentives for government interference and as a consequence investors require a credible commitment that the value of their investment will not be politically expropriated either fully or partially. This commitment can be achieved by bilateral agreements with the government of the host country and that of the major investing firm. This is particularly beneficial to all parties when there is excess capacity in terms of skills and equipment in the investing country. For example, if Indian engineers, materials and technology were to be used in the construction of the Berbice River Bridge in Guyana, it would be economically efficient for the Indian government to sponsor the investing firm. It should be noted that investors from the major industrialised countries have a major advantage in this sphere as their countries such as the United States of America, besides being large aid donors, virtually have veto powers on programmes funded by The World Bank and International Monetary Fund. The last point could be widened to be considered as a reputation effect that would cover
all investments regardless of country and government's ability to borrow, or further privatisation would be retarded in the event political expropriation was attempted. Other measures that could be implemented include the strengthening of the legal system to protect private property rights from government action, and the inclusion of specific clauses in the contracts implementing the privatisation.

The policy underlying the private participation in infrastructure projects must of necessity include the mechanism that can provide the requisite credible commitment against expropriation of private capital, particularly against administrative expropriation, which is probably the only threat in the Caribbean environment. As discussed earlier a regulatory body is required for post-privatisation governance and while acting to control monopoly power to protect the public interest, its powers should be circumscribed to maintain the necessary credible commitment against administrative expropriation.

Framework for Private Participation in Infrastructure

Any regulatory compact should protect the rights and interests of both the investors and consumers alike. The regulatory regime should be designed to insulate the infrastructure from short-term political decisions and rigid bureaucratic control. It should be directed at ensuring that the firm operates on commercial lines so that the scarce resources of the state are available for development. The firms should be insulated from government policies for achieving social goals such as employment creation, and subsidies for certain categories of consumers. On the other hand, avenues should be available for the government to pay the subsidy or any revenue shortfall to the company as a result of such a policy. Because there is a single supplier, a voucher system or rebate structure for the disadvantaged could be administered efficiently.

An important aspect of the design would be to create clear and transparent rules and procedures for open hearing by which the Regulatory Body can monitor and control the constructed facilities and essential utilities, while the interests of all stakeholders can be balanced and protected.

Privatised infrastructure concessions require effective government regulation, which should be based on a stable and trusted system of enforceable laws concerning property rights, contracts, disputes and liability. The Caribbean Court of Justice which will replace the Privy Council in some of the territories, has the disadvantage of not being as internationally recognisable as the latter. It was easy for foreign investors to seek solace in its existence. The present political squabbling that exists in some countries, even among the legal professionals is damaging to the effects of governance. A major public relations effort is required to let potential investors realise that there be as fair justice by a regional court.

Key elements of the regulatory framework should include rates, performance, reliability, degree of competition, and access to interconnection with other systems in the case of such services as telecommunications, water supply and electricity supply. Savas (2000) suggests that the process of regulation should be as straightforward and predictable as possible, with automatic price adjustments based on predetermined formulas and minimal reporting requirements; price regulation should allow producers to benefit from efficiency improvements.
Integral aspects to be determined should include:

- Composition of regulatory body
- Jurisdiction of the regulatory body
- Division of responsibilities and jurisdiction between the Regulatory body and the government
- Arbitration and Appeal process
- Independence and role of the body (advisory or autonomous)
- Activities and parameters to be regulated
- Mechanism for the evaluation, control and monitoring of quality of service
- Price mechanism

Willig (1999) consider the following to be guiding regulatory principles that would generate efficient solutions to a wide range of disputes and issues that might arise in a regulated infrastructure sector:

- Preserve investor value
- Allow competition to function where it can without distortions
- Weigh cost of rules against benefits
- Assure service quality and price levels that offer consumers no less than the competitive standard of comparison
- Assure that prices provide signals and incentives for efficient actions by consumers, suppliers or complementary and substitute services, suppliers of inputs and investors
- Allow open access to bottlenecks on terms that reflect competitive parity
- Pay efficient and competitively neutral attention to social goals pertinent to the sector.

It is not the intention of any of these principles to unfairly favour one group of shareholders over another. The aim of the first principle is to prevent the regulator from unilaterally imposing changes in policy or other regulatory directives that would diminish investor value. The baseline for the mandated preservation of value is the original privatisation ‘deals’, or the most recently negotiated evolution of the deal.

While the previous principle serves to protect the interest of the investor, the second principle assures competitive service quality and prices, and ensures the entitlement of consumers to combinations of prices and levels of service quality consistent with the competitive standard.

Allowing competition to function without distortion provide for the regulator to take steps to enable competition to take place without distortion by opening access at compensatory prices to bottleneck assets and positions. On the other hand direct regulatory interference should be confined to monopoly markets. This principle is concomitant with allowing access to bottlenecks on terms that reflect competitive parity as it asserts that the infrastructure monopolist should be impelled by regulation to give open access to their bottleneck facilities. Newberry (2000) claim that the most difficult regulatory issues have to do with pricing access.
to the bottleneck when the bottleneck owner is also competing in one of the markets served by the network. This occurs when the incumbent, such as Jamaica Public Service Company Limited is willing to allow competition in the generation of electrical power, but will still have a monopoly in the transmission of electricity, as is the case after the recent sale of 80% of its shares to Mirant Corporation, USA.

In Jamaica, Cable & Wireless Limited, after negotiating with the government agreed to give up their monopolistic position as regards to cellular telephone service. It is understood that this concession was a quid pro quo due to the fact that the monopoly could not meet certain performance goals that were established. Competition began on May 01, 2001 with the introduction of DIGICEL cellular telephone service. However, a comparison of prices to be charged to Cable & Wireless fixed line (regular telephone) customers who initiate calls to Cable & Wireless cellular customers and the competing company, DIGICEL as shown in Table 3, reveals that there is a penalty to the customer of an average of an additional 183% over what is charged for a similar call to a Cable & Wireless cellular service customer, when the call is to a DIGICEL customer. This serves to highlight the need for access prices to be reasonable and competition to function without distortion.

<table>
<thead>
<tr>
<th>Company</th>
<th>Full Rate (Weekdays 6am-5.59pm) per min.</th>
<th>Reduced Rate (Weekdays 6pm-5.59am) per min.</th>
<th>Weekend Rate (Sat 12.01am-Mon 5.59am) per min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable and Wireless</td>
<td>$5</td>
<td>$4</td>
<td>$3</td>
</tr>
<tr>
<td>Digicel</td>
<td>$12</td>
<td>$11</td>
<td>$10</td>
</tr>
<tr>
<td>% diff. in prices</td>
<td>140%</td>
<td>175%</td>
<td>233%</td>
</tr>
</tbody>
</table>


The regulatory framework should provide for the concept that prices should be related to the economic costs, both marginal and incremental costs over the pertinent time frame. This is achieved by adhering to the principle that prices should provide signals and incentives for efficiency by consumer, supplier and investors. It also allows for ‘Ramsey pricing’, which optimises consumer benefits subject to the stipulation that prices yield sufficient revenues to cover total costs.

At present there are two main approaches to setting prices, which are incorporated in either the “rate of return regulation” or the “price cap regulation.” Rate of return regulations basically guarantees the investor a specified rate of return on his investment. The original intention of this
regulation was to guard the consumer against excessive profits being realised by the firm. The major disadvantage of this approach is that it creates allocative distortions that result from setting prices at average and not marginal costs. It provides little incentive for the firm to cut costs and it encourages excessive capital intensity when the rate of return exceeds the cost of capital. The rate of return regulation is probably more suited to the United States of America where there is a history of private participation in infrastructure, particularly in utilities.

On the other hand, price-cap regulation was introduced to better mimic the effects of a competitive market where competition was not feasible. They are considered well suited to the transition to unregulated markets as competition reaches critical intensity (Newbury 2000).

The core of this approach is an output related profits levy where the rate of profits tax decreased with increased output. This tariff reduction scheme is commonly referred to as "RPI-X."

The major criticism against this approach is its lack of fairness, it however allows for explicit indexation against inflation, and the flexibility to allow rapid tariff rebalancing. Other drawbacks of price caps are that there is a potential for the erosion of service quality and during the relative long term of the cap period, fundamental changes may occur that render the contract inappropriate. Further, there is now evidence that price caps subject firms to operator risk and therefore raise their cost of capital, and as a consequence they must be permitted to earn higher returns.

The main difference between rate of return and price cap regulations is that the former is based on actual costs, while in principle the latter is based on projected efficient costs, that is, the cost the utility should be able to achieve if it is operating efficiently.

The Telecommunications Bill, 2001 of Trinidad and Tobago caters for the current “rate of return” regulation that the incumbent firm is being subjected to be changed to “price-cap” regulation.

The question of social goals was discussed earlier in this section and the principle of paying ‘efficient and neutral attention’ holds that if the regulated firm has to attend to those goals, they should be pursued efficiently and without distortion. Subsidies should be granted in a targeted fashion and there should be competitive neutrality so that these social goals can be achieved without affecting the capacity of the forces of competition to select and reward efficiency.

Finally, the regulatory framework should reduce the risk caused by the uncertainty of how the government will exercise its regulatory authority over the investment to control entry, prices, profits and other parameters. On the other hand, it should reflect a balance of the interests of all stakeholders, especially the consumers. To achieve this the regulations must be given some flexibility so that there could be adaptation to changes during the life of the regulatory arrangement. Most of the time the balance of forces, will be such that the existing governance structure will be in equilibrium, but occasionally the balance is distorted sufficiently, that change becomes possible or likely.

Summary

In the Caribbean, particularly Guyana and Jamaica, the boundaries of the state started to shift to privatisation with the adapting of their structural adjustment programmes and the conditionalities. In discussing pre-privatisation
and post-privatisation governance, it is important that we realise that legitimacy is not primarily about ownership but about control, regardless of whether this is effected through regulation, or direct ownership or whether economic activity should be guided by the market, subject to only general competition (Newberry 2000).

The greatest detriment to private participation in infrastructure is the regulatory environment. If the regulation is unlimited in scope, unclear in operation and inclined towards micromanagement, private investors will be dettracted and simply seek a more compatible environment.

The regulatory regime must be limited, transparent, fair and consistent and government must keep its promises. Investors are now not only wary of direct expropriation, but also of administrative or incremental expropriation, depriving the private firm of legitimate recovery of costs and profits. The conduct of the regulator has to be such that he is considered an important referee where the objective is to optimise output, rather than reflecting the interest of the political groups. The regulation of infrastructure has to deal with asset specificity on the part of the firm, bounded rationality on the part of the regulation, and opportunism by both parties. In addition, it has to protect agreements against intervention by other parties. A major threat here is not just directly from the government, but treaties and domestic and international pressure groups may cause the need for legislation in areas such as safety and environmental issues after the signing of the compact that could significantly affect the operations of the entity. In summary, a government can effect privatisation by committing itself credibly to post-privatisation governance that serves the public interest.

Finally, Government macroeconomic policy that will encourage the creation of employment is essential to governance of privatisation in the Caribbean context, as jobs produce consumers who can pay user fees. This holds true whether we are discussing potable water supply where there is a great need or toll roads, which may be dependent on higher incomes for the purchase of transportation services and vehicles.


**Endnotes**

1 Foreword of Basanes et al (1999). Statement by Enrique V. Igle sia, President of the Inter-American Development Bank

2 See Chevannes (2000). He states that the absolute priority of winning elections over other considerations of governance has led to the growth of “garrison constituencies.” These are enclaves growing out of slum clearance efforts in which housing was allocated to party supporters of the government in power.

3 This is correct only because the marginal cost of a single vehicle use is so small it can be considered to be zero.

4 The point here is that private goods normally have high excludability. That is why they are provided by investors in the first place. In the Caribbean, if potable water because of the high excludability is to be considered a private good, then it is generally publicly provided. However, it should be noted that historically in some communities potable water was provided by private entrepreneurs.

5 Reported in Newberry (2000).

6 Guyana is the exception. The Guyanese Court of Appeal has been the Highest Court of Appeal Since 1970.

7 When financing is being provided by the owner, an excusable delay refers to one outside the control of the contractor, but not compensatory, for neither party to the contract is responsible.


9 Theodore (1992) categorises this as “Administrative Parsimony,” “Responsiveness to change in market conditions,” “Technological Innovativeness.”

10 In societies where there is a high degree of nationalism this may not hold true.


12 Clause 29(6) states: “For any public telecommunications service in which there is competition, the Authority may introduce a method for regulating the prices of a dominant provider of such telecommunications service by establishing caps on such prices, terms and conditions of such services.”

13 “Bounded rationality,” “asset specificity” and “opportunism” are the major components of Transaction Cost Economics.
References


