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**Markets, Regulatory Institutions, Competitiveness and  
Reforms**

by

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## EXECUTIVE SUMMARY

Existing economic systems in many developing countries, well into the decade of the nineties, had been based on delivery of a large number of basic services through state command and control, with an emphasis on increasing access, which the then current thinking was felt to be incompatible with a markets based provision of these services. A combination of circumstances, among them fiscal stress, a better understanding of economic incentives and technological change, then began to raise questions about the efficiency and sustainability of this approach. It began to be increasingly realised that all three objectives – access, efficiency and sustainability – were mutually compatible, and governments then embarked upon reforms of their economic systems. This consisted primarily of transitioning towards delivery of these services through markets rather than state command and control structures. The record of the success of these reforms in different countries, however, has been markedly different.

This paper attempts to identify, isolate and elaborate on the key factors and actions that have distinguished successes from failures in two major areas that have been the focus of such reforms – infrastructure and finance. These sectors are not only the pivots of overall activity in a restructured economic environment but were incidentally also the ones that had been the most dominated by the state.

The most important ingredient for successful reform has been its motivation. Although reforms in many developing countries followed fiscal stress, the feature that sets the successful programs apart was a swift transition to a recognition of reforms as drivers of increased competitiveness through structural adjustment, not with the objective of revenue maximisation for government. Successful programs also recognised that markets work best with choice for buyers and sellers (i.e., competition) and an alignment of incentives of the various players.

Successful programmes have also recognised that markets occasionally fail, due to their inherent economic characteristics or imperfect information, and have devised methods to deal (often proactively) with these failures. The most virulent and rapid onset of these failures are typically evident in the financial markets and, more importantly, with

a risk of systemic and economy-wide ramifications. These corrective measures consist of replicating market signals to minimise distortions and providing a level playing field. Governments have used two processes - competition for markets through competitive bidding and regulation – to achieve this, and regulation, unfortunately, has often been the favoured choice. There has tended to be inadequate appreciation of regulation as a second best alternative, which is problematic even in the mature markets of developed countries.

Economic restructuring has often been synonymous with greater private provision of services, especially outright privatisation. Success has been aided by the recognition that the risk profile of market-based systems changes significantly and consequently of the need for establishing *a priori* appropriate market structures and institutions to mitigate these risks. The government's role during the transition has, in fact, often determined the outcome, especially for ensuring sustainability in access for the poor in a market environment. The issue of subsidies and subsidy delivery mechanisms will increasingly become more intertwined with market reform in developing countries.

Multilateral lending institutions have played, and will continue to play, a major role in changes in policy orientation, given the magnitude of their financing of structural adjustment programs, and the depth of engagement in country reform through technical assistance and advisory functions. Their experiences have, unfortunately, pointed up deficiencies in their internal learning and knowledge dissemination processes as well as (often) in the disbursement practices of these organisations. Even worse, lessons have occasionally been ignored and mistakes continue to be replicated.

No developing country, so far, has managed to implement a completely successful reform program, but many have succeeded in much greater degree than others. The experience of reform, moreover, has taught us many things and the tools for implementing successful reform are now better understood. Adapting these tools for specific countries, though, continues to be complicated.

## 1. INTRODUCTION

*“The fact that markets face certain problems does not in itself justify government intervention; it only identifies the potential areas for it ... the government is likely to face similar [imperfect information] problems if it intervenes” (Stiglitz [1989]).*

Competitiveness in a globalised world is used synonymously, and as shorthand for, an efficient and sustainable allocation of scarce national resources. In the post World War II period, many essential services had been thought to be monolithic natural monopolies and the significant demand-supply gap at what governments thought were “affordable” price levels had to be filled by the public sector through state planning and provision of services. The consequent systemic distortions led to unsustainable fiscal deficits and macroeconomic instability in many developing countries. In a “paradigm change” in the perception of the role of the government, private provision of services is now widely acknowledged to be more efficient, both for investment and operations, and financially sustainable. The dictates of increasing integration into global institutional frameworks like the WTO and Kyoto Protocol, moreover, are initiating, or accelerating, economic reforms.

These reforms predominantly comprise of moves towards market based systems, comprising two main and interchangeable components – (i) markets and (ii) competition. Experience of the reform process has, however, been mixed; countries have achieved uneven success in their efforts at reform. What lessons can be drawn from these experiences? How does one link restructuring (including privatisation) to reform? What are the causal mechanisms? How should reform be sequenced? How should they be paced? Do market-oriented systems help or hinder equitable growth? What is the role of government in this new orientation? How can the government enhance synergies with the private sector? How much of competition should be regulated? What is the best way of regulating competition, in the limited cases that such regulation be needed?

Evidently, the canvas of the subject is vast. A large literature has emerged over the drivers of growth – ranging from macroeconomic stability, high levels of physical investments, rapid human capital accumulation, low income inequality, low fertility, hands-off governments, capital markets development, protection of property rights,

institutions, infrastructure, and so on. These laundry lists are increasingly viewed with scepticism, with an increasing recognition of the enormous complexities in causal (inter-) relationships. The scope of the paper needs to be strictly circumscribed and limited to those areas of economic activity that can benefit from its recommendations and lead to productive country studies. Consequently, this introductory section defines in detail what the paper is and more particularly, what it is not. It is not a macroeconomic manual (although it recognises the role of a stable macroeconomic environment in the sustainability of reforms, as is illustrated by Argentina's experiences) or a discourse on regulating the external environment. It also does not focus on the role of the government's fiscal conduct, which has a key contributory role in the area of macroeconomic stabilisation, except in the important arena of subsidy transfers. It particularly does not examine the role of tax policy (including the use of exemptions and incentives), in an effort to artificially enhance the competitiveness of certain chosen sectors (see Buiter and Patel [1997] for an analysis of the effects of such exercises). Nor does the paper deal with issues of trade policy, despite the importance of open trade to introducing competition in sectors where domestic industries have significant market power. Much of economic activity, even those that used to be thought of as non-rival and non-excludable, is now acknowledged to belong (more rather than less) to the realm of commoditised markets.

This paper attempts to establish the conditions for a reform framework for economies with large government presence in key sectors that are being transformed to become more market-oriented in a manner that effectively and sustainably increases competitiveness. Given the theme title and, more importantly, the background of the authors, the paper will confine itself to two sectors. One is the provision of public goods that are characterised by lumpy investments, i.e., infrastructure. Government involvement here has not been unusual even in countries that are broadly defined as market economies. Non-tradable services are primarily susceptible to market failures engendered by the nature of the assets required for their provision or the network nature of the services. Two, the financial sector - as a distinct category with well developed markets and intrusive regulation - because of the systemic risks associated with financial crises and implications for the economy.

Throughout the paper, we will stress the interlinkages between structures, processes and institutions underlying efficient functioning of markets. A major conceptual fork on the path to increasing competitiveness is the choice of developing institutions geared for effective markets versus those that are required for a state determined thrust, e.g., Japan, South Korea and China (Singh [1996]). Although current indications point to the inability of the latter paradigm to foster a sustainable model of development, the role and ability of the state in determining the envelope of involvement in developing institutions deserves serious study (Singh [1994]). This paper will provide checklists of procedures and conditions that need to be fulfilled for increasing competitiveness.

Regulatory institutions are considered an important component in markets-based economic activity. The paper confines itself to the realm of “economic regulation” and consequently to those sectors where this regulation is warranted: i.e., specific economic infrastructure activities and the financial sector. This paper does not address issues related to administrative regulation, i.e., the set of legislative and executive controls regarding *inter alia* industrial, agricultural and environmental issues and procedures which are now understood to merely serve as effective entry barriers and obstruction devices for new entrants. Two considerations underlie this exclusion: one, the rapid assimilation into a rules-based trading environment will force all countries to move towards a semblance of standardisation; and two, there is little specific to recommend about administrative regulation other than the broad theme that administrative controls need to be enabling, not restrictive, for economic activity and competitiveness.

The paper will not address issues of collusive behaviour in industries with competitive markets. Open and consequent low tariff trade will mitigate many such market dominance related problems; the remaining areas (like cement, which confers a degree of market power by its proximity to markets) can be dealt with relatively effectively through competition regulation. Although the paper’s focus is more on the processes relating to the functioning of markets and conduct of regulation rather than the associated institutions, it reflects an economist’s (as different from a political economy) bias towards institutional issues.

The paper also does not deal with issues of health, public education and other social public goods that are also being increasingly brought under the ambit of market-based delivery. Other theme papers will address these issues. Although there is no reference to poverty reduction as an explicit goal in our approach to markets, it remains the backdrop of any discussion on increasing competitiveness and providing universal access.

This paper is not a step-by-step guide to the specifics of introducing markets and competition: that will be the subject of the ensuing country studies. Its role as a theme paper necessarily restricts it to an enunciation of broad principles and frameworks that should drive reform with the objective of delivering an efficient and sustainable process of change and are consistent with economic theory of markets that provide a unified perspective for examining market structures and the causes of market failure. As the reader will perceive, the contents can be categorised as a treatment of incentives to maximise the alignment between various stakeholders and of mechanism design meant to achieve the consequent objectives. The reader will also note, in the descriptive analysis of the actual design of institutions related to regulation and markets in terms of the congruence of the design with the analytical framework, a disproportionate use of illustrations based on India's experience of the issues raised in the paper. This reflects more than anything else the magnitude and complexity of problems located and sought to be resolved within a diverse and democratic polity. However, despite the authors being based in India, their involvement in leading private finance into the infrastructure sectors has given them an insight into the practices of other countries.

The structure of the paper is as follows. Section 2 is a description of changes in (the perception of) the role of government and consequently in economic systems in the nineties. Section 3 sets the stage for the key transmission channels between reforms, competitiveness and markets. Section 4 is an investigation into the conditions that lead to a failure of markets and hence these transmission links. Imperfections in the functioning of the financial sector are stressed. Section 5 concerns issues of *appropriate* regulation as one of the critical mitigation mechanisms for the consequences emanating from market failures. Section 6 discusses the process of restructuring, its prerequisites and transition

conditions. Section 7 discusses one of the principal transition supports – subsidies and their delivery mechanisms – in the overall context of the role of the government in both the reform process and in the restructured economic environment. Section 8 assesses selected hypotheses concerning issues discussed in these previous sections relating to reform that need to be addressed by a country specific reform strategy. Section 9 sums up the issues presented in the paper and presents recommendations on the key issues.

## **2. UNDERSTANDING REFORM**

After the lead taken in reforms by some developed countries in the eighties, a combination of economic circumstances – many Latin American countries emerging from a period of hyperinflation, the collapse of the Soviet Union and the subsequent transition of post-communist eastern and central European countries, China’s increasingly market-centric growth strategy and fiscal stresses and external payments crises in many developing countries – together with the demonstration effect of international growth experience, especially the success of the east and south-east Asian economies, prompted other developing countries to initiate economic reforms. Global competition engendered by a multilateral trading and investment environment is also now driving the ongoing reform process.

Why have some countries done better than others? This section lays the foundation for the arguments of the paper in terms of what the authors view are the foundations of successful reform. In the context of the two sectors on which the paper focuses – infrastructure and financial intermediation – the paper attempts to link the motivation for reforms (the why) to the processes (the how).

### **2.1 Drivers of reform**

Reform and restructuring, in the sense of transitioning to market-based systems with increased private participation, in developing countries has been predominantly driven by fiscal stresses, often initiated following macroeconomic crises<sup>1</sup>. The sentiment has often been expressed, at least initially following the onset of reforms, that the

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<sup>1</sup> There are notable examples, of course. The case of the East and South-East Asian economies is particularly troubling.

government still needs to provide many public utility services, but is constrained by a severe paucity of funds. Consequently, there have often been attempts to transfer state assets and concession rights (privatisation) in an attempt to fill fiscal gaps. The ensuing problems and failures of restructuring gradually led to a realisation of the unsustainability of state involvement in economic activities in a business-as-usual approach and recognition that increasing efficiency was a desirable objective of reforms in itself. In particular, financial sector reforms began to be perceived as the cornerstone of a stable macroeconomic environment and efficient intermediation of resources for investment.

## **2.2 The reform process**

The ingredients of success in the reforms process relate to their success in achieving three objectives – efficiency, equity and sustainability. These objectives are intimately linked to the objectives set out for reform. Infrastructure services have played a pivotal link in these changes. This convergence of the realisation of the critical importance of infrastructure in enhancing competitiveness, together with the perceived necessity of government involvement in providing access to what were considered basic services and the subsequent (costly) failure in providing these services, resulted in attention to the reform process being concentrated in these sectors. Komives, Whittington and Wu [2001] present evidence of the poor access to many basic infrastructure services globally. Recognition of the commercial viability of many infrastructure activities that were previously thought as not amenable, the result of both technological change and financial sector reform, has led to the quest for private participation in these activities. The financial sector in developing countries has typically been dominated by the state and has consequently been a hindrance in sustaining reforms initiated in other sectors.

The magnitude and complexity of restructuring is enormous; tolerance for mistakes is small. The initial conditions are often critical for the success of reforms; it is essential to get many interrelated issues concerning finance, institutions and processes right at the beginning, given a proclivity for policy inertia in many developing countries. The subsequent sections detail the problems that have been, or are likely to be, encountered in implementing these reforms, how countries have dealt with them and why some solutions have failed and others have succeeded.

### **3. USING MARKETS TO FACILITATE REFORMS**

There is growing recognition that economic and environmental sustainability suffers from market-distorting subsidies and public policies that favour the most resource-intensive means of development. The state dominated command and control delivery mechanisms are beginning to be replaced by more holistic approaches that integrate demand- and supply-side system management with full-cost pricing. In what ways is a market-based provision of services more effective than the previously administrative systems?

The objective of reform is to provide least cost services most efficiently to consumers while promoting commercial viability and long-term sustainability of the reform process. To achieve this, a well designed transition to a markets based economy aligns the incentive structures of producers (profit maximisation), consumers (least cost and reliable availability of services within budget constraints) and the government (increased choice and access, commercial viability and sustainability of economic activity) that drives an optimum use of scarce resources.

Markets imply a diversity of views and competition. Buyers and sellers should be free to enter into contracts that are most beneficial to them. Underlying this implied choice are multiple buyers who seek the most cost-effective provision of services and sellers who seek to provide these services to the most credit-worthy buyer (Qaqaya [2002]). The result of this interaction is the imposition of commercial discipline on transactions, which is a key requirement of efficiency and sustainability of service provision.

Restructuring usually entails a different set of, if not higher, risk which have to be identified and correctly mitigated by an appropriate allocation to those parties who can best bear them. One way markets do this is through increased transparency and accountability in service transactions. The two main ways these are achieved are through (i) making explicit the costs of service provision and (ii) enabling a proper and effective delivery of services. Functional markets with proper accounting and commercial

transactions reduce the possibility of using subsidies to disguise misuse (the paper deals with this in more detail in Section 7.2 below), and theft of resources under the guise of providing access to disadvantaged users. More importantly, the true costs of provision of service are often brought to the fore. It has frequently been noted that, in the process of privatisation, the declared costs of private service providers are often significantly higher than of the erstwhile public provider, thereby provoking claims of the relative efficiency of resource use by the public sector. This view ignores the multiple subsidies and concessions that are built into the costing procedures of public sector works, not to mention the related maladies of unreliable service, pilferage, etc.

### **3.1 Financial sector reforms**

An efficient financial sector is pivotal to successful economic restructuring. A Net-based search on “markets” and “development” produces an avalanche of publications related to financial markets (far more than similar results for other sectors), which fits right in with the authors’ views on the critical importance of this sector in a reform process, arising out of the need to allocate scarce resources most efficiently in developing countries (see Patel [1997]). Since 1980, more than 130 countries have experienced banking problems that have been costly to resolve and disruptive to economic development (Barth, Caprio and Levine [2000]).

As the turbulence in global financial markets over the last decade (and in the US, in particular, in the last couple of years) have amply demonstrated, financial sector reform has to strike a balance between increasing efficiency through competition and moderating operating practices through effective regulation. A plausible contributor to the troubles of financial markets of developed countries as well as the virulence of the Asian, Brazilian and Russian crises, in comparison to earlier ones, is that the global financial system has become dangerously efficient. In response to the Great Depression, the US and many other countries had imposed elaborate regulations on their banking systems, which ended up working mostly for the benefit of the regulatees by restricting competition. Unfortunately, while making the banks safe, these regulations may also have made them fat and sluggish. Then came the advent of information and communications technologies. To turn a profit, banks now had to work hard, innovate - and take big risks.

There is a worldwide movement toward less restrictive financial regulation, but combinations of banking, securities and insurance businesses had been emerging even before recent legislations progressively relaxed regulatory restraints.

Carletti et al [2002] proposed compelling arguments in favour of the use of market discipline to maintain banks as safe and sound institutions. Regulation might actually encourage bankers to take excessive risks when deciding their loan portfolios, feeling protected by deposit insurance and (implicit but strong) regulatory bail-outs in cases of insolvency. Bhattacharya and Patel [2001 and 2002] and Patel and Bhattacharya [2003] surmised that flawed regulation, together with government dominated intermediation, might lead to a particularly virulent distortion of incentives, which they call Aggravated Moral Hazard, distinct from the normal moral hazard present in financial transactions, which is akin to “background radiation”. They stressed the dangers of *government involvement* in this sector as a method of risk mitigation, since the peculiar “incentive” structures associated with government vitiates the stringent commercial discipline that is required particularly in this sector to stave off systemic crises. Even in countries with arguably “efficient” government involvement in many economic sectors (Japan is a prime example), government-led financial sectors have led to meltdowns.

Information disclosure is the key for both effective supervision and market discipline. Markets, as well as regulators, punish or reward banks on the basis of the perceived risk of bank failure, based on market determined deposit interest rates and deposit flows. Japan’s banking reforms show how NOT to reform. Its method has been – do little but dissemble in the hope that the problem goes away and trust that by the judicious use of what has been called “economy with the truth”, runs on deposits are prevented. Allow banks tax credits to write off loans and keep interest rates at next to nothing, thereby allowing them to borrow short term money cheaply and invest it in higher yielding government bonds. Calomiris and Powell [2000], though slightly dated, compare banking sectors of a dozen developing countries and rate them by the effectiveness of their regulatory systems.

### **3.2 Contracts and incentives**

Contracts, in general, are crucial in the effective functioning of markets in both infrastructure and financial sectors. Other than defining the terms of exchange between bulk (wholesale) suppliers of infrastructure services, contracts are the mechanisms by which regulators monitor attempts to abuse market power and extract rents (see section 4.2). Other contract features are useful in particular situations; financial instruments such as stocks, bonds, bank loans and derivatives are legal contracts that are subject to a particular legal environment. These contracts have evolved to deal with the conflicts of interest between the parties to these instruments. Sanctity of contracts is the touchstone for risk mitigation in a commercial environment; credible commitment by the principal is important, especially in a rapidly evolving industry.

Underlying successful contracts are incentives that are aligned in a manner that make agents actions commercially compatible. When there are multiple agents and limited ability to commit, principals can obtain improved performance by using competition to reward agents for both actual and relative results. A menu of contracts can improve performance if the agent's post-contractual knowledge is better than pre-contractual knowledge (Bhattacharya and Patel [2003b]). In ongoing relationships, basing compensation on both past and future performance improves outcomes, but using past results to set future goals reduces performance.

## **4. MARKET FAILURES**

The transition to a more market-centric financial system will be a complex process for individual economies and is likely to result in significant systemic challenges for the global financial and economic system. The increased complexity of interactions of economic agents post-reform has heightened risk, since reliance on market signals in an environment of incomplete and asymmetric information can often result in market inefficiencies (and sometimes failure). These failures are manifest in the form of either natural monopoly characteristics arising out of economies of scale and scope in some sectors, like infrastructure utilities, or else they result from information asymmetries in competitive activities, predominantly in capital markets.

Infrastructure utilities have traditionally been the most closely associated with economies of scale, though rapid technological changes are steadily and rapidly reducing entry barriers in most activities. Compared to the traditionally vertically integrated operations in infrastructure sectors, the structure of transactions in these activities has now become decentralised and enormously complex. From an organisation based on internal (public sector) hierarchies, the mode of functioning has now shifted to a contractual-based one within the discipline of markets. Decision making and contracting in the decentralised environment of markets entails a subdivision of the (hitherto monolithic) organisation into discrete pieces which can communicate with each other through standardised interfaces and architectures.

While information flows are critical for a competitive advantage in the modern market, the asymmetry faced by regulators *vis-à-vis* different segments of investors and participants in the regulated industries creates a potential for undue rents which needs to be mitigated. Securities markets, in addition, have the potential of driving a systemic failure through a collapse of investor confidence and rapid runs on markets.

#### **4.1 Causes of market failure**

In many industries, primarily due to technological features, it does not make economic and commercial sense for more than one operator to provide a service. Electricity transmission lines, petroleum product pipelines, some communication systems (e.g., optic fibre lines) (and occasionally seaports and airports) are examples. Technological advances, however, are steadily diminishing the ambit of economic activities that are susceptible to such monopolies; in most, individual, component activities can be made competitive. Carriage (wires, pipelines and cables) are the residual areas where economies of scale remain applicable.

Network economies, otherwise known as economies of scope, arise essentially as a brand identification problem that is manifest by the ability to connect dispersed points of access over a network, thereby generating an ability to impose entry barriers by refusing or disabling access to new entrants to this network. Examples are telecom, airlines, ATM networks and, to an extent, ports. A characteristic of network industries is

that traffic tends to increase exponentially even as the underlying network infrastructure increases linearly.

Severe information asymmetries can cause existing competitive markets to unravel. In fact, before adequate understanding of the genesis and solutions to these problems, market failures could conceivably have been used to justify government involvement as a means to overcome these failures<sup>2</sup>. As mentioned earlier in Section 3.2, the huge informational requirements for credible contracting and the resulting information disclosure are the pivots for the contracts underlying the commercial discipline that is a pre-requisite for effective markets.

Information asymmetries manifest in three broad classes of transactions failures: adverse selection, signalling and gaming and moral hazard. Although these failures are known to be most explicitly manifest in the financial sector, they are increasingly evident in many infrastructure segments as well, given the limited scope for market competition in some of these activities and the interactions of service providers with regulators. A separate class of failures, related to information gaps, arises when projects are undertaken without adequate appreciation of the underlying economic viability; the large 2,184 MW Dabhol Power Company Liquid Natural Gas (LNG) project in India is typical of the failure of similar projects<sup>3</sup> in many other parts of the world (see Energy Review Committee Report [2001]).

The liberalisation of the capital markets<sup>4</sup> has advanced the farthest in the process of reform, and led to a whole set of issues, some of which are unique to this sector. For most countries, the rewards of moving towards a market-centric financial system greatly outweigh the risks, and the financial technology exists to mitigate or control much of the risk. The best incentive that regulators can offer is to allow institutions to position

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<sup>2</sup> In many developing countries, though, the pervasiveness of socialistic ideologies with vague, implicit notions of social and redistributive justice drove the nationalisation program rather than an explicit recognition of any of these factors.

<sup>3</sup> Notable examples are the Paithon Power project in Indonesia and the Hub River project in Pakistan.

<sup>4</sup> Capital (or securities) markets are part of the financial sector, the other main component of which is lending. The securities markets comprise mutual funds, merchant banks, stock exchanges and markets, brokers, depositories, trustees, etc. Globally, the distinction between the two is being progressively eroded with an integration of the functions of the two hitherto (statutorily mandated) separate set of intermediaries.

themselves to reap the rewards of that investment. The most severe manifestations of information asymmetries occur in the financial markets. Investors typically have imperfect information about the quality of the financial services they purchase or about the seller of these services. The complex matrix of transactions spanning different segments of the securities markets creates a risk of systemic economy-wide collapse. While capital markets serve to allocate scarce resources efficiently, the speed and complexity of transactions have pushed the risks of market failure progressively higher. Globally, one important lesson of the late 1990s is that the lack of disciplined, market-driven financial institutions can become a dangerous weakness for otherwise dynamic economies. Poorly regulated banks and the absence of developed capital markets are now attributed to have been a major cause of the Asian crisis of 1997.

In retrospect, there is now widespread recognition that a meaningful analysis of the problems of market failures is conducted, not in the context of a choice between unfettered market competition and a government monopoly, but between a flawed government ownership and private ownership operating underneath a potentially flawed regulatory structure. With changing technologies and international economic experiences, there has been a progressive recognition of the failures of government vis-à-vis market failures. In many countries, ironically, the inefficiencies first presented themselves through the massive fiscal crisis of the early nineties, which led to the permission for entry of the private sector as a means of bridging the resource gap, not considerations of efficiency, which were of secondary importance. Incentive structures for government are often incompatible with its objectives. Incorrect adoption of methods for increasing access (e.g., target driven production, distorted pricing through cross-subsidies) have failed. Distorted pricing have resulted in adoption of sub-optimal allocation of resources and cross-subsidising enhanced the scope for rent extraction by confusing various objectives of the individual pricing components.

Besides these standard descriptions of government failures, a surprising one turns traditional analyses on their heads. It used to be argued that government ownership was necessary in order that public objectives (like universal service or safety) could be effectively pursued. In many countries, however, government enterprises were “captured”

by their workers and managers, and they tended to pursue a very narrow set of objectives. The lesson to be drawn from these problems is that organisations most often function better when they have a certain clarity of purpose. Mixing objectives not only causes confusion, but in the process of delegation, those responsible for implementation typically have enough discretion to impose their preferences. Separation of functions often promotes transparency, ensuring that same standards are applied everywhere, which is necessary for economic efficiency.

## **4.2 Dealing with market failures**

As is evident from the previous section, market failures result in distortions of price signals and the abuse of market power conferred by the peculiar economic characteristics of the affected activities. Governments have used two instruments - competition for markets through competitive bidding and regulation – to correct these failures, with the latter often having been the favoured choice.

### *4.2.1 Competition for markets*

While many sectors had hitherto been thought of as monolithic natural monopolies, their functioning is now being thought increasingly in terms of “activities” and “services” and it is now recognised that distinct services within these sectors may be amenable to competition. There still remain, however, segments where economic and/or technological characteristics render competition infeasible and hinder contestability in these markets. Efficiency in these activities requires competition for the right to provide services. Transparency in the award for these projects is crucial<sup>5</sup>. Ill-designed concessions and award procedures have frequently led to sub-optimal performance and consequent renegotiations and delays in implementation and operation.

If designed correctly, competitive bidding produces outcomes that are fair and efficient in a fast and transparent manner (Klemperer [2002]). A proper understanding of

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<sup>5</sup> Transparency refers to the decision-making process itself, be it based on a financial bid or other selection criteria. Rules and procedures are fixed in advance, and apply equally to all participants. The seller must provide information that would help the bidder evaluate the assets' value, and must fully describe the asset being sold. This is mainly meant to mitigate the political risk of the project.

the market structure for these services, together with the resulting risks, is crucial to this bidding design process and results in an optimal valuation assigned by firms to the service.

The primary objective of competitive bidding as a method of transfer is an accurate valuation of these rights and assets and their award to the party that can utilise them the best. This enables the most efficient provision of these services to users. *Maximisation of revenues to the conceding authority should never be the sole, or even the primary, objective.* This can only be justified if the government wants to sell existing public assets into competitive markets, like steel plants, or scarce public resources, like the electromagnetic spectrum or extraction rights to oil and gas reserves. The optimal use of a scarce resource like the spectrum, given the rapid convergence of Information and Communications technologies, needs an efficient allocation of the resource itself, rather than a specified use, as is being done in India, for example, in auctions for cellular licenses.

The key to a good design of competitive bidding, and a concession structure, is a proper identification and allocation of risks and the resulting incentives to the various parties that provide the service (Bhattacharya [2000]). Risks should be borne by the parties that are best suited to deal with them. The ability of the concessionaire to bear traffic risk in toll road concessions on most road stretches in India may be limited, necessitating their award based on a duration that adjusts to a guaranteed revenue or rate of return (see Engel et al [1998] for an explanation of an Least Present Value of Revenue (LPVR) bid), rather than toll rates, or, alternatively, concessions based on annuities so that these risks can be shifted to more appropriate entities. Whenever there are a sufficient number of bidders, the bidding format should be an open, rather than sealed, one. Moreover, if multiple units of similar assets or rights are being awarded, the bidding format should allow bidders the choice of aggregating these rights to optimise their value.

A crucial component of the bidding process is the choice of the parameter to be bid – a wrong choice is likely to lead to wrong decisions and inferior results. The bidding

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parameter should minimise distortions in relative prices of the services, and as far as possible, be based on costs that are sunk or committed. A parameter used (and being considered) in many competitive tenders in India is the share of revenues to be paid to government, and is being contemplated for bidding out port facilities, and was used recently for new container terminals at Chennai Port in India. This parameter induces the most disincentives in the efficient provision of services<sup>6</sup> - the effects of per-subscriber fee for cellular services has demonstrably deterred service providers from increasing subscriber base and concentrated instead on revenues per subscriber. A better structure, incorporating the use of revenue-sharing as risk mitigator, would have been to use revenue-share as a project specification and bid the up-front transfer to the government for the right to use the terminal. The use of multiple parameters should also be discouraged, since they merely increase confusion and arbitrariness and make the contract prone to renegotiation.

Ensuring the presence of a sufficient number of bidders increases the likelihood of a better disclosure of information about the value of the service. Qualification criteria for bidders should be calibrated to ensure the maximum participation of credible bidders (Liautaud [2001]). Onerous qualification norms only serve to exclude potentially competent firms. Credibility of bids should instead be enforced by stringent bid penalties and performance bonds (Bhattacharya and Patel [2003b]).

#### *4.2.2 Regulation*

The increasing reliance on market forces and price signals has altered the risk profile of economic activity in some key sectors. Governments in general chose to internalise the requirement of regulatory oversight of private monopolies by assuming ownership of infrastructure utilities and much of capital intermediation. Globally, in the last two decades, there has been a growing conviction that the practice of regulation, either through public control or through cost-based regulation of private utilities, was inherently flawed. Two phenomena gave rise to this changed outlook of regulation – the

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first was a realisation of the failure of government to provide services efficiently and the second was ongoing technological change.

Why regulate? In reciting the litany of common economic arguments for regulatory intervention - the redressal of market failures and inefficiencies due to economies of scale, technological or network characteristics and ensuring a level playing field in those activities that are susceptible to abuse of the resulting monopoly power and containment of the increasingly decentralised and complex transactions in the capital markets leading to the risk of a systemic collapse – the most important is usually forgotten. That function is introducing competition where none existed before. However, effective regulation is expensive<sup>7</sup>. Regulation is tied in with market structure; most competitive markets generally require little or no regulation<sup>8</sup>. Even in markets not amenable to multiple service providers or free entry, appropriate contract structures can replicate competition for these markets. Competition for the right to provide services in these monopoly sectors serves to induce incentives that replicate the effects of competition. A well-designed bidding mechanism (and hence concession contract) has in-built incentives for efficiency and cost control (see Box 1 below). For minimally intrusive oversight, regulators need to use information disclosure through the markets to the maximum extent possible. In the USA, divestiture of electricity generation assets into competitive markets was meant to get an accurate assessment of stranded costs of these assets. The lack of a well-thought regulatory framework, on the other hand, can delay project implementation significantly<sup>9</sup>.

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<sup>6</sup> This is a straightforward application of economic theory arising out of the literature on share-cropping versus fixed rents in agriculture.

<sup>7</sup> This is especially true of emerging economies with little track record of regulation. The costs of data gathering and analysis are often high, sometimes of the order of 5 per cent or more of the revenues of the sector. Economic regulation also has to monitor and evaluate performance and deal with dispute resolution.

<sup>8</sup> For example, competitive electricity generation. However, other competitive markets are regulated, like the US aviation sector. Some would argue that this is necessitated by the absence of true contestability of these markets.

<sup>9</sup> The sale of electricity distribution zones in Orissa is a good example. Competitive bidding for these zones got a very poor response, and the sole bidder for some of these zones discovered that the financial viability of operations was jeopardised by some subsequent tariff decisions of the Orissa Electricity Regulatory Commission (See also Box 2 below on the impact of regulatory uncertainty in KESCO, Kanpur, India).

### Box 1: Optimal use of regulation and competition for efficiency in a natural monopoly

The “wires” businesses in electricity – transmission and distribution – are prime examples of the few remaining natural monopolies. The concessions for transmission and distribution in Buenos Aires in Argentina are examples of the use of both regulation and competition for the right to provide a service. Edenor and Edesur, the incumbent distribution concessionaires, and Transener, the transmission company, were given 95-year contracts in June 1993, with re-biddable management contract periods first at the end of 15 years and then each successive 10 years thereafter. The regulator would re-bid the concessions at the end of these intervals. To provide incentives for the incumbent to maintain investment levels, especially around the end of each sub-period of the concession, it was stipulated that the incumbent, even if it was not itself the highest bidder, would still receive as compensation the highest amount bid at the auction.

*Source: Estache and Pardina [1996]*

Regulators base their choice of mechanisms for solving adverse selection and moral hazard problems (the contracts) on the costs and benefits of the alternative approaches. There are two basic types of mechanisms – behaviour-based contracts (the so-called “cost-based” regulation, still used extensively in the US) and incentive contracts (or what are called “performance-based” regulation, the UK model). Greater regulator information, greater outcome uncertainty, greater service provider risk-aversion, high costs of measuring outcomes, and length of relationship are features typically associated with behaviour-based contracts. Greater regulator risk aversion, high costs of measuring *behaviour*, and goal conflict characterise incentive contracts (see Bhattacharya and Patel [2003a] for further explanations).

There is no single market structure and regulatory system that is best for all economies or jurisdictions. Qualitative aspects, including *inter alia* legal histories, political orientations, technologies and economic profiles bear on market structures and regulatory systems. There are several other issues - for example, the relationship of the regulator to the government, government intervention versus market failures, etc. - which we have not dealt with at lengths warranted by their importance and depth, in terms of both the conceptual links of cause and effect and of the actual course of evolution of the institutions<sup>10</sup>.

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<sup>10</sup> Blondal and Pilat [1997] provide anecdotal cases of the ambiguities and inefficiencies that were built into much of regulation even in developed countries.

Regulatory bodies might have a formal or informal advisory role in policy formulation. The roles of the regulator should be administering rules and dispute settlement regarding these rules. There are likely to persist grey areas like tariff determination in the presence of significant cross-subsidisation.

Are markets and regulators, almost by definition, mutually exclusive? To the extent that the initial market structure is appropriate, yes. Regulation is always an interim measure and should always be instituted with suitable sunset clauses. While recognising the need for a limited role, this paper would like to emphasise the increasing tendency to appoint regulators (for the sake of appointing regulators) where none need exist, the dangers of perpetuation of regulatory controls, and of inappropriate regulation actually stifling competition (Blondal and Pilat [1997]). In the initial transition period, a degree of regulatory oversight is almost always necessary.

#### 4.2.3 *Regulation in securities markets*

We have deliberately titled this section as “Regulation **in** Securities Markets”, not “Regulation **of** Securities Markets”, to emphasise the qualitative difference between securities markets regulation and those of “monopolistic” industries, with the former best thought of as a “natural” feature (emanating from systemic implications) and not an external action imposed by a government (to control monopolistic rents). First, securities markets and their regulatory systems, world-wide, are evolving rapidly, driven by advances in information technology and the global integration of capital markets. Second, whatever the structure of securities markets, one of the main goals of financial regulation, other than investor protection, is the minimisation of systemic risk.

In an era of increasing capital flows within an effective move to a trend towards capital account convertibility, the guidelines of global regulatory organisations become extremely important. Reform has supported the emergence of a dynamic global financial industry with enormous benefits for economic performance. But failure to establish the right incentives and prudential oversight of financial markets led to costly debt and banking crises in some countries after deregulation. Recognising that the 1988 regulatory framework was inadequate, the Basle Committee proposed a new three-pillar framework

- minimum capital requirements, a supervisory review process, and effective use of market discipline. It involves a shift from a “percentage” orientation to a “process” mode. It replaces periodic examination for compliance with a continuous monitoring based on an understanding of each bank’s own sophisticated risk-management strategies. According to the International Organisation of Securities Commissions [IOSCO, 1998], the three core objectives of securities regulation are: (i) protection of investors from fraudulent practices, using full information and accounting standards disclosure; (ii) ensuring access of investors to market facilities through transparent and efficient markets; and (iii) reduction of systemic risks, even though regulators cannot be expected to prevent financial failure of market intermediaries.

Effective regulation of financial markets is a continual Occam’s razor between increasing efficiency through competition and moderating operating practices to reduce systemic risk. Information disclosure is the key for both investor protection and market discipline. Lack of strict accounting norms, coupled with lax compliance, fosters unsavoury practices like front-running and self-dealing, leading to a further erosion of investor confidence.

Given these characteristics, the nature of regulation of financial services and those of infrastructure utilities seem very different. The former is patently more about enforcing fiduciary responsibilities on financial intermediaries and the latter about protecting consumers from the market power exercised by monopoly providers. Securities markets regulation is designed to prevent the abuse of investors’ savings by unscrupulous market operators. It is also about minimising the systemic risk underlying financial market operations. Underlying these apparent differences, however, is a lot of commonality. The increasing integration of many cutting edge infrastructure services with the financial sector was starkly illustrated *inter alia* by the problems of energy restructuring in the US and telecom financing in Europe. The impact of changing conditions in these sectors manifested themselves in the hits taken by banks, although prompt action by US regulators managed to minimise the consequences in the US. These episodes also served to underline the links between flawed regulation and financial instability.

## **5. THE DESIGN OF REGULATION**

The objective of this section is to analyse issues relating to the design, performance and adaptability of independent regulatory institutions. It aims to isolate the factors that have determined the effectiveness of these institutions as well as to examine the relation of these regulators with other institutions, mainly the government, in terms of the role of their interactions in fulfilling their objectives. The overall point of this section, which bears repeating, is that regulatory risk in a market economy needs to be minimised.

### **5.1 Credibility and effectiveness of regulation**

The role of regulation in the effective functioning of markets, with the primary objective of creating markets and ensuring competition through low entry barriers and prevention of anti-trust activities by incumbents is crucial. Regulation can only be effective if the correct market structures are put in place (Better Regulation Task Force Report [2001]). Credible commitment by the regulator is important, especially in a rapidly evolving industry. Setting a multi-year regulatory profile confers significant levels of certainty for potential investors in regulated sectors (Alexander and Harris [2000]).

No amount of regulatory oversight and intervention is likely to ensure efficient service delivery, however, if the market which the regulator oversees has been wrongly designed in the first place. For instance, given the transport bottlenecks normally found in developing countries, attempts to regulate even single-operator ports at multiple locations might be meaningless; on the other hand, regulation might be minimised or even obviated if port restructuring were executed with intra-port competition as an objective. Similarly, unwarrantedly harsh operating conditions set by the regulator are likely to lead to commercial unviability and even stall the process of restructuring (see Box 2 below).

**Box 2: Regulatory uncertainty in run-up to privatisation (KESCO)**

The process of privatising the power distribution utility in the city of Kanpur (KESCO) in India had dragged on for two years prior to its abandonment in 2001, having failed to attract private interest. A discussion with potential bidders elicited the opinion that proposed sharing of various risks and benefits post privatisation between state Power Corporation (UPPC) and the privatised KESCO, predicated on a tariff order from the state's Electricity Regulatory Commission (ERC), would not have made the proposition viable for investment. There was little scope for capturing the upside for the investor despite bearing a multitude of risks. This disparity is illustrated as follows: Without privatisation, UPPC would have earned Rs 356 crores (cr.) as net income from KESCO. With privatisation, the net income would have increased to Rs 477 cr. from sales of energy. Risk of default by the private operator would be partially mitigated through escrow accounts. The private distributor, however, would earn a total return of Rs. 12 cr., bearing a variety of risks related to input price of energy, demand for electricity, tariffs for various categories of consumers and operating expenses. The energy purchase price payable by KESCO to UPPC is determined by the allowable level of transmission and distribution losses and collection efficiency. Thus, most major factors affecting KESCO's viability are very sensitive to the assumptions of the ERC in its tariff order.

*Source: Tadimalla [2001]*

**5.2 Regulatory capacity**

There are three main issues related to capacity: (i) professional competence of regulators. Regulators in many emerging countries are hired from the ranks of the respective administrative services; (ii) degree of enforcement powers conferred on regulatory institutions. The degree of complexity of transactions in not just the financial sector but increasingly even in physical infrastructure sectors demand sophisticated logistics and information disclosure requirements and the ability to impose credible and substantial penalties; and (iii) immunity from regulatory capture.

There is often a marked divergence between notional and real independence of regulators in developing countries. The composition and responsibilities of the Securities and Exchange Board of India (SEBI), for instance, is closely modelled on the Securities and Exchange Commission (SEC) of the US. In practice, SEBI might be the least independent of all the economic regulators in India, with a board comprising representatives of the Ministry of Finance, Reserve Bank of India, etc. although this might be a reflection of systemic market risks.

**5.3 Regulatory hierarchies**

Many countries, both developing and developed have multiple regulators with overlapping jurisdictions, ambiguous responsibilities and appellate responsibilities. The

reader will observe that this section has more questions than observations; a reflection both of the complexity of the subject and of its context-specificity. Is both horizontal and vertical integration desirable? What should be the footprint of the regulator (industry specific (as in electricity or telecom), sector specific (as in energy (Hungary or Colombia), transport or communications) or economy-wide (as state-level agencies in the US, Australia and Canada, or economy-wide in Jamaica and Costa Rica)? There are no clear answers; the appropriate model clearly depends on country, sector and institutional characteristics. Does it make sense to have appellate authorities to adjudicate on regulatory decisions? Do elaborate appeals mechanisms undermine regulators? The currently ongoing dispute resolution process in India regarding the introduction of Wireless in Local Loop with Limited Mobility (WILL-M) by telecom companies which had a fixed wireline license (which has been challenged by the cellular telecom operators) is an illustration; the Supreme Court of India recently reverted the appeal of the telecom regulator (TRAI) back to the telecom appellate body (TDSAT) with a strong reprimand to the appellate body for not having applied itself diligently enough to the case<sup>11</sup>. As a result, regulatory uncertainty in the telecom sector has increased enormously, putting at risk large investments that have already been made.

There are other complications – the chain of appeals is often muddied by not having independent appellate bodies (Norton Rose and OXERA Report [2002]). Appeals, for instance, against the Securities and Exchange Board of India's (SEBI) decisions are nominally to the Securities Appellate Tribunal (SAT), but have often been overturned or deferred by the Ministry of Finance of the Government of India; this hierarchical ambiguity is likely to lead to very complicated process behaviour for the securities market (as well as any other) regulator. Should the line of appeals be only with courts and, if so, how efficient is this system likely to be in the case of developing and transition countries with overworked or inefficient judicial systems? There are no clear answers.

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<sup>11</sup> The authors will be happy to share details regarding the case, which is being carefully studied by the ir parent institution.

## 6. STRUCTURING REFORMS

The previous sections on dealing with market failures had an implicit assumption that the underlying market structures had been correctly designed. Flawed markets and transition processes to markets-based transactions (including privatisation) will only serve to render these corrective institutions largely ineffective. The realm of policy is widely considered to encompass the areas of sector restructuring (including privatisation), legislating changes, taxation, and subsidies. Competitive bidding, regulation and market operations are only as good as the policy framework and market structures in which they function. This section deals with the issues related to effective implementation of market institutions and their operating environment.

### 6.1 Deregulation and privatisation

Like in any other financial transaction, success in privatisation, too, depends on the efficient allocation of risks. Are market processes compatible with the incentive structures provided by the public sector? Recall that the lynchpin of commercial discipline and cost-effective provision of services is the alignment of incentives of the various parties to a market based transaction. The absence of hard budget constraints of the public sector, a hallmark of public enterprises in most developing countries, vitiates these incentives. It is exactly this reason - the absence of incentives for efficiency dissipating the advantages of economies of scale from monolithic public ownership - that privatisation has become a key ingredient in restructuring industries. Governments have often tried to use the Memorandum of Understanding (MoU) method, borrowed from the system in France, to replicate these incentives and mostly failed. Shirley and Xu [1997] have documented the failure of the MoU method in enhancing performance for state owned enterprises across countries. If privatisation is then a *sine qua non* for effective restructuring, what are the steps, pre-requisites and pacing for its success?

Privatisation is often rejected or stalled as unpractical, with a litany of alleged problems being advanced as culprits: lack of bidders, inability to garner sufficient revenues for government, need for restructuring before privatisation, need for reduced oversight by multiple government watchdogs and political interference and so on. There

is little apparent recognition that failure of privatisation may have been due as much to poor sequencing, inadequate incentives, inordinately harsh qualifying norms for potential bidders, unrealistic performance targets post-privatisation, regulatory uncertainty, etc., as anything else. Box 3 below illustrates an implementation of a privatisation that managed to achieve two objectives both dearly sought in other such exercises: simultaneous induction of a strategic partner and dispersed shareholding, with the end result of transforming a struggling state-owned enterprise into a profitable private one.

### **Box 3: Privatisation of Kenya Airways in 1996**

Privatisation of Kenya Airways has become a model of privatisation for other public sector organisations in Kenya and in Africa. Kenya Airways is Africa's first successfully privatised airline, with over 113,000 individual Kenyan shareholders, international and domestic institutional investors, and healthy employee shareholding. The Kenya Privatisation Team, including members of the IFC, the Kenya Government, and Kenya Airways collaborated with private sector financial advisers, lead Kenyan stockbrokers, public relations and advertising agencies, and legal firms. The Team helped the Kenyan Government and Kenya Airways in attracting foreign investment and convinced Kenyans to invest in a privatized company. It was the single largest public offering ever on the Nairobi Stock Exchange and the second largest privatisation to date in Sub-Saharan Africa. After KLM had bought 26 percent of the company's shares, the balance was listed on the Nairobi Stock Exchange. Kenyan institutions and individuals acquired 34 percent and international investors other than KLM bought 14 percent.

*Source: Tiller [1997]*

Each sector, obviously, requires a different strategy for transferring control to the private sector, and more generally, increasing contestability. The requirements for moving towards private provision of services in the road sector, while marginally different from say port services (and involving long term concessions), are vastly different from privatisation of the power and telecom sectors (where outright privatisation through asset sales is appropriate). In the financial sector, for reasons discussed in Section 3.1 above, there is no justification for a government presence, other than enabling strong and independent regulation.

Underlying these variations, however, there are certain overarching principles. The objectives of reform in general (and privatisation in particular) should be clear. Attempts to maximise revenues for the government, rather than encouraging cheap and efficient service provision, are likely to result in distorted outcomes, if not outright failure. *The modus operandi* of awarding telecom licenses in India in the early and mid-

nineties delayed the onset of a viable sector for half a decade. Recognition and acceptance of reality - that in most developing countries, public funds are woefully inadequate to achieve effective restructuring – might (and often does) lead to quick restructuring. The privatisation of the electricity distribution business in New Delhi, for instance, was completed in less than two years following the acceptance of this reality by the state government. Correctly prioritising projects for implementation also increases the chances of instituting sector reform. In India, the National Highway Development Project (NHDP) was initiated realising that despite the Project covering just 2 percent of the national road network, it carries 40 percent of traffic.

Private investment in infrastructure, in general, is not primarily about funds; it is about pricing (see Bhattacharya and Patel [2000]). In some infrastructure segments, however, it may be difficult to impose direct user charges. To overcome this problem, innovative financing schemes have been pioneered; one such is the annuities method of commercialising road projects (described in Box 4 below), initiated in India, and used extensively in its road enhancement initiative, and thereafter used in Australia.

**Box 4: The Annuity method of commercialising road projects**

The annuity approach is an alternative to the direct tolling approach followed for private sector BOT road projects, involving a specified payment by the government at stated intervals for a pre-determined concession period to compensate the road operator for the capital costs and operating expenses (and return thereon) of construction, operation and maintenance of the road project. In this approach, there would be no traffic risk as is generally understood in transportation projects. However, the volume of traffic using the project facility would have a bearing on the level and timing of maintenance expenditure. Since the project does not operate on "user-pays-principle", the risk of traffic diversion to competing routes does not arise. From the bidders' perspective, the focus would be on cost reduction rather than revenue maximisation. The importance of monitoring mechanisms to ensure compliance to standards, therefore, cannot be overstated. Since the financial strength of the government entity promising to make payments would come under critical review and the continued creditworthiness of the entity would be the cornerstone of any financing, it is necessary to put in place a properly ring-fenced fund with earmarked sources to provide the necessary comfort to lenders and investors as more projects are developed using this method.

*Source: IDFC [2001b]*

One of the key components in furthering the objective of sustainability and “availability” is a shift in focus from that of the erstwhile creation of new assets to

maintenance of existing assets<sup>12</sup>. The focus of financing thus far has been predominantly asset creation. It is increasingly recognised that maintenance of assets and provision of services over the life cycle of the asset is more critical for increasing competitiveness. Long term consolidated operations concessions rather than construction contracts have built in incentives to achieve this (see section 6.3 below).

On the other hand, simplistic attempts to replicate international experiences without thought to their (intended or otherwise) economic rationale can lead to failure. A major initiative in many countries now is the formulation of policy for proposed establishment of Special Economic Zones on the lines of the successful “experiments” in China. Mukhopadhyay [2001] argues that the basic motivation for the exercise is flawed and the focus of the policy needs to move from “augmenting infrastructure facilities for export production” to a policy that is focused on overall growth and employment.

#### *6.1.1 Market structure*

The critical importance of sector and industry structures in the context of efficient operations of markets cannot be overemphasised. Privatisation in itself will not lead to the system-wide changes desired of restructuring. Its impact can be leveraged many-fold if executed in the context of a correct market structure. This remains an issue not just in developing countries but also in mature and developed ones as well. The recent troubles of California’s power markets provided pointers on the consequences of faulty (and hastily done) sector deregulation (see Borenstein [2002]). The system of power pools in the UK, before the New Electricity Trading Arrangement (NETA, see OFGEM [1999]), was also illustrative of problems consequent to an inadequate appreciation of the potential abuse of market power (Bunn [2002]). These examples also illustrate the special importance of getting market structures right in sectors which have an embedded natural monopoly component (transmission in electricity), operate more or less on a real time basis (electricity supply and financial transactions), especially with a non-storable commodity or are susceptible to network economies. The effects of distortions in market

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<sup>12</sup> A cause attributed to the increasing efficiency of electricity generation in competitive markets is a stress on maintenance of plants, including what is called “predictive maintenance”.

structures get magnified by the increasing interaction of many infrastructure services with the financial sector, with the former using increasingly sophisticated financing and hedging instruments<sup>13</sup>.

### *6.1.2 Legal framework*

In most countries, the legal framework has evolved into a complex combination of statutes, regulations, judicial rulings and actual practice. The legal framework provides the foundation on which the institutions are built and determines the scope and structure of markets that are critical for their effective functioning (Davis and Trebilcock [1999]). Existing legal frameworks have been shaped mostly by the dirigistic philosophies of most developing and transition nations, and patchwork amendments in the existing reform structures will almost certainly lead to problems with the reform process (Shleifer and Djankov [2002]). Evidence on the economic significance of formal enforcement mechanisms for long-term contracts suggests that both a well-developed body of formal contract law and an effective civil court system may be important determinants of growth. Informal contract enforcement is not a perfect substitute for formal mechanisms, although evidence from various Asian and other economies that have strong development records suggests caution in over-stating the significance of formal contract enforcement.

A clutch of laws dating back to 1948, for instance, have shaped the market structure for power distribution and sales in India, mandating the government owned public electricity utilities as the sole buyer of electricity, and are currently hampering the flow of private investment in generation capacity. It was only the introduction of the New Telecom Policy in 1999 that enabled the telecom sector in India to move forward after stagnating for five years because of the faulty prior policy framework of 1994. A host of regulations governing the financial sector in most countries, especially developing, have constricted the depth and liquidity of financial markets and delayed the introduction of risk mitigation measures designed to reduce the risk of systemic failures. The Banking Secrecy Act in India, for instance, has delayed the establishment of a Credit Information

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<sup>13</sup> Often, ironically with the declared intention of risk mitigation.

Bureau (CIBIL), an enabling institution for sharing default information among financial institutions.

### 6.1.3 *Pace and sequencing of reforms*

As expected, at the macroeconomic level, no consensus has emerged about the inherent superiority of either the big bang or the gradual approach to reform (Feltenstein and Nsouli [2001]). In fact, the view that, minus a very few countries, rapid mass privatisation of post-communist Europe has not been successful is gaining currency (Williamson [2002])<sup>14</sup>. Based on the experience of many countries, this paper takes the view that, at least for the infrastructure and financial sectors, the pace needs to increase within the constraints of the institutional structures in place. Attempts to delay structuring until suitable institutions are instituted signals a non-credible commitment to reform. Having said this, there have to be some basic preconditions existing (not necessarily involving the establishment of new institutions) for the reforms to be successful (see IDFC [2001a] for a taxonomy of these conditions).

Reform with the objective of fiscal stabilisation usually manifests itself, not just as *ad-hoc* but often with an elaborate sequencing program attached, which is designed primarily to stymie a quick implementation of reforms. Another favoured argument for delaying reforms is that the usually decrepit state of assets will deter potential investors and, *ergo*, investment prior to transfer of ownership is likely to increase the value of the transfer; a view, indeed, often taken by multilateral lending organisations to facilitate disbursements.

This is not to deride the importance of correct sequencing of the reform process, though, since a potential time inconsistency in the restructuring process can doom even well-meaning reform to incessant delays. The most glaring example of this was the attempt in India to attract private investment in power generation, not realising that the revenue-generating distribution and supply businesses were riddled with leakages and losses, with no credible payment streams for generators. A continual series of ad hoc

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<sup>14</sup> Poland and the Czech Republic are cited as the notable exceptions.

fixes, like escrows, tax incentives, Power Purchase Agreements have all failed, expectedly, in interesting investors in the absence of meaningful reforms in the distribution segment. Reforming the Indian telecom sector illustrates another set of mistakes in industry restructuring. Artificially segmenting the sector into sub-industries, attempting to restrict entry into activities where such barriers are redundant, the presence of a combined incumbent policy-maker licensor and service provider and flawed bidding processes conspired to (unwittingly?) delay telecom reforms for a full half decade.

## **6.2 Transition issues**

Restructured entities in developing countries have existing liabilities, many of them unfunded such as pensions. In addition, they often have dues to suppliers, along with receivables of doubtful quality, often including payments from various government bodies. To realise the best value for these entities, it makes financial sense for these liabilities to be retained by the current owner, i.e., the state government, under whose ownership they have been accumulated. When the amount is disputed, as is likely to be often the case, any transfer would result in an equivalent direct deduction from the bid amount. In cases where the liability is uncertain, such as future contractual obligations and pensions, the private sector would have a higher degree of risk aversion, given that they cannot control these risks. Transferring these liabilities to them will only result in a lower bid, which would be reduced by an amount greater than what the government believes to be the extent of the liability. Hence, as part of a Financial Restructuring Plan (FRP) prior to privatisation, these liabilities and assets should be clearly vested with the government and not passed on to the newly formed private companies. By retaining them, the government would improve the bid valuation, and can use a portion of the privatisation proceeds to meet the liabilities.

To provide a secure financial source to meet the deferred payments to workers and creditors, government should plough back all the proceeds realised by privatising. To meet any shortfall, the government should prudently use low-interest long-term support from multilateral institutions. Indeed the appropriate use of such multilateral funds should be for such purposes rather than to finance investment in physical assets, which can (and

should) be undertaken by the private buyer through the local financial markets (more on this in Section 6.3 below).

The government needs to stay engaged during the transition period, since the risk profile combine both public and private ones during this period. While investment financing can be raised through market borrowings and private investments, there will be large adjustment costs that would need to be funded out of budgetary support.

### **6.3 Role of multilateral institutions**

Of particular importance in managing change in a globalised environment is the role of the multilateral lending agencies (MLAs). These institutions play a central role in advising on restructuring, providing technical assistance and financing reform and have had a large and enduring influence on policy and decision processes. The World Bank, for instance, has been involved in India's economy for over five decades and, in the nineties, has been a prime mover for India's reform programme. The authors' experience of working with these organisations in sector restructuring has highlighted significant flaws in the institutions' (i) internal learning processes, ability to translate global best practices learning to country financing and restructuring programmes and (ii) internal alignment of incentives as evident from the disparity between internal knowledge and (lending) disbursement practices. Through extensive verbal interactions, the authors have experience of MLA policy staff being aware of these best practices and learnings and yet these institutions' approach to lending is very different. Two examples in India are particularly glaring: one, financing the National Highway Development Project (NHDP) and two, the power sector distribution reform programme.

The World Bank and the Asian Development Bank have committed almost \$1.5 billion for funding selected sections of the NHDP. Virtually the entire amount has been used to award Engineering, Procurement and Construction (EPC, i.e., road building) contracts (in contrast, see World Bank [2002]), when its own best practices (see Box 5 below) indicate that consolidated road contracts (i.e., combined construction, maintenance and operations) contracts are key to sustainable road development. The motivation is clearly a distortion in internal incentives to (quickly) maximise fund

disbursement rather than catalyse sustainable infrastructure development. In India's case moreover, the funds are disbursed to the NHDP through the Government of India rather than to the ring-fenced (already established) Central Road Fund, even as the Bank has been advocating the use of such Funds as best practice.

**Box 5: Lessons from best practices in multilateral institutions**

The experience gained from the Africa Road Maintenance Initiative (RMI) — the World Bank spent six years identifying the underlying causes of poor road maintenance policies in nine participating countries; Cameroon, Kenya, Madagascar, Nigeria, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe - helped develop an agenda for reforming road programmes. It is estimated that nearly one third of the \$150 bn invested in roads has been lost because of poor management and bad maintenance. The initiative attempted to put the management and financing of roads on a sustainable long-term basis and concluded that commercialisation was the key to road maintenance reform: bring roads into the marketplace, put them on a fee-for-service basis, and manage them like a business instead of a bureaucracy.

Experience with maintenance contracts led to introduction in 1995 of Contrato de Recuperacion y Mantenimiento (CREMA) contracts for combined rehabilitation and maintenance of paved roads in Argentina, which commits a contractor to a 5-year period of operating the road in return for a lump-sum amount decided through competitive bidding. Road maintenance and rehabilitation had traditionally been procured through input-based contracts. To reduce the bids, larger up-front payments were made in place of the payments spread out over the length of the contracts. By 2002, 75 percent of Argentina's non-concessioned roads were expected to be operating under the CREMA contracts.

*Source: Heggie [1995] and Liautaud [2001]*

Even worse has been a failure to admit mistakes in previous programmes, learn from them and change course. The World Bank, for instance, has been involved with privatisation of the power distribution business in the Indian state of Orissa from the beginning (an unhappy experience, see Tadimalla [2001]), as part of a wider involvement in restructuring the power sector in India. A Report by an independent consultant (Frontier Economics [2000]) commissioned by the Bank itself, accurately identified many of the mistakes prior to and during the process, particularly the grave limitations of the Single Buyer Model<sup>15</sup>. The Report also moved towards adopting different restructuring processes for dense, high-load urban areas and dispersed-load rural zones, a move which has since then decisively permeated policy thinking in restructuring the

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<sup>15</sup> It is unofficially communicated that the SBM was devised for small power markets like Jamaica, where it would not be feasible to introduce bulk competition or power pools. Yet, it is exactly this same approach that is being used for reforming large, diverse load, insolvent and inefficient power distribution activities in India.

power sector in large countries like India<sup>16</sup>. The Bank, unfortunately, does not seem to have assimilated the lessons in its internal learning processes and continues in its attempts to replicate it for restructuring the power sector in other states in India.

## **7. ISSUES IN SUBSIDY TRANSFERS**

A frequently cited objection to market-oriented reforms is a presumed adverse impact on residents in areas that are deemed to be commercially non-viable for private operators. Various direct and cross-subsidies are currently provided to such areas. An argument is also often advanced that the burden of direct subsidies following elimination of cross-subsidies is untenable for fiscally distressed governments. Moreover, regulatory agencies, in the course of devising means of maintaining universal service objectives using the traditional cost-of-service approach, have had to estimate the size of market intervention necessary and the funding needed to address it. The process often gets mired in endless disputes over data and methodology, driven both by the inherent difficulty of measurement and the interests of the parties. The challenge is to design a system for administering subsidies that does not give a special advantage to some competitors or some technologies. Most of these arguments are unsustainable; in fact, the “financing gap” might actually be a “policy gap”. Ironically, the magnitude of current subsidies is one of the reasons why fiscally constrained governments are being forced to reform infrastructure programmes (Dailami and Klein [1997]).

That the government retains a large role in any market based system is undeniable. The scope and degree of involvement of the private sector is determined by the ideological stance of the government. The method of the government’s involvement, however, is changing from being a provider of services to a procurer of goods and services on behalf of users. This change is now seen in many different activities as diverse as infrastructure, healthcare, education, fleet maintenance, transport hubs and so

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<sup>16</sup> Electricity distribution privatisation in Argentina adopted this approach way back in 1993, when greater Buenos Aires and a few other cities had been privatised, with progressive widening of the zones in concentric circles around the cities.

on. Shadow tolled roads in the UK and Portugal and the annuities programme in India (see Box 4 in section 6.1 above) are examples.

### **7.1 Designing concessions and regulation with uncertain subsidies**

Fiscal stresses severely circumscribe subsidy commitments. Bhattacharya and Patel [2003b] provide an analytical framework to formulate a mechanism of regulatory oversight of utilities in the presence of large and uncertain subsidy transfers to the utilities from the government which induces multiple adverse selection and moral hazard between utilities and regulators. In this situation, many of the standard menus of contracts designed as means of information disclosure in an environment of more limited asymmetry nullifies much of the power of standard incentive regulation and the offered contract is unable to distinguish between efficient and inefficient providers of services. Subsidy transfers, besides increasing the information asymmetries, also serve to create a distortion in utilities' investment decisions through a "wealth" effect. This implies that each individual utility concession has to be tailored, and a "one size fits all" concession is not likely to be optimal. The regulator can best motivate service providers, under these conditions, to make the optimal level of investment by offering a menu of rewards and commitments that are structured around the relevant source of uncertainty and private information to utilities.

### **7.2 Using subsidies effectively to increase access**

Governments in developing countries have often fulfilled their objective of increased affordability through cross-subsidies, which has inter alia distorted availability and pricing signals. There is now increasing awareness in policy of targeted and explicit subsidies from the budget. One solution is a judicious institution of dedicated, ring-fenced funds that are financed by clearly-demarcated, additional levies from specified sources. Delivery of such subsidies can be through minimum subsidy bidding (see Boxes 6a and 6b below).

**Box 6a: Minimum Subsidy Bidding for rural telephones in Chile**

Chile, Peru and Colombia established Universal Service Funds (USF) in the 1990's to provide one-time subsidies for the provision of public access telephone services in unserved rural and remote areas. Subsidies are awarded based on public international bidding process. Qualified applicant that offers to provide the designated services at the lowest subsidy wins the respective process and is awarded that subsidy to implement the designated services. Maximum subsidy amount available for the specified projects is established by the USF Administrator before the bidding process is concluded.

**Estimates of additional private investment leveraged in Chile by public subsidy (\$ million)**

	Private Investment	Public Subsidy	Total
Public access telephones	30	21	51

Source: *Edgardo Sepulveda, McCarty Tetrault LLP, Toronto, presentation at Regional Workshop, Tanzania, June 2002.*

**Box 6b: Minimum Subsidy Bidding for rural electrification in Chile and Uganda**

Variants of the minimum subsidy model have been used for rural electrification in Chile and Uganda. Chile uses a rural electrification fund with a planned life of 10 years to offer one-time, competitively awarded subsidies to local operators bidding to provide service. Their proposals are scored against a checklist of objective criteria, including a cost-benefit analysis, the operator's investment commitment, and social impact. Operators receive the subsidy up front and must make a minimum contribution to project costs according to a formula set by the government. Operating since 1994 and using annual tenders, the fund had increased rural electrification by 50 percent in 1999. The subsidy paid over this period was \$112 million, while private operators have invested \$60 million. In Uganda a similar scheme has been adopted. A Rural Electricity Fund has been established which will utilise subsidies. Periodic bidding rounds are organised during the year on a regional basis with specific funds being allocated to specific regions inviting project sponsors to submit project proposals. The most cost-effective projects are picked until the available funds are exhausted. The funds are managed by the respective Rural Electrification Board.

Source: *Jadresic [2000], Uganda [2001]*

The principle of user charges adhering closely to costs is crucial to ensuring successful commercialisation of the sector. One of the critical features in moving towards a market based economy is the freedom allowed to price signals to reflect the inherent demand and supply gaps. Much of the subsidies normally provided in developing countries, unfortunately, are through cross-subsidisation, which serves to cloud precisely this imbalance (Barnes and Halpern [2000]); prices are overloaded workhorses that reflect various social, fiscal and political objectives including affordability, wealth redistribution, etc. Not only does this serve to muddy scarcity signals, this makes resource and fund flows across various activities relating to a specific sector ambiguous,

magnifying the degree of uncertainty about the quantum of subsidy transfers required for achieving a specific task or objective.

### *7.2.1 Output orientation of subsidies*

Traditional approaches to subsidising public services channel the subsidy - whether financed by domestic taxpayers or donors - to the inputs consumed by state-owned service providers, with at best an indirect relationship with the services actually delivered. And affordability concerns are often addressed through cross subsidies built into service prices. The results have often been disappointing. Public sector provision with soft financing frequently suffers from limited incentives for efficiency and innovation, weak accountability for performance, and limited opportunities for leveraging public resources through private sector financing. And cross-subsidies too often benefit the well-off more than the poor. Output-based aid seeks to address these weaknesses by delegating service delivery to a third party (such as a private company or non-governmental organisation) under contracts that link the payment of subsidies to the outputs or results actually delivered to target beneficiaries. The intended result? A sharper focus on objectives, better incentives for efficiency and innovation, more accountability for the use of public resources and new opportunities for mobilising private financing for basic service provision (see Box 7 below).

#### **Box 7: Output oriented subsidies**

The Paraguay Fourth Rural Water Supply and Sanitation Project uses four small concessions to pay small local private operators (the "aguateros" already operating small systems in semi-urban areas around Asuncion and Ciudad del Este) a subsidy to design, construct and operate (for 10 years) water supply systems in 4 small towns. Both the tariffs that the successful bidders will be able to charge users and the subsidy on offer have been fixed and bidders will compete on the lowest "connection fee" they will charge users to connect to their systems. The government of Paraguay, which is currently subsidising rural water supply schemes by US\$200/connection in theory (and much more in practice since communities often fail to make their financial contributions), will pay a subsidy worth only \$150/connection. Communities are also expected to benefit since Paraguay's "aguateros" traditionally have lower construction costs than contractors building government-financed RWSS schemes. Communities will probably pay less for their water over the life of the system than they would under present financing. The quality of service provided by a "professional" operator is also expected to be higher than what the traditional "junta" operators can deliver.

*Source: Drees [2001].*

## 8. HYPOTHESES FOR EXAMINATION

Although the broad outlines of the actions, structures and processes that are likely to contribute to successful reform are well known, some presumed causal relationships need further study, especially in the context of the complex interplay of the institutions, laws and extent of governmental involvement in many countries. Many operational details, moreover, need to be addressed in meticulous detail, with particular thought given to contingencies arising from strategic gaming by stakeholders. As stressed throughout the paper, especially in the context of the financial sector, a detailed *ex-ante* assessment of risks can be of immense help in mitigating future problems.

As a brief digression, the authors would like to comment on the preferred methodology of these examinations. A multitude of studies have attempted to decipher the complex causal relationships between globalisation, growth, poverty, inequality and numerous other aspect of economic change through cross-country regressions. There is a growing sentiment, though, that these are deficient and cannot be relied on to unravel the complex interplay of drivers. An increasing number of scholars, Srinivasan and Bhagwati [1999] at their vanguard, insist that the most compelling evidence must come from careful case studies. Others (see Wacziarg [2002]) see a limited utility for these studies in narrowing the scope of potential contenders for explanations. Whatever the validity of these arguments, their warning should give sufficient pause for future investigators to complement the cross-country studies with careful studies of individual countries.

This section presents some issues that the authors believe deserves significant follow-up. These are concerned not so much with macroeconomic relationships between growth and economic parameters as they are with increasing competitiveness through efficiently functioning infrastructure and financial sectors. Some of these issues can be profitably cast as hypotheses that can be subjected to rigorous statistical tests, others require a qualitative evaluation, embedded in the institutional context in which they are evaluated. The list is by no means complete, nor are the issues meant to be seen in isolation. The purpose is predominantly to set up straw men and flag contentious and unexplored aspects of reform actions, even those whose validity is otherwise accepted in principle, but whose operational details need careful thought.

1. What is the optimal sequencing of reforms? Are there precursors that need to be in place for privatisation? Should restructured sector, industry and market structures be in place for effective privatisation? What actions need to be coterminous?
2. Simultaneous privatisation and enhanced competition are often held to be inimical for many infrastructure sectors. It is held that risks increase in the transition stage after privatisation, even without opening up the sector to competition. How can sector restructuring mitigate such risks, so that consumers benefit from both changes?
3. It is often claimed that transferring ownership or the right to provide services to the private sector significantly increases the costs of the service provision. On the other hand, proponents claim that there exists a significant cushion of hidden and understated subsidies and undervaluation inherent in public provision. How does one review accounting and costing procedures of public sector organisations to construct effective public sector comparators to benchmark private sector performance?
4. The interplay between the roles of sector regulators and increasing numbers of countries establishing competition commissions raises peculiar challenges and complicates decision making hierarchies that already incorporate complex dispute resolution structures. Two key questions bear investigation in detail: (a) how to decide when a market is sufficiently competitive so that it no longer needs specific regulation; (b) Is the sector regulator or general competition authority likely to regulate the competitive markets most effectively.
5. Design of regulatory institutions is complex and controversial, given that their effective functioning depends critically on the policy, legal and governance environments in which they operate. It is now clear that the effectiveness of these institutions might be seriously degraded in specific countries even if the designs adhere to those of developed countries. Regulatory capacity (including the choice of personnel hired as regulators), independence (financial and functional), hierarchy (appellate structures and government powers) and decision processes (reasoned arguments, public hearings, etc.) have to be studied in the institutional context of each country.
6. However good the design of regulatory institutions, regulatory discretion needs to be minimised and uncertainty reduced. One important device for this is the establishment of long-term multi-year regulatory perspectives and tariff decisions. What are the information and procedure changes required for enabling regulators to institute long-term tariffs?
7. A well designed exercise of competitive bidding often serves to reduce the regulatory information burden and mitigates the power of private service providers to extract rents. Faulty competitive bidding has served to delay the reform process; for instance, inappropriate choice of bid parameters led to problems with road concessions in Mexico, attempts to bid out inappropriate rights that should not have been bid stalled telecom reforms in India. More fundamentally, what are the correct uses for bidding? What are the circumstances, if any, where “beauty contests” produce superior outcomes compared to auctions?

8. An important criterion for the success of a bid is its ability to draw a response from a large number of potential service providers. In an attempt to screen unqualified bidders from participating, stringent entry conditions are specified which defeats the purpose of replicating competition by severely restricting the number of eligible bidders. What are reasonable restrictions on bidder qualifications?
9. Incentives and their distortions are particularly important for efficient functioning of financial markets. Although the portfolio of bad loans in the banking systems of developing countries has attracted extensive attention after the disparate crises of the nineties, to the best knowledge of the authors, the consequences of the different levels of involvement of governments in the sector have not been adequately investigated. This paper suggests two testable hypotheses related to the involvement of the state in the financial sector in developing countries: (i) Quantifying the extent of government involvement in intermediation; and (ii) the effect of this involvement on “effective” co-financing of projects (see Bhattacharya and Patel [2002] for an application to India).
10. The financial sector is becoming increasingly integrated, with financial intermediaries spanning banking, securities, housing mortgage, insurance and mutual funds. Should the financial services regulator be a single body, in charge of overseeing all segments? Should the Central Bank be a regulator?
11. What should be the role of government in basic service provision? What are the most effective paths to transition from being a direct provider of services to one where the government purchases these services on behalf of users from the private sector?
12. What are the lessons on making sure subsidised services are responsive to the needs and preferences of targeted beneficiaries? How can reliable public services best be delivered to the poor? What is the best experience in designing subsidies that don't distort service choices or crowd out user payments?

## **9. CONCLUSIONS AND RECOMMENDATIONS**

The design of reforms is critical for achieving sustained competitiveness – defined as a process whose outcomes are efficiency, equity and sustainability. By this yardstick, only a few developing countries have, thus far, managed to implement successful reform programmes, with an ambit encompassing all sectors; some, though, have succeeded in much greater degree than others. The reform experience, however, has taught us many things and the tools for implementing successful reform are better understood. This paper attempts to draw together lessons from experiences of reform in

infrastructure and financial sectors and adapt them for improving the reform programs of specific countries.

Reforms in this paper are considered synonymously with transitioning to market based delivery of services, a change from the erstwhile state-dominated command and control systems. The authors emphasise that reforms, applied mechanically, are not likely, by themselves, to achieve the objective of enhancing competitiveness. We believe, however, that they are a necessary if not sufficient condition, through their direct effects in increasing consumer choice and efficient allocation of scarce national resources, and through derivative effects of transparency and better governance.

More often than not, the objectives of governments in economic restructuring have been driven by fiscal pressures and not a recognition of the efficiencies induced by market-driven processes and competition. To ameliorate these fiscal stresses, governments have emphasised revenue maximisation from the sale of existing assets or concessions for the right to provide specific services. In the process, inappropriate market structures have been fostered that lead to increased risks and eventual unviability of commercial service provision. Correct market structures, designed with a view to identifying and allocating risks, is a sine qua non for successful reform.

An efficient financial sector is critical for successful economic restructuring in terms of aligning incentives of financial intermediaries. There should be no involvement of government, apart from establishing efficient and independent regulation, in this sector, since the peculiar “incentive” structures associated with government systemically stifles incentives and vitiates the stringent commercial discipline that is particularly required in this sector to stave off system-wide crises. Even in countries with arguably “efficient” government involvement in other economic sectors, involvement of government in their respective financial sectors have led to meltdowns. The authors surmise that this is due to a particularly virulent distortion of incentives, which they call Aggravated Moral Hazard, distinct from the normal moral hazard present in financial transactions.

Sectors that had been perceived as monolithic entities have begun to be seen as composed of diverse services and activities. Technological advances now enable commoditisation of many economic activities that were previously considered in the realm of natural monopolies, but which continue to function under state control in many developing countries. Full competition is possible in many of these. While recognition of the unbundling of services is gradually gaining ground in official thinking, there still seems an inadequate appreciation of the market structures in which these services would operate. This has led to attempts at restricting full competition and free entry of firms in segments which can support it. It is true that the right to provide services in such a restricted environment is now being awarded through competitive bidding, rather than administrative means, but the basic premise of the awards itself is wrong. Free entry and exit of firms should be allowed in competitive segments, and no attempts to ration the rights to these should be made, competitive bidding or otherwise. Restricted entry should be confined to only those activities that utilise scarce national resources (like roads and wireless telephony) or are deemed to retain strong natural monopoly characteristics (like electricity wires).

Private participation in activities that are natural monopolies can lead to extraction of economic rents (super normal profits). This can be mitigated by a judicious combination of competition for the concerned market and appropriate regulation. Competition for the right to provide a service in a natural monopoly market can be fostered through a well-designed competitive bidding process. An effective design of a concession for the right to provide the service is crucial for successfully auctioning the concession.

The remaining monopoly power can be mitigated through effective regulation. Effective regulation is intimately tied with the associated market structure – getting the design of the market wrong will render even competent regulation ineffective. The primary role of regulation is to promote competition – consumer protection is an ancillary objective and can be best achieved through greater choice for consumers. The best regulation is through competition. Regulation should be light handed and least intrusive to the maximum extent possible and should ideally have a multi-year perspective, rather

than an annual rate-making, cost-plus exercise. Regulators need to use information disclosure through the markets to the maximum extent possible. The risk profile of commercial service provision is already high and regulatory risk might just serve to make both the enterprise and the sector commercially unviable. There should be explicit sunset clauses incorporated for sector regulatory institutions. This does not imply that regulation should vanish; simply, that its nature should be radically altered. Although the rationale for vertically unbundled utilities has diminished greatly, these activities are subject to the same forces of aggregation present in other sectors. Sector economic regulation should transform into anti-trust and competition oversight, to be triggered in rare cases of attempts to cartelise and exercise monopoly power.

Private sector participation might not be commercially viable in certain (geographic, demographic, etc.) segments and access might be hindered with the move to markets-based provision. The government needs to continue its role in providing these services. The method of delivery of these services, however, needs to change: the government transforms from the erstwhile role of supplier of these services to that of a purchaser of these services from private providers on behalf of the commercially unviable user segments. Private delivery of services in commercially unviable areas, with the objective of providing universal access, requires government subvention in the form of subsidies. The method currently favoured for universal access provision in most developing countries is through cross-subsidisation, which distorts demand behaviour and muddies price signals. To minimise these distortions, subsidies should be provided through explicit budgetary allocations. These subsidies should be outcome oriented, a shift from the current emphasis on inputs. As a corollary, consumers should be made aware that no service is an entitlement and that user charges will have to be imposed to ensure sustainable delivery of these services.

Financing reforms is often cited as a process constraint and a barrier to commercialising many erstwhile state-provided services; opponents of reform claim that the magnitude of resources needed can be provided only through public expenditures. This is incorrect. The so-called “financing gap” might in reality be a “policy gap”. While subsidies might still be needed for specific activities during the reform process in the

transition to market based economies, commercial viability will be a function of pricing decisions (i.e., user charges) and an effective mitigation of various risks. Innovative financing structures and financial instruments can serve to transfer many risks that were previously sought to be mitigated through overt government intervention. In addition, re-channelling multilateral assistance away from investment and towards the needed financial workouts will help in covering a significant gap in transition financing.

One final caveat: No discussions of market structures and reform processes will deliver the goods unless policy makers in a country strongly believe in and support reform. No amount of legal reform is proof against litigation or stalling by a government that is determined to undermine a decision. There will be winners and losers, as always in any change process, and the government needs to devise mechanisms to ameliorate the losses of the losing section so that they can be co-opted into the restructuring and minimise disruption. If the government gets its objective(s) right, and initiates proper communication about the benefits of change among diverse stakeholders, there is a high probability of an efficient, equitable and sustainable reforms outcome.

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