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# **STRIKING THE RIGHT BALANCE BETWEEN COMPETITION AND REGULATION: THE KEY IS LEARNING FROM OUR MISTAKES**

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## **Introduction**

1. Yesterday in Session 1 we talked about the *process* of regulatory reform, with a focus on enhancing transparency. Today in Session 2 we will shift to discussing the *content* of regulatory reform and what have we learned about making reforms work well. It is hoped that this discussion will help participants in this workshop to learn from each other's successes and failures, so that we can stand on each other's shoulders and avoid 'reinventing the wheel' over and over again.

2. The focus of my remarks will be upon striking the right balance between competition and regulation, to achieve greater economic efficiency and higher living standards. What I have to say in this regard has been inspired by the 1999 APEC declaration of *Principles to Enhance Competition and Regulatory Reform* and the OECD principles on regulatory reform embodied in the *1997 Report to Ministers on Regulatory Reform* (see Annex of the APEC-OECD Work Programme for 2003-2004).

3. Regulatory reform comes in waves. After WWII the trend was toward nationalisation and stricter, often competition distorting, regulation that was intended to direct economic activity to the common good. For the past quarter-century or so, the trend has been the other way, although there have been some noteworthy cases of new regulation and even re-regulation. This reversal, which was given a boost by the collapse of the former centrally planned economies in Eastern Europe and the former Soviet Union, was a response to poor performance in nationalised and regulated sectors. On balance, this latest trend has yielded enormous economic benefits, for example huge price reductions and dramatic product quality improvements, although at times unwelcome supply disruptions or other strains have been encountered.

4. However, the process in many jurisdictions has been slow, perhaps in part because some poorly conceived reforms have prompted a re-evaluation of the benefits of deregulation. This has increased the need to critically assess the experience to date and the relationship between competition and regulation – an exercise that can be enriched by drawing upon the diverse experiences from around the world

5. The principle conclusions that may be drawn from this exercise is that there continues to be a very strong case for pursuing a regulatory reform agenda that has a strong competition dimension. This is because greater competition leads to greater innovation; and it is innovation that provides the main source of increases in our standard of living. Conversely, there are substantial dynamic costs associated with retaining regulatory regimes that stifle competition. However, in pursuing regulatory reform, greater care needs to be given to (i) designing it in a manner that minimises the risks of failure and (ii) ensuring that it is not jeopardised by misunderstandings regarding the reasons for sub-optimal outcomes. If these two steps are not taken, there are disturbing signs that public pressure likely will increase in various parts of the world to reverse or partially reverse important and valuable regulatory reform initiatives. I should add, in passing, that the extent to which substantive regulatory reform can be successful is intimately linked to how the process issues discussed yesterday are handled

6. I have grouped my remaining remarks under five headings. First, I will briefly address why countries increasingly are preferring more competition and less or more flexible regulation in most circumstances. Second, I will summarise the principal justifications for regulation. Third, I will offer various suggestions for striking the right balance between competition and regulation, including by reforming necessary regulatory frameworks to support effective competition. Fourth, I will touch upon the role that competition can play in the area of universal access. Finally, I will briefly discuss how to avoid notorious failures such as that which occurred in the electricity sector in California.

## **1. Why Competition is Superior to Regulation in Most Circumstances**

7. It is probably safe to say that in the developed world, competition is now accepted as the best available mechanism for maximising the things that one can demand from an economic system in most circumstances. Economic regulation is increasingly perceived to be at the opposite end of the spectrum - it tends to leave a larger number of people with a reduced real income and a lower standard of living. In addition, economic regulation imposes costs on society in terms of its establishment and administration, its distorting effect on economic efficiency and the significant time, effort and expense associated with its removal.

8. Studies consistently demonstrate that deregulation has been accompanied by large price reductions to consumers and substantial improvements in quality and service.<sup>1</sup> In one recent review of a number of such studies relating to the deregulation of the natural gas, long distance telecommunications,

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1. See generally, OECD, Report on Regulatory Reform (Paris: 1997), Volume II. The findings of various studies are summarised at p. 252.

airlines, trucking and rail industries in the U.S., it was reported that real prices dropped at least 25% and sometimes close to 50% within ten years of deregulation in those industries.<sup>2</sup> The annual value of consumer benefits from such deregulation was estimated to be approximately US\$5 billion in the long distance telecom industry, US\$19.4 billion in the airline industry, US\$19.6 billion in the trucking industry, and US\$9.10 billion in the railroad industry. At the same time, consumers were able to benefit from improvements in the quality of service. Moreover, "[c]rucial social goals like airline safety, reliability of gas service, and reliability of the telecommunications network were maintained or improved by deregulation and customer choice".<sup>3</sup>

9. Notwithstanding this persuasive evidence, many transition and developing countries continue to be highly regulated, with large state-owned sectors and oligopolies or inefficient firms operating in markets insulated by various types of barriers.

A good example of the role of competition in cultivating discovery and innovation is provided by the experience in Finland's telecoms sector. Finland was one of the first countries in the world to liberalise that sector. The resulting competition of enterprises drove innovation in the surrounding hardware industries. One company, Nokia, was on the spot, caught in the midst of this intense rivalry. To survive, it had to innovate. Today, it is so successful in this regard that it accounts for a large part of the Finnish stock market. And telecommunications consumers in liberalised markets have benefited from the new products Nokia invented. In contrast to this experience, it is difficult to think of an innovation that arose in a regulated telecommunications market in the past quarter-century.

10. How important is this? Well over the longer run it is growth in productivity from innovation and better organising production that provides most of the improvements in living standards. This applies in both developed and developing economies. Indeed, I would argue that the competition plays a critical role in many dimensions of overall economic.

11. Another way in which competition is superior to regulation is in "dealing with the unexpected." The Internet was created in the US and has now spread over the whole world. The Internet is based on an open architecture that provides for competitive innovation between web sites. This competition is not just between commercial web sites. For example, as an information provider the OECD has to strive to make its web site more user friendly and useful to ensure that it continues to be attractive to its target audience. Otherwise we will lose out to other information providers, our work will get less exposure and the Organisation will be less relevant. In short, competition forces us to be better. But, it may surprise you to find out that the US was not the first "wired society". Actually it was France, where a decade before the Internet was born the Minitel system was in wide use. One could bank, book air tickets, find out information and so on over that network. But Minitel floundered. Why? Because it was a closed system with a monopoly core service run by France Telecom using a "locked in" technology. It couldn't innovate past its slow and graphics free architecture and attempts to incorporate unexpected innovations which arose elsewhere got bogged down in committees.

12. Finally, I should note that strong competition policy can not only help to deliver lower prices, better product quality and new products, but it can also help to create better conditions for democratic institutions. This is because the democratisation of political systems and the decentralisation of economic decision making are mutually reinforcing processes.

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2. Crandall, R. and Ellig, J., *Economic Deregulation and Customer Choice: Lessons for the Electricity Industry*, George Mason University, Center for Market Processes, (1997), at 2-3.

3. *Ibid.*

## **2. Principal Justifications for Regulation**

13. Implicit in the proposition that competition is superior to regulation in most circumstances, is the notion that there are some circumstances in which free and unrestricted competition is not optimal and therefore some form of regulation may be preferable. These circumstances are fairly limited, and can be grouped as follows:

- to address market failure
- to advance the "public interest"
- to advance special interests
- to assist in the transition to a competitive market

### **2.1 Market Failure Regulation**

14. Market failure can be defined as an inability of the market to deliver goods and services to consumers in an efficient manner, i.e. because unrestricted competition cannot be sustained in the industry in question. In such situations, some form of regulation may be efficient and appropriate. Each situation needs to be assessed individually, as regulation won't be efficient if it costs more than the harm that it seeks to address.

15. One of the classic and generally recognised examples of market failure is public goods. Examples include national defence, parks, public schools, flood control protection, lighthouses, and road construction and maintenance (although toll highways that are constructed and operated by the private sector are increasingly appearing). These are goods or services for which it likely would be difficult to establish an efficient payment mechanism, and for which the cost of extending the service to an additional person is virtually zero. The form of "regulation" typically adopted in respect of public goods is for the government to assume responsibility for deciding what is to be produced.

16. Another form of market failure may arise when it is less costly for a single entity to supply the entire market than to have competition between multiple entities. Regulation of the natural monopoly – either its prices or conduct - is then necessary to ensure that the market power of the monopoly is not abused. An example is electrical transmission.

17. A related type of market failure can occur when prospective entrants into a market must incur high costs that they would not be able to recoup if they were subsequently to exit from the market. Putting wires and pipes in the ground are examples of sunk costs, but so are the costs of learning and negotiating the regulatory regime. If a country wishes to attract private investment into markets with high sunk costs, ensuring a stable regulatory regime that promotes confidence and predictability is a key prerequisite.

18. Fortunately, the forces of globalisation and innovation are opening up many markets formerly thought to constitute natural monopolies, e.g., electricity generation, electricity retailing, natural gas retailing, local and long distance telecommunications, rail transportation, postal services and even public highways. This experience suggests that assumptions regarding sectors thought to be natural monopolies should be revisited periodically to test their continued validity.

19. However, these same forces are giving rise to new natural monopolies resulting from network externalities. Demand side network externalities can occur where there are enormous benefits to being a member of a network or standard. As the network or standard is embraced by more people or organisations, its value to existing members rises. Supply side network externalities can occur when the cost of providing services to additional consumers reduces the overall cost of the network. As an existing network grows, potential suppliers of rival networks are often unable to generate or maintain enough sales

to compete with the "first mover" or the growing network. The dominance of VHS over Beta is the most cited example of this type of externality. In emerging network industries, policy-makers are still wrestling with how to approach this problem - i.e., through competition law or by leaving the market to decide winners and losers.

20. Market failure also can exist as a result of information asymmetries. Such asymmetries can lead consumers to under or over consume. To enable the market to function efficiently, protect the public from providers of poor or sub-standard services, and even prevent against fraud, laws relating to matters such as professional standards, product labelling, deceptive marketing practices and securities trading need to be enacted.

21. A final type of market failure can occur when the government attempts to promote competition between state-owned enterprises. This type of a situation is difficult to sustain over the long run because the implicit or explicit guarantee against bankruptcy and mandate to maintain employment create incentives to predate that are much stronger than for profit-seeking privately owned enterprises. Thus, a market supplied predominantly by competing SOEs faces a high risk of descending into inefficient competition and generating huge losses for taxpayers. Accordingly, creating competition between SOEs should only be considered as a short term step in a longer process of privatisation and deregulation.

## **2.2 *Public Interest Regulation***

22. Another rationale for regulation that is somewhat analogous to the market failure justification is to promote what is perceived to be the public interest. Regulations related to health and safety, the environment, labour, food and drugs, transportation (e.g., airline, trucking and rail services), securities, insurance, health care and investment often are supported by reference to "public interest" considerations. These types of regulations can be effected through a variety of instruments, including legislation that establishes a licensing regime, prevents or requires certain types of behaviour, imposes foreign ownership restrictions, or imposes product or technical standards. Unfortunately, in the pursuit of legitimate public interest objectives, this type of regulation often distorts competition to a far greater degree than necessary.

23. Similarly, in the financial sector, regulation generally is recognised to be required for prudential reasons - that is to say, to prevent systemic instability. Systemic failures in financial systems have proven to be very costly, with official "rescue" packages for failed financial institutions costing upwards of 20 per cent of GDP in some cases. Additionally, large failures of financial institutions, such as those that occurred in the post 1997 Asians crisis have been instrumental in causing economic crisis with extremely high economic and social costs. Thus systemic stability clearly is a legitimate public interest objective that warrants regulatory intervention. However, once again, regulatory frameworks designed primarily to promote this objective often have distorted competition to a greater degree than necessary, for example, by preventing foreign financial institutions from competing in various segments of the financial services industry, or by preventing competition between participants in two or more parts of the the financial services industry, e.g., between banks and insurance companies; or between banks and investment dealers.

## **2.3 *Special Interest Regulation***

24. Often, regulatory regimes are established to advance the interests of certain groups in society that have succeeded in persuading political authorities that they are worthy of what essentially amounts to protection from competition. This form of regulation typically is simply a means by which the regulatory process is used to protect the interests of some participants in the economy at the expense of others. Examples of this include supply management schemes (which are common in the agricultural sector - for example, the dairy, poultry, pork, grain and fruit industries), labour codes, licensing regimes which make it

difficult for foreign and other firms to enter markets (these types of restrictions are common in the transportation and financial services sectors), product and technical standards which have a similar effect (these types of restrictions are common in the construction sector) and foreign ownership restrictions – these latter restraints fall in the grey zone between public interest and special interest based regulation, as they can promote both of these types of interest, e.g., the desire to promote a national champion or local employment can coincide with the private interest in protection from competition.

25. Unfortunately, political realities are such that competition-distorting, special interest based regulations often cannot simply be eliminated by a government that is keen on market reform. Where such decisive action is not politically feasible, an alternative course of action that can yield significant benefits would be to amend the regulatory regimes in question in a way that minimises, or at least significantly lessens, their adverse impact on competition.

#### **2.4 *Transitional Regulation***

26. An increasingly common rationale for regulation is to facilitate the transition of industries from regulation to competition. The process of regulatory reform sometimes involves complicated issues that require very careful consideration to ensure that the benefits of deregulation are not lost, for example by inadvertently enabling deregulated entities to establish private restraints in the place of the public restraints that have been removed. In addition, during the transition to open markets, the situation can be politically fragile -- if the transitory framework fails to produce expected benefits on a timely basis or produces short-term harm to stakeholders with political influence, policy makers may be pressured to re-regulate or to limit deregulation. The recent experience with deregulation of electrical power generation in California provides a noteworthy example. Sorting out the roles to be played by competition and by regulatory authorities during the transition requires striking a balance between sending appropriate investment signals to potential entrants, mitigating the exercise of market power of incumbent entities, and minimising the disruption to consumers. Where to draw the line depends in large measure on the speed with which new rivals can gain a foothold in the deregulated industry, and their incentives to do so. A number of suggestions for expediting the introduction of competition in transition industries are provided in Section 3.2 below.

### **3. *Managing the Interface between Competition and Regulation: Suggestions for Striking the Right Balance***

27. It is often forgotten that competition and regulation have the same ultimate goals, namely, to prevent the illegitimate acquisition and exercise of market power and to facilitate the efficient allocation of resources. Where free and unrestricted competition is unlikely to produce this result, it is generally recognised that some sort of regulation is appropriate, either as (i) a full substitute for competition, (ii) a means for establishing a sustainable framework within which effective competition can take place, or (iii) a means of "holding the fort" until the anticipated arrival of competition.

28. This gives rise to a need manage the interface between competition policy (broadly defined) and regulatory policy in a way that recognises their mutually reinforcing nature and optimises economic welfare. This section of my remarks will begin by providing a number of general suggestions for managing this interface and striking the right balance. It will then provide several suggestions with respect to the three key pillars of successful regulatory reform: establishing the right market structures, the right rules and the right regulatory institutions.

### 3.1 *General Suggestions*

29. As emphasised in the Summary document of the OECD's 1997 *Report on Regulatory Reform*, the most important ingredient for successful reform is the strength and consistency of support at the highest political level. This means that the "buy-in" and active support of ministers and other political actors in the economy is critical. In short, there must be sufficient supportive political energy to drive regulatory reform efforts throughout the administration.

30. It is also crucial to establish clear objectives for the regulatory reform exercise as well as in any legislation or regulations that may be implemented to effect the reform. In this regard, the legal instruments establishing the regulatory regime should include, as one of their objectives, the promotion of economic efficiency, and, if possible, competition in areas not subject to regulation.

31. Furthermore, steps should be taken to ensure that these legal instruments, as well as the regulator's policies, practices and procedures, are highly transparent and predictable. These steps should include actions and measures designed to give relevant domestic stakeholders and foreign investors confidence that the rules will not be arbitrarily changed.

32. In addition, as contemplated by the APEC Competition Principles, and subject to political realities, competition should be introduced to all activities that are not natural monopolies, to the maximum extent possible. This includes minimising any restriction or distortion of competition to achieve environmental, social or other public interest objectives. In other words, a concerted effort should be made to identify segments of the industry or market that can support new or more competition, and then, once such segments have been identified, take the steps required to introduce or expand competition within those segments.

33. Here, particular attention may have to be paid to shifting the systemic bias. The onus should be to demonstrate the continued need for regulation, or at least the competition impeding aspects of desirable public interest regulation. The onus should not be to demonstrate the benefits of competition.

34. A good example of how competition can be introduced to particular segments within an industry is provided by the electricity sector. Few people here today would be surprised to learn that the generation stage of the electricity sector is now generally considered to be capable of supporting vigorous competition. But how many of you are aware that changes to the manner in which electricity is metered can affect purchasing behaviour and the overall efficiency of the industry? If electricity use is measured minute-by-minute, as opposed to the month-to-month way that is conventional in some countries, then it can be priced minute-by-minute. That means that large customers with flexible demand can be provided an incentive to reduce their load at peak times and perhaps even resell contracted electricity back into the market. If time-of-use metering applies to enough customers, the peaks in electricity demand can be blunted. Moreover, generators will have less market power because at least some customers can respond to high prices by reducing their demand immediately and the market is going to work better. This means, capacity can be lower, so the overall costs of the electricity system also can be lower.

35. Even if a segment of an industry or market continues to display natural monopoly characteristics, competition can have an important role to play in helping to increase the overall efficiency of the regulatory regime. This can be achieved by creating competition *for* the market, for example, by auctioning off the right to be the monopolist supplier.

36. Finally, competition and efficiency can be increased by minimising the transition period. In some situations, impediments to competition can be removed virtually overnight, whereas in other situations it will be entirely appropriate to move more slowly in order to avoid undermining the paramount objective of achieving conditions that are conducive to the maintenance of long-term competition. In any event, reliance on market forces should be maximised at every stage of the transition process. Restrictions or other limitations on competition should be removed as soon as they are no longer required. In short, every effort should be made to avoid "over managing" the transition to competition.

### **3.2 *Getting the Right Structure***

37. For competition to work in a market, there need to be competitors. A monopoly is not a good starting point and therefore privatising a monopoly is usually a poor policy. It is clear from experience that it normally takes a very long time for monopolies to be eroded, and not much time at all for privatised monopolists to establish private restraints that take the place of the former institutional restraints to competition.

38. Accordingly, it generally is better to break up a monopoly into a number of competing firms before it is privatised and/or deregulated. This is consistent with the general principle that regulatory reform should not just *allow* competition but it should *foster* it. That being said, there are economies of scale for many of the markets in the sectors we are considering today, so we cannot expect a large number of competitors.

39. An exception that often is identified in theory is where an industry is very easy to enter and therefore the monopoly power of an incumbent can be effectively constrained by the threat of new competition. Some have argued that the telecommunications sector is an example of this sort, but that is hotly debated. In any event, a key part of creating the right structural conditions for competition, particularly in industries where there are significant economies of scale, is to remove regulatory impediments to entry by foreign or other potential competitors.

40. In addition to creating the right horizontal structure, it is important to address other structural considerations. For example, serious consideration should be given separating the regulated and non-regulated activities of any entity that will continue to be regulated. At a minimum, this means creating separate affiliates for the purposes of conducting regulated and non-regulated activities, and establishing a number of complementary measures to ensure that structural separation is in fact maintained. Structural separation is required because accounting and costing rules are not sufficient to ensure that costs are properly allocated between competitive and regulated activities. Although this may result in some loss of economies of scope, this cost probably is well worth incurring in order to protect competition from anti-competitive cross-subsidisation and achieve the benefits that competition may offer in fragile, emerging markets.

### **3.3 *Establishing the Right Rules***

41. The second critical component of any regulatory reform program is to establish the right rules.

42. This includes adopting an effective domestic competition law, minimising the number of exemptions from that law and making a commitment to its vigorous enforcement. An effective competition law is critical to ensuring that the benefits of deregulation are not undermined by private anti-competitive conduct, and anything less than strong enforcement of that law by an independent competition law enforcement authority can leave significant scope for anti-competitive behaviour to flourish, thereby seriously impeding the shift to competition. Where it is considered desirable to exempt a sector from the



application of the domestic competition law, the rationale for such exemption should be revisited from time to time and the sectoral regulation should contain provisions that effectively prevent and sanction anti-competitive behaviour.

43. Although some have suggested that there may be some merit in delaying the introduction of a domestic competition law until a country reaches a certain stage of economic development, this would simply give former state enterprises and other deregulated firms the opportunity to engage in a broad range of anti-competitive conduct that would seriously impair the development of competition and push back the point in time at which competition is able to deliver the benefits discussed above. To minimise the scope for this to occur, domestic competition laws should be enacted as early as possible in the market opening process and contain as few industry and other exemptions as possible. This is an important sequencing issue.

44. In addition, serious consideration should be given to permitting the domestic competition agency to intervene in all regulatory proceedings, to make submissions to all regulators, and to participate in the process of developing laws or policies that have the potential to impact adversely upon competition. This will ensure that the competition policy implications of such laws or policies are fully understood.

45. Turning to more specific rules, where the regulated entity will continue to control network or bottleneck facilities to which third parties must have access in order to compete effectively, the access rules should be non-discriminatory and the access price should be based on the cost of providing the service. In most cases, to ensure a level playing field, this should be the long-run incremental costs associated with the provision of the services, although there may be situations in which other definitions of "cost" would be appropriate. In addition, there should be a procedure for resolving disputes between the regulated entity and third parties regarding issues related to access, and that procedure should ensure swift resolution of disputes. Measures also should be adopted to protect the confidentiality of any competitively sensitive information that the regulated entity might otherwise be in a position to learn about its rivals in upstream, downstream or adjacent markets. In addition, provision should be made to ensure that rivals have adequate notice of changes to essential facilities that may adversely impact upon their competitiveness.

46. Where prices in one part of an industry (for example, long distance telephone services) have artificially subsidised prices in another part of the industry (for example, local telephone services), it also is important to adjust prices in the subsidised part of the industry to reflect their underlying costs. In short, suppliers should recover the costs of each product through the prices charged for that product. This will have the salutary effect of eliminating a strong disincentive to efficient entry by new competitors in the market for the supply of the subsidised product.

47. A more general pricing-related issue is how prices will be established. Alternative approaches can be grouped into two broad categories, (i) cost of service or rate of return regulation, which permits the regulated entity to obtain a predetermined rate of return on its capital (as defined by its rate base), and (ii) performance based regulation, such as price caps, which set a maximum price that a regulated entity can charge, while permitting the entity to retain any profits that can be realised through cost reduction initiatives. The latter approach is designed to decouple costs and rates so that carriers have a strong incentive to minimise costs and no incentive to inflate their costs or to shift them between regulated and unregulated activities. For this reason, it is now generally considered to be superior to cost of service or rate of return regulation. Revenue sharing is somewhat of a hybrid of rate of return regulation and performance based regulation, in that it permits the regulated entity to retain a share of the returns that exceed its allowed rate of return, thereby providing a greater incentive to pay greater attention to costs.

48. Another important aspect of the rules framework is to ensure that it is sufficiently flexible to accommodate changing market conditions. For example, if technological advances occur more quickly than anticipated, the timetable for the transition can be reduced. Conversely, if competition is not developing as quickly as hoped, it should be possible to adjust the transition process to take account of that fact.

49. In addition, a clear time limit, in the form of a sunset clause in the enabling legislation or regulations of the regime, should be placed on the transition period as a whole or on certain aspects of it. Where clear time limits are not appropriate, clear milestones should be established in the legislation or regulations for either the termination of the transition, the termination of certain aspects of the transition, or the obligatory (as opposed to the permissive) forbearance of the regulator when such milestones are reached. Where the milestones approach is adopted, consideration should be given to having someone other than the regulator determine when those milestones have been reached. This will avoid placing the regulator in a conflict of interest of determining when its own mandate should terminate or be narrowed.

50. Furthermore, consideration should be given to including "carrots and sticks" in the transitory regime, to provide incentives for the incumbent firm(s) to reach the milestones as quickly as possible.

51. Consideration also should be given to the extent to which a voluntary code of conduct can eliminate, reduce the need for, or reduce the scope of the regulatory regime. In most cases, an important component of such a code would be oversight by an independent party.

52. Finally, to the extent possible, anti-competitive conduct should be dealt with by the domestic competition law, rather than by the regulator, although it may be appropriate to ensure that sectoral or multi-sectoral regulators can address the exercise of certain forms of market power, such as raising prices or reducing service, if the competitive forces in the market are not yet sufficient to discipline such behaviour.

### **3.4 *Creating the Right Institutions***

53. Regulatory institutions are extremely important for the success of regulation. It is not possible to anticipate all the problems and all the ways in which enterprises can act to exclude or otherwise harm their rivals, or evade the objectives of regulation. Thus, regulatory institutions need to be established. However, this alone is not sufficient. A commitment must be made to ensuring that these institutions are well-staffed and well-resourced. In this regard, serious consideration should be given to providing the institutions with budgetary independence, to safeguard them from the types of real or perceived pressures that can exist when a regulator recognises or is made aware that a certain course of action may have adverse future budgetary implications.

54. In addition to budgetary independence, regulatory institutions need to be independent of the enterprises they regulate, and, in a broad range of circumstances, government. Their optimal relationship with government will vary according to the objectives of the regulatory regime and the local domestic realities. For example, if the key objective is to maximise innovation and efficiency, there is a strong case to be made that complete independence from government would be appropriate. On the other hand, if the enabling legislation requires the regulator to make decisions based on a broad "public interest" test, then some mechanism for obtaining government input might be desirable. Between these two ends of the spectrum, a sober assessment must be made at the outset regarding the costs and benefits of complete independence versus varying degrees of government involvement in the regulatory process. For example, if, in addition to efficiency, other objectives of the regulatory regime were to ensure system stability, non discrimination and universal service, one would have to ask how preserving a role for political influence in

the decision-making process would advance these goals and outweigh the adverse implications for certainty, predictability and transparency. In any event, the key is for the regulator not to be subject to political influence beyond that which may be contemplated by the legal instruments establishing the regulatory regime.

55. Regardless of the degree of independence given to the regulator, it is critical that laws and regulations creating the regulatory regime provide for a high degree of transparency in respect of the tests that will be used by the regulator in making its decisions, the factors that will be considered in ascertaining whether the tests have been met, the procedures that will be followed by the regulator and the procedures that should be followed by persons whose conduct might be the subject of investigation or who might want to make representations and be given an opportunity to be heard. In addition, the regulator's policies and practices also should be highly transparent. The same is true of the mechanism by which the government or relevant minister might input into the decision-making process. In the absence of such transparency, public confidence in the regulatory regime may be compromised.

56. Furthermore, regulators must be given sufficient powers to obtain the information they require to make their decisions. This includes not only powers to compel oral testimony or representations, but also written submissions and paper or computer records or other documents.

57. Moreover, consideration must be given to how best to address the interface between the competition law enforcement agency and the sectoral regulator. In this regard, one particularly valuable and basic step that can be taken is to enshrine in either the domestic competition law or the enabling sectoral law a right of intervention by the competition authority in the sectoral regulator's proceedings. This would provide a legal mechanism to ensure that the competition agency can make written or oral submissions regarding key matters such as the industry structure (e.g., how to break up a former regulated entity into several competing firms, or how competition can be promoted through vertical separation); the formulation of industry-specific competition rules; how best to address cross-subsidisation between the regulated and unregulated activities of an entity; how to prevent against the anti-competitive use of sensitive customer information; and alternative approaches to issues such as stranded costs, universal access, deceptive marketing practices and price regulation.

58. To further reinforce the ability of the competition agency to be an effective advocate for change, serious consideration also should be given to giving the agency, or its head, a statutory mandate to engage in advocacy to promote competition throughout the economy and to help build a competition culture. In any event, a genuine effort should be made to include senior representatives of the competition agency at an early stage of the regulatory reform process within various branches of government, including in interdepartmental meetings within government at which issues related to regulatory reform may be discussed.

59. Also, it is important to minimise duplication and overlap as between the regulators. This could be addressed in the sectoral legislation, for example, by making it clear that nothing in the legislation affects the operation of the domestic competition law. Alternatively, the legislation could state specifically that nothing in it precludes the operation of certain sections of the competition law (for example the sections dealing with abuse of dominance or hard core cartels), while leaving dual jurisdiction over matters such as vertical mergers, deceptive marketing practices or price discrimination. Another way that regulators have attempted to minimise duplication and overlap, is through an informal protocol which sets out in a clear and transparent way who will assume responsibility for what. An advantage of this approach is that it is more flexible and can be adapted to reflect changes in resources or evolving areas of expertise of the competition agency and sectoral regulator. An informal protocol also can be used to provide an important framework for co-operation between the competition agency and the sectoral regulator.

60. Broadly speaking, it typically makes sense to give the competition agency responsibility to protect the public from anti-competitive conduct and mergers while giving the sectoral regulator responsibility to control pricing by natural monopolists of former monopolists that are still dominant. However, there are some grey areas, such as price discrimination and the terms of access to essential facilities. While competition agencies have more experience dealing with abuse of dominant behaviour, sectoral regulators ordinarily are better suited to reviewing the large volume of cost data that can be required to make an informed decision in these types of cases. They are also better suited to monitoring the industry to ensure compliance with regulatory decisions. Nevertheless, if regulation over the terms of access is only required for a short transitional period, it may make sense to give this responsibility to the competition regulator.

61. Finally, in thinking about the optimal design of regulatory agencies some thought should be given to the relative merits of creating several specialised single sector regulators versus combining responsibility for two or more sectors (e.g., telecom and broadcast; or gas and electricity) under a single multi-sectoral regulator. Clearly, a key trade-off to be evaluated in this analysis is the higher up-front cost of establishing several regulators versus the ongoing efficiency losses that may be incurred by forcing affected parties to deal with a larger, more cumbersome and less nimble multi-sectoral regulator. Additional considerations that should be factored into this assessment include the economies of scope that might be realised by creating a multi-sectoral regulator, the reduced probability of regulatory capture that would be associated with a multi-sectoral regulator, the availability of sufficient skilled people in the country to spread across several agencies, and the greater expertise and specialisation that would be associated with establishing specialist agencies.

#### **4. Competition and Universal Service**

62. A key concern that often is held by those responsible for designing regulatory reform in developing countries is how to ensure universal service. At first glance, it might seem difficult to ensure universal service and to introduce competition. Superficially, it would seem that the competing firms would supply the most profitable customers (e.g., urban or wealthy ones) and leave the poor, rural population unserved. But a well-designed universal service regime need not have this outcome. Universal service and competition are compatible, and competition can reduce the cost of providing universal service.

63. The key issue is how it is structured. Poorly designed subsidies can have unintended effects. For example, if basic telecoms service is offered at prices that do not cover costs, and only a fraction of the population can afford telecom services, then the outcome is a subsidy from the average taxpayer to relatively wealthy members of a society. This example demonstrates that the implications of the various ways of raising funds to achieve universal service objectives need to be explicitly addressed, as they tend to contemplate different degrees of distortion.

64. In terms of who should supply the service, the incumbent is not necessarily the lowest cost provider. One mechanism to get the least-cost provider, using the least-cost technology, to provide those services is to hold auctions. Under these auctions, firms bid for the lowest subsidy they require to provide the uneconomic services.

65. The example of Chile demonstrates the potential benefits of a market-based approach to meeting universal service and network expansion goals. An innovative feature of the Chilean approach was the auctioning of subsidies to provide telecommunications facilities in unserved areas. While the incumbent carrier won many of the projects, it faced competition from a long-distance rival, Chilesat, which sought to enter these markets through the bidding to build up its long-distance business (in fact, Chilesat bid zero on

16 projects -- *i.e.* no subsidy payment to provide the service - highlighting that services which are alleged to incur a deficit by the incumbent can often be provided without a cross-subsidy). The first bidding round in 1995 involved \$2.1 million in direct government funding and gave rise to about \$US 40 million in private investments. The result was 1,285 rural public telephones at an average cost of \$US 1,634 per telephone.<sup>4</sup>

## 5. How Can We Avoid Past Mistakes?

66. Opponents of market reform often use examples of less successful outcomes, such as the California sector in the summer of 2000, as an argument against opening up specific sectors to greater competition. Nothing could be further from the mark. It should be kept in mind that the “failures” in regulatory reform have been relatively few in number. While they clearly have given us important things to think about and address, they do not provide a sufficient basis for questioning the entire regulatory reform exercise. Moreover, what opponents of regulatory reform often forget to take into account is that the costs associated with regulatory reform failures must be weighed against the costs associated with failing to reform.

67. A closer analysis of the facts and what the experts have said about those facts reveals that the mistakes that were made in the California electricity sector are the type that easily can be avoided in the future. In this regard, one economist testifying in a senate hearing on Californian electricity decried that, “[o]ne of the sad features of the current debate is the failure to examine how better-conceived deregulation policies are working in other states.”<sup>5</sup>

68. What have the experts said? They have observed that well before the summer 2000, flaws in the market design were obvious. These flaws included a restriction on contract hedging and the “disconnect” between fixed retail prices and fluctuating wholesale prices. But the flaws went far beyond these to the fundamental design of the market. Without going into detail, these flaws related to the way energy prices and transmission varied by location, and to the way different types of related markets—short-run, long-run, forward and real-time energy markets, congestion (transmission), ancillary services and others—were designed. Already in December 1999, the Federal Energy Regulatory Commission had pronounced that *ad hoc* market adjustments, made to respond to earlier problems, were “fundamentally flawed” and efforts had begun to address these problems. Unfortunately, these efforts were overtaken by events. The flawed design resulted in competition failing and prices being pushed up by an uncompetitive supply situation. The flawed design was exacerbated by features unique to California: despite a boom in state GDP, no new capacity had been added for more than a decade, water levels were low in the reservoirs behind the power dams, natural gas prices were high and environmental conditions were tight.<sup>6</sup>

69. It is in fact well known how to make markets work for the electricity sector—witness *inter alia* New Zealand and the mid-Atlantic region of the United States, where markets do deliver lower costs, innovative products and flexibility. But markets for electricity need to have rules designed specifically for the special conditions of electricity. Experience teaches us that certain co-ordination must be done and that mistakes must be addressed swiftly.

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4. See World Bank Group, Public Policy for the Private Sector, “Extending Telecommunications Service to Rural Areas – The Chilean Experience,” Note no. 105, February, 1997.

5. Lawrence J. Makovich, Cambridge Energy Research Associates, testimony to the United States Senate Committee on Government Affairs, June 13, 2001, Washington, DC.

6. William W. Hogan, Electricity Market Restructuring: Reform of Reforms, May 25, 2001, p. 25.

70. There also have been problems in the financial services sector that have caused some observers to question the wisdom of liberalisation and deregulation. The series of crises that have emerged in this sector (such as the Mexican crisis of 1994-95, the post 1997 Asian crisis, and the collapse of Long Term Capital Management) have fuelled this skepticism. The fact that financial systems remain prone to episodes of instability clearly indicates that efforts to make financial markets systemically sounder need to be enhanced. The good news is that there is an emerging view that the risks of future problems in the financial services sector can be significantly reduced by ensuring that each institution has adequate internal systems to measure and manage its own risks. Indeed, experts in many central banks, finance ministries and supervisory agencies have been trying to identify risks and to be sure that every effort is made to anticipate possible risks. Moreover, an international network of supervisors and international organisations has developed to share experience and to deal with the global dimension of risk.

71. While it is clear that the liberalised and internationalised financial system has created new risk, it has also opened many new opportunities and made our economies more adaptive. More sophisticated financial markets have allowed companies and consumers to have access to an enlarged range of products and services, usually at reduced cost. On the supply side, new and innovative competitors, especially in high tech sectors, have been able to obtain funding through techniques such as venture capital. Financial markets also have developed enhanced capability to align the interests of corporate management and their shareholders. Going forward therefore, it is a major challenge to continue to enjoy the benefits that financial liberalisation and innovation have produced while learning to deal with the new system risks that are presented when regulatory regimes are reformed and streamlined.

## **Conclusion**

72. I would like to conclude by making a few short points.

73. *First*, competition generally leads to higher levels of efficiency and living standards; it helps deal with the unexpected; it provides resiliency and stokes innovation

74. *Second*, unsupervised competition is not feasible everywhere. Accordingly, regulatory reform should promote competition where feasible, and use efficient regulation where necessary. For example, it is not feasible to have competing electricity transmission networks; instead, these must be regulated and the microstructure of the market regulation must be sensitive to the particular nature of the market regulated. The key is to strike the right balance between competition and regulation.

75. *Third*, a successful regulatory reform should reflect a number of general parameters and credibly address the structure of the industry, the rules that provide the regulatory framework, and the institutions that will enforce those rules.

76. *Fourth*, ensuring universal service is almost always a key concern of those responsible for designing regulatory reform in infrastructure sectors such as telecommunications, electricity, and water. However, regulation is not the only way of achieving universal service objectives. Competition can help make universal service easier to afford -- as it has in Chilean telecommunications.

77. *Fifth*, there have been a few notorious failures in regulatory reform, such as California electricity. Experience has taught us that getting competition started and established in some industries is harder than we thought; learning is on-going. But this no reason to refrain from embarking on reform. Rather, we ought to learn from our mistakes to avoid the failures of the past.

78. In sum, regulatory reform is a delicate process. Follow-up and continued monitoring is crucial, as adjustments to deal with undesirable effects need to be swift. And things do go wrong. We all know of a few high profile examples from around the world. Fortunately, by sharing experience, by learning, we can avoid some mistakes, and avoid repeating others.

