United Nations TD/B/C.I/MEM.3/2

United Nations Conference on Trade and Development

Distr.: General
6 January 2009

Original: English

Trade and Development Board
Trade and Development Commission
Multi-year expert meeting on services, development and trade: the regulatory and institutional dimension
Geneva, 17–19 March 2009
Item 3 of the provisional agenda

Services, development and trade: the regulatory and institutional dimension

Note by the UNCTAD secretariat

Executive summary

This note discusses regulatory and institutional frameworks (RIFs) for infrastructure services (IS), e.g. telecommunications, transport, energy and financial services (FS). These sectors are fundamental for the efficiency, growth and competitiveness of economies, for human development and for the attainment of the Millennium Development Goals (MDGs). The note responds to the Accra Accord, which recognizes the role of services in economic development and the importance of RIFs for developing competitive services sectors (para. 94 (b)) in developing countries (DCs). The note explores how to improve the design and performance of RIFs, concluding that there is no "one-size-fits-all" model for RIFs. Instead, "best-fit-approaches" should take into account local country contexts of economic and social development, and regulatory, institutional and human resource capacity.

Introduction

1. This note reviews the trends and salient features of IS and considers the reasons for regulating them with a focus on economic regulation. It explores how regulatory objectives can be achieved in economic environments for IS that are becoming more competitive and liberalized. After providing examples and lessons learnt by Governments using various RIFs to achieve public policy objectives, it considers the special case of FS, as they have faced major regulatory and institutional failure leading to the current world economic crisis. It particularly examines challenges for DCs and discusses capacity-building options for RIFs in DCs. Lastly, it looks into the relationship between international trade agreements and RIFs.

I. Trends

2. **Efficient and accessible IS are building blocks for economic and social development.** They can catalyse economic diversification; strengthen domestic supply capacity, its efficiency and export competitiveness; contribute to MDGs; and promote countries' integration into the world economy. Among the key characteristics of some IS are the fact that they are network services; natural monopolies and the backbone of economic development. Some IS are public goods or feature specific characteristics (e.g. economies of scale or scope). Many are highly capital-intensive, with assets that are long-lived (25–50 years) and sunk assets that cannot be easily redeployed in other activities. In some IS, technological progress has diffused these characteristics (e.g. novel telecom services). FS, while neither typical network services nor natural monopolies, deserve particular attention, because of the importance of viable and stable financial systems for economic growth and development.

3. **IS are closely linked to and are central inputs for other economic activities, including for industrial uses and households.** They also constitute important economic sectors by themselves, as world IS markets are extremely large and are expanding rapidly in response to growing population and climbing income levels, particularly in DCs. It is estimated that the global combined annual revenue of IS is $13 trillion, or 24 per cent of total world GDP (2007). IS are a major source of employment, accounting directly for roughly 10 per cent of worldwide employment (telecom 0.5 per cent, electricity and water together 1 per cent, transportation 6 per cent, and FS 3 per cent of world employment). Furthermore, with strong backward and forward linkages in the economy, IS help create jobs in many related sectors.

4. **Trade in IS is substantial and continues to increase.** Together, IS account for over 35 per cent of global services trade, with transportation representing 22.5 per cent, financial 10.2 per cent, telecommunications 2.3 per cent and electricity and water over 2 per cent (2007). IS trade has also grown rapidly: from 2004 to 2007, annual growth of exports in transport was 14 per cent, telecom over 16 per cent, and FS over 21 per cent, while overall world services exports grew at over 13 per cent annually.

5. Historically, many IS were provided by Governments. **Three decades ago emerged a global trend towards increasing commercialization and privatization** (including public–private partnerships (PPPs), concessions or built-operate-transfer contracts (BOTs))**,** competition and trade in IS**.** During the 1990s, most DCs and countries with economies in transition embarked on infrastructure reforms to increase the quality and efficiency of IS, with mixed outcomes. IS reforms took place in the context of broader International Financial Institutions (IFI) market

reform and structural adjustment programmes (e.g. World Bank programmes in the 1980s aimed at increasing privatization and competition in telecom in Latin America and the Caribbean). Frequently, this occurred in difficult economic, political and institutional contexts, as countries experienced slow or negative growth and faced poverty, unemployment and distributional challenges.

6. **Countries developed national regulatory systems as important components of these reforms.** Regulatory systems aimed at e.g. promoting development of services sectors, responding to market failures and mitigating economically and socially undesirable results. Frequently, the establishment of independent regulatory agencies was central to reforms. However, regulatory systems were not successful or sufficient in all countries, and significant gaps remain regarding the quantity and quality of available IS between developing and developed countries. The last decade saw regulatory failures in IS. The experiences of the United Kingdom (railway) and California (electricity) and the current financial crisis demonstrate that even countries with strong and sophisticated RIFs can experience regulatory failures. This underlined the need for a rethink and proper design of RIFs.

7. **IS are characterized by the dual trends of increasing private finance needs and growing investment flows.** Annual investment needs in IS are approaching $2 trillion –3 per cent of global GDP: electricity, water, telecom and transport each require between $200 billion and $300 of capital investment annually. FDI flows in IS are increasing, including on a South–South basis. Global inward FDI stock in IS increased from $25 billion (1990) to over $800 billion (2005), its share in total FDI stock has grown from less than 2 per cent to 8 per cent globally (from 4 per cent to 16 per cent in DCs). DCs accumulated 25 per cent of total world IS FDI stock ($200 billion, by 2006). In addition to public and private domestic sources, TNC involvement is an important source of infrastructure financing for DCs.[1] FDI is complemented by ODA, which provided approximately $11 billion annually (2002–2007).

8. **Technology and innovations,** leading to more complex/new services, have altered the context for IS regulation. In telecom, Voice-over-Internet-Protocol (VoIP) services have gradually replaced traditional public switched telephone networks, requiring technological neutrality of regulatory practices.[2] In FS, e-finance and technological advances have reduced the role of financial intermediaries, facilitated cross-border trade and spurred innovative retail financial products (e.g. derivatives, swaps, etc.) and financial entities (hedge funds). While attractive (higher yields) these products are also more risky, requiring regulators to adapt to these new realities.

9. **Unbundling has occurred in numerous IS.** In electricity, reforms have unbundled four main components: generation, transmission, distribution and retail. The telecom sector has witnessed local loop unbundling. Unbundling is a complex process: e.g. transitions from vertically integrated utilities to unbundled structures raise novel price risks between generators and distributors. In FS, unbundling allows customers to purchase specific FS from different suppliers. The degree of unbundling remains lower in DCs.

10. **Infrastructure sharing offers new opportunities.** Infrastructure sharing occurs between IS sectors (i.e. using existing facilities in one sector to lower network construction costs in another, e.g., telephone cables laid alongside water supply lines) or among countries.

[1] UNCTAD. *World Investment Report 2008.*
[2] ITU. *Trends in Telecommunication Reform 2008.*

11. The global trend towards **regionalism** also manifests itself in IS, with regional trade in IS increasing (including South–South) and regional trade agreements (RTAs) covering IS (particularly through services and/or investment liberalization chapters). Many RTAs contain specific provisions on regulatory and institutional issues, including cooperative mechanisms, training, regional centres of excellence, etc. In EU integration, capacity-building and technical assistance are offered to assist new or future Members implement the "*acquis communautaire*", which covers key aspects of IS regulations and institutions in a more liberalized and competitive environment.

II. Why regulate?

12. **Effective policy, legal and regulatory frameworks, backed by institutional support, are central for efficient provision of IS and higher social welfare.** The State's ability to provide effective RIFs for IS is central for overall economic performance. First, regulation aims at correcting market failures (e.g. information asymmetries, natural monopolies, externalities) and at creating stable and competitive market environments which encourage investment, private participation and efficient IS provision. Second, regulation aims at achieving other key domestic policy objectives (e.g. protecting consumers, developing domestic supply capacity, protecting the environment, mitigating climate change) and ensuring universal access (UA) to essential services. However, RIFs also entail costs, through administrative and human resources required for their implementation and for businesses who have to comply with them.

13. **There is no universally agreed definition of the term "regulation".** In its broadest sense, it is the process of influencing, controlling and guiding economic or other activities with impacts on others, through governmental policies and measures, and exists at different levels – national, regional and international. International approaches may be particularly relevant for certain sectors (e.g. financial (Basel); telecom (ITU); energy (Global Energy Network; World Forum of Energy Regulators)). Regional regulation is often associated with regional integration, harmonization and cooperation. Regulatory systems include both regulatory measures (e.g. legislation, directives, standards and procedures) that direct market transactions towards desired results (regulatory substance), and regulatory institutions that have the responsibility of developing, implementing, monitoring and enforcing regulations (regulatory governance). IS regulation can be organized into two broad – and sometimes overlapping – categories: technical and economic regulation. Some distinguish between economic and competition regulation, while others combine them.

14. **Technical regulation** is often specific to each sector. It involves setting and enforcing production and process standards dealing with e.g. safety/security, quality, reliability, customer relations or environment/climate change. Technical standards tend to be linked to physical aspects and the maintenance of infrastructure networks and services. Examples include standards for minimizing line failures, allocating bandpass for broadband communications and ensuring data capacity levels for digital links (telecom); standards for reducing service interruptions and stabilizing the frequency of supplied power (electricity); standards for ensuring water quality for domestic use, promoting water conservation, guiding abstraction or discharge (water); or standards for ensuring safety/security of passengers and freight or for harmonizing containerization standards to facilitate trans-shipment.

15. **Economic regulation** addresses issues that are similar across IS, including establishing a competitive environment for private participation, guiding price formulation and services quality, protecting consumers, attracting and regulating

FDI with a view to generating pro-development results, ensuring UA for the poor and vulnerable, addressing adverse income and wealth distribution effects, and achieving efficiency and cost reduction targets. Economic regulation aims at ensuring competitive market structures in industries characterized by market failures. Competition laws, policies and regulations**,** in turn, aim at promoting and ensuring competition to enhance consumer welfare. Typical competition law instruments include merger control and the prohibition of anti-competitive practices, e.g. abuse of market power, price-fixing and market-sharing. A key difference between economic regulation and competition laws/policies is that the former tends to be general and take place *ex ante* (e.g. incentives for investors, granting of concessions, determination of acceptable prices levels), while competition authorities tend to intervene *ex post* and on a case-by-case basis.

III. Economic regulation

16. While the case for regulating services is widely acknowledged, less agreement exists about what constitutes good regulation**.** For regulation to promote economic growth, social welfare and environmental sustainability and to result in outcomes that meet the expectations of key stakeholders (e.g. consumers, operators, investors) it needs to be effective (achieving planned goals) and efficient (achieving goals at minimum cost). Effectiveness depends on two aspects: the first concerns regulations: the quality of regulatory decisions (substance), while the second relates to institutions and procedures: the quality of regulatory governance. Efficiency and effectiveness need to be pursued in the context of other public policy objectives, such as health/safety, poverty eradication, UA, environmental quality and cultural or ethical goals. The following are some key substantive aspects related to economic regulation.

17. **Price regulation** has implications for market structures, inter-firm competition, investment and consumer welfare. The challenge lies in determining prices that strike a socially acceptable balance between the interests of investors and consumers. Sufficient rates of return would allow transnational corporations (TNCs) to implement sustained physical investment programmes to serve future consumers. There are two main pricing methods: under rate-of-return methods, prices are set to cover a firm's capital and operating costs and an agreed 'fair' rate of return on investment; under price-cap methods, prices are set up front and firms make returns in relation to the incurred capital and operating costs.

18. Each method has pros and cons, e.g. rate-of-return mechanisms can create incentives to inflate costs, whereas price-caps can lead to undercapitalization. The choice between the two depends on e.g. quality of national accounting/auditing systems; institutional economic/technical capacities and investment needs. Economic and institutional development also matters: many DCs initially adopted a price-cap approach (sometimes setting high initial prices to attract capital and ensure firm viability) and later, as institutional capacities developed, moved towards hybrid approaches, that combine elements of both. Hybrid approaches often support gradual transitions to rate-of-return regimes and can help share the burden between consumers and providers.

Box 1. Hybrid price-setting

Chile used a hybrid approach to price-setting (electricity), fixing prices (for six-month intervals) based on expected average marginal costs for the coming 48-month period. After a 1998/1999 drought (reducing Chile's hydropower generation capacity) and in 2004, when **Argentina** restricted exports of natural gas, the rigid price-setting formula caused difficulties. Electricity prices were not permitted to increase, forcing firms to reconsider their investment decisions in new generating capacity. In May 2005, prices were deregulated. Lessons learned include that pricing mechanisms need to reflect market realities in order to sustain growth/efficiency. In 2005, **South Africa** established the National Energy Regulator (NERSA), a multi-sector IRA for energy services, including gas and petroleum. Electricity pricing is mainly based on a rate-of-return approach for national electricity generator Eskom and municipalities, which run electricity distribution companies, can moderate prices. South Africa's high economic growth led to power shortages (2008), forcing Eskom to cut power to large industrial customers. Based on rate-of-return pricing, Eskom applied for a 60 per cent increase in electricity tariffs. NERSA authorized only a 13 per cent increase but projected annual electricity price increases of 20 to 25 per cent over the next three years. Municipalities protested against increases, fearing potentially negative impacts for families' welfare and small businesses' viability. According to South Africa's UA policies, NERSA exempted low-income consumers from the price increase. Lessons learned include that IRAs must balance the need to respond to poor consumers with the need for investments to ensure future capacity improvements.

19. **UA regulation**[3] aims at enhancing UA to services for the poor, remote and those marginalized in other ways. Frequently, poor consumers remain left out of network services and hence, a key policy choice addresses the balance between connecting the unconnected and making services more affordable for those already connected. Sometimes, additional, new providers in the market can help expand services delivery to the un-served. Often, regulation is needed, e.g. to support community-based initiatives; subsidies; universal services obligations (USOs) (imposed on the service provider to expand service delivery to certain unserved areas or to deliver at affordable prices). USOs are central when, under normal commercial profitability considerations, suppliers would not provide the service. If they are to offer workable solutions, USOs should be realistic and clearly defined; leave sufficient incentives for implementation; be adaptable – though not arbitrary – and take account of technological changes. In addition, procedural aspects matter, including multi-stakeholder processes for developing USOs; consumer protection; proper monitoring of targets; information requirements.

20. Challenges relate to funding and financing USOs e.g., through transfer programmes, including subsidies, universal service funds, welfare payments or special budget allocations. USOs raise concerns, including because they might not be efficient and effective; impede competition in markets; impact on companies' financial viability (when firms cannot recover investments); or fail to protect consumers. Implementation difficulties relate to inadequate enforcement mechanisms and overly ambitious targets. Therefore, DCs require flexibilities and the possibility for trial and error when implementing USOs.

[3] UNCTAD background note Universal access to services (TD/B/COM.1/EM.30/2) and Report of the expert meeting on universal access to services (TD/B/COM.1/EM.30/3).

21. Governments also use **subsidies** to support poorer or unserved groups within society. With the introduction of competition, direct (non-tariff) subsidies to poor consumers have increasingly replaced cross-subsidies. Challenges relate to the targeting of subsidies, requiring considerable information and administrative capacities. A key choice is between supply- or demand-side interventions (e.g. financial incentives for firms to extend access; or subsidies for consumption).

Box 2. Universal access

In parallel to introducing competition in telecom, **Peru** has established a subsidy programme to finance telecom investment in rural areas. The telecom regulatory body administers the funds and selects projects for implementation, with the line ministry being responsible for approving the projects. The funds' assets come from a 1 per cent levy on the turnover of companies. The project is considered a success as far as the use of public funds for developing rural telephony is concerned, bringing services to local populations which had previously been either non-existent or difficult to access.

22. DCs' challenges with **investment policies and regulations** relate to the size of infrastructure investment needs; gaps in financing and the need for balancing different policy objectives to ensure that investment positively contributes to host countries, e.g. their productive capacities. Costs and benefits of TNC participation depend on host country policies and regulations (including price regulations). While foreign direct investment (FDI) and other TNC participation can complement DCs' domestic IS firms, TNC participation can also bring new regulatory challenges (e.g. increasing number of stakeholders in regulation; market power; crowding-out; State monopolies turned into foreign private monopolies; renegotiation of concession contracts; TNC withdrawal). While particularly pronounced in DCs, more advanced regulatory systems also face such challenges. Adequate RIFs are required to enhance TNC participation and generate optimal outcomes regarding affordability, access and other pro-development outcomes.

23. **Competition-related considerations** aim at introducing competitive market structures in industries characterized by market failures resulting from economies of scale or scope, information asymmetries, externalities, natural monopolies and attendant income and wealth distribution effects. In most IS sectors, reforms (e.g. privatization, corporatization, break-up of vertically integrated state-owned-utilities) have led to increased need for competition policy and regulation. In markets where competition is unlikely to develop (e.g. natural monopolies), price and services regulation becomes particularly important. The unbundling of services and technological innovations often allows for competition in most segments of the value chain. In some IS, ensuring access to bottleneck facilities is a key challenge to be addressed through competition regulation. In some countries, telecom regulation is almost entirely applied competition policy (EU telecom directives are based on EU competition policy rules). In FS, competition concerns relate to switching costs (e.g. consumer finance); externalities (e.g. e-finance); access to network services (e.g. payments, distribution and information systems) and challenges arising from trends towards M&As and from more complex and global FS markets. Cross-cutting concerns arise from firms that charge excessive prices or adopt tactics to prevent new competitors from entering the market.

24. **Consumer protection regulations** address e.g. answering and resolving consumer complaints; offering fair billing/payment options; number portability (telecom), quality of service and universal service; installation or repair time; or service cancellation conditions. Frequently, consumer protection regulations are cross-cutting, relating to the purchase of numerous goods and services, and hence to

IS as well. Specific instruments can enhance consumers' participation in regulation, e.g. citizen report cards allow consumers to express their opinion on service provision (for example, price, quality, efficiency, adequacy of services).

IV. Institutional issues

25. Institutions and procedures (regulatory governance) are amongst the central determinants for the quality of regulations. Specific institutions for implementing and supervising sectoral policies and regulations are novel*:* until the 1990s, most IS were public and self-regulated or regulated by a ministry. Policies and tariffs reflected political concerns more than efficiency and economic sustainability considerations.

26. **There are two main institutional approaches: regulation by contract and regulation by agency.** The two can also be combined. Under the first, objectives are pursued through the establishment of contracts outsourcing service provision, often via tenders or PPPs. Under the second, a regulatory agency/institution is established to oversee the functioning of a given sector. The choice of the "best-fit" system depends on the sector's economic attributes; technological considerations, countries' economic, social, institutional and political endowment and human and administrative resources.

27. **Regulatory contracts** (including PPPs, service contracts, management contract, leases/affermages and concessions) are typically used in the context of private sector participation, but can also help improve the performance of state-owned utilities. **When regulating by contract,** investment decisions are directly made by the Government, requiring a good understanding of the functioning of the market and anticipation of different situations that may arise. Given the difficulty of providing for all possible scenarios, contracts should include re-opener clauses. Outside backing and coverage by international arbitration or World Bank guarantees can help. Contract implementation and enforcement require monitoring which can pose capacity-related problems in DCs. Difficulties in regulating by contract without pre-existing regulatory agencies were experienced in Latin America and the Caribbean. Key challenges relate to possibilities that investors behave strategically.

28. **When regulating by agency,** the Government establishes a legally defined process by which terms of supply (including prices) are formulated and enforced. The regulatory agency has the capacity to adapt to changing conditions; as a result, there is less need to anticipate all eventualities. The responsibility of institutions' regulators varies between advisory and decision-making powers, authority over few or many issues and regulating private or public entities. Sometimes regulators are closely linked to policy-making, with regulators determining – together with Government – the right "policy mix" for achieving a particular "objective mix".

29. **When regulating by agency and contract,** regulatory decisions are set by clauses in privatization or concession contracts **–** but only for a specific period of time**.** When regulating by agency, contracts can be used (particularly in initial stages) to avoid or diminish the likelihood of regulatory risk and uncertainty. This is useful when the regulator is new, has limited staff or must take on major political tasks (e.g. raising prices to economic cost levels). While this model contributes to reducing regulatory discretion and regularly risk, at some point, the transition needs to be made towards a more discretionary system. Consistency and coherence between legislation and contract provisions are important in this context.

30. **When regulating by agency, there are several models for institutional arrangements,** including regulation by ministry/ministry plus advisory body; competition agency/specialist law-court; general courts; contract

monitoring/enforcement agency or other quasi-regulatory agency; or independent regulators.

31. **When regulating by ministry,** the ministry sets broad policies and takes regulatory decisions (normally after consultations with other government bodies), an arrangement which raises questions about regulatory independence. This approach is usually linked with strong State control of the sector/regulated companies and is tending to disappear.

32. **When regulating by ministry plus advisory body,** the ministry takes regulatory decisions upon advice from an external regulatory agency. While this can be a transitional step to an IRA, it can delay establishment of the reputation and credibility of the new IRA and preferably not turn into a long-term solution.

33. **When regulating by competition authority,** Governments may choose a general competition authority over sector-specific regulators. Often, the two coexist. Given potentially overlapping functions, there is a need for effective coordination to minimize uncertainty regarding the jurisdiction of particular regulators and to avoid confusion for consumers and the business community.

34. **When regulating through Independent Regulatory Agencies (IRAs),** regulatory decisions are taken by an independent regulator. By establishing IRAs, Governments seek to signal their commitment to eliminating the influence of government entities and dominant firms in IS markets. IRAs are sheltered from political pressure and hence less inclined to discretion and arbitrary interventions. By protecting investors and consumers from policy reversals, IRAs offer responses to problems of government credibility and commitment. While the IRA model has become a “mantra”, there are numerous variations and some have raised questions about its suitability for all DCs.

35. **Some IRAs have been in place for several decades, while others were established recently:** for example new EU Member States are required to have IRAs for telecoms, electricity and natural gas. Sampling over 150 countries, a World Bank study revealed that between 1990 and 2003, countries with IRAs increased from 5 to 67 per cent (telecommunications); 4 to 54 per cent (electricity) and 1 to 23 per cent (water). Generally, IRAs are established to facilitate private participation in IS. **Many IRAs have had positive results,** particularly in telecom and electricity, but less so in water and transport. Botswana offers an example of an effective and independent IRA, which resulted in a fourfold increase in fixed-line access (2001–2008) and extension of mobile access to 88 per cent of the population. A recent empirical study demonstrates that IRAs are positively correlated with lower tariffs, improved coverage and less service interruptions.

36. **Formally establishing IRAs is not sufficient.** Instead, what matters is credibility and stability, and recently established IRAs must begin by building their role and reputation and overcoming institutional fragility. It can take time to effectively build and entrench governance, management and organizational systems and practices, particularly in DCs that lack qualified staff, funding, and legal traditions supporting IRAs. Large gaps can exist between “law” and “practice”, e.g. regarding regulatory independence. High turnover of commissioners suggests evidence for political expediency undermining regulatory independence.

37. There are concerns that some IRAs are not making positive contributions to sector development and that they lack regulatory independence, credibility, enforcement authority and accountability. Criticism of the IRA model is based on sector realities: information asymmetries remain, as regulators hardly have perfect information about consumer demand or technological capabilities of regulated providers. Some DC IRAs lack human, administrative and other capacities. Today,

transitional or hybrid systems are increasingly being used. Chile is an example of the successful establishment of hybrid institutional structures for electricity. Moving successfully from transitional arrangements to a sustainable long-term basis has proven difficult for some countries.

38. Governments face numerous choices when establishing IRAs. One such choice is between a single-sector and a multisectoral regulator (for two or more sectors). Benefits cited for multisectoral regulators include the potential to take advantage of commonalities in different IS, leading to similar regulatory issues; economies of scope in regulating sectors together; better use of scarce human/financial resources shared across sectors; effective management of firms operating in more than one sector; greater facility in addressing linkages between sectors; better ability to resist political interference (because broader constituencies give IRAs greater independence from sectoral ministries). Moreover, a focus on a single sector can prove difficult as sectors are interlinked and mutually influence each other. Given resource constraints, particularly in professional/human capital, DCs might benefit from multisectoral regulators, as evidenced in the case of Jamaica. Jamaica established the Office of Utilities Regulation (OUR) in 1995 to regulate utility companies in telecom, electricity, water and transportation. Initially, OUR's powers were limited to an advisory role, but additional reforms (2002) gave OUR full regulatory power to administer licenses and set tariffs. Other choices relate to establishing functional regulators (e.g. dealing with functional issues such as. universal service across sectors instead of numerous issues specific for a particular industry); industry-specific regulators (e.g. infrastructure regulators regulating only infrastructure) or infrastructure and content regulator.

39. **Countries' broader policy and legal realities matter,** as even well-staffed IRAs have difficulties operating in environments where courts, commercial law systems and other government institutions are dysfunctional. Moreover, regulators can be driven into policy debates and policy development, leading to further strains for fragile institutions.

Box 3. Principles for improving institutions

Three regulatory metaprinciples were suggested: credibility (investors' confidence that the regulatory system will honour its commitments); legitimacy (consumers' confidence that the system will protect them from monopoly power or other adverse effects); and transparency (stakeholders' knowledge of the rules of the game). Other principles relate to legal framework and regulatory independence; legal powers; respect for property rights; clarity of roles in regulation and policy; clarity and comprehensiveness of regulatory decisions; predictability and flexibility; consumer rights and obligations; proportionality; financing of regulatory agencies; regulatory accountability; regulatory processes and transparency; public participation; appellate review of regulatory decisions; and ethics. While principles offer guidance, each country might wish to identify the combination and implementation which best suits its particular needs. Hence, this requires country-specific and sector-specific approaches.

Source: Brown, Stern and Tennenbaum (2006). Evaluating Infrastructure Regulatory Systems. World Bank.

40. The key point is to consider whether decisions of regulatory agencies helped or hindered the achievement of good outcomes for all stakeholders. Some benchmarks which could be used in such analyses include output, consumption levels and their growth rates; efficiency/productive levels and their growth rates;

quality improvement rates; financial performances; adequate capacity levels, investment; maintenance expenditures; effective price signals and price levels for consumers/producers; UA improvements; and competition.

V. Capacity-building

41. DCs face challenges when striving to build capacity to effectively regulate. The quality and credibility of regulatory decisions largely depend on the competence of regulatory staff. The greater the discretion enjoyed by the regulator, the greater the need for trained, experienced and competent staff. Scarcity of qualified staff is among the most serious constraints faced by regulators. Capacity-building and high-quality, relevant training are thus vital for improving regulatory performance.[4]

42. A recent global survey of regulators identified lack of specialized skills as a major problem (30 per cent of respondents cited insufficient training as a significant constraint, and 61 per cent viewed training as deficient and lacking continuity). A study of 13 Asian countries found that 80 per cent of regulators had no access to training and that regulatory offices were usually understaffed. Properly staffing regulatory institutions carries high fixed costs, particularly for small, low-income DCs, and is difficult to achieve. Skills and experiences required for regulators are highly specific, and the most competent and qualified staff are often attracted to the private sector. Targeted training and human capacity-building, attractive employment conditions and hiring from diverse backgrounds can help.

43. **Training and capacity-building** are central to developing the human capital of DCs. Often, curricula with trainers from industrialized countries and little opportunity for subsequent learning and ongoing professional networking give insufficient attention to the specific needs of DC regulators. Regional training centres (e.g. South Asia Forum for Infrastructure Regulation; African Forum for Utility Regulators (AFUR) and Regional Electricity Regulators Association (RERA)) can help.

44. **Outsourcing** regulatory functions to external contractors is common in developed and DCs alike, with regulators sometimes dedicating up to one-third of their budgets to it. According to a 2004 World Bank survey, most regulators (75 per cent) outsource regulatory tasks and plan to continue doing so. Of regulators that do not yet outsource, 90 per cent plan to do so. Outsourcing can enhance institutional effectiveness by improving regulatory competence, independence and legitimacy. Decisions about which functions to outsource can vary over time. Outsourced functions include consulting or technical support for regulators; advisory services or expert panels; performance auditing; preparation of public consultation documents; dispute resolution, etc. Outsourcing, including to expert panels, can be particularly attractive in the short to medium term, but can also be politically sensitive. It requires sound contract management and effective skill transfer, and should complement rather than substitute the building of local regulatory capacity.

45. **Combining international and local expertise:** Many DCs rely on international consultants for drafting new regulations based on elements of RIFs that are successfully applied across countries. Instead of replicating key structural attributes of other countries' RIFs, DCs benefit from adapting solutions to national human and institutional capacities, varied market structures and different degrees of government participation. Sometimes, the local expertise needed to do so remains to be developed. Costa Rica offers an example where local expertise was developed by

[4] Eberhard (2006).

including training for government/industry staff into the terms of reference of external consultants.

46. If combined with a phased approach, **hybrid approaches** allow for experimentation and a gradual build-up of human and institutional capacity. Many African countries initially establish hybrid regulatory structures, often linked to sectoral ministries. Such structures then tend to evolve into fully independent and effective regulatory agencies, such as in Uganda (electricity) and Morocco. Hybrid approaches are also implemented in price-setting: Thailand successfully combined price-caps and rate-of-return approaches.

47. **Adopting a gradual approach:** Sometimes, regulators begin with the minimum regulatory and institutional framework necessary to achieve certain objectives. This allows DCs to establish a regulatory agency which initially enjoys limited regulatory discretion and outsources certain functions. As staff become more experienced, monitoring capacities are developed and credibility acquired, the regulator gradually takes on further responsibilities.

Box 4. Regulatory/institutional capacity-building

Tools to address DCs' capacity constraints include being realistic about local capacities; building mechanisms for contracting out certain utility functions to external agents; limiting regulatory discretion and minimizing regulatory complexity; specifying key rules (tariff-setting) in contracts rather than allowing for full discretion; minimizing the regulator's tasks; implementing a gradual approach for modifying regulators' responsibilities; using simple regulatory tools; building up core qualified, skilled and experienced staff and relying on external advice for specialized tasks; offering attractive employment terms; recruiting from different sectors (Government, private sector, civil society); minimizing fixed costs; establishing multisectoral agencies; central-level (instead of local) regulators; strengthening customer groups to act as checks and balances; creating regional regulatory agencies/networks; exchanging experience; developing common methodologies/tools; sharing training expenses; introducing twinning; engaging in on-the-job training.

AFUR recommends key principles for initial RIFs, including minimum regulation necessary to achieve policy/sector objectives; adherence to transparent decision-making and due process requirements; independent or autonomous regulation where possible; accountability towards Government, investors and end-users; non-discrimination when not in conflict with policy prerogatives of Government; protection of investors against physical and regulatory expropriation; promotion of competition by limiting anti-competitive behaviour.

Source: Tremolet/ Shah (2005).

48. **Pooling regional resources** can be useful, particularly in small island developing states, where cost-effectiveness of regulatory institutions is highly important. The Caribbean pools resources for the establishment of a regional regulator in support of national regulators, as in the case of ECTEL, which acts as a regional telecom regulator for five Eastern Caribbean states. As the region opened telecom markets, ECTEL helped form a strong regulatory system harmonizing telecom frameworks and conducting technical and economic studies, thereby reducing administrative and financial burdens for national regulatory agencies. Sometimes, multinational regulators can face problems of perceived regulatory legitimacy.

49. Pooling resources regionally also occurs for regional training centres that disseminate local knowledge in regional context. They can help create networks of regulators and improve understanding of local challenges and problems through research and training on sector reforms and regulatory trends to ensure relevance to the needs of regulators in the region. Successful examples include the Southern Africa Development Community (SADC), South Asia (the South Asian Telecommunications Regulators' Council and Latin America (the Inter-American Telecommunication Commission).

50. Regional expert panels allow for more efficient use of scare resources and greater continuity and consistency in technical assistance. They can assist with the development of harmonized regulatory regimes in support of regional integration. There are also regional associations of regulators. SADC actively pursues regional cooperation in IS regulation. In the telecom sector, national telecom regulatory authorities cooperate through the Telecommunication Regulators' Association of Southern Africa on regulatory harmonization and on capacity-building through a regional training network.

51. **Twinning** involves pairing developed and DC regulatory institutions and staff with similar mandates and goals. It can promote effective institutional capacity-building and has been used by different bilateral cooperation agencies since the early 1980s. Twinning has proved successful for cross-country transfer of technical skills, knowledge and best practices. For example, a 2002 twinning programme between energy regulatory agencies in the Philippines and the United States allowed Filipino regulators to learn first-hand about practical approaches. Twinning has also been successful between DCs. In the 1990s, the Lao PDR's national electricity utility benefited from a World Bank-funded twinning arrangement with Malaysia's private electricity utility to improve sector regulation and efficiency.

52. ***Ex ante* regulatory impact assessments** (RIAs) help refine regulatory reform by systematically assessing benefits and costs of regulations, usually prior to implementation. Almost all OECD countries apply RIAs in line with the OECD Guiding Principles for Regulatory Quality and Performance. RIAs are increasingly used in DCs and can support capacity-building. Using RIAs is required by law in 7 out of 40 DCs and countries with economies in transition, including Algeria, Botswana, Jamaica, Mexico, the Republic of Korea, Philippines and the United Republic of Tanzania**.** Moreover, 30 of 40 countries use RIAs even without respective legal requirements. ***Ex post* reviews,** sometimes mandated in law, are pre-scheduled, periodic, independent reviews of regulatory performance and impact, which look at both substantive and governance-related issues. Such reviews, particularly when they involve the publication of recommendations, can offer important lessons learnt and build the competence, credibility and legitimacy of regulatory institutions. The reviews of the Presidency and National Treasury in South Africa, for example, evaluated the national electricity regulatory authority, concluding that it had not yet implemented a robust approach to price regulation. Questions have been raised whether complex and resource intensive *ex ante* RIAs are the best use of DCs' scarce human and administrative resources. *Ex post* assessments and attendant lessons learnt can provide useful and pro-development alternatives.

VI. Financial services[5]

53. The current financial crisis has spurred discussions about improving RIFs for FS. What commenced as irregularities in the US subprime mortgage market has led

[5] UNCTAD background note (TD/B/COM.1.EM/33/3) and report (TD/B/COM.1/EM.33/4).

to a global financial and economic crisis, impacting on the real economy. The United States and the European Union are in recession, and DCs are starting to feel the effects of the credit crunch and contracting import demand. Governments have bailed out FS suppliers in the United States to the tune of $700 billion); announced guarantees for certain deposits; and implemented economic stimulus packages to remedy the worst aspects of the global economic downturn.

54. State support measures, including the renationalization of FS suppliers, come after reforms had aimed at reducing the role of the State in financial systems. Most countries – including DCs and countries with economies in transition – undertook regulatory/trade policy reforms to improve sector performance (e.g. increasing product differentiation/facilitating access to credit), including liberalization of the domestic financial system and selected measures of liberalization of the current and capital account. Countries removed controls on FS and institutions (e.g. by eliminating restrictions on intra-sectoral activities); withdrew government intervention (e.g. by privatizing state-owned banks); or liberalized cross-border banking.

55. Financial deregulation took place among broader trends, including intensifying financial globalization; integration/consolidation of FS suppliers; proliferation of financial instruments often beyond control and understanding of regulators; growing equity markets and innovation in information technology. The attendant challenges resulted in a parallel trend to adopt new regulations – so called “re-regulation” – with focussed instruments, institutions and practices that have become more important in the new deregulated environment. Rapid developments have made it difficult for both developed and DC regulators to keep up, as highlighted by the current crisis.

56. **The crisis exemplifies the systemic importance of FS regulation.** Reasons for regulating include addressing market failures; avoiding moral hazard; achieving prudential objectives of ensuring the viability, integrity and stability of financial systems; pursuing domestic development objectives, including UA; and other objectives.

57. **Prudential regulation** aims at addressing risks to institutions and systemic risk, e.g. ensuring security and solvency of the market and protecting consumers when financial service providers fail. Specific prudential regulatory tools include capital adequacy and solvency ratios/margins, regulation of investments, and regulation of risk assessment and management. FS professionals (brokers, insurance agents, actuaries) are not subject to prudential regulation in the same manner as FS companies. Prudential objectives may be pursued through registration, codes of professional conduct and minimum levels of experience. Moreover, there is a need for e.g. enhancing transparency, improving corporate governance and pursuing social objectives (UA, microfinance). In developing RIFs, countries have taken different approaches, each offering benefits and costs.

Box 5. Basel reforms

Basel II offers a framework for strengthening global supervisory and risk management practices. Its three pillars are minimum regulatory capital requirements; supervisory review of banks' capital adequacy and rules on disclosure and transparency. Recently, the Basel Committee announced a comprehensive strategy for reform involving strengthening risk capture of Basel II (particularly for trading book and off-balance sheet exposures); enhancing the quality of Tier 1 capital (equity and similar instruments); building additional shock absorbers that can dampen pro-cyclicality; evaluating the need to supplement risk-based measures with simple gross measures of exposure; reinforcing supervisory frameworks to assess funding liquidity at cross-border banks; strengthening risk management and governance practices at banks; strengthening counterparty credit risk capital, risk management and disclosure at banks; and promoting globally coordinated follow-up to ensure implementation of supervisory principles.

58. **Institutions are needed to devise, supervise and ensure compliance with regulations.** RIFs' structures differ between jurisdictions, depending on e.g. historical development; public policy priorities and regional integration. They vary regarding the number, powers, levels and sectors of FS operation. In the light of the FS crisis, thought is being given to ways of ensuring more coherence and consolidation of regulatory and supervisory structures.

59. Institutional approaches for FS regulation include those organized by objectives, function or business activity. Countries must decide whether to have a single regulator covering banking, insurance, securities (e.g. the United Kingdom's Financial Services Authority (FSA)) or multiple specialized regulators. Some have created specific institutions to address novel issues, e.g. microfinance and Islamic finance. Neighbouring countries implement regional institutions, creating a regional banking commission for prudential regulation/supervision).

60. Many cite regulatory and institutional failures as major reasons for the current financial crisis (e.g. lack of effective regulation for new, complex and opaque financial products, hedge funds and credit rating agencies; excessive leverage creating vulnerabilities). Use of derivatives to spread financial risk was largely unregulated and untransparent. Weak underwriting standards combined with unsound risk management added to the problem. Even in advanced countries, policymakers, regulators and supervisors did not appreciate and address the build-up of risks, spurring calls for proper reform, regulation and oversight.

61. Some point to what they perceive as other weaknesses of regulatory systems: moral hazard (regulators shying away from setting strict industry standards and instead opting for self-regulation; excessive trust in the corrective forces of the market and consequent pursuit of policies of minimum interference with open markets and international trade; and overly close relations between FS suppliers and regulators (distorting and reducing the effectiveness of regulation).

62. The current crisis also shows **deficiencies of the international FS governance system**. While international bodies formulated numerous international standards and guidelines, this did not help prevent the crisis. Internationally concerted actions, e.g. G-20 Heads of States agreeing on measures to address the turmoil and suggestions to improve the international financial architecture, have emerged. This includes intensifying international cooperation among regulators and strengthening international standards; reforming IFI governance, particularly as regards Bretton Woods institutions and the Financial Stability Forum; encouraging

the World Bank and other development banks to support development agendas while ensuring that these institutions maintain sufficient resources; advancing the IMF's monitoring agenda and reviewing its lending role; defining systemically important institutions and determining their appropriate regulation/oversight.

63. DC concerns relate to the need for financial, technical and human resources for implementing regulations and setting up effective institutions. Their regulators have difficulty keeping up with fast-changing markets, requiring assistance and expertise (including for monitoring of market developments and data) and regulatory cooperation. Specific challenges arise from international standards, which are often developed through processes where DCs lack an effective voice. Hence, resulting standards leave aside pressing concerns of DCs (e.g. difficulties related to capital flows, lack of an international lender of last resort, high external debts, "one-size-fits-all" solutions). Challenges are more serious for DCs and countries with economies in transition, given their special needs regarding financial development and stability. However, it is these countries which may have the greatest difficulty in developing the institutional and regulatory frameworks for their FS. Even in successful industrialized countries, establishing these frameworks required considerable resources and a great deal of time.

VII. Trade agreements

64. **There are close linkages between international rules to liberalize services trade and RIFs for IS.** Typically, barriers to services trade are not tariffs, but rather domestic regulations. Hence, when liberalizing trade in services, multilateral and regional negotiations directly address countries' regulatory measures. The inherent tension between services regulation and services trade liberalization has spurred discussions about the right to regulate (RtR), and is reflected in international trade agreements.

65. The General Agreement on Trade in Services (GATS) recognizes Governments' RtR in numerous places, including the Preamble and Article XIX (progressive liberalization), both stressing the particular need of DCs to exercise this right. Also, the GATS' positive list approach of taking market access and national treatment commitments and Members' right to attach conditions and limitations to commitments can help preclude undue constraints on sovereignty and regulatory prerogatives.

66. The GATS general and security exceptions allow for measures necessary, among others, to protect public morals, maintain public order or protect human, animal or plant life or health. However, such measures must not result in arbitrary or unjustifiable discrimination or disguised restrictions on trade in services. According to the FS Annex's prudential carve-out, Members shall not be prevented from taking measures for prudential reasons, but prudential measures violating the GATS shall not be used to avoid Member States' commitments or obligations under the agreement. The Telecom Reference Paper affirms members' "right to define the kind of universal service obligation it wishes to maintain," but requires that USOs be administered in a transparent, non-discriminatory and competitively neutral manner and not be more burdensome than necessary.

67. The GATS exclusion for "services supplied in the exercise of governmental authority" offers a tool for preserving policy space for public services, including IS. The scope of this exception is ambiguous, creating uncertainty for Governments experimenting with regulatory reform: to be exempt from the GATS, a service has to be provided "neither on commercial basis" nor "in competition with one or more services suppliers". Several Members introduced additional "public services carve-outs" in their Uruguay Round commitments, or retained the space to use certain

policy tools (e.g. subsidies) in sectors considered public utilities. Some mention specific levels of governance or contractual arrangements for private sector engagement.

68. Further issues regarding the RtR arise from the GATS' coverage of key regulatory tools (e.g. "laws, regulations, rules, procedures, decisions, administrative actions, or measure of any other form") and institutions (e.g. central, regional or local Governments and authorities; non-governmental bodies in the exercise of powers delegated by central, regional or local Governments or authorities) and provisions for specific institutions (e.g. Telecom Reference Paper (RP) requiring IRAs). The GATS also affects regulatory flexibilities – including for dynamic evolvement of RIFs – through market access and national treatment commitments. Experience with modifying commitments – and attendant compensation requirements – remains limited.

69. GATS obligations can guide towards good regulatory practices. Provisions on transparency (article III), to avoid arbitrariness (article VI.1 on administering measures in a reasonable, objective and impartial manner); for due process (article VI on judicial, arbitral or administrative tribunals or procedures for prompt review of administrative decisions affecting trade in services – albeit subject to compatibility with constitutions) serve as examples. Some GATS provisions go beyond procedural and institutional elements and also address the substance of regulatory measures (FS Understanding requiring access for new FS).

70. As part of the Doha negotiations, the draft Disciplines on Domestic Regulation aim at ensuring that domestic regulations (qualification requirements/procedures licensing requirements/procedures; technical standards) do not create unnecessary barriers to services trade. There are concerns that "necessity tests", requiring that regulations not be more burdensome than necessary, could unduly constrain domestic regulatory prerogatives. Original *demandeurs* for "necessity tests" have since become more cautious, while other Members consider them positively to ensure effective market access. Other suggestions raising concerns include suggestions regarding international standards or the requirement that licensing fees be commensurate with costs incurred (the latter could potentially stifle DCs' efforts to develop and build regulatory institutions). Areas where the envisaged Disciplines could support good regulatory practices include transparency, due process; public participation/multi-stakeholder processes; simplification of procedures or clarity of regulations.

71. Some bilateral and multilateral requests contain regulatory elements (e.g. telecommunications requests) and commitment to all provisions of the RP, and that there be no limitations on the establishment or number of service suppliers (e.g. quotas, exclusive service suppliers or geographic restrictions within a member State's territory). Negotiations on market access, rules (subsidies and government procurement) and domestic regulations all need to provide flexibility and policy space for DCs' regulatory experimentation and RtR.

72. Many South–South and North–South Agreements include provisions relating to RIFs, including cooperative mechanisms. The EU–CARIFORUM Economic Partnership Agreement (EPA) – particularly the telecom and financial chapters – contains regulatory provisions beyond GATS (e.g. transparency, public participation, multi-stakeholder approach to regulation, international harmonization, definitions for "regulatory authority" and suggestions for designating UA policies (telecom). South–South Agreements, e.g. the Andean Free Trade Agreement and MERCOSUR contain sector-specific regulatory frameworks for e.g. telecom, to complement liberalization.

VIII. Conclusions

73. IS are of economic and social importance, with particular implications for poverty alleviation. Over the last decades, IS were subject to reforms aimed at commercialization, privatization, increasing investment, competition, trade liberalization and social welfare/equity (UA). With IS being increasingly opened up to private investment, regulatory institutions were introduced to protect public interest. Evidence about the success of these reforms is mixed. Regulatory and institutional failures, including in ICs, spurred questions whether RIFs were adequate and whether DCs have human/financial resources to establish effective and efficient RIFs.

74. For reform of and trade in IS to generate pro-development outcomes, they need to be accompanied by appropriate policies and RIFs. The latter must be credible, sustainable and able to face multiple challenges arising from the increasingly heterogenic and complex characteristics of IS markets. Hence, Government has a primordial role to play.

75. RIFs need to be adapted to local realities. A RIF's success depends on its compatibility with a country's needs and circumstances, and institutional and human resource endowment. DCs may wish to select from different regulatory options, creating hybrid models that are appropriate for their individual country contexts. Effectively adapting best-practice blueprints to local needs requires local expertise and knowledge. Best-fit models can change over time, as regulatory independence and capacity are built, turning gradualism and experimentalism into key success factors. RIFs need also be securely located within the political, constitutional and legal arrangements of individual countries. Complementarities between different institutional arrangements make it difficult to alter national systems in a piecemeal fashion. Unorthodox, home-grown solutions, as suggested by Rodrik, could achieve desired outcomes at lower costs for DCs. Multi-stakeholder consultations, including on poverty aspects and involving civil society, consumer groups and the private sector, are also important.

76. International trade agreements affect RIFs, by e.g. removing regulatory measures, placing constraints on Governments' regulatory prerogatives or inducing good regulatory practices. The suitability of international commitments for local economic, social and regulatory specificities is decisive for overall outcomes. Concerns arise when international obligations mandate one particular approach that might not be well-suited for all. DCs require flexibilities for choosing the commitments that best suit them. As RIFs evolve, trade rules might lag behind and include outdated obligations. Accordingly, agreements would need to be sensitive to countries' specific regulatory, economic and social requirements. Regular interaction and cross-fertilization between trade negotiators and services policymakers, regulators and civil society can help improve regulatory and pro-development outcomes.

77. DCs' resource constraints can make it difficult to implement RIFs without financial and technical assistance. Strengthened capacity-building and donor support are essential. A structured research agenda and exchange of experience is needed to enhance understanding of the objectives and outcomes of regulation in DCs on, e.g. poverty reduction, productive capacity-building and the effectiveness of regulatory policies.