UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

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UNCTAD SURVEYS OF INFRASTRUCTURE REGULATORS AND COMPETITION AUTHORITIES

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PREFACE

Infrastructure services sectors (ISS) such as transport, telecommunications, energy, water and financial services constitute the backbone of economies. They possess strong forward and backward linkages with the rest of the economy. In addition to their significant contribution to economic growth, ISS also assume an important social function, as access to basic services (including safe drinking water and electricity), financial inclusion and bridging of the digital divide, are catalytic to the achievement of the Millennium Development Goals.

About 300 million people (10 per cent of the world's work force) are employed in ISS. The global ISS output was estimated at $8.6 trillion in 2010, or some 14 per cent of global output, of which developing countries as a group represent 31 per cent. The value of global ISS exports was $1.4 trillion in 2011, having expanded at an annual average pace of 11 per cent since 2000. This represents 32 per cent of world services exports, or 6 per cent of world exports of goods and services. With the rise of private investment in ISS the value of foreign direct investment flows directed at ISS also saw major growth. The share of ISS in total foreign direct investment inflows increased from 21 per cent in 1990–1992 to 30 per cent in 2008–2010. Along with business services, ISS play a critical role in the expansion and deepening of global value chains, and the expansion of trade associated with them. They also constitute major tasks performed in global value chains, as the line between manufacturing and services is increasingly blurred.

In 2009 UNCTAD's Trade Negotiations and Commercial Diplomacy Branch conducted a survey as part of its follow-up work on the recommendations of the first session of the Multi-year Expert Meeting on Services, Development and Trade: the Regulatory and Institutional Dimension, held in Geneva 17–19 March 2009. The objective of the survey was to take stock of the regulatory environment in key infrastructure services, with the goal of ascertaining regulatory and institutional best practices, and challenges faced by regulators in developed, developing and least developed countries. After the submission of the first survey to the second session of the expert meeting in March 2010, a follow-up second survey was launched in the following year to ascertain the specific trade-related challenges faced by regulators and the regulatory and institutional practices which can promote development gains associated with trade in ISS. This report aims to present and analyse the findings of the surveys.

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REPORT OF UNCTAD SURVEY OF INFRASTRUCTURE REGULATORS WITH FOCUS ON REGULATIONS AND INSTITUTIONS

A. INTRODUCTION

The United Nations Conference on Trade and Development (UNCTAD) designed a survey to collect and disseminate data on regulatory agencies in accordance with the recommendations of the first session of the Multi-year Expert Meeting on Services, Development and Trade: the Regulatory and Institutional Dimension, which was held in Geneva 17–19 March 2009. The survey is annexed to this report.

The goal of the survey was to take stock of the regulatory environment in key infrastructure services in order to ascertain regulatory and institutional practices, and challenges faced by regulators in developed, developing and least developed countries.

The survey was sent out to all UNCTAD member States. Questionnaires were distributed through emails to three groups of recipients:

- UNCTAD member States through permanent missions in Geneva;
- Selected national regulatory agencies;
- Selected regional organizations dealing with infrastructure regulatory issues.

In total, the number of questionnaires sent out was about 350. The number of responses received was 85. The following tables provide some general information on the responses received (tables 1.1 and 1.2).

The survey was composed of 6 sections and 47 questions. Regulators were invited to answer each question to the best of their knowledge.

The following sections of the report review and analyse the responses received. Specific questions of the questionnaire are used as headings for the discussion of the various issues addressed. Responses received are treated confidentially in that they are not attributed to individual persons and/or organizations.

This report is divided into six sections. Section B covers institutional issues. Section C addresses regulatory substance and particularly issues relating to pricing, universal access and the participation of foreign service suppliers in domestic markets. Section D deals with staff and staff development issues, while section E deals with financial and other resources respectively. Finally, section F focuses on various forms of cooperation, including intergovernmental and public–private cooperation, as well as cooperation at bilateral, regional and international levels, before some general conclusions are offered in section G.

Table 1.1. Number of responses according to country development level and sector

Development status	Sector finance	Telecom	Multi-sector	Energy	Transport	Water	Grand total
1. Developed	6	7	5	5	3	3	29
2. Developing	13	9	9	5	4	4	44
3. LDC	2	5	2	2	1	...	12
Grand total	**21**	**21**	**16**	**12**	**8**	**7**	**85**

Table 1.2. Number of questionnaires submitted per country

Country	Total
Algeria, Argentina, Barbados, Bhutan, Burkina Faso, China, Dominica, Finland, France, Germany, Ghana, Grenada, Guyana, Kyrgyzstan, Lithuania, Netherlands, Nigeria, Romania, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Uganda, United Arab Emirates, United Kingdom, United States	1
Australia, Brazil, Canada, Chile, Egypt, Estonia, India, Jamaica, Japan, Kenya, Lesotho, Morocco, Peru, United Republic of Tanzania, Zambia	2
Nepal	3
South Africa	4
Colombia, Switzerland	5
Mexico, Portugal	8
Grand total	**85**

B. INSTITUTIONAL ISSUES

Is the regulator an independent regulatory agency, an independent advisory agency reporting to a ministry, a regulatory department within a ministry, or other?

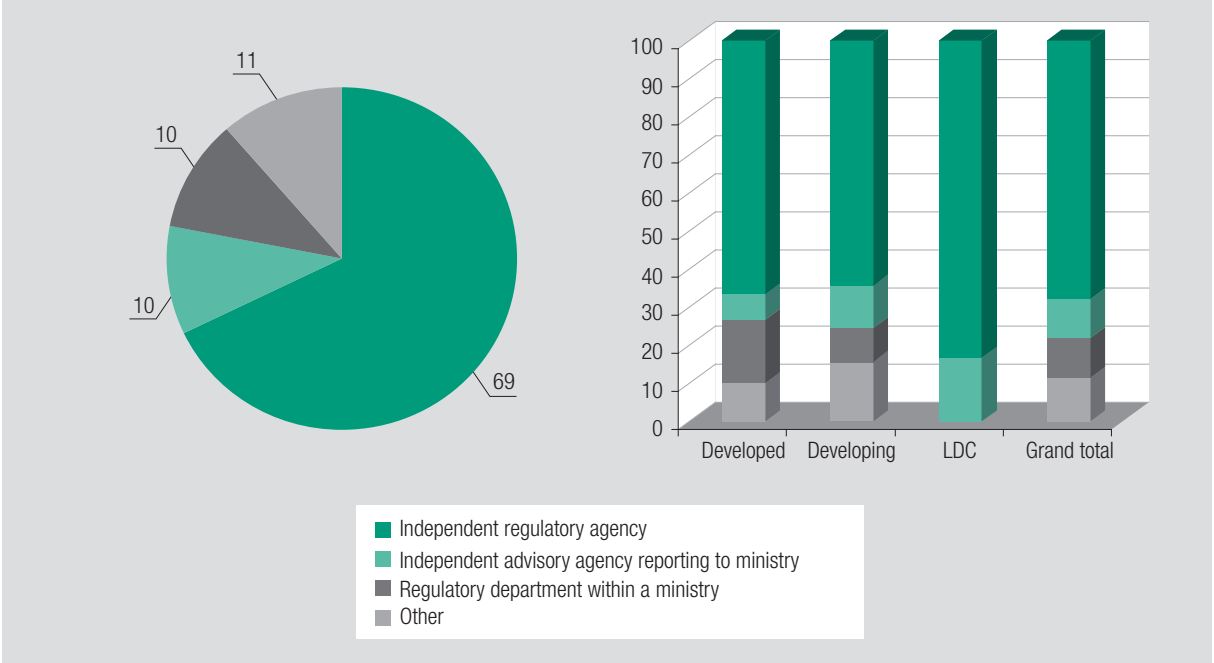
The independent regulator (that is, the establishment of an entity/institution separate from the policymaker/ministry and the service providers) is a relatively recent phenomenon in many countries and accompanied the wave of reforms in infrastructures services in the 1980s. By establishing independent regulators, Governments seek to signal their commitment to eliminating the influence of government entities and dominant firms in infrastructure services markets. There is a clear tendency in the increase in numbers of independent regulators over time. However there remains a notable difference in the prevalence of independent regulators across sectors. While they are very common in the telecommunications and financial services sectors they tend to be less common in the electricity and water sectors.

The results of the survey are consistent with the literature on infrastructure regulation and what has been observed in most countries. The vast majority of respondents are independent regulatory agencies, though some 30 per cent are still institutionally linked to the relevant sector/line ministry in some form or another (see figure 1.1).

As figure 1.1 indicates, the pattern of responses does not differ substantially across respondents in function of their development level. Least developed countries (LDCs), however, reported having less diversity in the type of entities in charge of regulations, as they did not report being either a regulatory department within a ministry or another form of regulator.

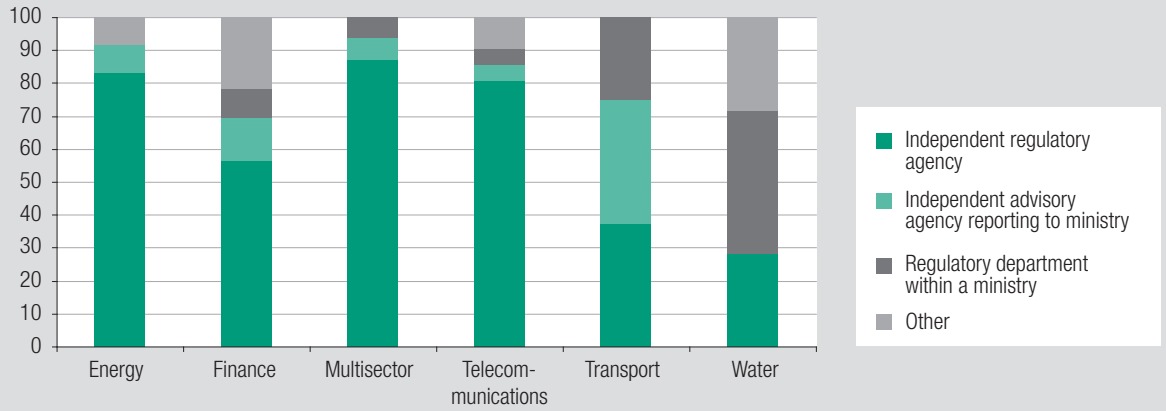
The results of the survey indicate that energy, finance and telecommunications sectors all have more than 50 per cent of respondents that are independent regulatory agencies (figure 1.2). As expected the transport and water sectors still seem to be largely regulated by some form of arrangement within a relevant sector/line ministry. As for agencies active in several sectors (the multi-sector agencies) the very fact that they were created to cover several sectors implies that they are in their vast majority separate from the different sector/line ministries involved.

Figure 1.1. Degree of independence of regulators (all respondents and by development status, percentage)



Note: Category "Other" includes: (a) the agency is separate from the decision-making process of the ministry but annexed to it, and therefore has no legal personality; (b) the agency is semi-independent with participation of the ministry; (c) the agency is subject to public law in terms of legal entity, but autonomous in operation.

Figure 1.2. Degree of independence of regulators (by sector, percentage)



Note: Category "Other" includes: (a) the agency is separate from the decision-making process of the ministry but annexed to it, and therefore has no legal personality; (b) the agency is semi-independent with participation of the ministry; (c) the agency is subject to public law in terms of legal entity, but autonomous in operation.

When was the agency created?

The graph below (figure 1.3) was plotted on the basis of the responses received to the question of when the responding entity had been created. It is interesting to note that the regulatory entities that were created the earliest are generally those that relate to the financial services sector (for example, central banks). The majority of respondents, however, indicate that their institution was created in the 1980s. The regulators that reported their creation date to be before 1980 include nine regulators in the finance sector, one energy regulator, one multisector regulator and two water regulators.

Figure 1.3. Date of creation of the regulatory institutions

Year	Number of responses	Year	Number of reponses
1846	1	1994	4
1921	1	1995	2
1925	2	1996	1
1931	1	1997	5
1935	1	1998	13
1956	1	1999	2
1959	1	2000	3
1966	1	2001	2
1970	1	2002	4
1971	1	2003	1
1972	1	2004	1
1981	1	2005	2
1982	1	2006	1
1990	1	2007	3
1991	2	2008	1
1992	4	2009	1
1993	1	**TOTAL**	**73**

How does the regulatory agency rate its level of autonomy and from what source does it derive the legal authority to carry out economic regulation?

The concept of autonomy of the regulator as it is used in this questionnaire is a slightly more complex or subjective notion as it is based on self-assessment by the institutions concerned. The independence/autonomy of the regulator can be associated, inter alia, with the source from which the institution derives the legal authority to carry out economic regulation. For the independence/autonomy of the regulator to be real the institution must be established within a broader legal framework. However, absolute independence of regulatory bodies is neither possible nor desirable. Moreover, the independence and autonomy of regulators can be related to staffing issues (discussed in section D) as occurrences such as a high turnover of commissioners may undermine regulatory independence.

It is generally considered that one of the criteria of regulatory independence is that the regulatory agency be created by a law (or the constitution), rather than by a decree or another subsidiary legislation. The inclusion in the constitution of a country may be a more burdensome and lengthy process which probably explains why the majority of respondents answered that they drew their legal authority from a law or statute, as opposed to the constitution itself. Only a minority of respondents (4 per cent) indicated getting their legal authority from a governmental decree, while almost 20 per cent indicated that their authority derived from a combination of sources (see figure 1.4).

It is important, however, to consider whether the institutional model that is being contemplated for adoption is incompatible with established and accepted legal or cultural norms in a country. One explanation for such a situation could be that a country's constitution prohibits a minister from delegating final decision-making authority to a non-ministerial body. Alternatives must in this case be considered, such as the creation of a body that provides advisory opinions even if all final decisions are legally required to remain with the minister.

Almost half of the respondents considered themselves to be "completely autonomous", while a slightly smaller proportion of them stated that they were "somewhat autonomous". All responding organizations that considered they were not autonomous were of the category "regulatory departments within a ministry". If one considers the answers of this group more closely, 50 per cent of them consider themselves as "not autonomous", 37.5 per cent as "somewhat autonomous" and only 12.5 per cent as "completely autonomous". Those who have declared themselves as not autonomous strongly believe that being autonomous is important for a regulator (see figure 1.5).

Figure 1.4. Source of legal authority (percentage)

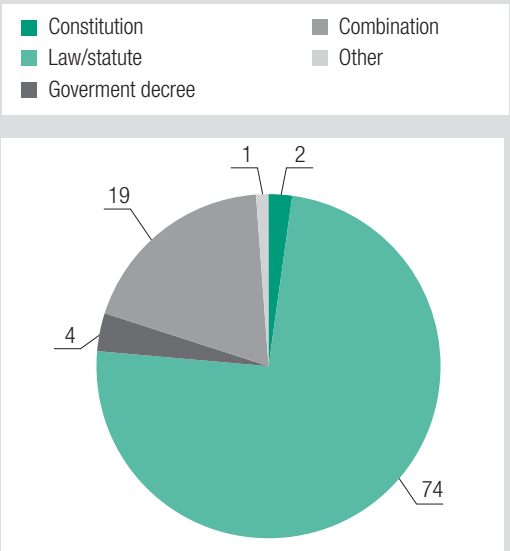
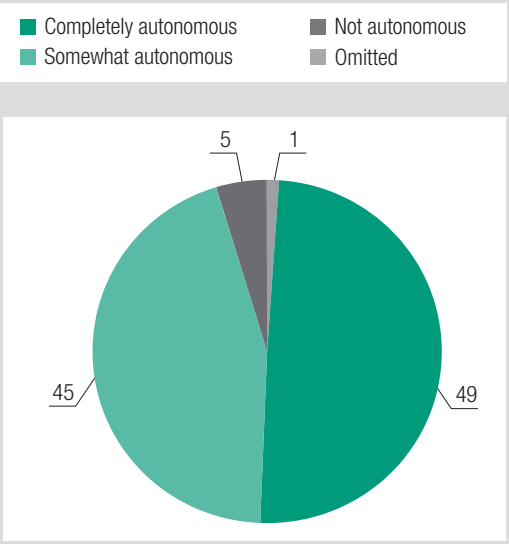


Figure 1.5. Self-declared level of autonomy (percentage)



In which sectors is the regulator directly involved?

There are several options when establishing regulatory institutions for infrastructure services. For example, it is possible to choose between a single-sector and a multi-sector regulator (for various sectors). For developing countries in particular there can be advantages to establishing multi-sector regulators linked with the commonalities in the handling of economic issues for various infrastructure services sectors: 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. One additional benefit that is sometimes cited is a better ability to resist political interference (because broader constituencies give the institution a greater independence from sector or line ministries).

The results of the survey show that many regulators are involved in multi-sector agencies, or in regulating several subsectors within a same sector (e.g. an energy regulator active in the electricity and gas subsectors). Furthermore, many indicate that they are involved in dealing with competition issues. These results reflect both the inter-linkages between sectors and subsectors as well as between work of sector regulators and competition authorities (see table 1.3).

Does a separate competition authority exist in the country and do regulators and competition authorities collaborate with one another?

In most countries, sector regulators were established in parallel to competition authorities. The work of regulators tends to be of a general nature and to take place ex ante (for example, 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. The majority of the respondents (73 per cent) indicated that a separate competition agency exists in their country, while approximately a third (27 per cent) stated that such a separate agency did not exist (see figure 1.6).

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.

The results of the survey suggest that in most responding countries, sector regulators and competition authorities do not collaborate with each other (see table 1.4). In cases where collaboration does exist it takes various forms, such as regular meetings and exchange of information, ad hoc informal meetings on topics of common interest, consultation with the competition authority on draft regulations that may have an impact on competition, and providing opinions upon formal requests from the competition authority. In a few cases, collaboration is done through such mechanisms as interface agreement, a protocol or memorandum of understanding between the competition authority and the sectoral regulator, regular meetings and exchange of information.

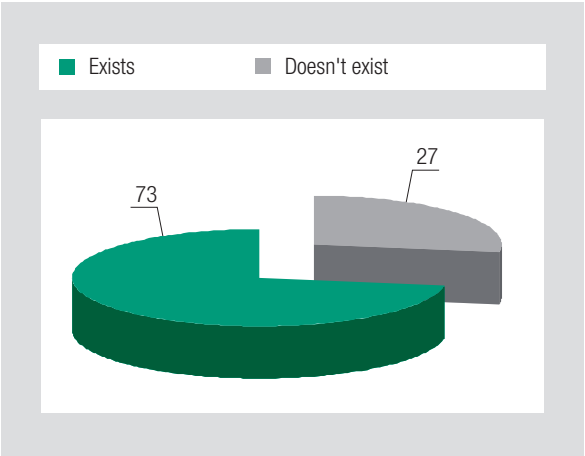
Table 1.4. Share of respondents that collaborate with competition agencies (percentage)

Not responded	Collaborate	Don't collaborate	Grand Total
7	20	74	100

Table 1.3. Involvement of regulators across sectors

Direct sectors regulated	Number of regulators		Multi-Sector	Same sector, but different sub-sector	Others	Competition	No information
Competition	1	These regulators also indirectly regulate the following sectors	1	...	...	...	...
Energy	11		1	2	...	5	3
Finance	23		7	7	1	1	7
Multi-sector	16		3	...	3	3	7
Telecommunications	20		3	4	1	5	7
Transport	7		1	...	...	3	3
Water	7		1	2	2	...	2
Grand total	**85**		**17**	**15**	**7**	**17**	**29**

Figure 1.6. Existence of a separate competition agency (percentage)



C. REGULATORY SUBSTANCE

What pricing method does the regulator use and what are the challenges encountered?

Some of the main issues covered by regulation in infrastructure services sectors include such aspects as market structure and entry, pricing and universal access. Pricing is at the core of economic regulation. The two main pricing approaches are (a) rate of return and (b) price caps. There also exists a hybrid approach in which some cost changes are automatically passed through to tariffs. Existing research shows that the type of pricing regime has a bearing on the overall performance of infrastructure services sectors.

The results of the survey show that the price cap approach seems to be commonly used in all countries irrespective of their development status, but it is more common in developing countries than in developed countries and LDCs. LDCs use the rate of return approach more than developed and developing countries (see figure 1.7).

For the regulators, determining prices that strike a socially acceptable balance between the interests of investors and those of consumers is a major challenge. There are a number of difficulties associated with identifying such socially-balanced prices. Among the key operational challenges associated with price regulation is limited data availability. Data requirements are demanding and complicated by problems of information asymmetry between regulators and service providers. Enhanced transparency through independent reporting or auditing is thus important.

Two other challenges need to be taken into account by regulators: how to treat extraordinary events that impact earnings, and the treatment of controllable and non-controllable costs. In some instances the regulator allows the operator to pass through to customers changes in non-controllable costs. A typical example of non-controllable costs is the cost of fuel for electricity generation, which is traditionally considered beyond the control of the electricity generator.

The results of the survey indicate that most respondents agreed that insufficient data availability is the major challenge in price regulation (accounting of 60 per cent of the responses) followed by unforeseen changes to market conditions (37 per cent of the responses) (see table 1.5).

Figure 1.7. Applied pricing methods (rate of return, price cap)

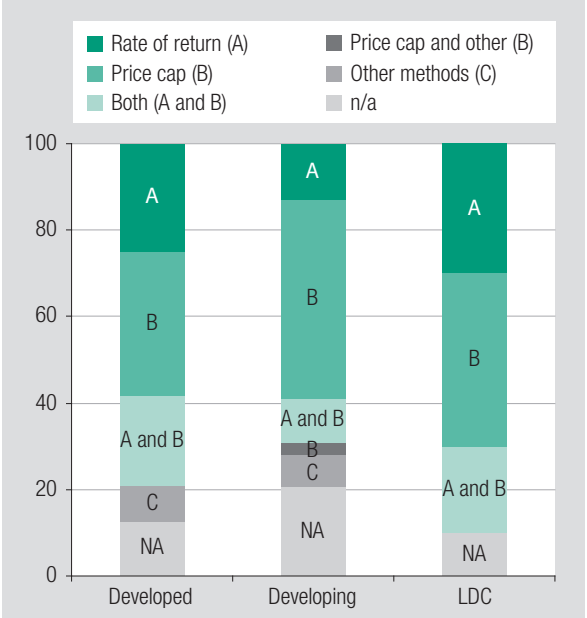


Table 1.5. Challenges in price regulation (multiple choices possible, percentage)

List of challenges	Share from total of responses
a. Insufficient data availability	59.7
b. Unforeseen changes to market conditions	37.1
c. Negative reactions by investors	25.8
d. Negative reactions by consumers	27.4
e. Other	14.5

Does the regulator have a specific universal access policy for its sector and how are universal access goals achieved?

Universal access is also an important aspect of infrastructure services regulation. It is used not only for ensuring access by all to essential services by expanding service delivery to certain unserved areas, or delivery at affordable prices, but also to promote investment and the expansion of these sectors more generally.

The results of the survey show that in all categories of countries (developed, developing and LDCs) the majority of respondents had a specific universal access policy. The percentage of respondents stating that they have such a policy is significantly larger in LDCs and developing countries than in developed countries (see figure 1.8). One explanation for this may be that universal access has already been achieved in certain sectors in developed countries – through earlier market development and reforms – so a specific policy is no longer needed.

Universal access regulation can take several forms, including universal service obligations, which can be imposed on all or some of the services providers, subsidies to either infrastructure services providers or consumers, and statutory universal services obligations on service providers. Alternatively, many countries have opted to create a fund to help advance universal access objectives.

The results of the survey suggest that universal access obligations for some or all suppliers is the main approach used by responding countries to achieve universal access goals (72 per cent of the responses), followed by universal service funds (32 per cent of the responses), and subsidies to consumers (22 per cent of the responses) (see figure 1.9).

Figure 1.8. Existence of a universal access policy (percentage)

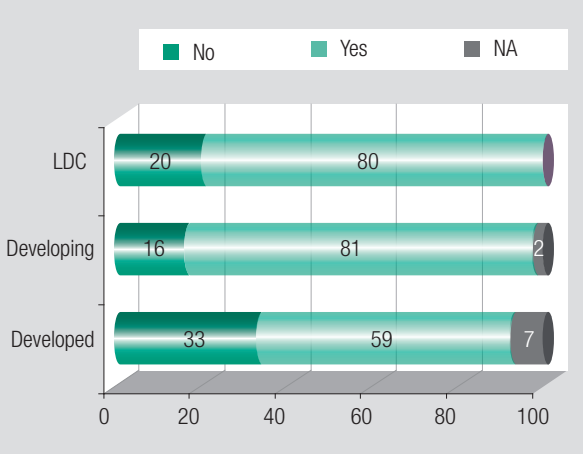
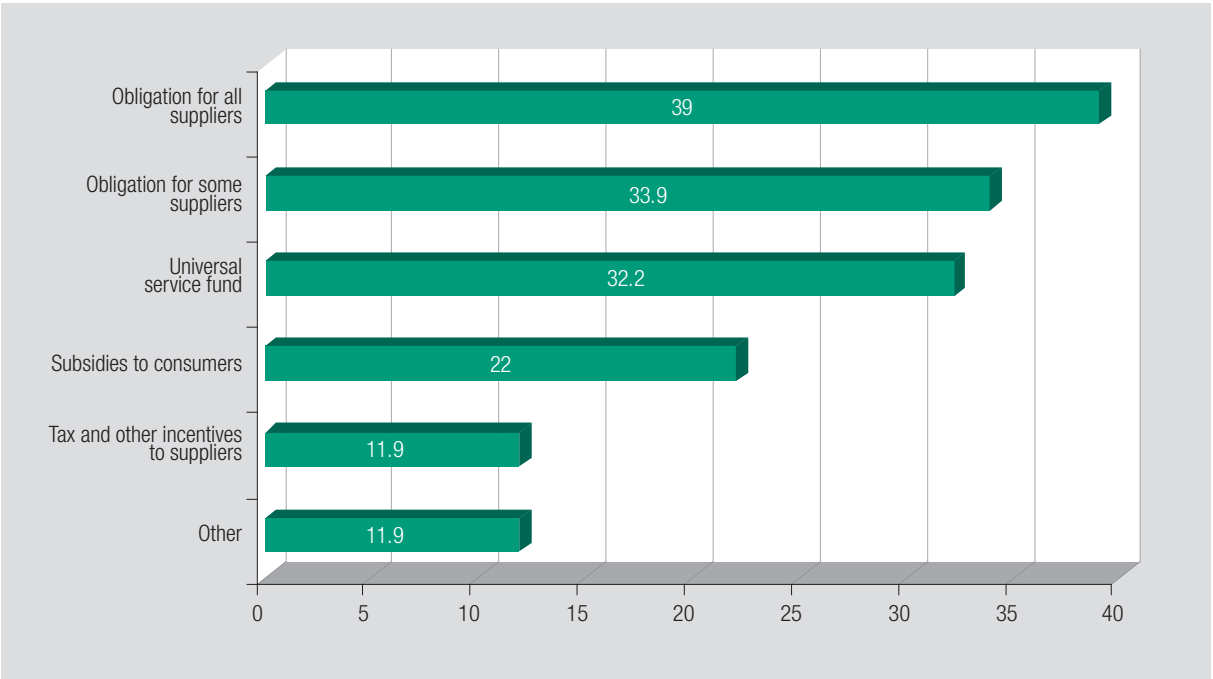


Figure 1.9. Various options for universal service funding (percentage)



When foreign operators are allowed in the domestic market can they bring in their management and expert personnel from abroad on a temporary basis?

Infrastructure services have traditionally been provided by Governments. So for a very long time the regulation and liberalization of services were two phenomena that were kept separate. Regulators did not have to worry about the trade-related or discriminatory impacts of their regulations on foreign service suppliers. However, over the past decades, with the increasing globalization of the world economy, reforms to unbundle and open most infrastructure services sectors to private participation – including through privatization, public–private partnerships, concessions, build–operate–transfer, foreign investment and international trade – have become commonplace. Moreover, the inclusion of liberalization principles covering key infrastructure services sectors in the multilateral trading system, as well as the bilateral and regional services trade agreements, have created a legal framework for the entry into domestic markets of foreign services providers. This entry can take the form of firms establishing themselves through commercial presence of natural persons present in the market of another country than his/her own to provide services on a temporary basis.

The responses to the questionnaire indicate that in the vast majority of cases foreign service suppliers are allowed to enter into the domestic market, with the financial sector and telecommunications taking the lead in absorbing foreign presence. Foreign operators are generally allowed to bring in their management and expert personnel from abroad on a temporary basis (see figure 1.10).

D. STAFF AND STAFF-DEVELOPMENT ISSUES

Significant human resources and skills are required in designing and implementing effective and efficient infrastructure frameworks.

How is the regulatory agency managed?

Studies suggest that regulators that are responsive to government policies but are also independent are important for effective regulation. In this sense, well-defined professional criteria, transparent processes of appointments, appointments for fixed periods and procedures that provide for the removal of staff only for serious causes (such as irresponsibility, illegal act, or misconduct) are key elements to gage independence from political intervention and allow for a system of checks and balances.

The results of the survey suggests that most of the regulatory agencies are managed either through a multi-member board, chaired by board and commissioners, or by a director general, president or chair (see figure 1.11).

Figure 1.10. Entry into markets of foreign service suppliers (percentage)

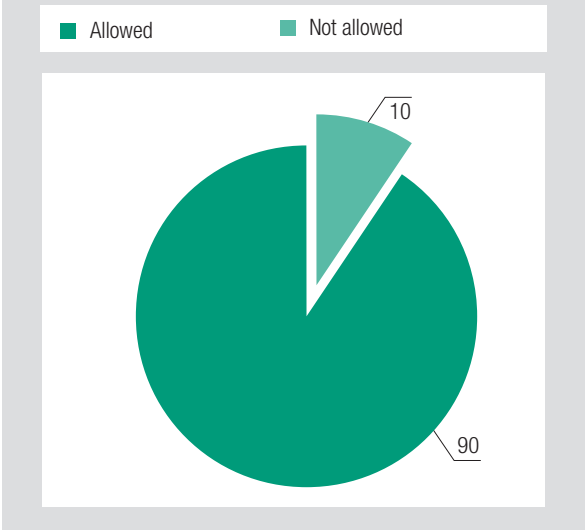
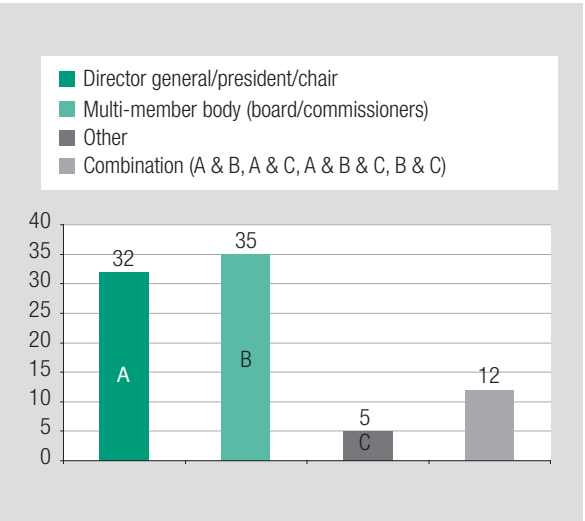


Figure 1.11. The management of regulatory agencies



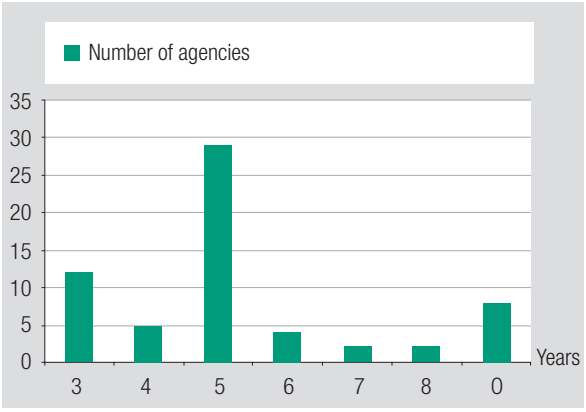
Note: The responses for the category "other" generally involved agencies managed by ministers or an executive director

Are terms of the regulatory agency's head(s) fixed or ? Who determines this and how can they be removed?

The results of the survey also suggest that, in most developing countries, the head or board of the agency is selected by presidential appointment or by departmental-minister appointment (particularly in developing countries). In developed countries, departmental-minister appointments are fewer than in LDCs. The survey also shows that the category "other" captured the involvement of other stakeholders such as the Head of State, the board of commissioners, the supervision board, or a public contest (see figure 1.12).

Most of the surveyed independent regulatory agencies indicated that the term of the head of the regulatory agency is fixed. Among the responses provided the maximum length of cumulated terms indicated for a head with fixed term contract was 16 years (see figure 1.13).

Figure 1.13. Maximum length of term for head of agencies with fixed-term contracts



When appointments of the head of the regulatory agency are indefinite, it is at the discretion of the president or the department minister?

In most cases, respondents indicated that the head of the regulatory agencies could be removed by the State court of justice, the attorney general, the parliament or the board of governors. The survey also shows that in case the terms are fixed the regulatory agencies' head can be removed for causes such as irresponsibility, illegal act, misconduct, and the like (see figure 1.14).

Figure 1.12. Involvement of different actors in the selection of the head or board of the regulatory agency (percentage)

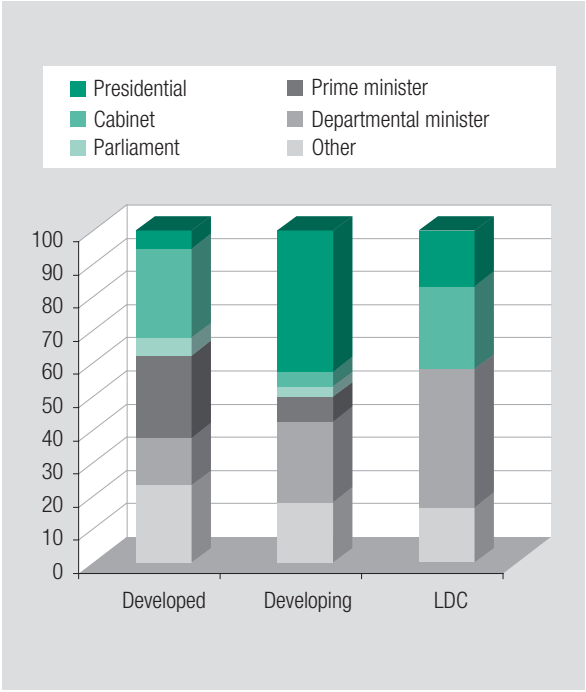
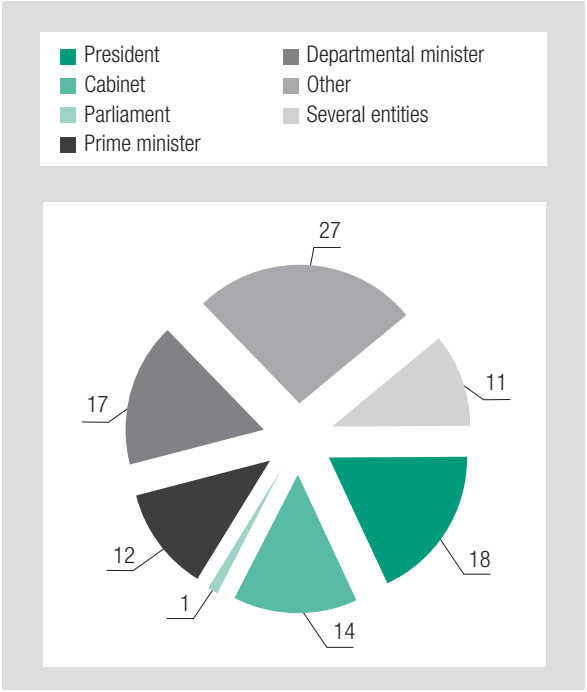


Figure 1.14. The entity with the legal power to remove the head of the regulatory agency (percentage)



What is the number of total staff employed by the regulator and what professions are represented among the agency's staff?

The following results were obtained in the survey concerning composition of staff and their term of employment (see table 1.6):

- Average number of staff employed is 678;
- The highest number of staff employed was 17,000 (an environmental protection agency) and the lowest 8 (a regulator for postal services);
- Sixty per cent of staff are employed for more than 5 years;
- In developed countries the staff is mainly composed of economists, followed in importance by administrative personnel and lawyers. In developing countries, most staff members are engineers and administrative personnel; in LDCs they are mostly accountants, engineers and administrative personnel;
- Most of the staff of regulatory agencies are permanent.

Is the total number of staff sufficient to fulfil the regulator's responsibilities and which categories of professional staff does the regulator lack?

The results of the survey indicate that over 60 per cent of developed and developing country respondents consider that they have a total number of staff which is sufficient to allow them to fulfil their responsibilities. In contrast, less than 20 per cent of LDC respondents consider that they have enough staff to fulfil their responsibilities (see figure 1.15).

When the regulatory agencies were asked why they believed they did not have sufficient staff to fulfil the agency's responsibilities, respondents indicated this was due to lack of financial resources (they cited uncompetitive pay, growing demand in tasks and responsibilities not matched with budget increases and public-sector cutbacks) and lack of qualified professionals in the labour market.

Building regulatory capacity is an essential element to making regulation effective. Various organizations and donor countries have devoted resources to enabling developing countries retain the services of consulting experts to work with and to train regulators. Others

Figure 1.15. Evaluation of whether existing number of staff is sufficient to fulfil the regulatory agency's responsibilities (percentage)

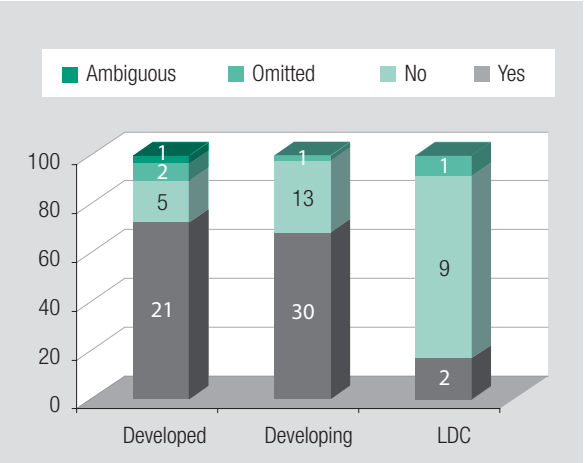


Table 1.6. Composition of specialists in the regulatory agency (simple average, in percentage)

Specialist	Developed	Developing	LDC	All Countries
a. Economists	17.7	8.4	11.6	11.8
b. Lawyers	13.8	8.3	5.1	9.7
c. Accountants	1.6	7.1	18.7	6.8
d. Technicians	11.2	9.0	6.5	9.4
e. Engineers	12.7	14.8	14.2	14.1
f. Advisors	1.9	4.4	3.4	3.5
g. Administrative	14.5	14.0	13.6	14.1
h. Other	13.4	21.5	18.3	18.6
Not defined/missing	13.4	12.5	8.6	12.0

have made this a conditionality for loans or grants. However, while all of these programmes are useful, they are not necessarily fully sustainable on their own and sufficient efforts have not necessarily been expended to ensure effective capacity-building. It is important, therefore, for countries with functioning regulatory systems, or even those contemplating them, to fully support the requisite intellectual infrastructure that will not only assist in building human resource capacity, but also enrich the debate on regulatory matters.

With respect to high-level professional staff, the majority of regulatory agencies in developed and developing countries (75 and 68 per cent respectively) believed their number of staff is sufficient to fulfil the agency responsibilities. This was not the case in LDC respondents (only 25 per cent thought they had enough professional staff members) (see figure 1.16).

When asked about how insufficient numbers of high-level professional staff limit their performance, the agencies responded that it affects their monitoring, analysis and enforcement capacity, delays decisions and affects the quality and coverage of activities. The data collected in the survey indicates that high level professional staff specialized in economics and law are most needed.

What was regulator's experience with using the services of private consultants rated?

The use of consultants can complement regulatory capacity and help improve regulatory performance, particularly in independent regulatory agencies that are intensive in knowledge and information technologies. Ensuring an effective transfer of skills between the consultant and regular staff of the regulatory agency is important to avoid substituting the local regulatory capacity with capacity held by external actors.

With respect to the regulatory agencies' reliance on the services of consultants, the survey results indicate that a high percentage (98 per cent) of regulators use consultants irrespective of their development status. Agencies also indicated they generally believed their experience with consultant services was good.

Results of the survey also indicate that among LDC respondents none relied solely on national consultants (see figure 1.17).

Outsourcing of certain functions can be an efficient manner to make up for their lack of human resources. External experts can, for example, provide inputs as advisors to improve competence or as decision makers in order to enhance the independence and legitimacy of the regulator when necessary.

Figure 1.16. Evaluation of whether the number of high-level professional staff is sufficient to fulfil the regulatory agency's responsibilities (percentage)

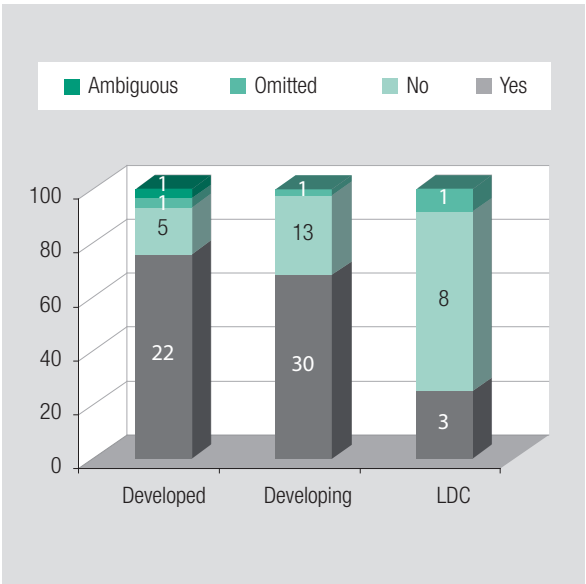
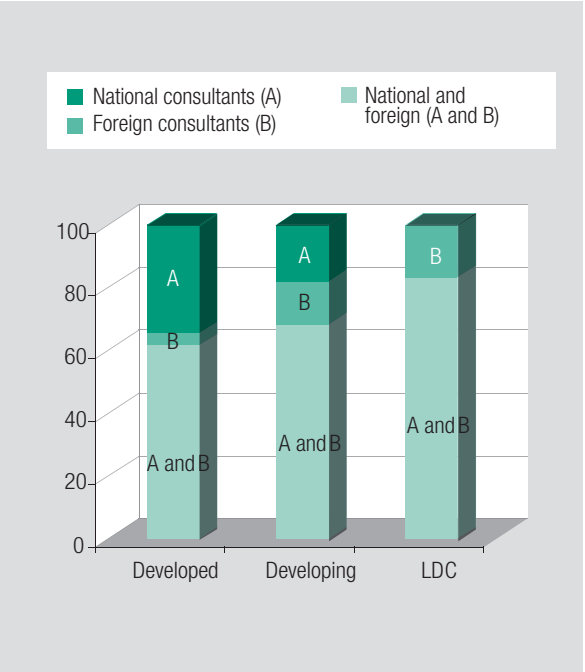


Figure 1.17. Nationality of consultants

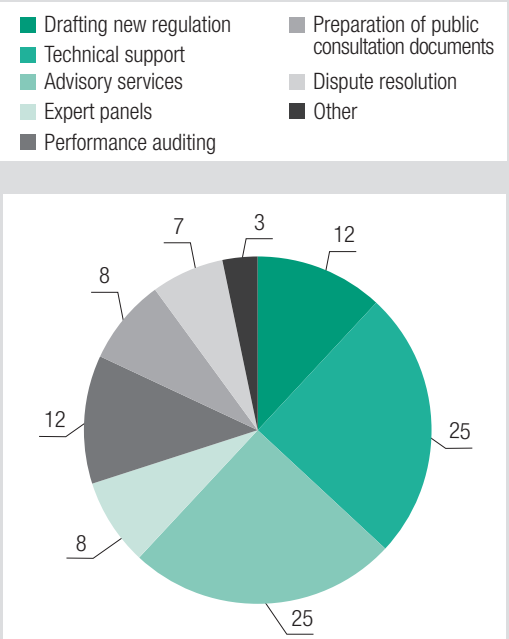


However, outsourcing to consultants does give rise to a number of issues including potential conflicts of interest. While it is expected that the consultants recruited will be independent politically, they can in some cases represent certain interests (for example, favouring a particular company), thus putting into question the legitimacy and independence of their services. For outsourcing to be successful, several criteria can be used, and these include ensuring that a clear description of the tasks to be fulfilled has been established, that the consultant to be recruited possesses the adequate experience and expertise of the issues at hand, and that there exists a consulting contract with clear terms of reference and provisions spelling out criteria for the dismissal of consultants if the terms of reference are not met.

The results of the survey show that the functions that are most commonly outsourced to private consultants include technical and advisory services, followed by drafting of new regulations and performance auditing (see figure 1.18).

An alternative reason for periodically retaining the services of outside consultants (both nationals and foreigners) would be to provide an independent assessment of the regulatory system and assess the performance not only of the regulatory agencies, but the entire regulatory system, including the relevant laws, processes, resources, governmental actions, institutional arrangements, substantive provisions such as ratemaking and tariffs, market rules, and other issues.

Figure 1.18. Type of functions outsourced to consultants (percentage)



What incentives does the regulator use for new recruits?

Staff incentives are important in terms of recruiting and retaining staff and securing national competencies with respect to regulation, particularly in cases where the number of professionals is limited. The results of the survey indicate that health insurance (59 per cent), competitive pay with respect to the private sector (58 per cent) and vacation time (45 per cent) are cited as the most common but there are many other incentives (see table 1.7).

Table 1.7. Other incentives provided for recruitment and retaining of staff

Prestige	Being nominated as a civil servant
Working environment	Enabling environment, convivial environment, flexible working arrangements, job security, challenging environment
Support for studies	Specialized training, paying PhD. and masters' programs, study aid
Support for housing	Housing allowance, soft loans, repaying water charges consumption
Other types of support (financial)	Fuel allowance, bonuses, pension funds, pension allowances, life insurance, transport allowance
Non financial support	Paternal leave, parking

How does the regulator ensure staff development?

The competence of regulatory staff is important for having effective regulatory quality and the credibility of regulatory decisions. Training needs are wide ranging (see table 1.8) and capacity-building efforts therefore need to be continuous to have a real impact on human resources. In this sense, ensuring staff development is a key aspect to building skills related to guiding, negotiating, regulating and monitoring infrastructure frameworks. The results of the survey show that the preferred training acitivites are seminars and conferences and on-the-job training workshops, while e-learning courses and consultant pairing seem to be less popular (see figure 1.9).

E. FINANCIAL AND OTHER RESOURCES

What are the regulator's sources of revenue and are these sufficient to fulfil regulatory tasks?

Financial resources are key to establishing and sustaining effective and efficient regulatory frameworks in infrastructure services. Budget sufficiency and reliable sources of funding are key elements to establishing regulatory credibility and ensuring universal access.

The survey results indicate that, in most cases, the revenue comes from the Government. However, there are differences per sector with respect to the sources of funding. For instance, the competition authorities

Table 1.8. Skills shortcomings and training needs

Area	Specific needs
Design of policies	Strategic planning, risk modeling, market analysis and regulatory impact analysis
Regulatory oversight, monitoring performance and assessment of regulatory systems	- Regulatory finance, drafting laws, auditing, renegotiation of concession contracts - Competition analysis and promotion, including unbundling and significant market power
Handling consumer complaints	Developing empathy capabilities
Regular updating of skills in connection in highly technical issues	Regulation in the Internet and telecommunications sectors
Air transportation specifics	Air safety, training for flight operations, aeronautical cartography, flight transit
Other	Communication skills, teamwork, language, crisis management

Figure 1.19. Methods used for staff development (percentage)

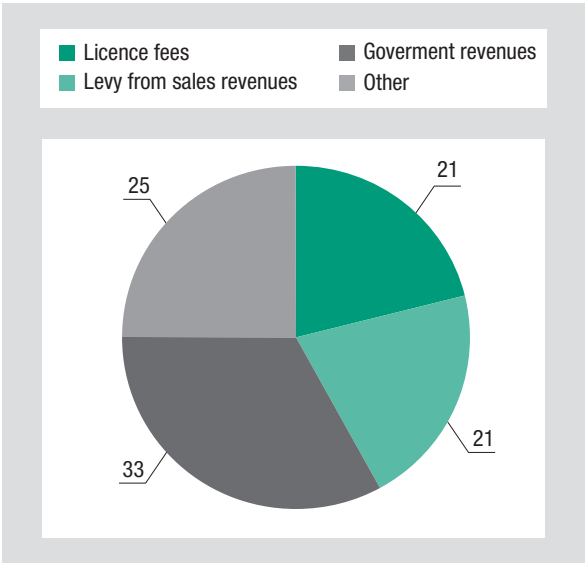
generally rely only on government funding and most of the funding for the transport sectors also comes from government sources. In the case of energy, most of the revenue comes from sales and in the case of telecommunications from licence fees (figure 1.20).

Regarding whether financial resources were sufficient to fulfil regulatory tasks, most of the responding regulatory agencies in developed and developing countries answered yes (respectively 72 per cent and 66 per cent), while only 33 per cent of LDC respondents answered that their financial resources were sufficient (see figure 1.21).

The question as to why agencies believed they were underfunded received the following responses:

- The industry/sector requires extensive technical expertise and constant updating of technologies;
- High cost of ensuring universal access to essential services;
- Dependence on foreign aid which is sometimes insufficient;
- Licence fees/service fees are not sufficient to cover agencies expenditures;
- Having to confront unforeseen expenses due to a particular circumstance.

Figure 1.20. Sources of revenue (average, as percentage of total revenue)



Is the regulator adequately equipped to complete regulatory tasks and what equipment or technology does it lack the most?

With respect to equipment, most regulatory agencies in developed (62 per cent) and half of the agencies in developing countries (52 per cent) indicated they believed they were adequately equipped to fulfil their regulatory tasks. The majority of LDC respondents (72 per cent) on the other hand, believed they were only "somewhat well" equipped to perform their tasks (see figure 1.22).

Figure 1.21. Evaluation of whether the agency's financial resources are sufficient to fulfil regulatory tasks (percentage)

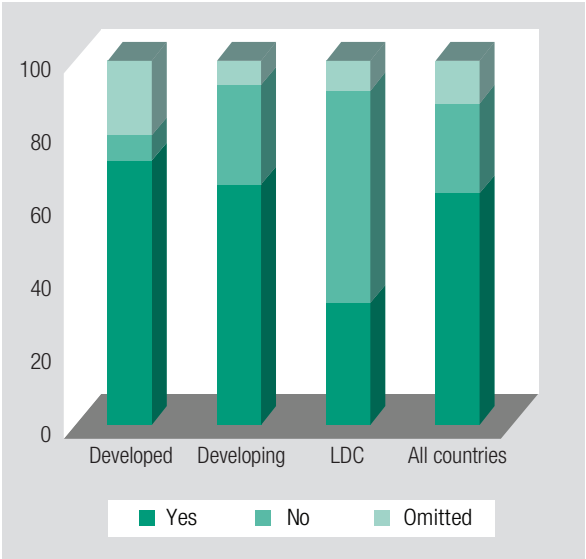
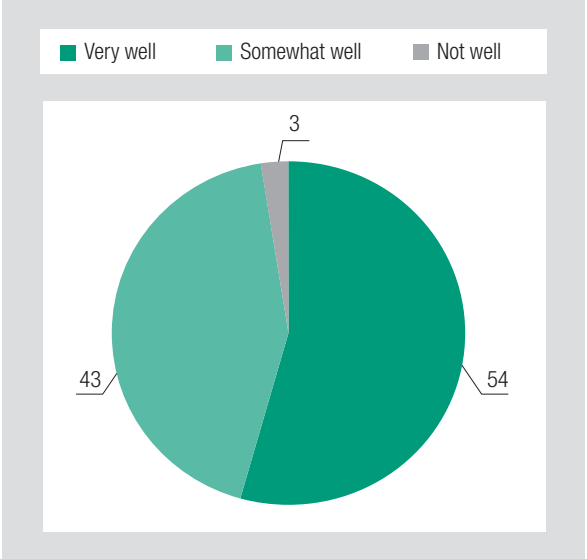


Figure 1.22. Evaluation of whether the regulatory agency is equipped to fulfil regulatory tasks (percentage)



Most of the responses (from agencies who consider that they are not adequately equipped) point to the lack of software as the most pressing need. When answering "other" to this question, respondents clarified that this related, inter alia, to video conferencing equipment, testing laboratory for communication equipment, testing devices for electromagnetic radiation, radio frequency monitoring equipment, software for billing and human resource management, monitoring equipment, security equipment, and specialist quality testing equipment (see figure 1.23).

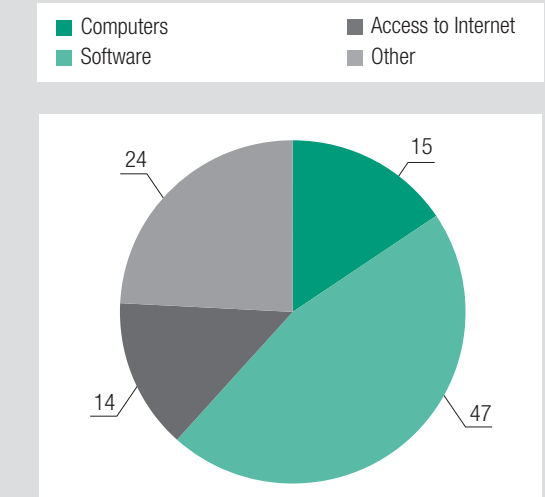
F. VARIOUS FORMS OF COOPERATION

Does the regulator cooperate with regulators of other countries, under what form and how would it rate its experience to date?

Cooperation (including intergovernmental and public–private cooperation, as well as cooperation at bilateral, regional and international levels) offers opportunities with respect to regulation, such as:

- Developing harmonized regulatory regimes;
- Transferring technical skills, knowledge and best practices;
- Pooling regional resources, to increase the effectiveness of regulatory institutions and reduce costs.

Figure 1.23. Equipment or technology that the regulatory agency is lacking



It is also possible for regulators to coordinate in a very formal way, for example by developing a joint manual on regulatory accounting, common practices on service quality information, common filing and reporting requirements, and other matters. This reduces the work burden on individual regulatory agencies and personnel. That type of formal cooperation might be very useful for regulators in developing countries. It might also lead to more meaningful interaction between regulators than is customary (for example, interactions during conferences). Another means of interaction is a peer review process where a team of regulators from a group of countries visits a regulatory agency and evaluates its performance, processes, structure, and issues. While the process is relatively new to be able to fully assess its effectiveness, the concept holds promise.

In developing countries, international regulatory and trade cooperation play an important role in support of national efforts to create effective, efficient and workable infrastructure framework, as it can address cross-border externalities and overcoming regulatory and institutional constraint at the national level.

The results of the survey show that cooperation is present and widespread in all sectors analysed. Of all respondents representing competition authorities, telecommunications and water regulators, 100 per cent said they were cooperating with other countries. Over 80 per cent of regulators from the energy and finance sectors as well as multi-sector regulators also indicated that they cooperate with other countries as do 71 per cent of transport regulators. Furthermore, this widespread cooperation exists irrespective of development status (see figure 1.24).

According to the survey results, the most common form of cooperation is information exchange, followed by participation in international associations and participation in regional expert panels. Other forms of cooperation that the regulatory agencies mentioned in the answers include cooperation related to human resources (internships, training, secondments) and regional guidelines to develop regulation (see figure 1.25).

Half of the regulatory agencies (51 per cent) believed their experience of cooperating with other countries was "good", while 39 per cent believed it was "excellent". None of the respondents rated their experience as poor (figure 1.26).

Figure 1.24. Cooperation with other countries (breakdown by sector, percentage)

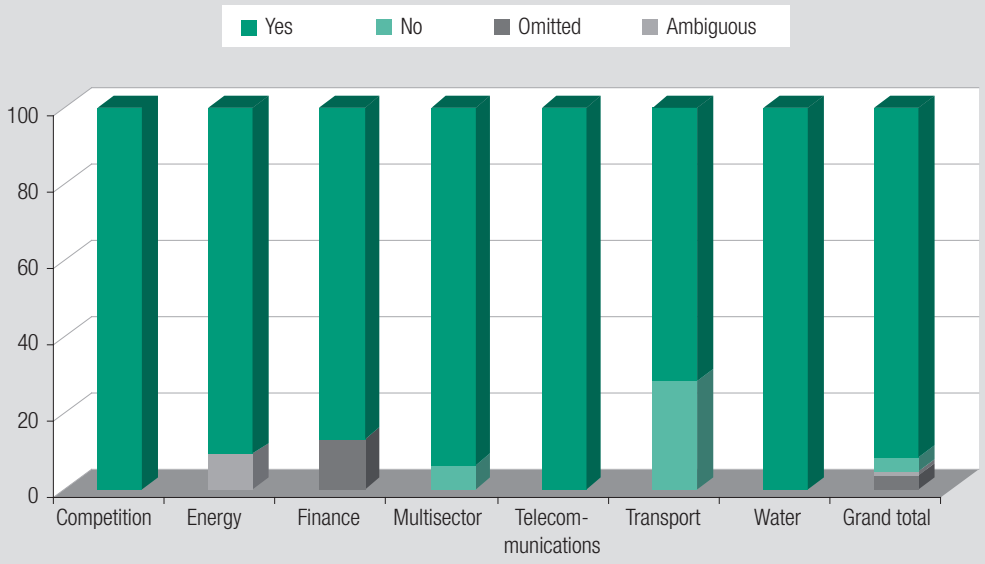


Figure 1.25. Forms of cooperation (percentage)

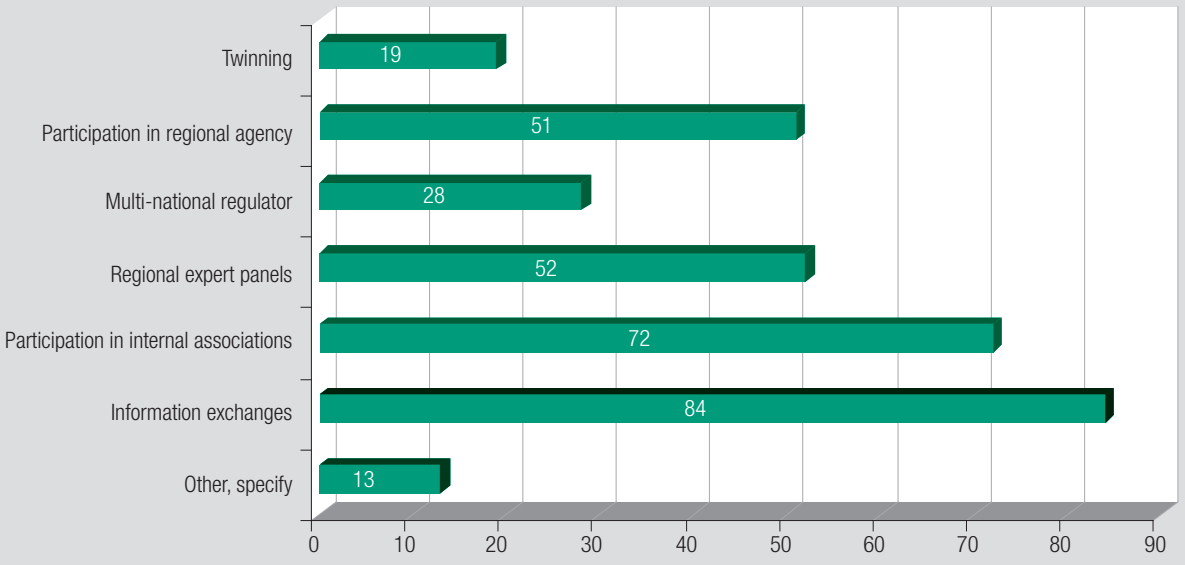
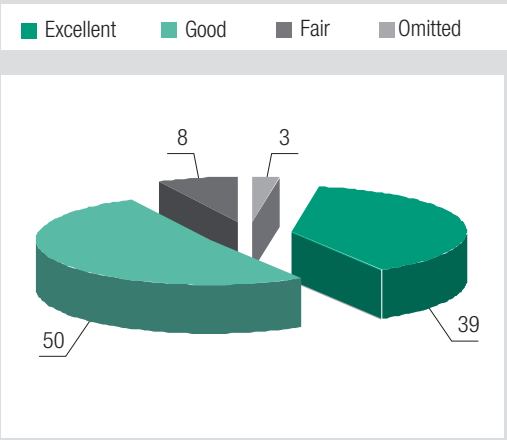


Figure 1.26. Rating of the cooperation with other countries (percentage)



The questionnaire sought insights mainly with respect to cooperation between regulatory agencies from different countries. However, other forms of cooperation are relevant, including cooperation between service providers from different countries leading to the development of cross-border infrastructure networks or infrastructure sharing, and regulatory cooperation between authorities and service providers and other stakeholders (for example, self-regulation and co-regulation).

G. CONCLUSIONS

The 85 completed questionnaires provided UNCTAD with very useful insights – on key institutional and regulatory issues affecting infrastructure services sectors, and on more specific challenges and constraints faced by sector regulators and competition authorities in terms of their staffing and staff development initiatives, financial resources and the forms of cooperation that they engage in.

The results of the survey indicate that in many cases the challenges faced by regulatory agencies are similar, irrespective of their development status. However, in several cases responses by LDC regulators differed significantly from those of their developed and developing counterparts. This was the case for example, when it comes to staffing needs, particularly in the professional category, equipment needs and financial constraints. This points to the necessity for LDC-specific support and programmes that promote the development and further strengthening of regulatory and institutional frameworks.

As concerns an evaluation of the survey itself a number of shortcomings of the survey questions appeared following the analysis of responses received (for example, the need to clarify the terminology used by providing definitions at the end of the survey, the need for more "closed" questions as opposed to asking the respondents to provide an independent or "open" response, the need to provide more guidance to the respondents and possibly the need for a section of the questionnaire that can be answered by all and a sector-specific section when the issues discussed are not relevant for all sectors or not comparable across regulators). UNCTAD suggests that the survey become a regular feature of the next sessions of the Multi-year Expert Meeting on Services, Development and Trade: the Regulatory and Institutional Dimension. This would allow UNCTAD to undertake some fine-tuning of the questionnaire, including by opting to focus the next survey(s) on specific issues that will have come out of the discussions of the second session of the expert meeting, to be held from 17–19 March 2010. This would also provide a unique opportunity to assess the extent to which on-going policy challenges (including economic and financial crisis but also the climate change challenges) impact on countries' regulatory and institutional frameworks.

ANNEX

QUESTIONNAIRE OF THE SURVEY OF INFRASTRUCTURE SERVICES SECTORS WITH FOCUS ON REGULATIONS AND INSTITUTIONS

The survey was designed by UNCTAD to collect and eventually disseminate data on regulatory agencies in accordance with the recommendations of the Multi-year Expert Meeting on Services, Development and Trade: the Regulatory and Institutional Dimension, which held its first session in Geneva 17–19 March 2009. The goal of this survey is to take stock of the regulatory environment in key infrastructure services in order to ascertain regulatory and institutional best practices, and challenges faced by regulators in developed and developing countries and LDCs.

This survey is composed of six sections (I–VI) and 47 questions. Please answer each question to the best of your knowledge. Responses will be treated in a confidential manner and will not be attributed to individual persons and/or organizations.

PLEASE COMPLETE AND RETURN THE SURVEY BEFORE END OF OCTOBER 2009.

Name of respondent: .....

Your position or title: .....

Name of the agency/ministry: .....

Country: .....

I. REGULATOR

1. Are you:

a. An independent regulatory agency ..... ☐

b. An independent advisory agency reporting to a ministry ..... ☐

c. A regulatory department within a ministry ..... ☐

d. Other (please specify) ..... ☐

2. When was the agency created? .....

3. Does the agency/ministry derive its legal authority to carry out economic regulation from:

a. Constitution ..... ☐

b. Law/statute ..... ☐

c. Government decree ..... ☐

d. Contract ..... ☐

e. Combination of the above (please explain) ..... ☐

f. Other (please explain) ..... ☐

4. How would you rate your level of autonomy?

a. Completely autonomous ☐
b. Somewhat autonomous ☐
c. Not autonomous ☐

5. How would you rate the importance of autonomy as a prerequisite for an efficient regulator?

a. Very important ☐
b. Somewhat important ☐
c. Unimportant ☐
d. Other (please explain) ☐

6. What sectors are you directly involved in?

a. Energy/electricity ☐
b. Telecommunications ☐
c. Water ☐
d. Financial ☐
   i. Banking ☐
   ii. Insurance ☐
e. Transport ☐
f. Competition ☐
g. Other (please list) ☐

7. What sectors are you indirectly involved in (please check all that apply)?

a. Energy/electricity ☐
b. Telecommunications ☐
c. Water ☐
d. Financial ☐
   i. Banking ☐
   ii. Insurance ☐
e. Transport ☐
f. Competition ☐
g. Accounting ☐
h. Other (please list) ☐

8. Does a separate competition authority exist in the country?

a. Yes ☐
b. No ☐

9. If the competition authority exists do you collaborate with it on issues specific to your sector (for example, anticompetitive safeguards)?

a. Yes ☐

If yes, what mechanisms are in place to avoid overlapping functions and ensure effective collaboration?

.....

b. No ☐

10. What pricing method is used by your organization?

a. Rate of return ☐

b. Price cap ☐

11. What main challenges do you face with price regulation?

a. Insufficient data availability ☐

b. Unforeseen changes to market conditions ☐

c. Negative reactions by investors ☐

d. Negative reactions by consumers ☐

e. Other (please list) ☐

12. Do you have a specific universal access policy for your sector?

a. Yes ☐

b. No ☐

13. If yes to question 12, how are universal access goals achieved?

a. Universal service obligations for some suppliers ☐

b. Universal service obligations for all suppliers ☐

c. Tax and other incentives to suppliers ☐

d. Subsidies to consumers ☐

e. Universal service fund ☐

f. Other (please list) ☐

14. If you use universal service fund, how would you rate your experience with this mechanism?

a. Excellent ☐

b. Good ☐

c. Fair ☐

d. Poor ☐

Please comment:.....

15. Are foreign operators allowed to provide services in your country?

a. Yes ☐

b. No ☐

16. If foreign operators are present in the country, are they allowed to bring in their management and expert personnel from abroad on a temporary basis?

a. Yes ☐

b. No ☐

17. Are you involved with consultations regarding bilateral, regional or international trade negotiations or in other trade-related work with the ministry in charge of trade agreement (for example, ministry of foreign affairs or ministry of trade)?

a. Yes ☐

If yes, in what capacity?.....

b. No ☐

II. STAFF

1. How is the regulatory agency managed?

a. Director-general/president/chair ☐

b. Multi-member body (board/commissioners) ☐

c. Other (please explain) ☐

2. How is the head or board of the agency selected?

a. Presidential appointment ☐

b. Cabinet appointment ☐

c. Parliament appointment ☐

d. Prime minister appointment ☐

e. Departmental minister appointment ☐

f. Other (please explain) ☐

3. Are regulatory agency heads' terms:

a. Fixed (please specify maximum length of term) ☐

b. Indefinite (please specify at whose discretion ☐

i. President ☐

ii. Cabinet ☐

iii. Parliament ☐

iv. Prime minister ☐

v. Department minister ☐

vi. Other (please explain) ☐

4. If terms are fixed, are they the same term as the period between elections or different from the period between elections?

a. Same ☐

b. Different ☐

c. Other (please explain) ☐

5. Under the law, who has the power to remove regulatory agency heads?

a. President ☐

b. Cabinet ☐

c. Parliament ☐

d. Prime minister ☐

e. Department minister ☐

f. Other (please explain) ☐

6. If their terms are fixed, are regulatory agency heads subject to dismissal before the end of their term?

a. Yes ☐

i. For any reason ☐

ii. For specific reasons (please list some examples below) ☐

b. No ☐

7. What percentage of your staff have you employed for:

a. Less than two years ..... %

b. Two to four years ..... %

c. More than five years ..... %

8. What is the number of TOTAL staff employed in your agency?.....

9. How many of each of the following specialties are there among your agency's staff?

a. Economists .....

b. Lawyers .....

c. Accountants.....

d. Technicians .....

e. Engineers .....

f. Advisors .....

g. Administrative.....

h. Other (please list).....

10. Is the TOTAL number of staff in your agency sufficient to fulfil the agency's responsibilities?

a. Yes ☐

b. No (please explain) ☐

11. Is the number of high-level professional staff in your agency sufficient to fulfil the agency's responsibilities?

a. Yes ☐

b. No (how does this limit the performance of the agency?) ☐

12. What is the ideal number of high-level professional staff that you would like to have? .....

13. In what fields of specialization are you lacking high-level professional staff? (please list all that apply).....

.....

14. What is your proportion of permanent to temporary staff?

a. Permanent ☐

b. Temporary ☐

15. Have you relied on the services of private consultants in the past?

a. Yes ☐

b. No ☐

16. If you have used the services of private consultants, are these consultants:

a. National consultants ☐

b. Foreign consultants ☐

17. Which functions did/do you outsource to private consultants?

a. Drafting new regulation ☐

b. Technical support ☐

c. Advisory services ☐

d. Expert panels ☐

e. Performance auditing ☐

f .Preparation of public consultation documents ☐

g. Dispute resolution ☐

h. Other (please specify) ☐

18. How would you rate your experience with their services?

a. Excellent ☐

b. Good ☐

c. Fair ☐

d. Poor ☐

19. If you do not currently rely on private consultants, do you plan to do so in the future?

a. Yes ☐

b. No ☐

20. What types of incentives do you provide for new recruits (please check all that apply)?

a. Health insurance ☐

b. Competitive pay with private sector ☐

c. Sign-on bonus ☐

d. Vacation time ☐

e. Other (please list in detail) ☐

III. STAFF DEVELOPMENT

1. How do you ensure staff development (please check all that apply)?

a. No staff development ☐

b. Seminars/conferences ☐

c. On-the-job training ☐

d. Workshops ☐

e. Consultant pairing ☐

f. High-level university courses (for example, M.A. or higher) ☐

g. E-courses ☐

h. Training abroad (please indicate where) ☐

i. Other (please explain) ☐

2. What form of training/skills do you mostly lack (please list all that apply)?

.....

3. If you are not currently engaged in staff development activities, what are your constraints? (please list all that apply)

.....

IV. FINANCIAL RESOURCES

1. What percentage of revenue do you get from the following sources?

a. Licence fees ..... %

b. Levy from sales revenues ..... %

c. Government revenues ..... %

d. Other (please list) ..... %

2. Are your financial resources sufficient to fulfil your regulatory tasks?

a. Yes ☐

b. No (please explain) ☐

3. What is your estimated ratio of employee to customer? .....

V. EQUIPMENT

1. How adequately are you equipped to fulfil your regulatory tasks?

a. Very well ☐

b. Somewhat well ☐

c. Not well ☐

2. What type of equipment or technology do you mostly lack?

a. Computers ☐

b. Software ☐

c. Access to Internet ☐

d. Other (please list all that apply) ☐

VI. INTERGOVERNMENTAL AND PUBLIC–PRIVATE BILATERAL, REGIONAL AND INTERNATIONAL COOPERATION

1. Do you cooperate with other countries?

a. Yes ☐

i. If yes, please list which countries .....

ii. If yes, please list what form of cooperation:

a. Twinning ☐

b. Participation in regional agency ☐

c. Multinational regulator ☐

d. Regional expert panels ☐

e. Participation in international associations ☐

f. Information exchanges ☐

g. Other (please specify) ☐

b. No ☐

2. How well would you rate your experience with other countries?

a. Excellent ☐

b. Good ☐

c. Fair ☐

d. Poor ☐

REPORT OF UNCTAD SURVEY OF INFRASTRUCTURE REGULATORS WITH FOCUS ON TRADE

2

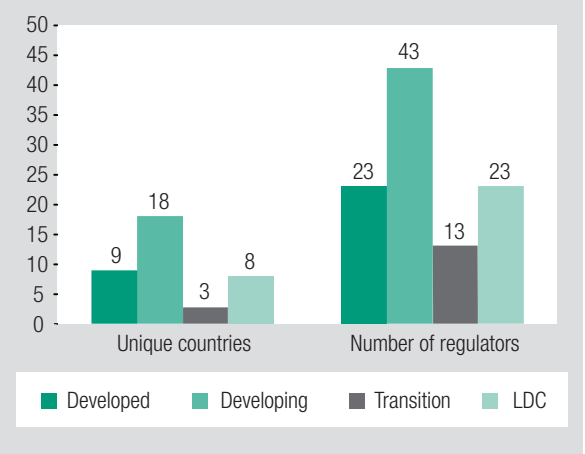
A. INTRODUCTION

The results of the 2010 survey highlighted key aspects of the regulation of infrastructure services sectors and a report on the survey findings was submitted to the second session of the expert meeting in March 2010. In late 2010, a follow-up survey was prepared and sent to selected national regulatory agencies and to the permanent missions in Geneva of all UNCTAD member States to assure completion of the survey by their national regulators. The survey consisted of 24 different questions, including multiple choice and open ended questions (see annex). It focused on trade-related aspects of infrastructure services (for example, market access for foreign services and service providers, impacts of foreign services on the domestic market and on regulatory agencies, and temporary movement of natural persons to supply services) and regulators' participation in regulatory activities at regional and international levels (for example, standards-setting, trade negotiations and regulatory cooperation).

A total of 145 questionnaires were sent out and 102 responses were received from different regulators of 38 different countries, which included 18 developing countries, 9 developed countries, 8 LDCs, and 3 transition economies (figure 2.1). Table 2.1 summarizes the number of responses received by development status and sectors and table 2.2 lists the number of responses received by country.

UNCTAD received a majority of responses from regulators from developing countries (43 replies) followed by regulators from developed countries, LDCs and transition countries. The diversity of the responses by country groupings allowed for comparison and contrast in regulatory practices

Figure 2.1. Distribution of survey responses by number of unique countries and regulators



across countries of different development status. As only a few responses were received from transition economies, both developing countries and transition economies are grouped under the developing country classification and statistics are presented by using only three different development categories: developing countries, developed countries and LDCs. Survey results are also provided by sectors, including energy/electricity, telecommunications, water, finance and transportation (figure 2.2). Some regulators did not have a sector focus but were responsible for overall competition issues or more than one among the five broad sectors. Regulators of the former are labelled as "competition" and those of the latter as "multi-sector" groups. A few other cases did not fit any of the particular five sectors, yet were related to infrastructure services sectors, such as tourism and postal services. These regulators were grouped under the "other" category.

Table 2.1. Number of responses by development status and sector Sectors

	Sectors								
Development status	Energy/ electricity	Telecom-munications	Water	Finance	Transport	Competition	Other	Multi-sector	Total
Developed	5	1	2	7	4	0	0	4	23
Transition	4	1	1	3	3	0	1	0	13
Developing	7	5	3	13	7	1	4	3	43
LDC	4	1	2	4	5	4	3	0	23
Total	**20**	**8**	**8**	**27**	**19**	**5**	**8**	**7**	**102**

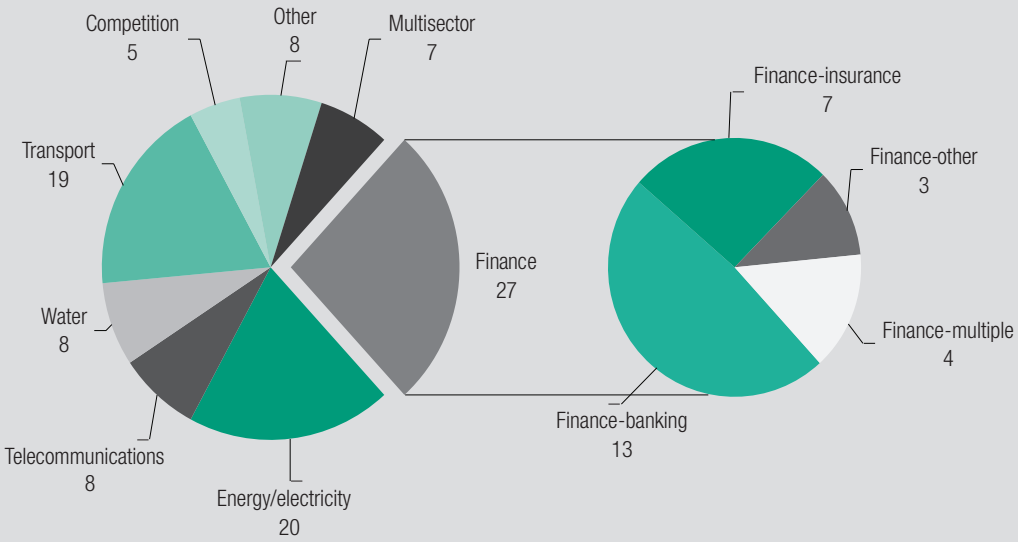
Finance is the biggest group in the survey responses with 27 regulators. The financial sector regulators can be further broken down into finer subgroups – banking, insurance and others. Some regulators in the financial sector, however, have mandates over more than one subgroup and thus these were also classified in a separate group. Following finance, the next biggest categories in terms of the number of responses received were the energy/electricity and transportation sectors with 20 and 19 respondents respectively. The transportation sector also includes various segments of the sector such as ground transportation, railways, waterways and airways. Ideally, variations in the number of responses by regulators across sectors as well as within the sectors should be taken into account when interpreting the results. However, data limitations do not allow us to study differences at subsectoral levels.

Part 2 of the report is organized into several sections. Section B discusses domestic markets' degree of openness to foreign service providers. Section C analyses exports of infrastructure services and section D studies the extent of participation and collaboration in standard-setting, international trade negotiation or regulatory harmonization activities at regional and international levels. Lastly, section E provides the main conclusions that can be drawn from the survey results.

Table 2.2. Number of questionnaires submitted per country

Countries		Number of Responses
Algeria	Madagascar	
Australia	Mali	
Brazil	Saudi Arabia	
Chile	Senegal	
Egypt	South Africa	1
Germany	Spain	
Indonesia	United Kingdom	
Jamaica	United Republic of Tanzania	
Kyrgyzstan	Zambia	
Ethiopia	Mozambique	
India	Poland	2
Morocco	Uruguay	
Austria	Kenya	
Bosnia and Herzegovina	Peru	3
Congoe	Portugal	
Ecuador		
Philippines	Turkey	4
Burkina Faso		6
Central African Republic		7
Serbia		9
Mexico		10
Lithuania		11
Total		**102**

Figure 2.2. Distribution of survey responses by sector



B. OPENNESS OF DOMESTIC MARKETS TO FOREIGN SERVICES AND SERVICE PROVIDERS

The first group of survey questions focussed on existing legal barriers on the supply of services by foreign companies. The sectors are in general open to foreign companies as 85.3 per cent of all respondents indicated (figure 2.3). Taking out the respondents who did not respond to this question raises the statistics to 91 per cent. All country groupings have rather similar open-market policies towards foreign companies; the most open of all are LDCs (figure 2.3). Among the five main sectors telecommunications is the most open, followed by transportation and finance. Water stands out as the most protected sector with 25 per cent of the sector regulators reporting legal barriers to the provision of services by foreign service providers (figure 2.4).

The regulators who responded that foreign service providers are allowed to operate in their countries were also asked to provide further information regarding potential constraints on foreign companies. Figures 2.3–2.8 summarize their responses. Even though more than 85 per cent of respondents reported that foreign ownership is permitted in their domestic market, only 72.5 per cent allow full foreign ownership and 75.5 per cent allow majority foreign ownership (figures 2.5 and 2.7). Interestingly, however, LDCs generally tend to allow both full and majority foreign ownership more often than developing and developed countries. Indeed, none of the regulators who participated in the survey reported any restriction on foreign ownership. On the other hand, regulators from developing countries reported the greater incidence of restrictions on foreign ownership; less than 70 per cent of the regulators from developing countries reported no restriction on full or majority ownership of foreigners. Among the main sectors analysed, the financial services sector stands out as the most liberal to foreign companies, followed by the telecommunications sector (figures 2.6 and 2.8). These statistics fall when transportation and water services sectors are considered.

Figure 2.3. Share of respondents allowing foreign service providers (all respondents and by development status, percentage)

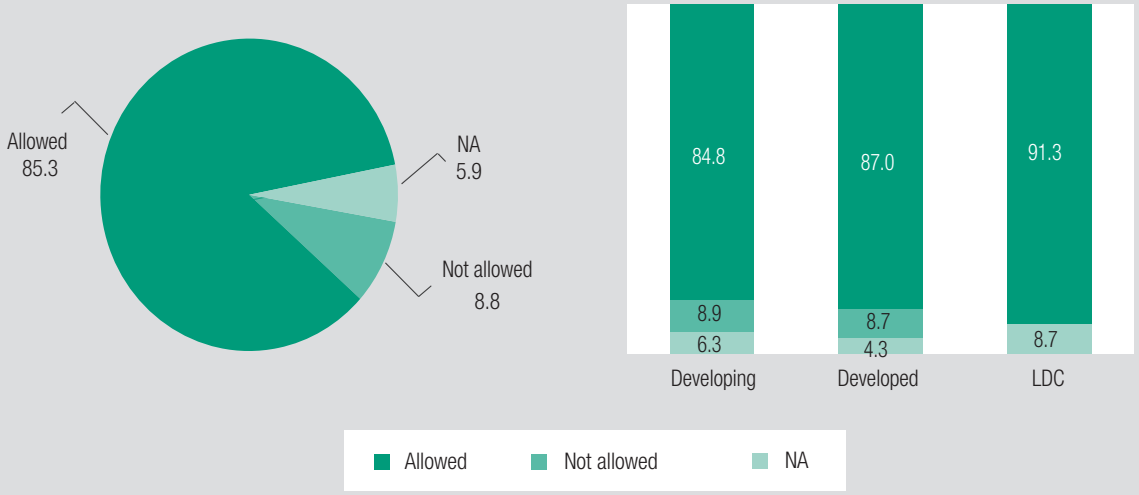


Figure 2.4. Share of respondents allowing foreign service providers (by sector, percentage)

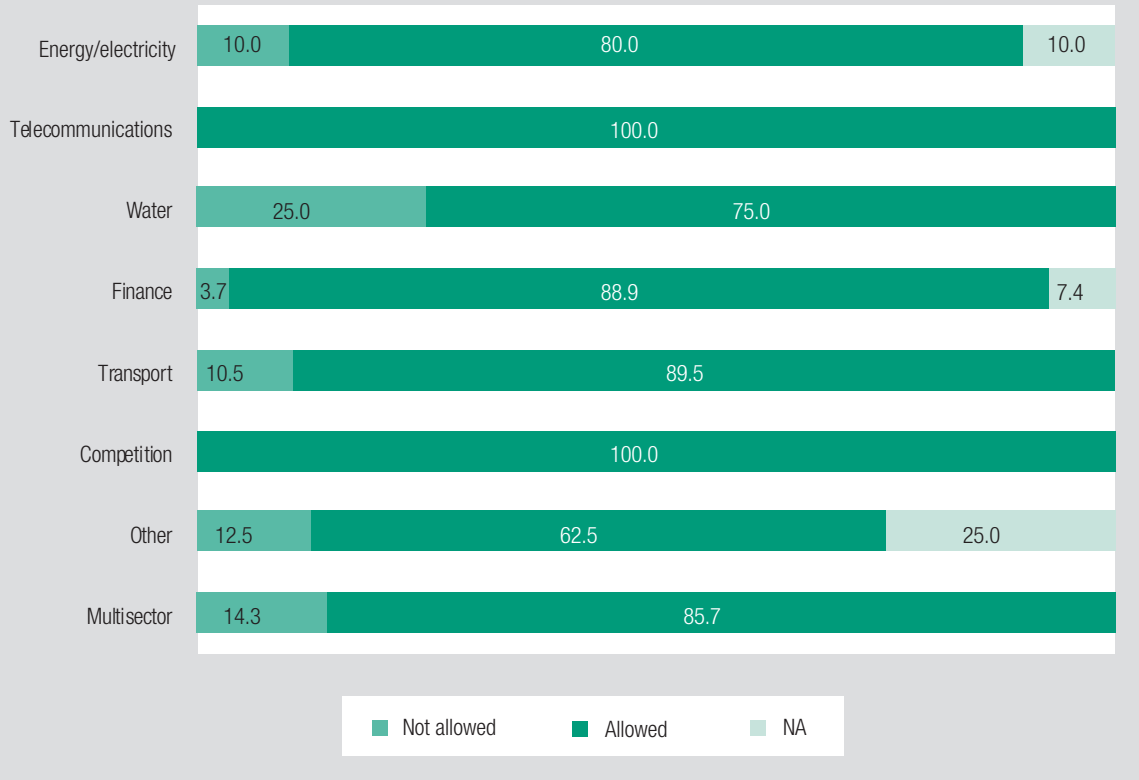


Figure 2.5. Share of respondents permitting full foreign ownership (all respondents and by development status, percentage)

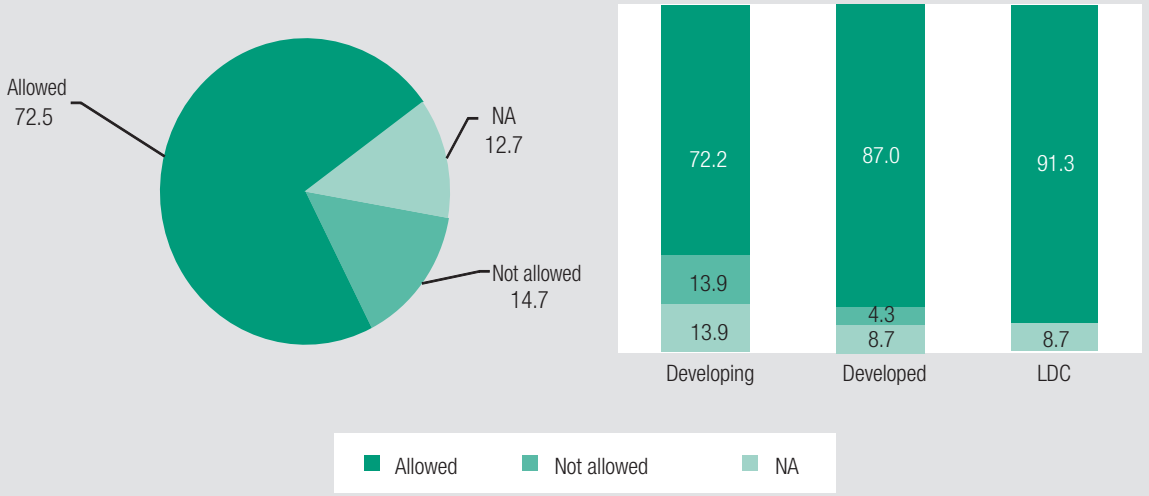


Figure 2.6. Share of respondents permitting full foreign ownership (by sector, percentage)

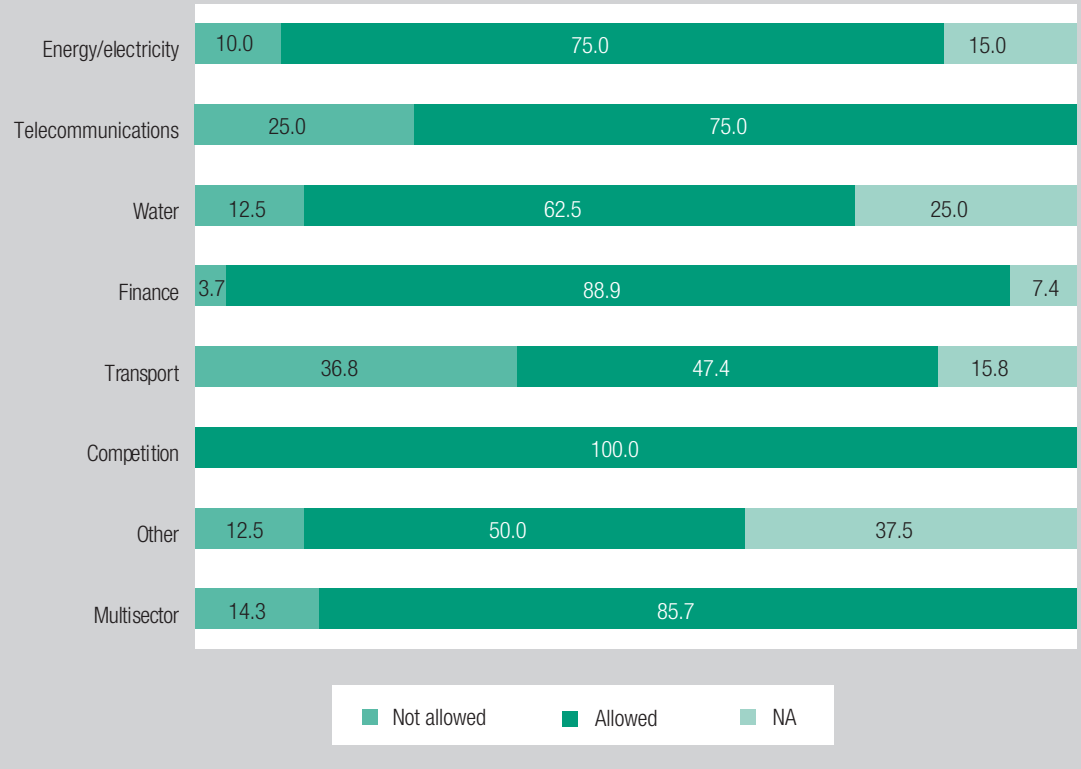


Figure 2.7. Share of respondents permitting majority foreign ownership (all respondents and by development status, percentage)

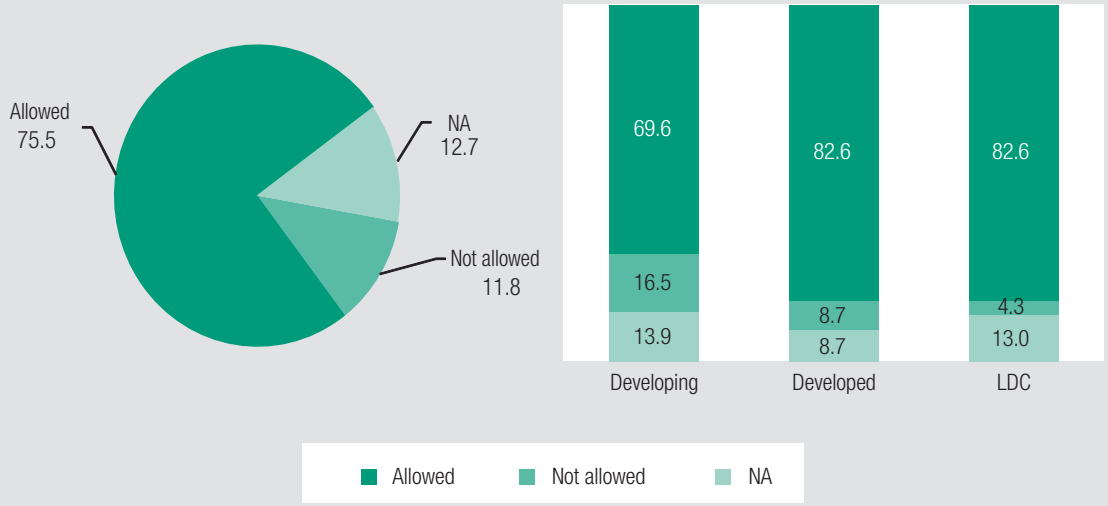
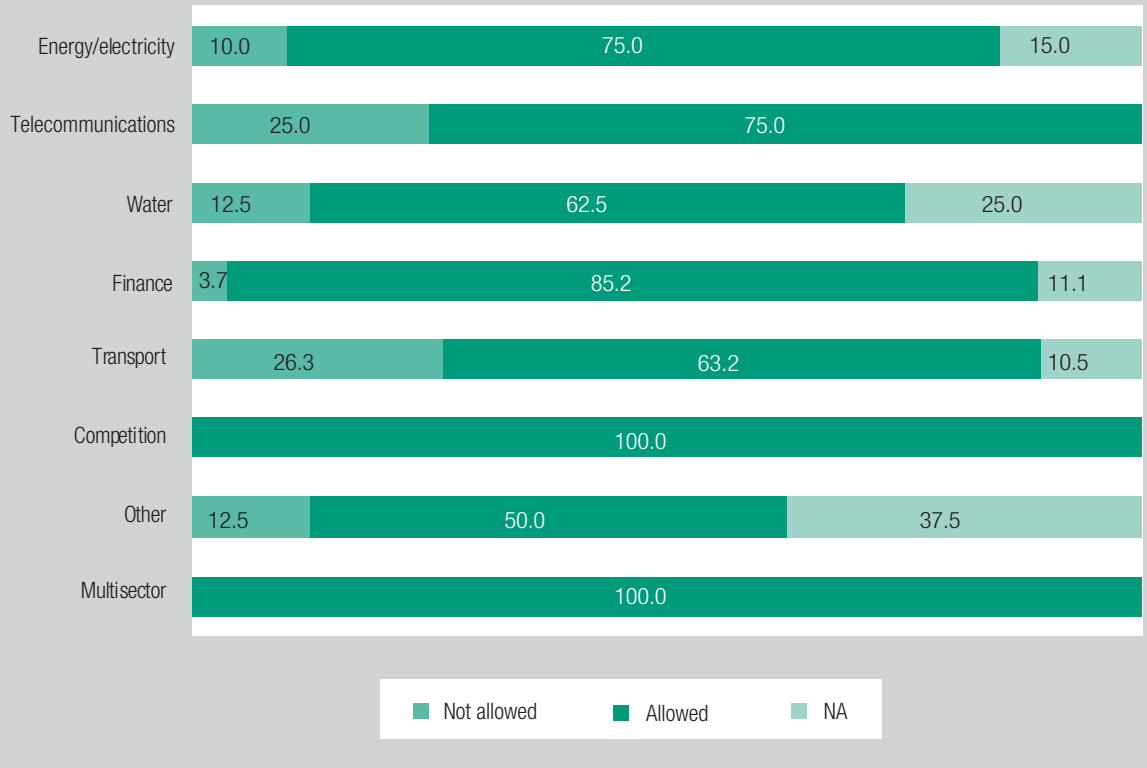


Figure 2.8. Share of respondents permitting majority foreign ownership (by sector, percentage)

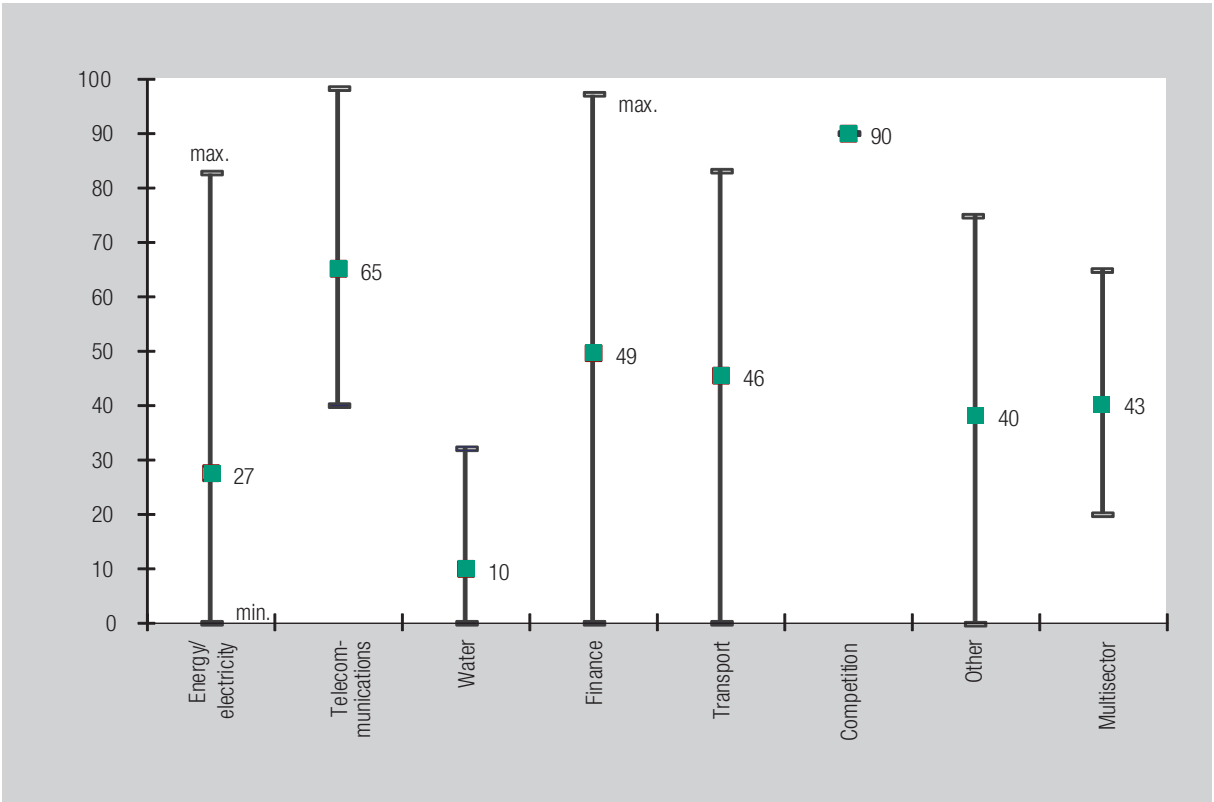


The responses received indicated that a wide range of market shares by foreign service providers are observed across different sectors and country groupings (figure 2.9). Most noticeably, the survey results showed the telecommunications sector to have the greatest average market penetration of foreign companies (65 per cent) among the five main service categories, followed by financial and transportation services sectors. The water sector stands out as the sector with the lowest market shares by foreign companies (as the figure barely reaches 10 per cent on figure 2.9). The second striking feature of these statistics is the wide range of country experiences particularly in finance, transportation and energy/electricity sectors. In finance, the shares range from zero per cent (especially in non-banking subsectors in some countries where either foreign ownership is not allowed, or foreign companies have not shown interest in investing in these markets yet) to almost 100 per cent.

The different market shares of foreigners in energy/electricity, finance and transportation sectors can also be analysed, as there were enough responses to this question from survey participants (figure 2.10). There is noticeable difference in foreign companies' market shares in finance and transportation between developed countries on the one hand, and developing countries and LDCs on the other. Particularly in LDCs, the share shoots up to 80 per cent and 65 per cent in finance and transportation respectively, indicating relatively easier access by foreign companies to these markets as opposed to the energy/electricity sector.

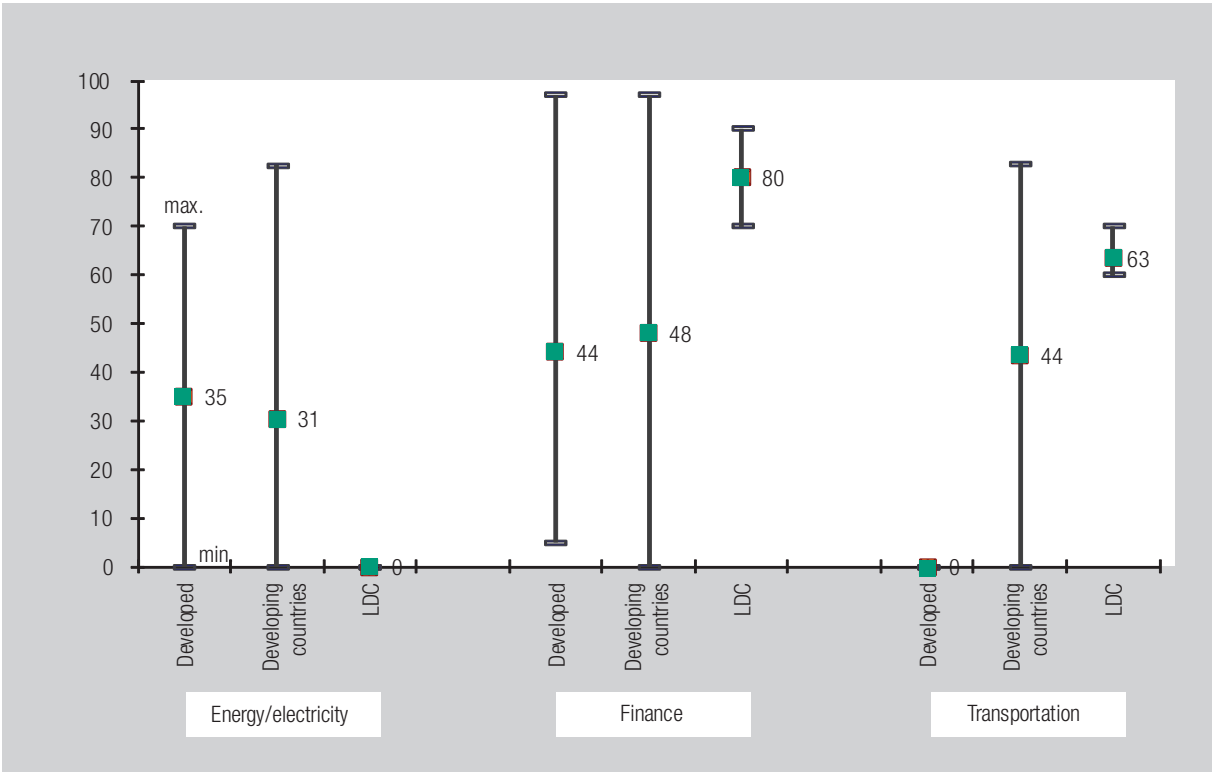
Dispersion of market shares is also dissimilar across our country groupings. LDCs tend to have rather tightly clustered market shares of foreign companies, creating significant contrast with even developing countries, where reported market shares ranged very widely. This points to the heterogeneity of country experiences across developing countries.

Figure 2.9. Distribution of market shares of foreign companies (by sector, percentage)



Note: "min." refers to the minimum observed market share of foreign suppliers in responding countries; "max." refers to the maximum observed market share of foreign suppliers in responding countries. The percentage figure refers to the average observed market share of foreign suppliers in responding countries.

Figure 2.10. Distribution of market shres of foreign companies in energy/electricity, finance and transportation sectors (by development status, percentage)



Note: "min." refers to the minimum observed market share of foreign suppliers in responding countries; "max." refers to the maximum observed market share of foreign suppliers in responding countries; The percentage figure refers to the average observed market share of foreign suppliers in responding countries.

Despite the general tendency among survey respondents for allowing majority or full foreign ownership, a significant number of them (27.5 per cent) actually impose certain constraints or prerequisites on acquisition of domestic operators by foreigners (figure 2.11). The telecommunication services sector stands out as the most open sector with least incidence of such limitations in the sample (figure 2.12). LDCs are once again the most liberal country grouping in this statistic, with only 4.3 per cent of the regulators actually reporting the existence of limitations or conditions.

The type of constraints or conditions on foreign ownership varies considerably by sector and by country. However, two practices stand out among the reporting regulators. A few regulators reported the existence of preset specific limits imposed on the share of foreign ownership in the market aiming to contain risk of a sector being fully taken over by foreign operators. In other cases national authorities opted to have discretionary approval power on significant asset purchases by foreigners as a safeguard against unforeseen influx of foreign companies. It seems many of these measures are set in place by policymakers who consider the sector to be strategically important and consider that a dominant position by foreigners in the market could pose risks to the development of the domestic market and effectiveness of public policies.

Another measure of the restrictions on competition from foreign service providers is the rate of openness of domestic markets to cross-border service suppliers. A significant percentage of respondents (65.7 per cent) indicated free flow of cross-border service supplies to the domestic market (figure 2.13). In the case of developing countries, there is, however, a stark contrast between mode 1 (cross-border service supply) versus mode 3 (commercial presence in another country). While 85 per cent of respondents allow commercial presence of foreign companies, the statistics fall to around 60 per cent in the case of cross-border service supply. A similar asymmetry of treatment towards different modes of foreign commercial activities, though rather moderate, can be also seen among LDCs.

Figure 2.11. Existence of limitations or conditions on foreign acquisitions of domestic operators (all respondents and by developmental status, percentage)

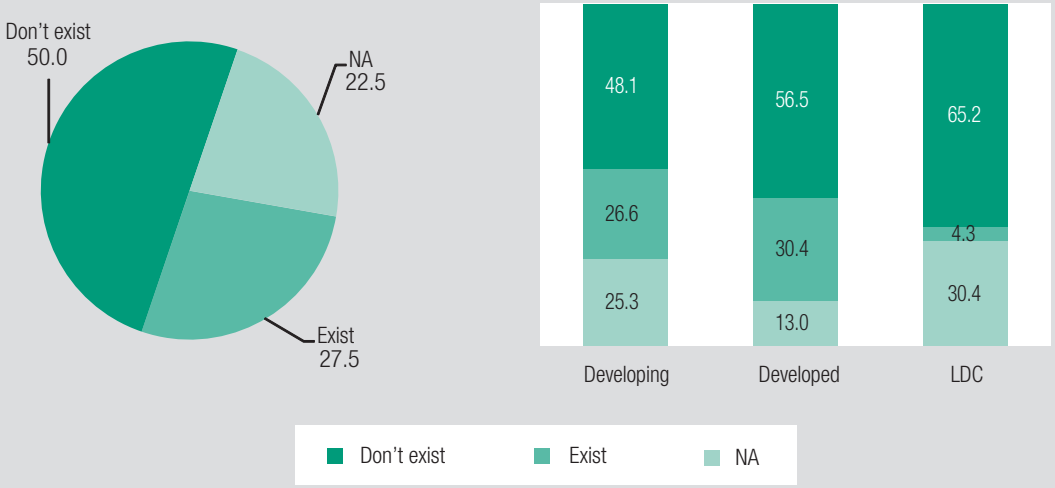


Figure 2.12. Existence of limitations or conditions on foreign acquisitions of domestic operators (by sector, percentage)

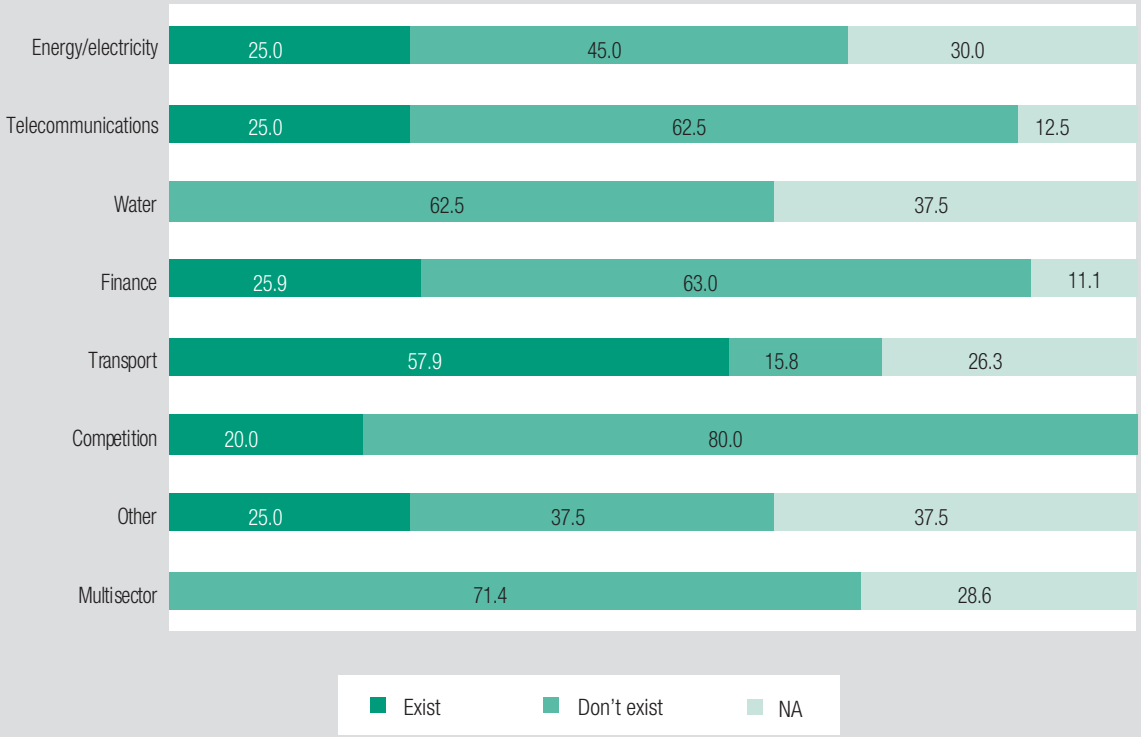
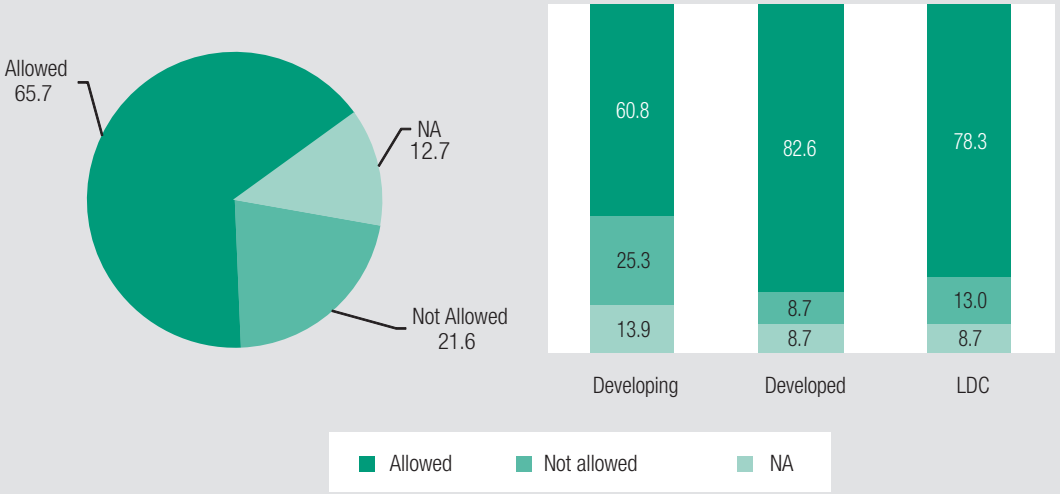


Figure 2.13. Share of respondents that permit cross-border provision of services (all respondents and by development status, percentage)



There is a small variation across the cross-border statistics of the five main services sectors. Nonetheless, even free flow of services between countries does not necessarily imply the one and the same treatment of foreign and domestic service providers by the regulators. Indeed, only 54.9 per cent of the respondents confirmed equal regulatory treatment of these two types of suppliers (figure 2.14). Differential treatment, which can be termed as duality in regulatory requirements, is particularly high among developing countries and LDCs. This duality varies greatly across sectors. It is particularly pronounced in the telecommunications and water services sectors, as was reported by half of the respondents from these sectors. The differential treatment of foreign companies can take various forms. While some regulators require foreign companies to follow different registration procedures, others impose different legal fees. A small number of regulators require them to establish a subsidiary or to form a joint venture if they want to operate in the market. Technical, financial, or labour requirements for foreigners tend to vary from those applied to domestic companies in some countries as well.

The majority of survey respondents hold a rather positive view of the effects of foreign competition on their domestic markets (figure 2.15). They consider that such competition contributes to an increase in infrastructure services imports, an increase in the number of service providers, as well as improvements in the overall quality of services. Interestingly, however, fewer respondents observed changes in domestic prices which raises the question why increased competition in the markets did not lead to strong price cuts in these economies. A few respondents noted environmental impacts of allowing imports of services and/or suggested "other" consequences. It is hard to interpret the former as insufficient information was given on whether these environmental impacts were positive or negative. The latter group of effects included mainly technology upgrading, decreased demand for domestically provided services and increased investment in the domestic market

There is a general consensus among regulators on the increase in number of service providers and quality of services as a result of imports of infrastructure services. However, a small number of regulators voiced contrary views (figure 2.16). Some 15.2 per cent of regulators from developed countries noticed limited or no effect of foreign competition in the market. This is in stark contrast with LDCs and developing countries where less than 4 per cent of respondents responded the similar manner. Indeed, liberalization of

Figure 2.14. Regulatory requirements for foreigners and nationals (all respondents and by development status, percentage)

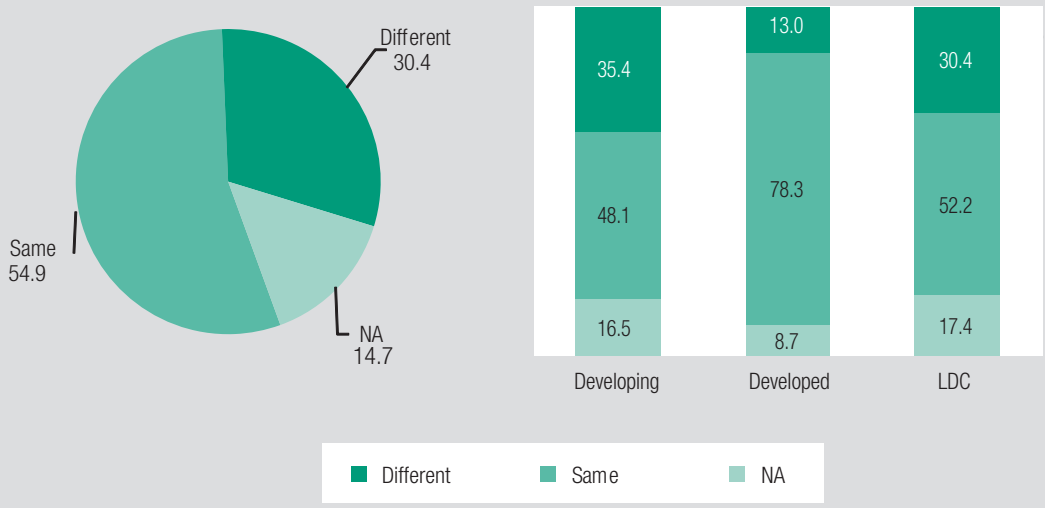


Figure 2.15. Impact of infrastructure services imports on domestic markets (all respondents, percentage)

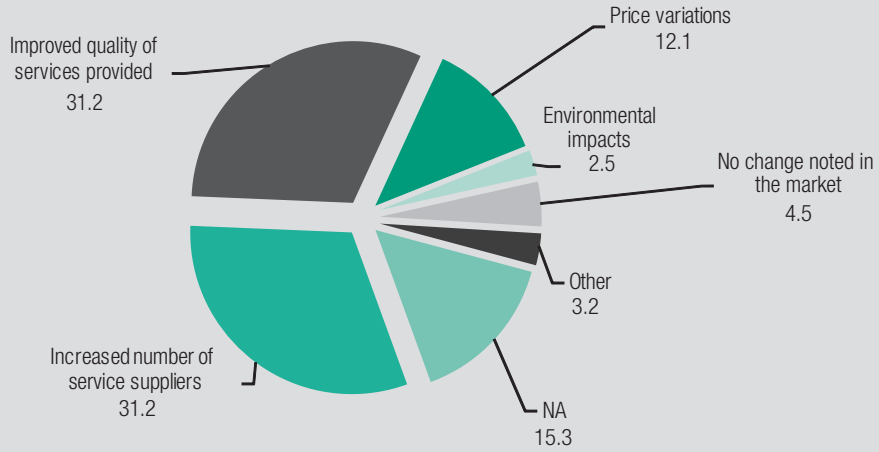
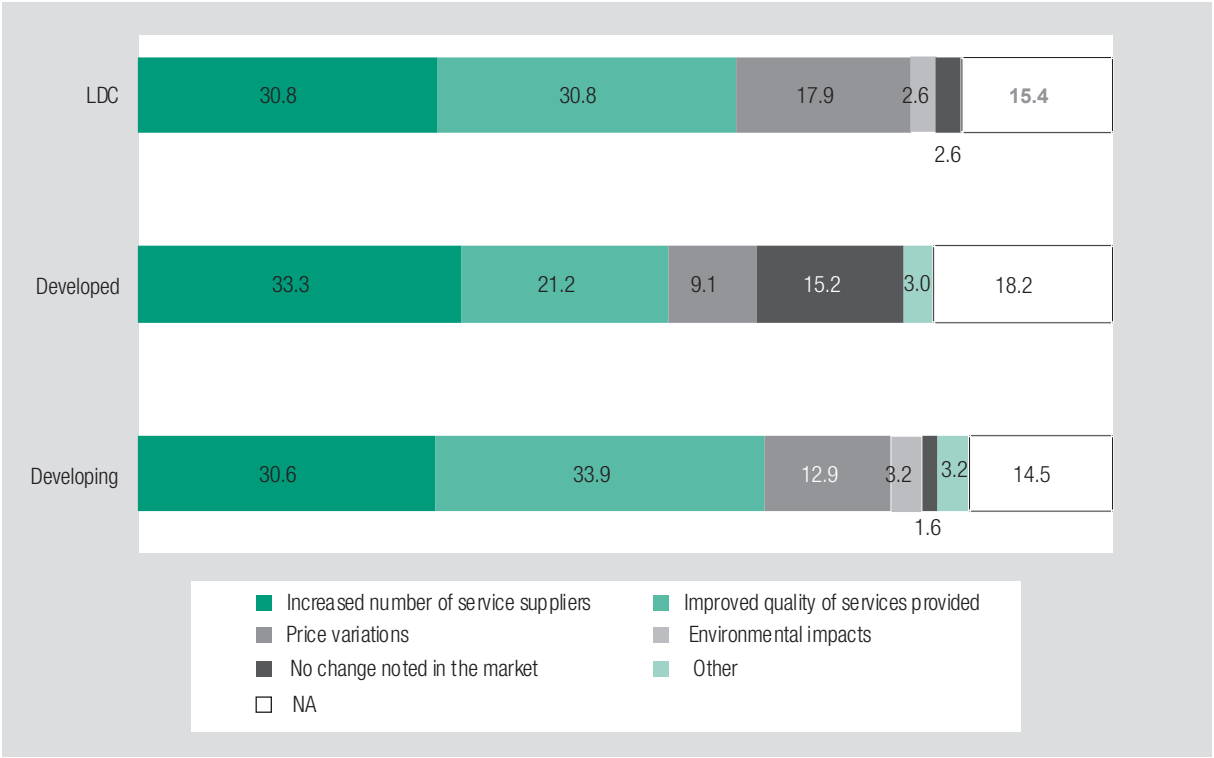


Figure 2.16. Impact of infrastructure services imports on domestic markets (by development status, percentage)



services occurred earlier among developed countries than other groups. They are also major exporters of the services in the world, and thus they notice smaller marginal benefits of further liberalization. Moreover, there are differences between developed countries on the one hand and developing countries and LDCs on the other in the initial quality level of services and the efficiency of the domestic sector prior to trade liberalization. Therefore, trade liberalization may be less noticeable in the former group than in the latter.

In terms of sectors, positive quality effects were reported more frequently in the telecommunications and financial sectors (figure 2.17). In the telecommunications sector more particularly, foreign competition leads to price falls in domestic prices. This analysis also provides a corollary regarding welfare gains in boosting trade in services: trade in infrastructure services has potential to serve greater benefits to developing countries and LDCs alike as it can increase competition, improve quality, reduce prices and facilitate technology transfer from developed to developing countries. Policymakers, therefore, need to align their national strategies along the main goal of strengthening the development impact of trade in these services.

Almost half of the respondents indicated the existence of limitations or conditions on the employment of foreign workers (figure 2.18). However, regulators apply different types of conditions or limitations on such employment (figure 2.19). The most widely used methods include qualification requirements, quotas on employment and the reciprocity condition.

The tendency to impose restrictions on employment of foreign personnel is roughly the same across different country groupings, yet the types of constraints used are different (figure 2.20). While quota limitations are an important form of constraint in developing countries and LDCs, qualification requirements emerge as the most commonly imposed restriction among developed countries. The sectors also exhibit great variation in types of constraints (figure 2.21). Qualification requirements are particularly emphasized in telecommunication and financial services sectors.

Despite the prevalence of constraints on employment of foreign personnel (figure 2.18), there is an overwhelming positive perception among regulators regarding benefits of hiring foreigners (figure 2.22). When considering the responses only of those

Figure 2.17. Impact of infrastructure services imports on domestic markets (by sector, percentage)

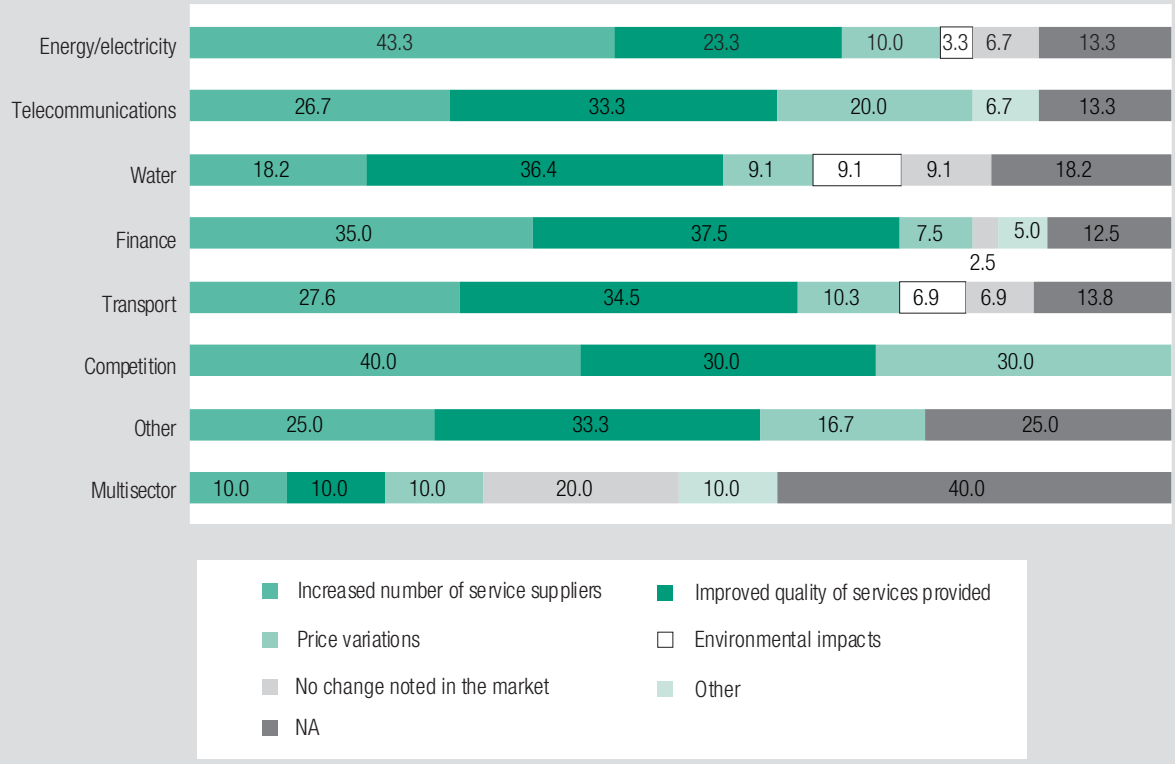


Figure 2.18. Constraints on employment of foreign managers, experts or specialists (percentage)

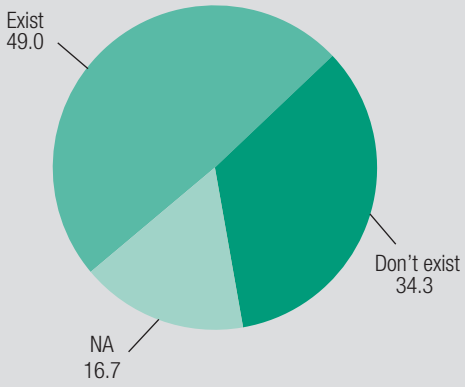


Figure 2.19. Type of constraints on employment of foreign managers, experts or specialists (percentage)

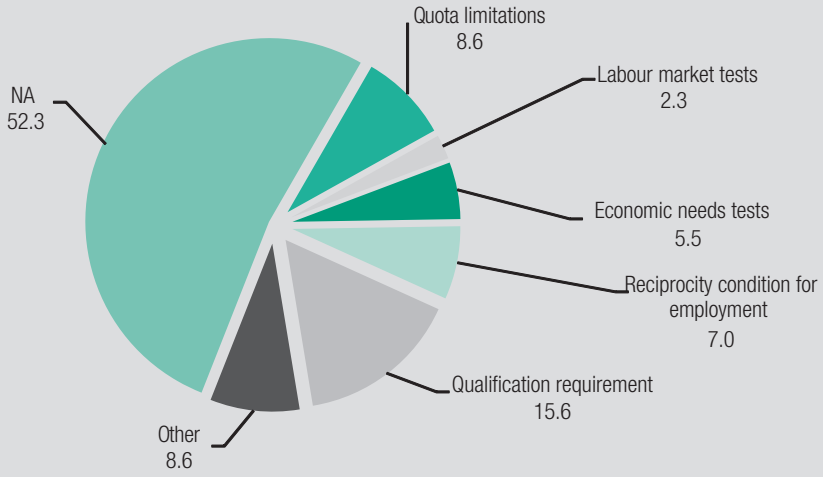


Figure 2.20. Type of constraints on employment of foreign managers, experts or specialists (by development status, percentage)

Figure 2.21. Type of constraints on employment of foreign managers, experts or specialists (by sectors, percentage)

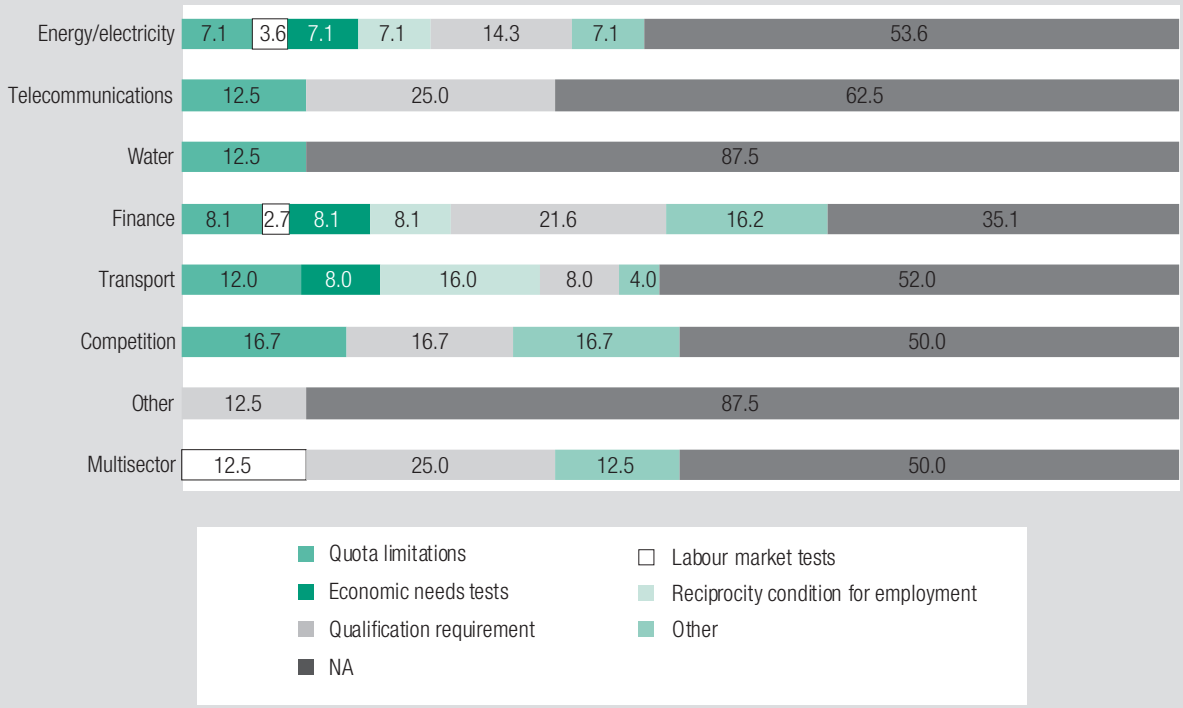
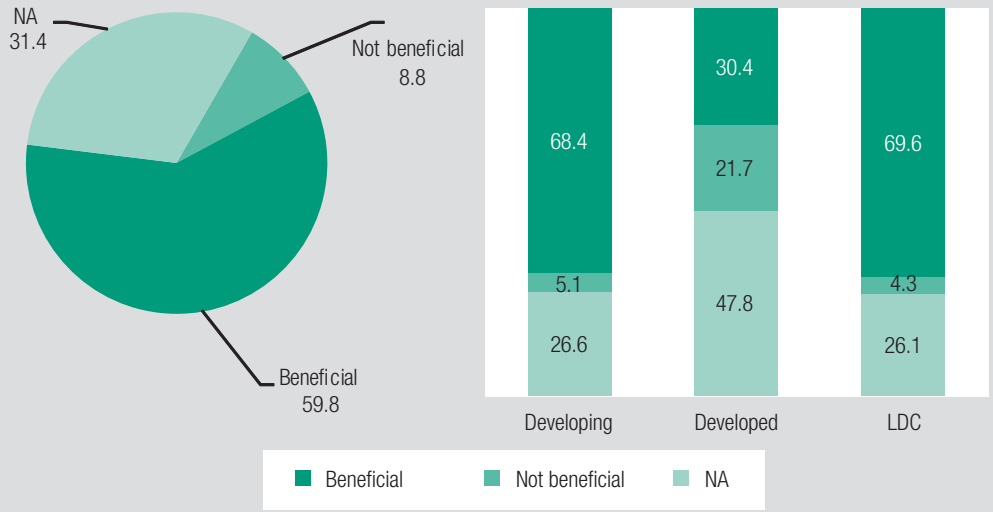


Figure 2.22. Benefit of hiring foreign experts on domestic personnel (all respondents and by development status, percentage)



regulators who responded to this question (excluding "NA"), almost 90 per cent of them confirmed benefits of foreign personnel. Furthermore, attitudes towards foreign personnel are more positive in developing countries and LDCs. In contrast, though few in number, almost all the respondents who weighted against the benefits of foreign personnel were from developed countries. It should nevertheless be noted that many regulators believe the benefits are limited.

Infrastructure services are very dynamic sectors and they are becoming an important part of world trade. Currently world trade in infrastructure services sectors is valued at $1.1 trillion, encompassing 32 per cent of world services exports. The world and developing countries' exports of infrastructure services grew at 9.5 per cent and 11.1 per cent respectively per annum between 2000 and 2009. They exceeded the respective merchandise export growth rates, but fell behind that of the total services trade. According to the survey respondents, soaring trade in infrastructure services also increases the need for better regulation (figure 2.23). The majority of respondents pointed out the need for enhancing standards of domestic regulations as well as for monitoring and enforcement of regulations. Surprisingly, the need for more staff and other resources seemed somewhat relatively less of an issue, even among the developing countries and LDCs (figure 2.24).

The emphasis of developing countries and LDCs on setting higher standards and regulations is relatively stronger compared to the developed countries. In turn, developed countries seemed to give more weight to monitoring and enforcement of existing regulation than other groups. Perhaps this is related to how far a country has advanced in upgrading their existing legal and regulatory frameworks. Those countries that have already set in place the necessary standards and regulations are now shifting their focus to enforcement and monitoring.

Countries' commitments under the General Agreement on Trade in Services (GATS) also influence regulators' practices in various areas, notably transparency requirements, competition policies and universal access policies as suggested by the responses to the survey (figure 2.25). The effects of commitments on sectors varied significantly from sector to sector (figure 2.26). The effects of GATS commitments on regulation were reported particularly in the telecommunications services sector, while they were less pronounced in the transportation and energy/electricity services sectors.

Figure 2.23. Effects of opening of domestic markets to foreign competition on regulators (all respondents, percentage)

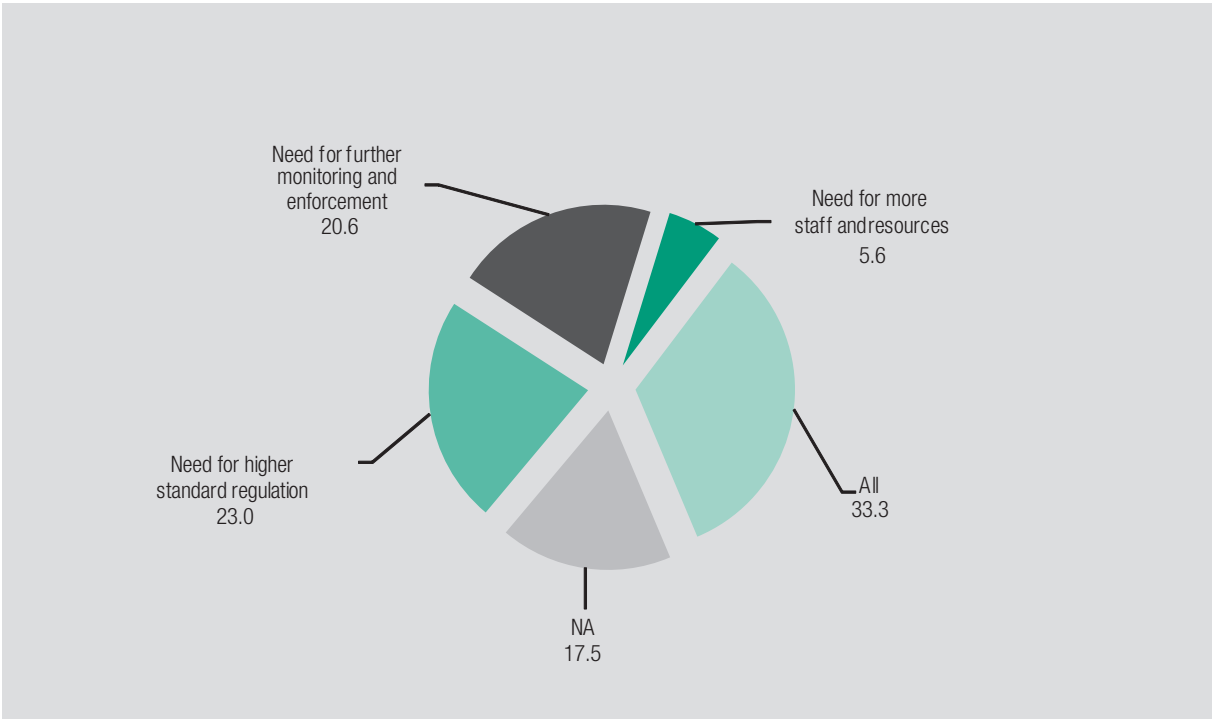


Figure 2.24. Effects of opening of domestic markets to foreign competition on regulators (by development status, percentage)

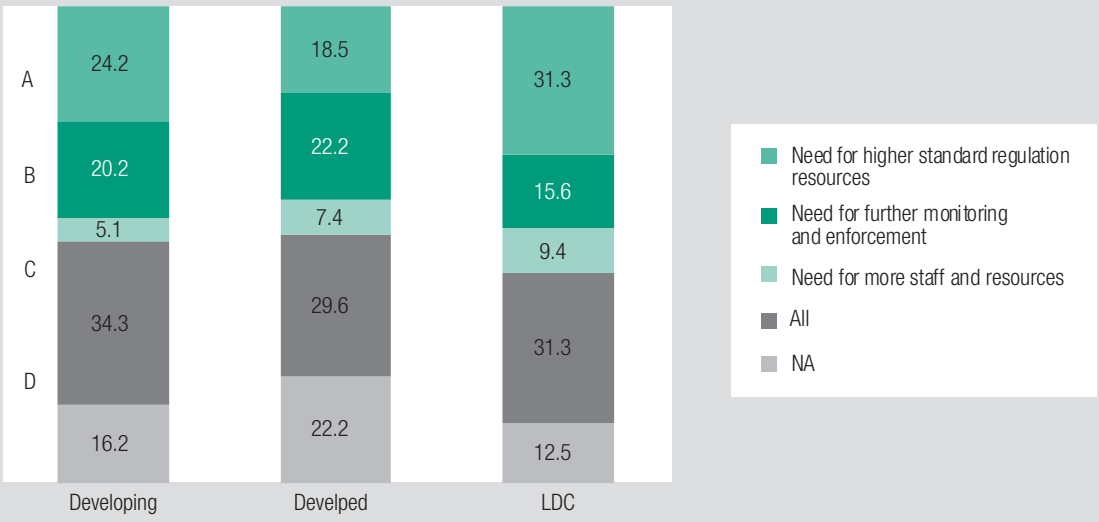


Figure 2.25. Effects of the GATS commitments (all respondents, percentage)

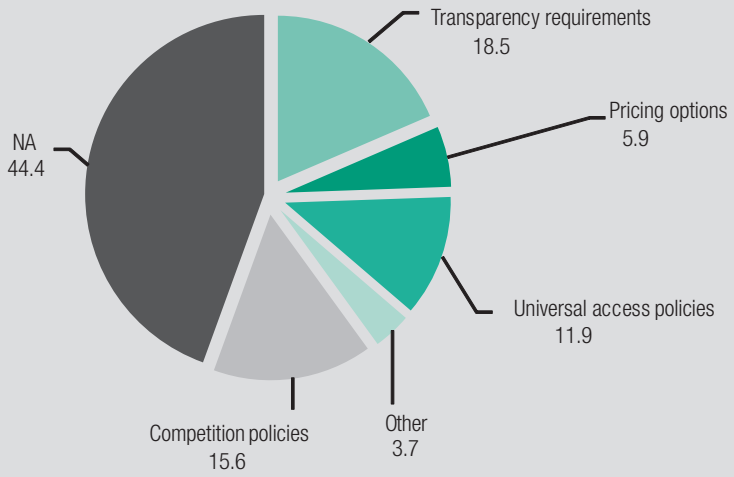
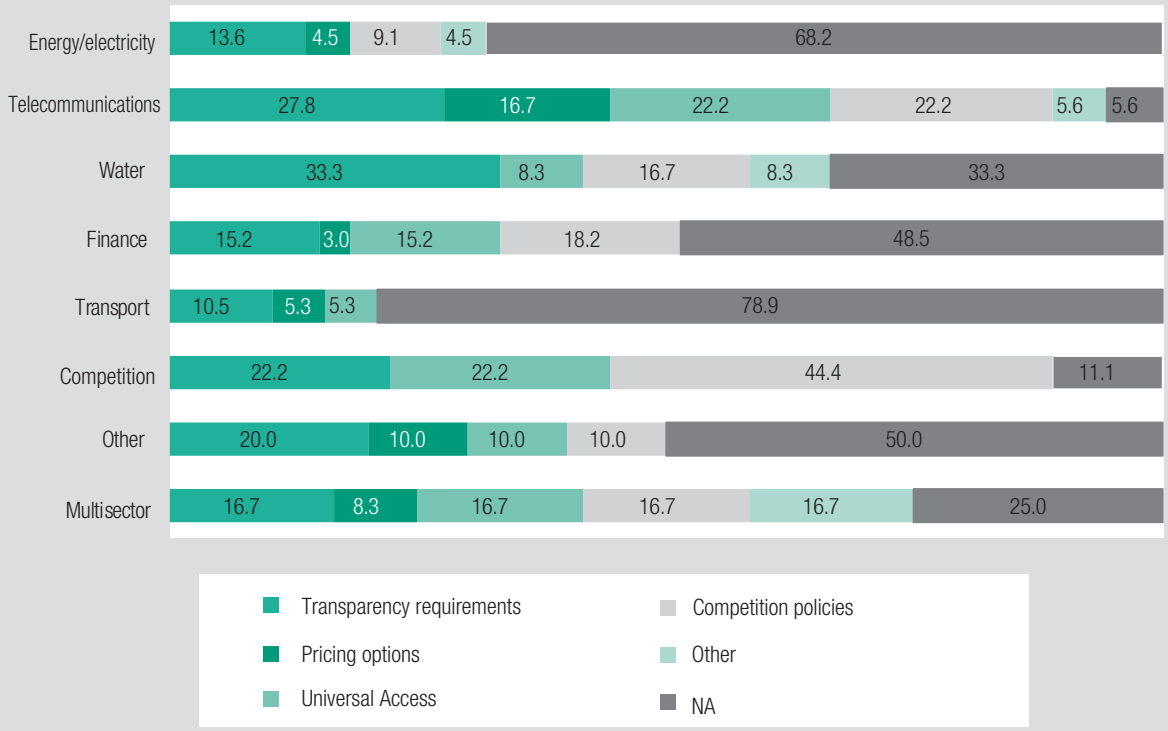


Figure 2.26. Effects of GATS commitments (by sector, percentage)



C. EXPORTS OF INFRASTRUCTURE SERVICES

A significant number of regulators reported exports of services by their domestic companies (figure 2.27). Though the absolute sizes of these exports are not known, 63.7 per cent of all regulators in the sample confirmed exports by their domestic firms. Exports of infrastructure services by domestic companies is highly correlated with the development status of a country, the incidence of exports increase from 43.5 per cent to 73.9 per cent from LDCs to developed countries (figure 2.27). The international "tradability" of the respective services greatly determines the incidence of exports by sector (figure 2.28). Indeed, the incidence of exports increases in highly tradable telecommunications and transportation services while it falls in other sectors (for example, water).

Most regulators did not identify in their responses which particular regulatory issues constrain their domestic companies' export potential. A small number of respondents did however mention the existence of technical barriers to trade and stricter standards as the main barriers to their services exports.

Survey participants also revealed that roughly half of them (that is, of regulators who responded to this question) provide technical assistance to domestic companies to fulfil national or international standards (figure 2.29). Interestingly, however, only 26.1 per cent of regulators in LDCs are providing the technical assistance to domestic companies as opposed to 45.6 per cent of regulators in developing countries.

Some regulators also specified the type of support they were providing to the domestic companies, including direct support via training and workshops, technical assistance and advice domestic companies when necessary, and provision of online and printed sources of detailed information. All these activities are crucial elements of successful regulatory framework. The quality of regulations and institutional capacities is a key determinant of the performance of infrastructure services sectors, but without efficient technical assistance, domestic service providers' capacity to adapt national and international regulations would be hindered. Therefore, LDCs need to address and mitigate the obstacles to their technical assistance programmes.

Figure 2.27. Export capacity of domestic companies (all respondents and by development status, percentage)

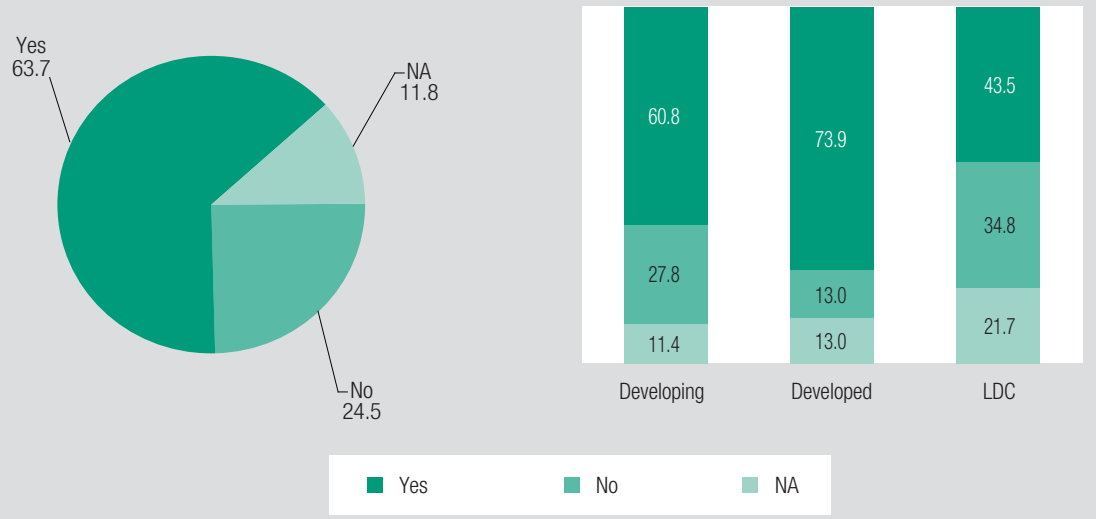


Figure 2.28. Export capacity of domestic companies (by sector, percentage)

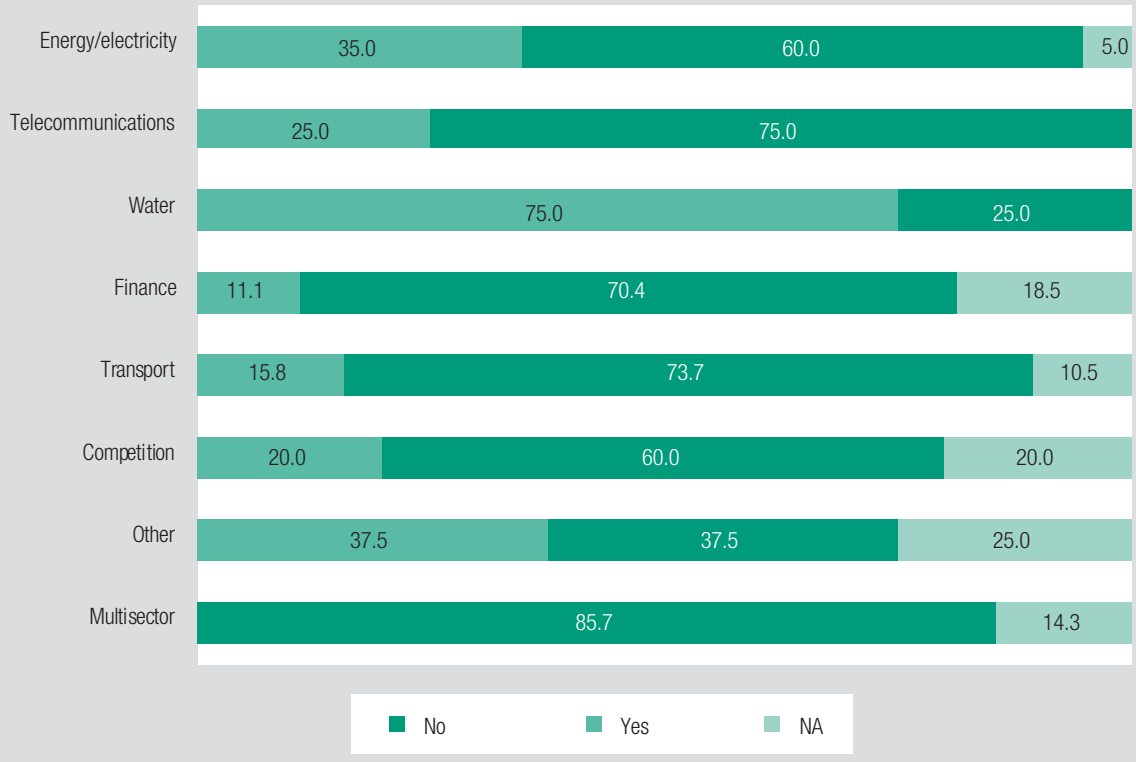


Figure 2.29. Technical support provided to domestic companies (all respondents and by development status, percentage)

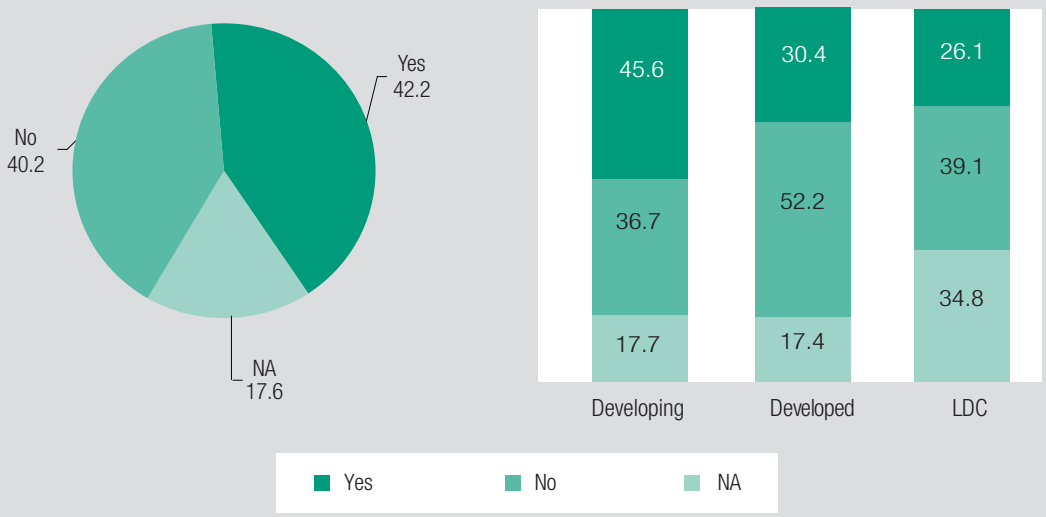
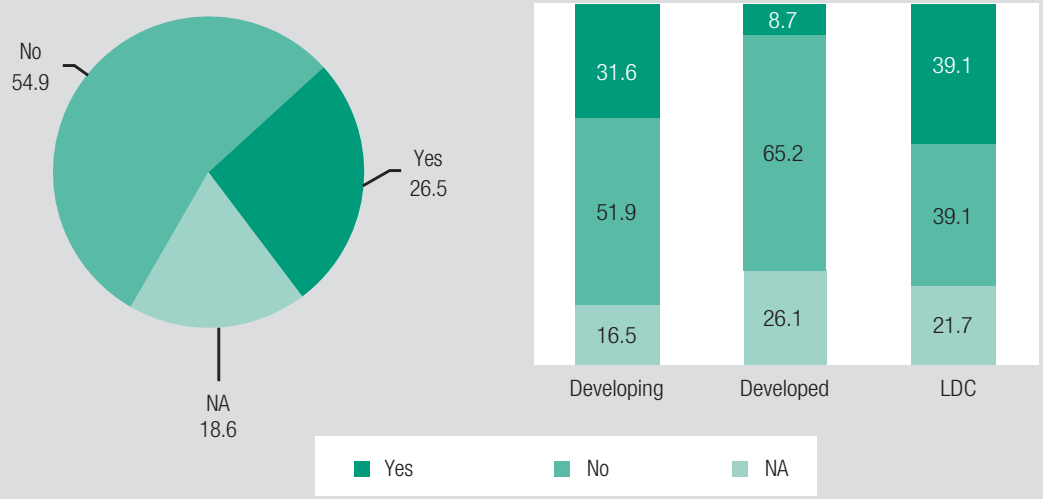


Figure 2.30. Providing incentives for local supply and export of infrastructure services (all respondents and by development status, percentage)



Other public incentives to domestic firms, such as investment benefits, tax incentives, subsidies or preferences in government procurement, are less common (figure 2.30). In stark contrast with technical support, these incentives are more common in LDCs (39.1 per cent) and almost non-existent in developed countries.

D. PARTICIPATION IN REGULATORY ACTIVITIES AT REGIONAL AND INTERNATIONAL LEVELS

International cooperation between regulators is a crucial element of successful regional and multilateral trade liberalizations. Generally, regulators participate in regional and international standard-setting meetings (figure 2.31). The majority of survey respondents (62.7 per cent) participate in these activities. Nevertheless, this percentage falls in LDCs. Cooperation in regulatory activities is more pronounced in the telecommunications, financial and energy/electricity services sectors (figure 2.32).

Regulatory agencies' involvement in bilateral and regional trade negotiations is less pronounced than their involvement in standard-setting activities (figure 2.33). Regulators from European Union member States reported that services trade negotiations are done at the Union instead of the country level. A significant percentage of regulators from LDCs do not participate in services trade negotiations (34.8 per cent). In terms of sectors, the finance and telecommunications sectors are, as in the case of standard setting activities, those in which regulators most actively take part in trade negotiations (figure 2.34).

Regulatory agencies, while they do not have the primary mandate for dealing with trade negotiations, can be involved in these activities in various ways ranging from providing inputs, direct participation and involvement in consultations. The involvement of regulatory agencies in bilateral and regional trade negotiations is spread rather evenly across the different types of involvement possible (figure 2.35). While regulators in developed countries tend to contribute to trade negotiations indirectly (by providing inputs and participating in consultations) regulators from LDCs and developing countries are more likely to participate in negotiations directly.

Figure 2.31. Participation in regional and international standard-setting activities (all respondents and by development status, percentage)

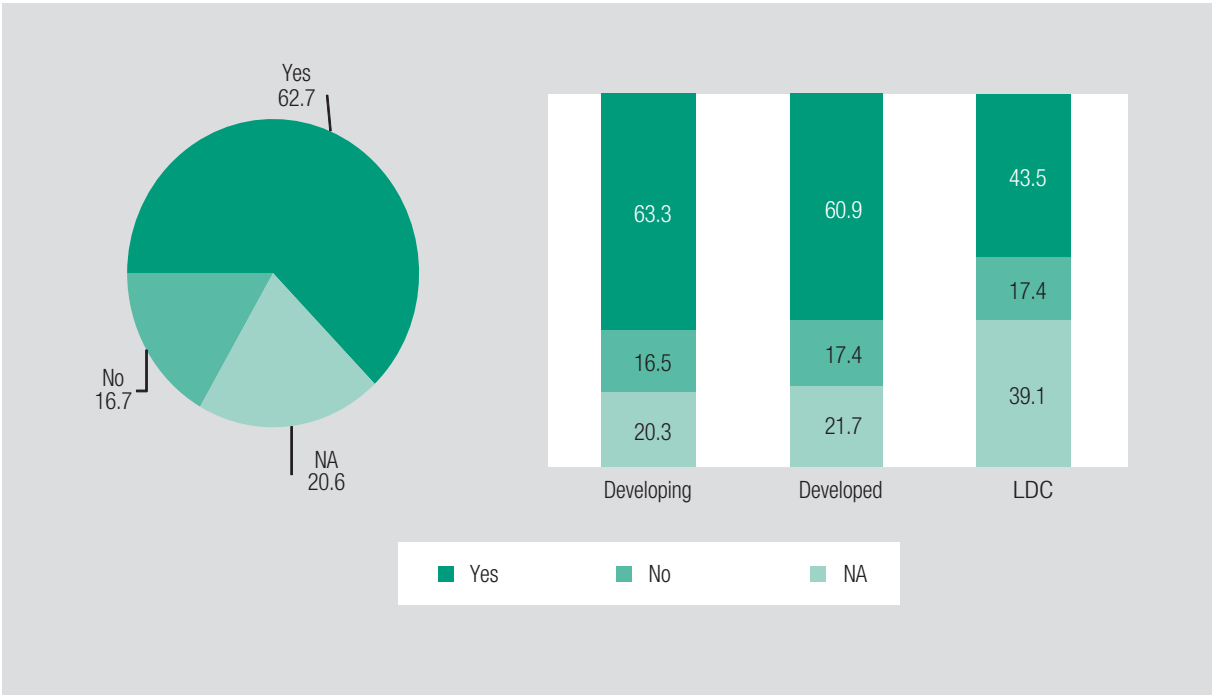


Figure 2.32. Participation in regional and international standard-setting activities (by sector, percentage)

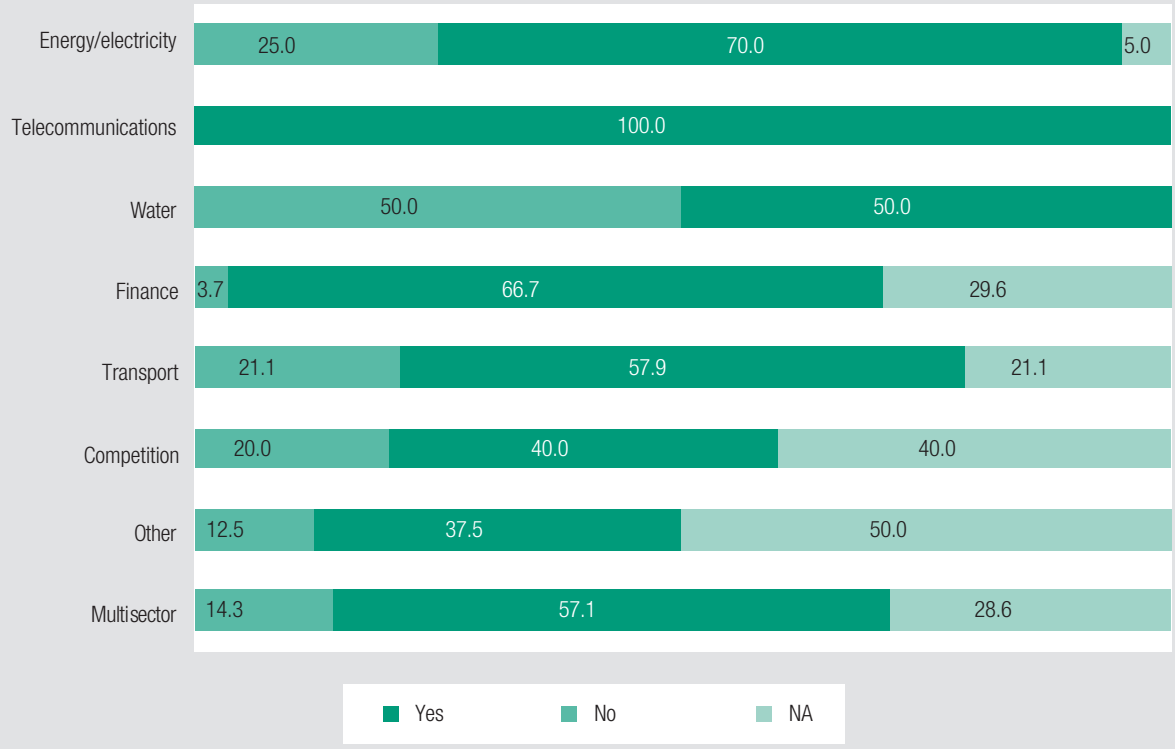
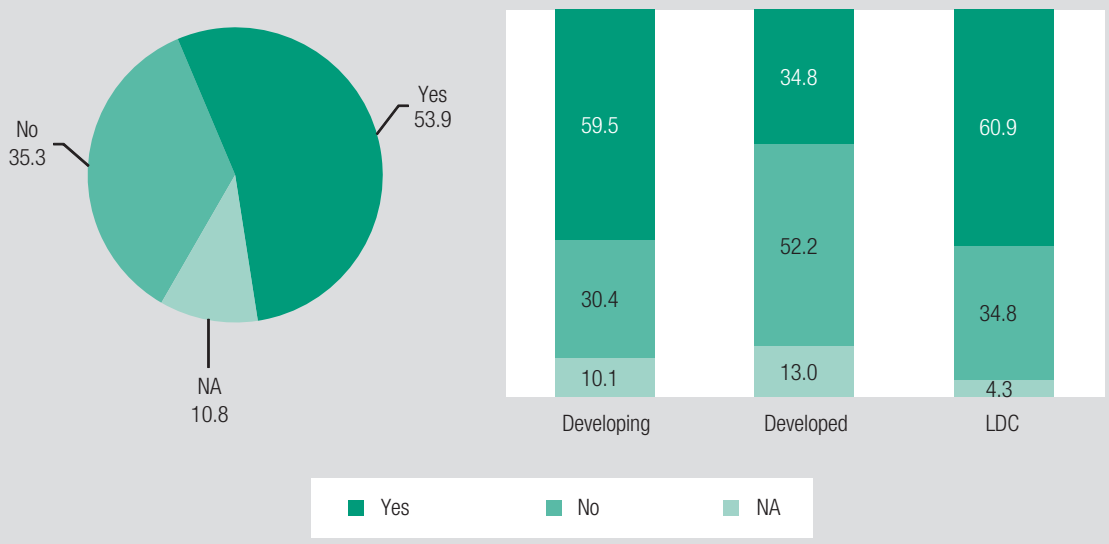


Figure 2.33. Participation in bilateral and regional trade negotiations (all respondents and by development status, percentage)



Note: The group "Developing" includes countries in transition, but excludes LDCs.

Figure 2.34. Participation in bilateral and regional trade negotiations (by sector, percentage)

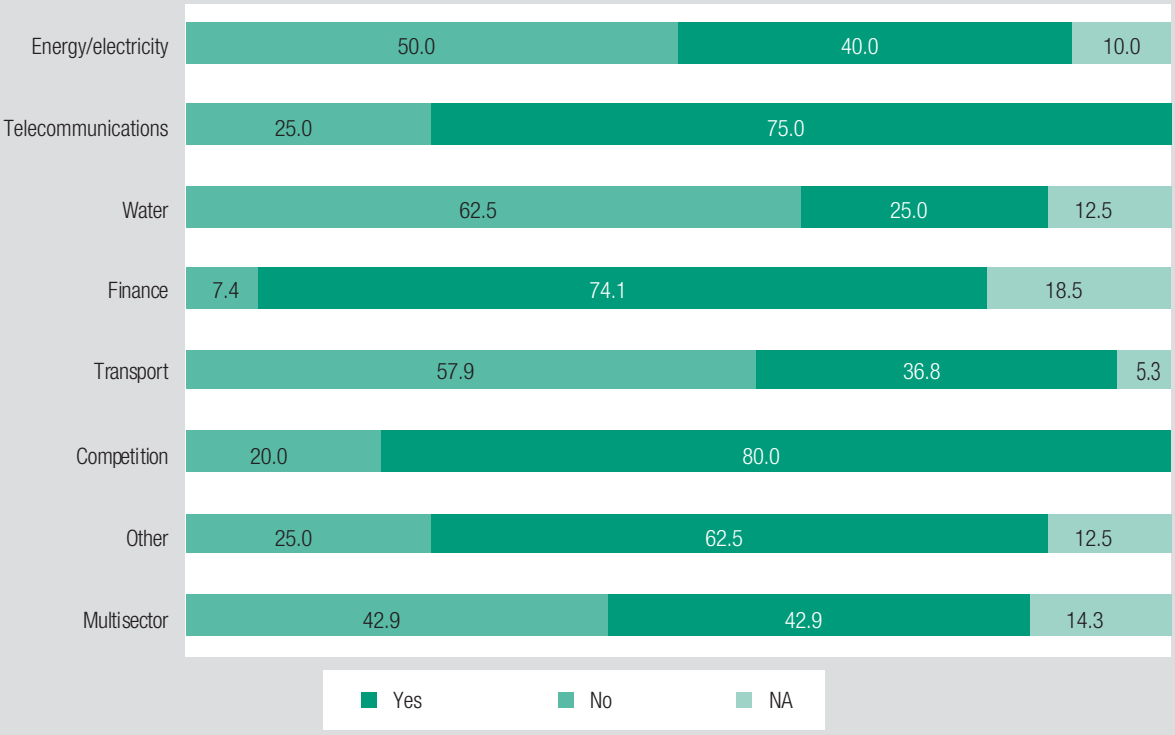
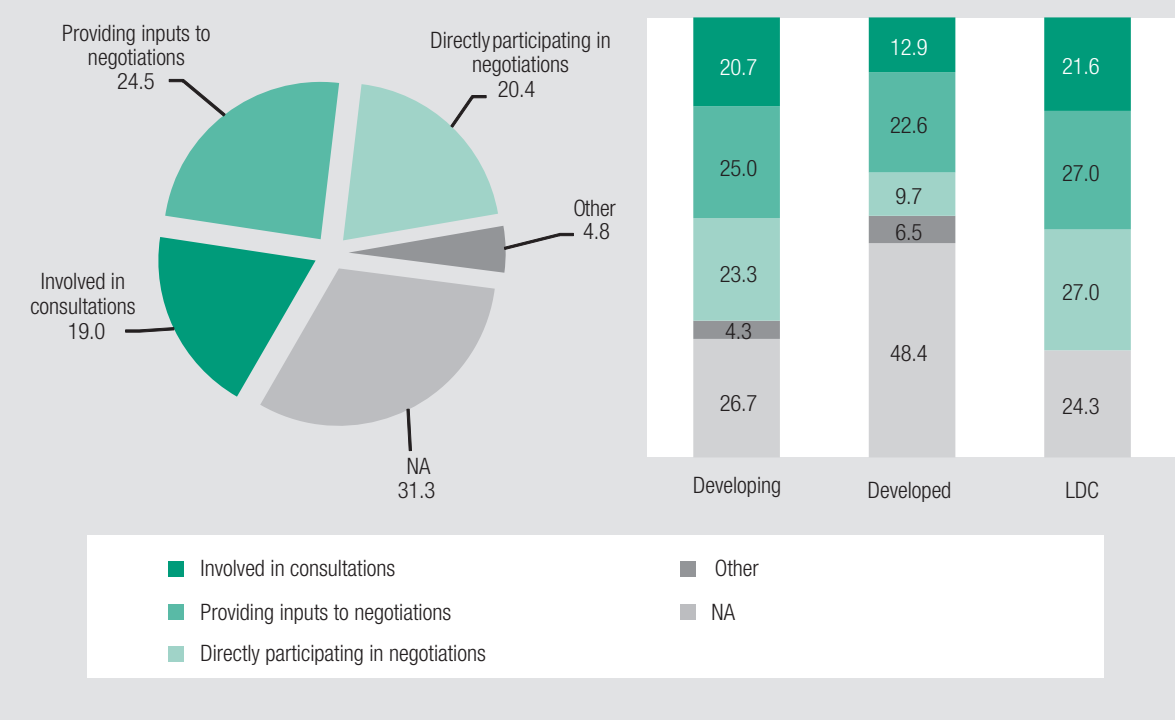


Figure 2.35. Type of involvement in bilateral and regional trade negotiations (all respondents and by development status, percentage)

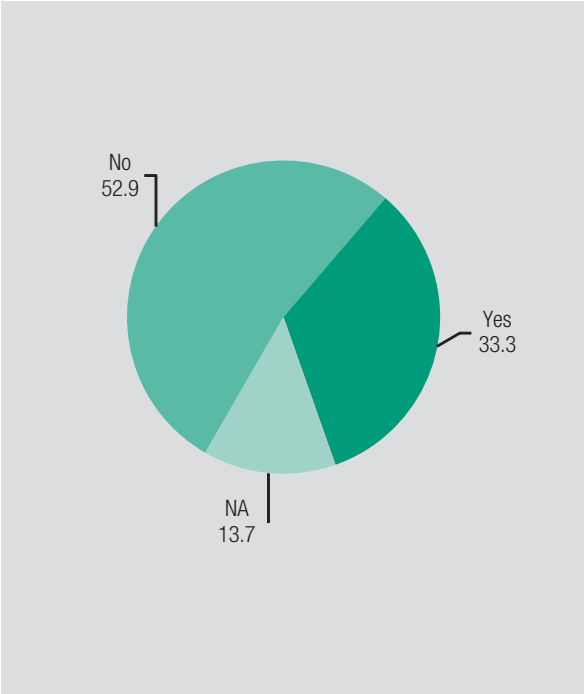


Regulatory institutions' involvement in World Trade Organization (WTO) services trade negotiations decreases compared with their involvement in other bilateral or international negotiations, (figure 2.36). The type of involvement ranges from direct to indirect participation. Developing countries and LDCs tend to be involved in direct participation to WTO negotiations while developed countries emphasized regulators' involvement in consultation phases (figure 2.37).

The involvement of regulators in services sector negotiations on possible disciplines for domestic regulations at the WTO falls sharply compared with their participation in WTO services-trade negotiations (figure 2.38). Less than 20 per cent of the regulators indicated their involvement in these activities. Developing countries show a greater involvement than developed countries.

According to the survey results, a majority of regulators are involved in international and regional regulatory practices that aim to harmonize member States' regulatory practices and/or define best practices in their sector (figure 2.39). Mutual recognition, however, is a relatively less common practice. The involvement of LDCs in these activities is the lowest, as 36 per cent of the regulators did not report any one of these three practices. In contrast, the statistics fall to almost 17 per cent among developing countries.

Figure 2.36. Involvement in World Trade Organization services-trade negotiations (all respondents, percentage)



According to the survey responses, bilateral cooperation among regulators is also very common, with 60.8 per cent of all regulators confirming such practices in their sector (figure 2.41). However, only two thirds of these regulators think that cooperation in bilateral and/or regional, and/or multilateral levels is helpful in stimulating domestic exports (figure 2.42). This is particularly an issue in LDCs where both their involvement in these practices and their belief in benefits of these practices are low (one third of all participants from LDCs). Interestingly, however, regulators from developing countries in the sample tend to have the highest involvement in these activities, with a greater share of respondents noting benefits of these actions.

There is general awareness among regulators regarding the significant benefits of cooperation. Many regulators noted ease in domestic companies' access to foreign markets after harmonization of their domestic regulations and enhanced regional and international cooperation with other regulators. Some regulators indicated an improved business environment and improved quality of services domestically as a result of such cooperation. Some others pointed out ease in conducting further trade negotiations and liberalizations among countries that had already established a regulatory cooperation mechanism. Though these factors are hard to separate from each other, the findings indicate that regulators find setting best practices, mutual recognition and harmonization of regulations to be useful methods of improving market access for, and quality of, their domestic service providers.

Figure 2.37. Involvement in World Trade Organization services-trade negotiations (all respondents and by development status, percentage)

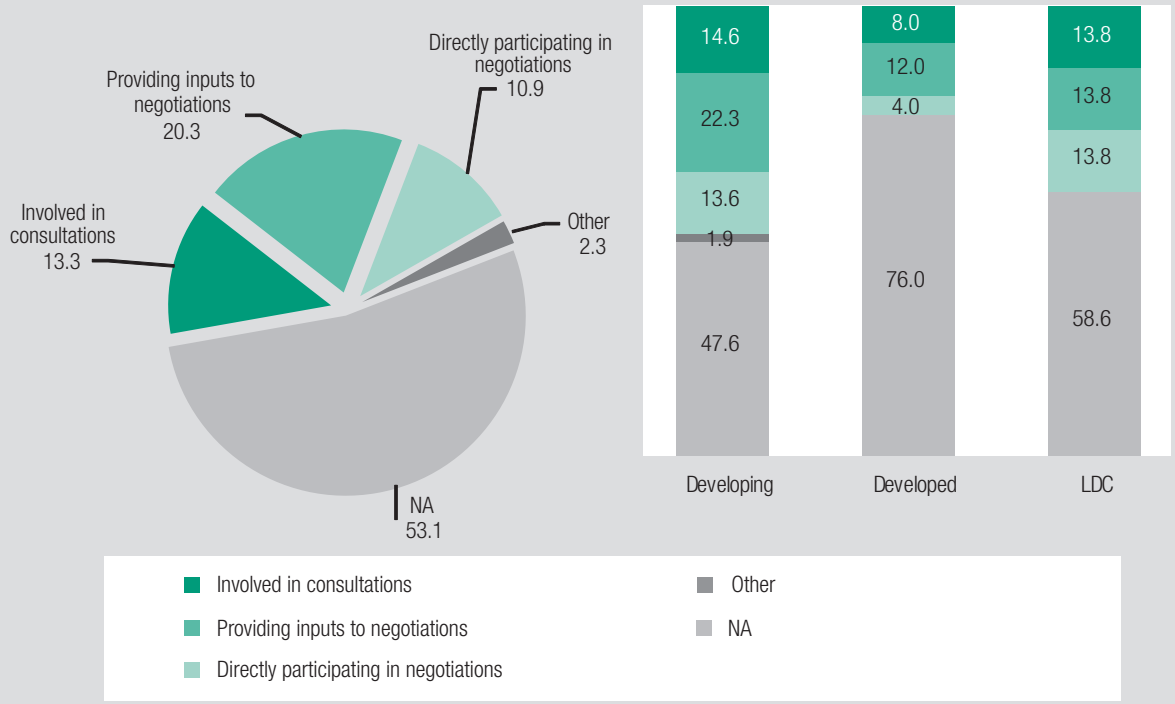


Figure 2.38. Participation in the consultations/negotiations relating to domestic regulation in the WTO (all respondents and by development status, percentage)

Figure 2.39. Involvement in various types of international and regional regulatory practices (all respondents and by development status, percentage)

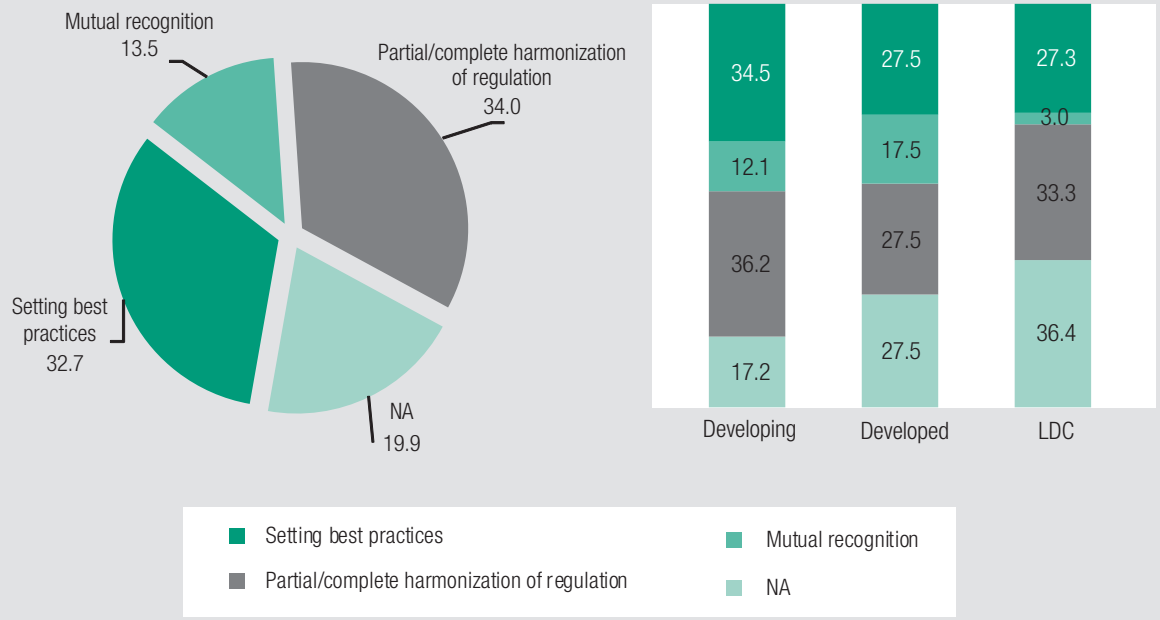


Figure 2.40. Involvement in various types of international and regional regulatory practices (by sector, percentage)

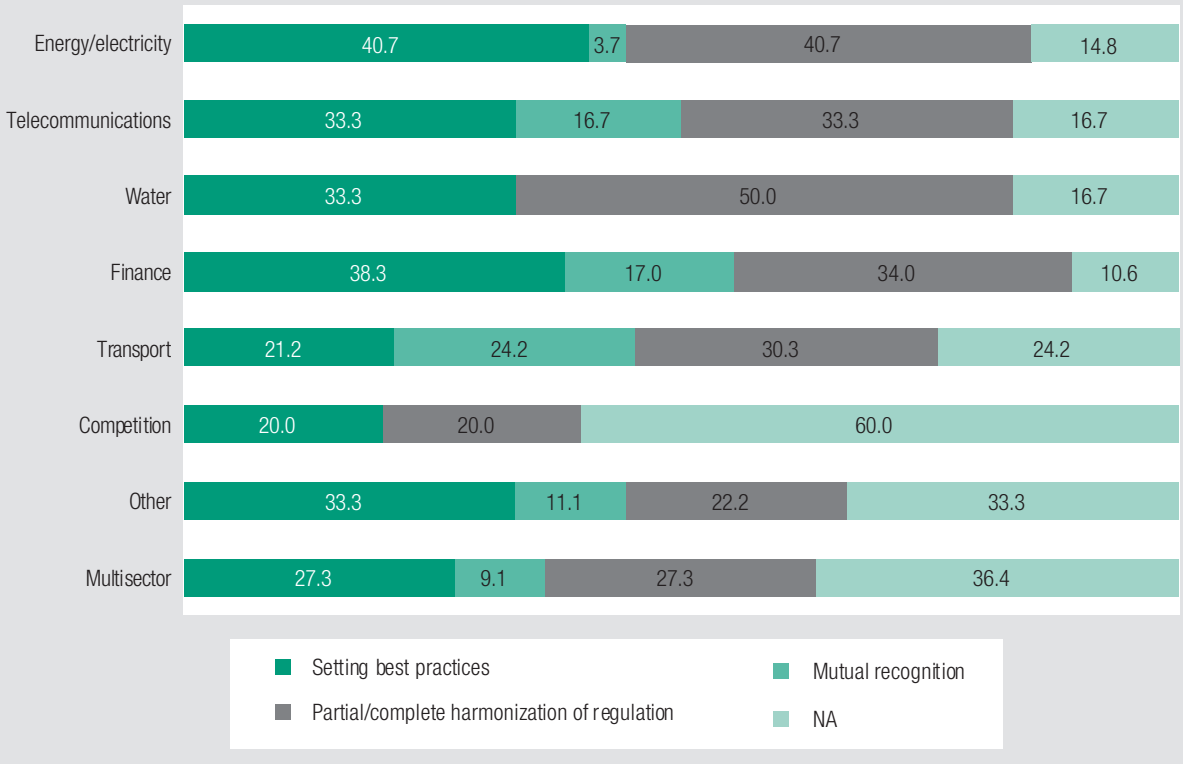
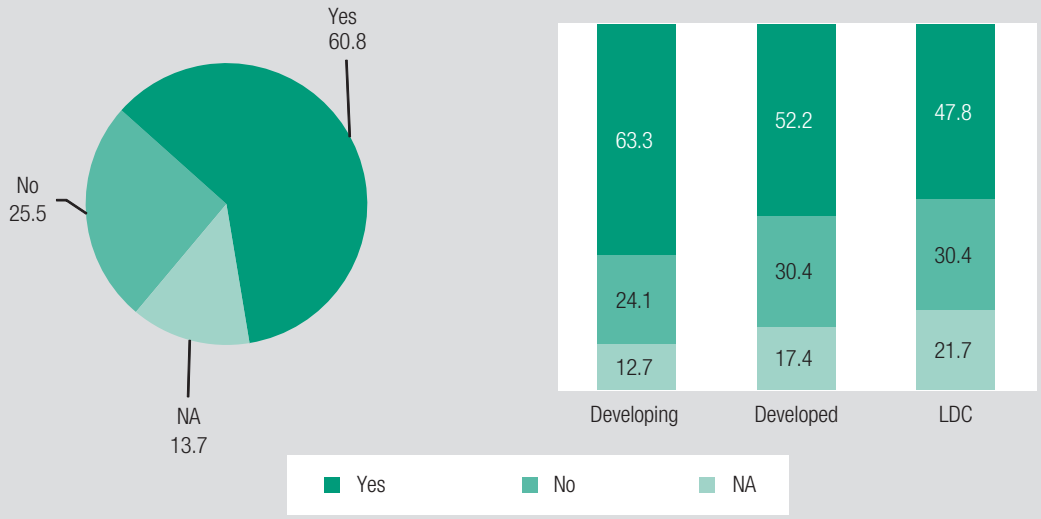
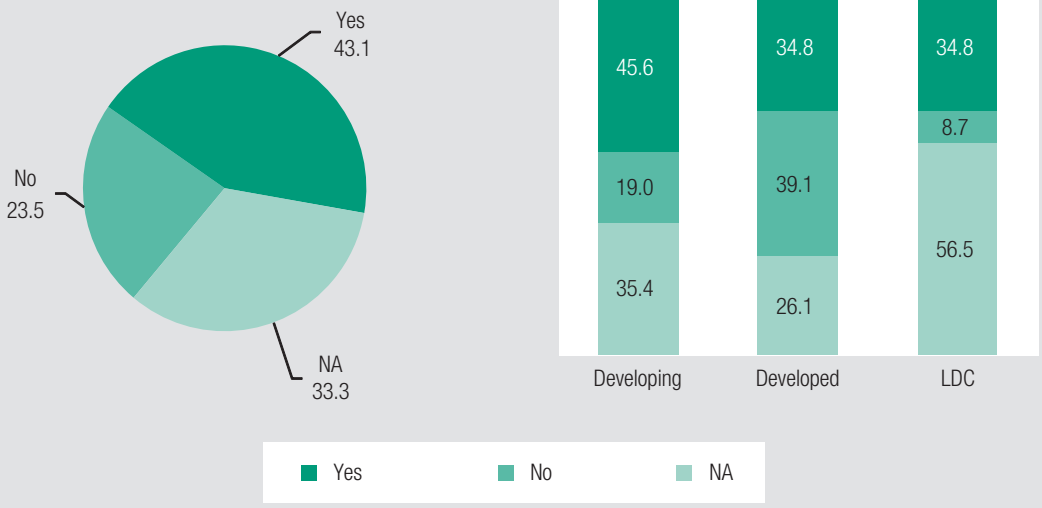


Figure 2.41. Extent of regional cooperation among regulatory agencies and stated trade benefits. Involvement in cooperation (all respondents and by development status, percentage)



Note: The group "Developing" includes countries in transition but excludes LDCs.

Figure 2.42. Extent of regional cooperation among regulatory agencies and stated trade benefits. Trade benefits of cooperation (all respondents and by development status, percentage)



E. CONCLUSIONS

The UNCTAD survey aimed at identifying the extent of restrictions and types of requirements on external service providers implicated in trade in infrastructure services, as well as the degree of cooperation among regulators, in order to ascertain the specific trade-related challenges faced by regulators in developed and developing countries and LDCs, as well as the regulatory and institutional practices that can be used to reap the development gains associated with infrastructure services trade. The findings of the study are based on survey responses by 102 regulators from 38 different countries across different infrastructure services sectors and different levels of development.

The study finds that, in the majority, regulators, irrespective of their development status, allow foreign companies to provide services in their domestic markets, even when majority and/or full ownership belonged to a foreigner. Though foreign ownership is permitted, frequently foreign providers are subject to certain limitations or conditions concerning the purchase of domestic companies, as well as different sets of regulations compared to domestic companies.

The general perception of foreign providers' entry to the domestic market is positive, as many respondents pointed to improved quality of services as well as an increased number of total operators in the market. Nevertheless, there are significant restrictions on employment of foreign managers and experts in most of the countries. Many respondents confirmed restrictions on the employment of foreign nationals based on reciprocity conditions and quota limitations. However, almost all respondents acknowledged the positive contribution of foreign experts on the sector.

Trade in services is also considered to increase the need for capacity-building of regulators in all fronts, including staff and resources needs, monitoring and enforcing capacity as well as improved levels of standards.

A majority of regulators reported services exports by their domestic producers, irrespective of the country's development status, yet technical assistance to companies to meet standards and regulations is lacking, especially in LDCs.

A majority of regulators in the sample are actively participating in international standard-setting activities, regional and international regulatory consultations as well as WTO services-trade negotiations. Regional cooperation among regulatory bodies is also very common. Even though the overwhelming majority of regulators acknowledged the benefits of cooperation among regulators, LDCs' involvement in these activities is less common and needs to be improved. This probably highlights the need for more capacity-building and financial assistance with a view to promoting such an increased involvement.

ANNEX

QUESTIONNAIRE OF THE SURVEY OF INFRASTRUCTURE SERVICES SECTORS WITH FOCUS ON REGULATIONS AND INSTITUTIONS

The United Nations Conference on Trade and Development undertook a survey in 2009 to collect data on regulatory agencies in accordance with the recommendations of the Multi-year Expert Meeting on Services, Development and Trade: the Regulatory and Institutional Dimension, which held its first session in Geneva 17–19 March 2009. The results of the survey were presented in a report submitted to the second session of expert meeting in March 2010. This report is being sent to you jointly with this survey for your information.

The goal of this follow-up survey is to take stock of the regulatory issues directly related to trade in key infrastructure services in order to ascertain the specific trade-related challenges faced by regulators in developed, developing and least developed countries in this area and regulatory and institutional practices which can be used to reap the development gains associated with trade in infrastructure services.

This survey is composed of 24 questions. Please answer each question to the best of your knowledge and in relation to your area of competence. Responses will be treated in a confidential manner and will not be attributed to individual persons and/or organizations.

PLEASE COMPLETE AND RETURN THE SURVEY TO MESUT.SAYGILI@UNCTAD.ORG BEFORE 10 DECEMBER 2010.

Name of respondent: .....

Your position or title: .....

Name of the agency/ministry: .....

Country:.....

Sectors are you directly involved in? .....

a. Energy/Electricity ..... ☐

b. Telecommunications ..... ☐

c. Water ..... ☐

d. Financial ..... ☐

i. Banking..... ☐

ii. Insurance..... ☐

e. Transport ..... ☐

f. Competition..... ☐

g. Other (please list)..... ☐

1. Are foreign operators allowed to provide services in your country?

a. No ..... ☐

b. Yes..... ☐

If your answer to question 1 is “Yes” please answer questions 2 to11. Otherwise, proceed to question 12.

2. Is wholly foreign ownership permitted?

a. No .....

b. Yes ..... ☐

3. Is majority foreign ownership permitted in joint ventures?

a. No ..... ☐

b. Yes ..... ☐

4. What is the approximate market share of foreign operators in the domestic market?.....

5. Is acquisition of domestic operators permitted without any limitations or conditions (e.g. constraints on profit repatriation, technology transfer and investment)?

a. No ..... ☐

b. Yes ..... ☐

If No, please specify the limitations and conditions .....

... .

6. Is cross-border provision of services from another territory permitted?

a. No ..... ☐

b. Yes ..... ☐

If Yes, please specify any limitations and conditions which might exist .....

... .

7. Do you have different regulatory requirements (e.g. technical expertise, financial capability, registration, etc.) for foreign or nationals when applying for licenses, authorizations or concessions?

a. No ..... ☐

b. Yes ..... ☐

If Yes, please specify .....

... .

8. What has been the impact of the import of infrastructure services in the market?

a.Increased number of service suppliers ..... ☐

b.Improved quality of services provided ..... ☐

c.Price variations (please specify) ..... ☐

d.Environmental impacts (please specify) ..... ☐

e.No change noted in the market ..... ☐

f. Other (please specify) .....

9. Are there any constraints on employment of foreign managers, experts or specialists by foreign operators?

a. No ☐

b. Yes ☐

If Yes, please specify what measures are imposed on the employment of foreign managers, experts or specialists by foreign operators (mark all that exist):

i. Quota limitations ☐

ii. Labor market tests ☐

iii. Economic needs tests ☐

iv. Reciprocity condition for employment ☐

v. Qualification requirement ☐

vi. Other (please specify) .....

10. Has the presence of foreign managers, experts or specialists been beneficial to domestic personnel (e.g. through transfer of expertise and know-how)?

a. No ☐

b. Yes ☐

If Yes, please indicate whether benefits have been limited, partial or strong .....

.....

11. What has been the impact of market opening on your agency?

a. Need for higher standard regulation ☐

b. Need for further monitoring and enforcement ☐

c. Need for more staff and resources to deal with increased number of suppliers ☐

e. All the above ☐

12. Have your country's commitments under the World Trade Organization's General Agreement on Trade in Services affected your agency in the following areas?

a. Transparency requirements ☐

b. Pricing options ☐

c. Universal access policies ☐

e. Competition policies ☐

d. Other ☐

If Yes, please specify how. .....

13. Do domestic companies operating in your sector export their services to foreign markets?

a. No ☐

b. Yes ☐

If Yes, please indicate to your knowledge, what specific regulatory measures, if any, do they find difficult to comply with in foreign markets? Please specify: .....

14. Do you provide support to domestic firms to fulfil technical national or international standards?

a. No ☐

b. Yes ☐

If Yes, please specify the type of support.....

15. Do you provide incentives for the local supply and exports of infrastructure services (e.g. investment benefits, tax incentives, subsidies, or preferences in government procurement?

a. No ☐

b. Yes ☐

If Yes, please specify the type of support.....
.....

16. Does your country participate in regional and international standards-setting activities (e.g. International Telecommunication Union, International Air Transport Association, and International Energy Agency)?

a. No ☐

b. Yes ☐

If No, please explain why. .....
.....

If Yes, please specify which standards-setting activities you are engaged in and where .....
.....

17. Are you involved in bilateral and regional trade negotiations (e.g. Free trade agreements and regional integration)?

a. No ☐

b. Yes ☐

If your answer to question 17 is "Yes" please answer questions 18. Otherwise, proceed to question 19.

18. What is the nature of your involvement (mark all that may apply)?

a. Involved in consultations ☐

b. Providing inputs to negotiations ☐

c. Directly participating in negotiations ☐

d. Other (please specify).....

19. Are you involved in the World Trade Organization services negotiations (under the General Agreement on Trade in Services)?

a. No ☐

b. Yes ☐

If your answer to question19 is "Yes" please answer questions 20 and 21. Otherwise, proceed to question 22.

20. What is the nature of your involvement (mark all that may apply)?

a. Involved in consultations ☐

b. Providing inputs to negotiations ☐

c. Directly participating in negotiations ☐

d. Other (please specify) .....

21. Are you involved in the consultations/negotiations relating to domestic regulation in the World Trade Organization?

a. No ☐

b. Yes ☐

22. Are you involved in any of the following processes at the international or regional level?

a. Setting best practices ☐

b. Mutual recognition ☐

c. Partial or complete harmonization of regulation ☐

Please specify which type of initiative you are involved in. Please also give examples of harmonized regulatory measures which may affect trade .....

.....

23. Are you involved in cooperation initiatives with other regulatory agencies?

a. No ☐

b. Yes ☐

If Yes, please specify which initiatives you are involved in .....

.....

24. Has the process mentioned in Question 22 or the cooperation initiative in Question 23 promoted trade in the relevant infrastructure service in your country?

a. No ☐

b. Yes ☐

If Yes, please specify in what way? .....

.....

ENDNOTES

1 See "Trade, services and development: the regulatory and institutional challenges", note by the UNCTAD secretariat, TD/B/C.I/MEM.4/2.

2 We are grateful for comments on the draft survey by Mr. Jon Stern, Research Director, Centre for Competition and Regulatory Policy, City University London.

3 UNCTAD (2009), Report of the Multi-year Expert Meeting on Services, Development and Trade: the Regulatory and Institutional Dimension, on its first session, held at the Palais des Nations, Geneva, from 17 to 19 March 2009, TD/B/C.I/MEM.3/3.

4 Brown AC, Stern J, Tenenbaum B and Gencer D (2006), Handbook for Evaluating Infrastructure Regulatory Systems, International Bank for Reconstruction and Development/World Bank, Washington, D.C..

5 UNCTAD (2009), op. cit..

6 Controllable costs are those that the operator can influence and, conversely, non-controllable costs are those that the operator cannot influence.

7 Body of Knowledge on Infrastructure Regulation, available at http://www.regulationbodyofknowledge.org/ (accessed 11 February 2014). The Body of Knowledge on Infrastructure Regulation website was created by the Public Utility Research Center at the University of Florida under a contract with the Public–private Infrastructure Advisory Facility and the World Bank (Infrastructure Economics and Finance Department). The Public Utility Research Center manages the Body of Knowledge website under a contract with the Public–private Infrastructure Advisory Facility and the World Bank.

8 Brown AC (2010), Infrastructure: the Regulatory and Institutional Dimensions, paper submitted to the second session of the UNCTAD Multi-year Expert Meeting on Services, Development and Trade: the Regulatory and Institutional Dimension, held in the Palais des Nations, Geneva, from 17 to 19 March 2010.

9 UNCTAD (2009), op. cit..

10 Brown (2010), op. cit..

11 Brown (2010), op. cit..

12 For example, indicating if "no to question 1.8 please go to question 2.5".

13 Others include microfinance and stock market regulators.

14 Few regulators from LDCs did not respond to this question.

15 UNCTAD calculations based on UNCTADStat, OECD STAN and Eurostat input–output tables.

16 UNCTAD (2010), "Services, development and trade: the regulatory and institutional dimension", note by the UNCTAD secretariat, TD/B/C.I/MEM.3/5.

17 UNCTAD (2009), "Services, development and trade: the regulatory and institutional dimension", note by the UNCTAD secretariat for the first session of the Multi-year Expert Meeting on Services, Development and Trade: the Regulatory and Institutional Dimension, TD/B/C.I/MEM.3/2.

18 For the purposes of this survey, ISS include financial services (including insurance), telecommunications, transport and electricity-related services.

19 If you are a multi-sector regulator and the responses to the survey differ in function of the sector concerned, please fill out a separate form for each sector.

20 The WTO Draft Disciplines on Domestic Regulation are attached for your information.