Annex 1.2
Telecommunications regulatory assessment

The telecommunications sector is being transformed by new technology, structural change and economic forces. Government policy-makers and sector regulators have sought to liberalise their markets, but some countries have been more successful than others.

In mid-2008 the EBRD conducted an in-depth assessment of the telecommunications sector in its countries of operations. The objectives were to encourage, influence and provide guidance for ongoing and future legal reform and to help the Bank measure legal risk in those countries and in specific investment activities. The assessment was based on a World Trade Organization (WTO) reference paper and on recognised EU regulatory processes (see "Regulatory benchmarks" below).

The assessment results indicate that the EU framework is the main influence on telecommunications regulation in the countries of central eastern Europe and the Baltic states (CEB) and south-eastern Europe (SEE). However, policy-makers and market regulators in the Commonwealth of Independent States and Mongolia (CIS+M) have yet to fully embrace the necessary independent regulation and competitive safeguards to complete the liberalisation of the sector. Nevertheless, continuing growth of mobile services and strong demand for broadband services provide significant investment prospects in the region.

Regulatory benchmarks

To promote a competitive approach for all telecommunications markets and to accelerate the liberalisation process, the WTO in 1997 reached a binding agreement on members' commitments,[1] an important element of which was a reference paper defining a set of regulatory principles for the establishment of fair market conditions.[2] Then, in 1998, the European Union made full liberalisation a legal obligation for all member states and since then its policy and regulatory framework has become increasingly recognised as the global benchmark.[3]

The EBRD assessment model

The assessment model is based on the WTO reference paper, although many of the specific indicators are drawn from the examples provided by the EU regulatory framework. The model for each country comprises the following elements:

- institutional framework, covering regulatory independence and dispute resolution and appeal
- market access conditions
- operational environment, covering competitive safeguards and interconnection access.

A further element to the model assesses whether a country distorts the market when it promotes a more universal telecommunications service.

The individual country assessments are presented in the form of "spider" diagrams (see Chart A.1.2.1 on pages 26 and 27), which include six main group indicators (defined on page 25). For each indicator, the diagram presents the scores as fractions of the maximum achievable rating. The scores begin at zero at the centre of the chart and reach 1.00 at the outside so that, in the overall chart, the wider the coloured "web" the better the scores in the assessment. The model assigns 32 points to the institutional framework, 30 points to market access and 38 points to the operational environment.

Although there is a rough equivalence between these three main categories, slightly more weight has been attributed to the operational environment because this defines the ability of operators to compete in a fair market that is protected against the abuse of a dominant position. The institutional framework, which oversees compliance with laws and regulations, has second priority as it is essential that this function is carried out in an impartial manner. Slightly less weight has been given to market access conditions because barriers to entry, or complex authorisation procedures, which may prevent operators from participating in the market, also prevent them from making investments.

The six group indicators (and point-scoring potential) in the spider diagrams are detailed below.

1. Regulatory independence (maximum 22 points)
This indicator measures the level of freedom (from political or ownership interests) that a national telecommunications regulatory authority can use to establish and maintain a competitive market. A country's legal framework should include a regulatory authority that is independent from the operators, reasonably free from political pressure and with sufficient powers to regulate the market.

2. Dispute resolution and appeal (maximum 10 points)
This indicator measures the efficiency of the procedures for settling competitive disputes between market players that would otherwise lead to market distortions. A national regulatory authority (NRA) should have the power to resolve commercial disputes between operators and there should be a reasonably efficient appeal mechanism. A country's scoring is reduced if the appeal procedure takes too long or if the appeal mechanism is not being used.

3. Market access (wired) (maximum 20 points)
This is a measurement of the ease of market entry for operators wishing to provide telecommunications services over physical (wired) networks. In telecommunications, services can be provided over physical connections (wired) or by using the radio spectrum (for example, mobile phones). Since radio frequencies can be a scarce resource, different regulations need to apply to ensure fair access for a fully competitive market. This indicator rates the authorisation framework for networks and services that do not depend on scarce resources. A country's scoring is reduced if services are not open to competition, if there are high licensing fees or if authorisation procedures are not plain and transparent.

4. Market access (radio) (maximum 10 points)
This indicator measures the ease of market entry for operators wishing to provide telecommunications services using radio frequencies or other nationally scarce resources. The regulatory framework should ensure non-discriminatory access to the radio spectrum. This indicator also considers whether other scarce resources (such as blocks of telephone numbers) are available to all operators.

5. Significant market power and safeguards (maximum 20 points)
This is a measure of the effectiveness of competitive safeguards in place to ensure that existing operators with significant market power (SMP), do not abuse their position to the detriment of smaller competing operators. Competitive safeguards should protect new entrants against the anti-competitive practices of an incumbent operator(s) with SMP, including an objective procedure for identifying the existence of SMP. This indicator assigns a higher value if this procedure is based on a formal market analysis according to competition law principles, and a lesser value if a simpler procedure based on market share is used. It looks for specific implementation (in legal provisions and in practice) of facilities that improve a consumer's competitive choice, such as the ability to keep their existing phone number when they change operator, or the ability to choose the cheapest operator for making different types of calls.

6. Interconnection and special access (maximum 18 points)
This indicator measures the effectiveness of regulations designed to ensure that consumers can exercise real competitive choice between different operators for different services. It gives points for the existence of a reference interconnection offer (RIO – an inter-operator agreement enabling customers of one operator to make calls to customers of another operator) that is approved by the NRA and published. A country's scoring is reduced, however, if the legal framework does not set out a requirement for non-discrimination for RIO usage or if there is little evidence that the RIO is being used. Similarly, the indicator looks for the existence of a reference unbundling offer (RUO – a special type of inter-operator agreement that allows a new operator to rent subscriber access facilities from the incumbent operator in order to provide competitive services) and assigns value where an RUO has been approved and additional points if it is actually used to provide services by alternative operators.

Another measure, universal service, is not shown on the spider diagrams and takes into account the effectiveness of universal service regulation. The WTO and EU frameworks leave individual countries to define their universal service policy. Where one exists, the assessment model looks at whether it is being implemented in a technologically and competitively neutral manner.

Data collection

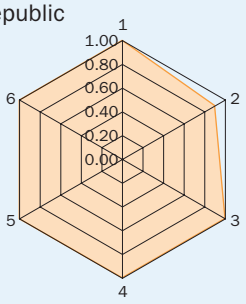
The assessment relied on data from a variety of sources, notably existing EU reports on telecommunications and an EU-funded project that is assessing the sector in SEE countries.[4] For the CIS+M, the assessment used questionnaires and face-to-face interviews with government and sector regulatory officials and market operators in each country.

Chart A.1.2.1
Quality of telecommunications regulatory frameworks in transition countries

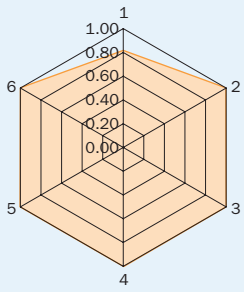
1 = Regulatory independence
2 = Dispute resolution and appeal
3 = Market access (wired)
4 = Market access (radio)
5 = SMP and safeguards
6 = Interconnection and special access
(see explanation on page 25)

CEB

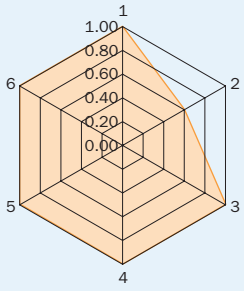
Czech Republic



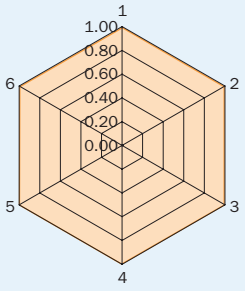
Estonia



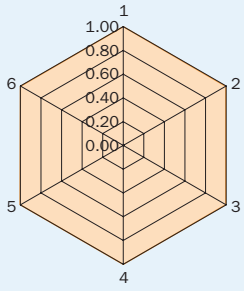
Hungary



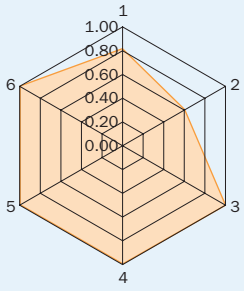
Latvia



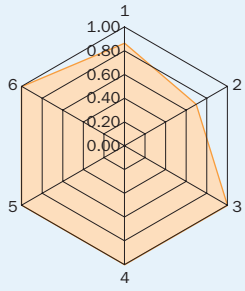
Lithuania



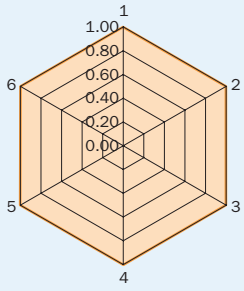
Poland



Slovak Republic

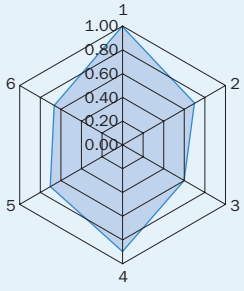


Slovenia

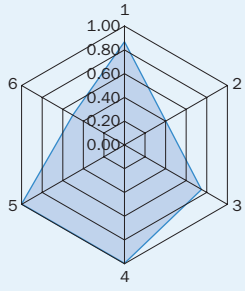


SEE

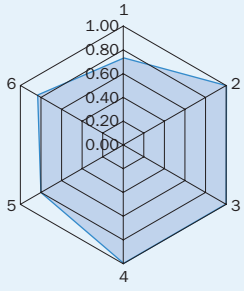
Albania



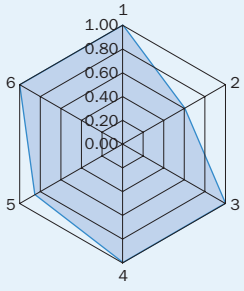
Bosnia and Herzegovina



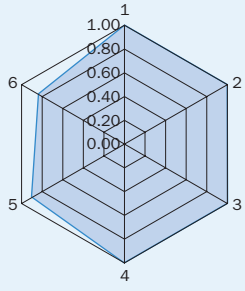
Bulgaria



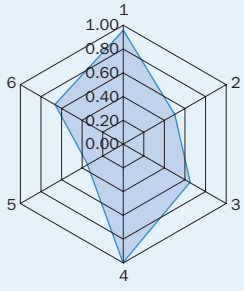
Croatia



FYR Macedonia



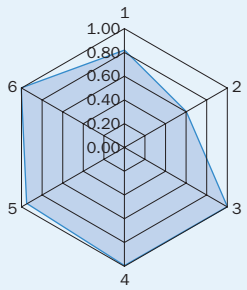
Montenegro



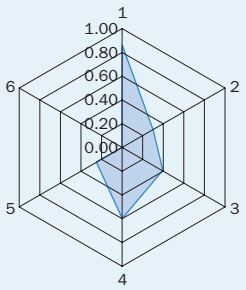
Source: EBRD, Telecommunications regulatory assessment, 2008.

Note: The diagrams show the combined quality of institutional framework, market access and operational environment when benchmarked against international standards issued by the WTO and the European Union. The extremity of each axis represents an ideal score of 100 per cent, that is, full compliance with international standards. The fuller the "web", the closer the overall telecommunications regulatory framework of the country approximates these standards.

Romania

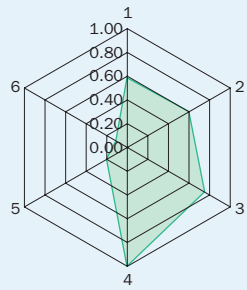


Serbia

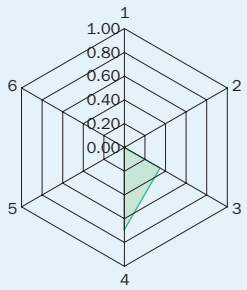


CIS+M

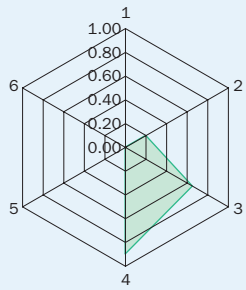
Armenia



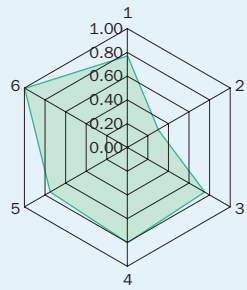
Azerbaijan



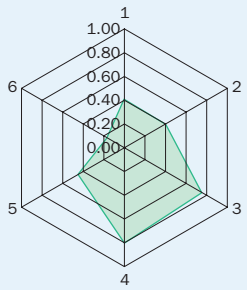
Belarus



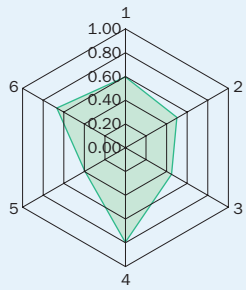
Georgia



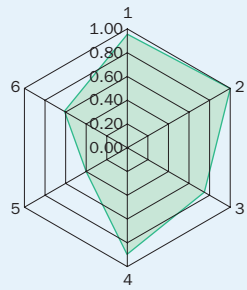
Kazakhstan



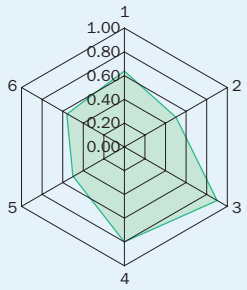
Kyrgyz Republic



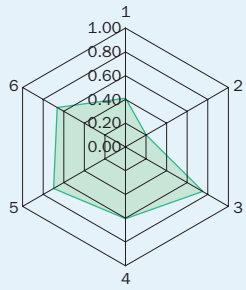
Moldova



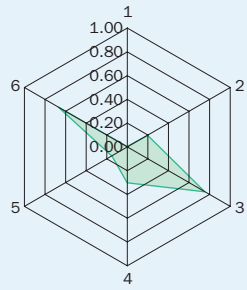
Mongolia



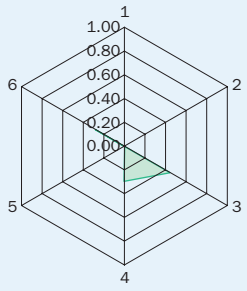
Russia



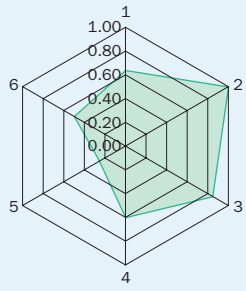
Tajikistan



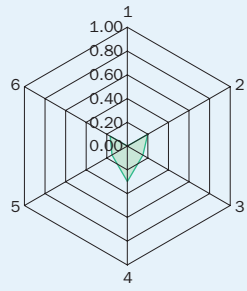
Turkmenistan



Ukraine



Uzbekistan



A diagram for the Czech Republic has been included for comparison purposes, although the Czech Republic has graduated from the EBRD, meaning that the EBRD no longer makes any new investments in the country.

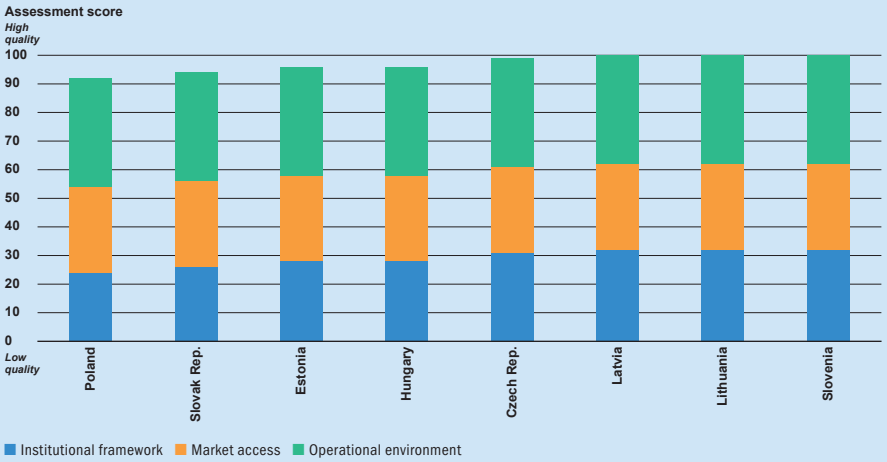
Table A.1.2.1
Quality of telecommunications regulatory frameworks in transition countries/ Compliance with WTO and EU standards

Full compliance	High compliance	Medium compliance	Low compliance
Croatia	Albania	Armenia	Azerbaijan
Czech Republic	Bosnia and Herzegovina	Kyrgyz Republic	Belarus
Estonia	Bulgaria	Moldova	Kazakhstan
FYR Macedonia	Georgia	Mongolia	Serbia
Hungary		Montenegro	Tajikistan
Latvia		Russia	Turkmenistan
Lithuania		Ukraine	Uzbekistan
Poland			
Romania			
Slovak Republic			
Slovenia			

Source: EBRD, Telecommunications Regulatory Assessment, 2008.

Note: The results for Serbia do not include Kosovo. Assessed separately, Kosovo achieves medium compliance, its main shortcomings being in the area of interconnection, special access and competitive safeguards.

Chart A.1.2.2
CEB/Quality of telecommunications regulatory frameworks, by indicator



Source: EBRD, Telecommunications Regulatory Assessment, 2008.

Note: The chart shows the score for each country in the region for quality of institutional framework, market access and operational environment when benchmarked against international standards issued by the WTO and the European Union. Combined scores are calculated on a scale of 0 to 100, with a score of 90 or more indicating full compliance with international standards.

Results

Country scores in the assessment reflect the level of compliance with the defined regulatory benchmarks for implementation of a liberalised telecommunications market. Full compliance in Table A.1.2.1 means an assessment score of 90-100, high compliance scores 75-89, medium compliance 50-74 and low compliance under 50. (It is possible to have full compliance even if a country is marked down on some of the indicators.)

All countries in CEB are members of the European Union and have harmonised their legislation with the *acquis communautaire*, the body of law that countries must adopt to become EU members. Latvia, Lithuania and Slovenia received maximum 100 per cent ratings (see Chart A.1.2.2). Although the others achieved between 90 per cent and 99 per cent because of some remaining issues with implementation, they were still judged to have achieved full compliance under this assessment.

In SEE, Croatia, FYR Macedonia and Romania achieved full compliance, having aligned their frameworks with the EU *acquis communautaire* (see Box A.1.2.1 for more detail on Croatia and Box A.1.2.2 for a case study on Romania). Bulgaria achieved less than full compliance due to remaining concerns about regulatory independence and weaknesses in its market review implementation. Albania and Bosnia and Herzegovina achieved high compliance. In the medium compliance category, Montenegro had weaknesses in its identification of, and remedies for, market dominance. Serbia was in low compliance because its licensing regime is not yet developed and it has insufficient competitive safeguards (see Chart A.1.2.3).

No countries in the CIS+M region achieved full compliance and only Georgia achieved a high compliance ranking, scoring well on market access conditions and regulatory independence, but with some weaknesses regarding competitive safeguards (see Chart A.1.2.4 on page 30). In Moldova the regulatory framework is undergoing a radical overhaul and past performance may not be a relevant indicator for the future. In addition to Moldova, another five countries of the CIS+M achieved medium compliance – Armenia, the Kyrgyz Republic, Mongolia, Russia and Ukraine – where market access was generally good, but most had weaknesses in their institutional framework or operational environment (see Box A.1.2.3 on page 30 for more information on Mongolia). Russia has implemented relevant competitive safeguards in a strong market and Ukraine scored highly on dispute resolution and appeal mechanisms. The six other countries of the subregion were grouped in the low compliance category, mainly because regulatory provisions remain insufficiently independent of government.

Conclusions

Advances in telecommunications technology have produced significant consumer and economic benefits over the last 10 years. For example, mobile networks have overtaken fixed-line penetration and the growth in broadband services is having a significant impact on every aspect of domestic and business life.

Regulatory progress across the EBRD's countries of operations remains variable. The countries of CEB have already achieved regulatory effectiveness and their markets are operating efficiently. SEE is fast catching up, as are some countries of the CIS+M. Other countries have been slower to adopt regulatory reform. Although the approaches to sector policy and regulation still vary regionally, the overall impetus is towards greater liberalisation. Competition has generally become the accepted tenet in all telecommunications markets.

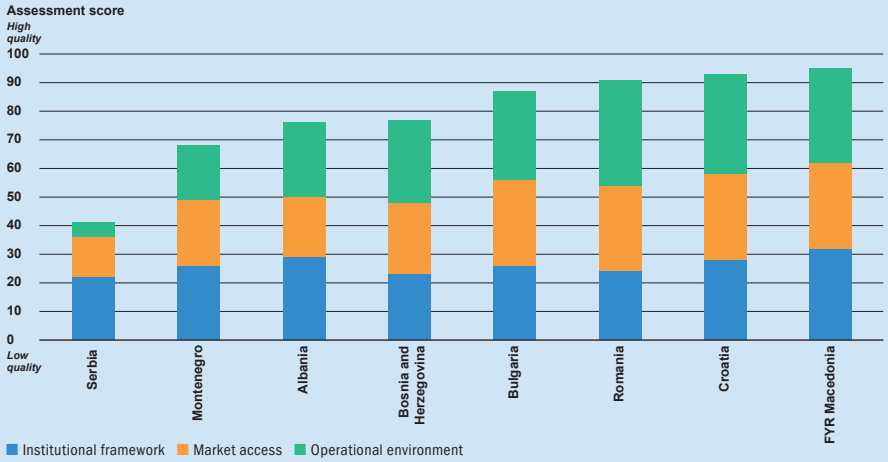
The European Union's implementation of a common telecommunications regulatory framework has demonstrated how successfully such an approach to market regulation can be applied across different countries with variable initial market characteristics.

In SEE countries the adoption of the EU framework has been viewed as a defining step towards better functioning markets, as well as being an essential part of the EU accession process. The progress that some countries in this region have made in recent years has been remarkable, given their earlier records of relatively low investment and poor economic management.

In the CIS+M, only Georgia achieved a high compliance rating in the assessment, while Armenia, the Kyrgyz Republic, Moldova, Mongolia, Russia and Ukraine achieved medium compliance. In the low compliance CIS+M countries – Azerbaijan, Belarus, Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan – progress towards market liberalisation and better regulation lags significantly behind the European Union and is also slower than in SEE. Low compliance in the CIS+M is the result of its continuing with policies of "managed competition" (allowing competitors into the market only under strict state-controlled terms) rather than adopting policies of full liberalisation.

The EBRD will continue to provide CIS+M policy-makers and regulators in the telecommunications sector with technical assistance to create the conditions for competitive markets. The main focus of these efforts should be towards greater independence of regulation, with appropriate accountability and effective competitive safeguards. The European Union and SEE experience has shown how this promotes more consumer choice, faster growth in new services and better value for money.

Chart A.1.2.3
SEE/Quality of telecommunications regulatory frameworks, by indicator



Source: EBRD, Telecommunications Regulatory Assessment, 2008

Note: The chart shows the score for each country in the region for quality of institutional framework, market access and operational environment when benchmarked against international standards issued by the WTO and the European Union. Combined scores are calculated on a scale of 0 to 100, with a score of 90 or more indicating full compliance with international standards.

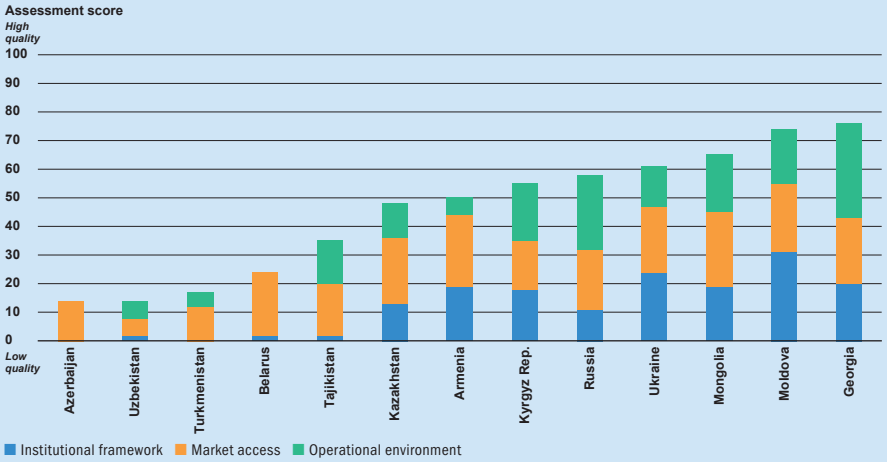
Box A.1.2.1
Case study: Croatia

Croatia in the 1980s had a more advanced telephone network than the rest of communist central Europe. Although damaged in the early 1990s, the network was quickly repaired and modernised, but the country's delay in achieving normal diplomatic relations with the European Union denied it access to aid programmes that provided information on liberalisation policy to EU aspirants. A deal in 1999 to privatise the network under the control of Deutsche Telekom (the German telecommunications giant) and the delay in establishing a suitable regulatory regime put back full liberalisation for five years. However, a credible independent regulator was created in 2004 and a third mobile operator was licensed. Full alignment of Croatian law with EU requirements was finally achieved in 2008. Nevertheless, while the fixed-line telecommunications market remains dominated by one operator and Croatia's development of broadband penetration lags behind that of its peers, the regulator must further promote the full benefits of competition in this sector.

Box A.1.2.2
Case study: Romania

Romania emerged from the communist era with one of the lowest fixed-line network penetration rates (about 20 per cent) and one of the lowest levels of GDP per capita in Europe. However, the authorities implemented full liberalisation of the telecommunications sector from 2003, based on EU regulatory guidelines, and the country has become a regional leader in mobile as well as broadband penetration. Romania is seeking to extend modern telecommunications to its remote areas, by establishing village "telecentres" based on competitive tendering. Each telecentre is equipped with at least two telephones, two computers with internet connection and a fax machine, and the services are offered to the whole community at affordable tariffs. The regulatory authority, ANRCTI, describes the telecentres as "the outpost of the communications infrastructure that facilitates the deployment of the networks to individual households". By May 2008, 350 telecentres were already functional and ANRCTI had organised tenders for the installation of further telecentres in 633 localities.

Chart A.1.2.4
CIS+M/Quality of telecommunications regulatory frameworks, by indicator



Source: EBRD, Telecommunications Regulatory Assessment, 2008.

Note: The chart shows the score for each country in the region for quality of institutional framework, market access and operational environment when benchmarked against international standards issued by the WTO and the European Union. Combined scores are calculated on a scale of 0 to 100, with a score of 90 or more indicating full compliance with international standards.

Box A.1.2.3
Case study: Mongolia

Mongolia has the lowest population density in the world. Its 2.7 million people occupy a vast territory. Rural inhabitants, numbering just over 1 million, are spread very thinly. About a third of these live in 330 district centres (called soum). The rest are largely nomadic herders who move between different summer and winter locations. Access to telecommunications services has been extremely limited in the remote areas, given the challenging geography, nomadic lifestyle of the rural population, government ownership and incumbent control of the long-distance transmission network. To encourage wider network delivery, one-off subsidies have been awarded by competitive tender to licensed operators who take on the investment risks of expanding their networks. They receive the subsidy on meeting service targets. The universal access programme has set specific targets, such as: having at least one mobile or wireless operator in each soum centre; offering a broadband wireless internet service in some soum centres; and having at least a public access telephone service in the country's 1,500 remote herder communities. To help finance network expansion into rural areas, the country has a universal service obligation fund. Operators contribute to the fund through a 2 per cent levy on their taxable income.

Endnotes

1 These are the specific commitments on telecommunications made by WTO participant countries with respect to the reference paper on basic telecommunications services annexed to the 4th protocol of the General Agreement on Trade in Services of 15th February 1997.

2 See World Trade Organization (1996).

3 See European Commission (2008a).

4 See European Commission (2008b).

References

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