

## CHAPTER 7. INFRASTRUCTURE SERVICES FOR IMPROVED COMPETITIVENESS

7.1 *In key infrastructure service areas, Turkey has already made substantial progress in designing the changes to legal and regulatory structures needed to meet EU acquis requirements.* While much implementation work remains, Turkey recognizes that the combination of internal market liberalization and effective integration with international markets offers efficiency gains that will increase competitiveness and employment growth.<sup>76</sup> This chapter of the CEM focuses on the nexus between EU accession and growth in three infrastructure sectors – Information and Communications Technology (ICT), transport, and energy. Within these sectors, the Government has choices to make in regard to phasing and timing of the changes needed to meet *acquis* obligations. This chapter offers guidance from Bank and international experience.

7.2 *Infrastructure services are an important driver of growth.* Transport and communications contribute approximately 15 percent of Turkey’s GDP. The importance of these services reflects both internal demand and Turkey’s geopolitical position – as a link between Europe and Asia. Energy services contribute an additional 3.5 percent of GDP. Each of these services offers the potential for substantial efficiency gains through structural changes – typically already underway – and regulatory strengthening.

7.3 *Although Turkey is relatively well endowed with infrastructure compared to other emerging economies, it falls short of OECD and EU standards.* Businesses are burdened by costly, low quality backbone infrastructure services. In particular, the cost of telecommunication services and energy remains among the highest in the OECD area,<sup>77</sup> while quality is among the worst in that area.<sup>78</sup> The dominant transport mode – road -- suffers from localized congestion and deteriorating road quality. While daunting, this combination suggests that much can be gained through more efficient, user financed, operations. The largest transformational challenge is moving from monopolistic state entities providing services toward the mix of private and state that characterizes efficient higher income economies. Of course, the infrastructure implications of meeting all

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<sup>76</sup> Embodied in the Turkish National Programme for the Adoption of the Acquis

<sup>77</sup> OECD, Economic Survey of Turkey, Paris, 2004.

<sup>78</sup> The Turkish Industrialist’s And Businessmen’s Association makes this point in their Working paper “Investment Environment And Foreign Direct Investments In Turkey” prepared for Investors Advisory Council Meeting, 15 March 2004, İstanbul TS/SEK/04-06

*acquis* requirements go well beyond those discussed in this chapter. In particular, the environmental dimension, with its very large financial costs, will be dealt with in a later CEM.

## **7.1. INFORMATION AND COMMUNICATION TECHNOLOGIES**

**7.4** *Turkey has recently enjoyed very rapid growth in telecommunications, driven by expansion of cellular service.* Yet internet use remains relatively low compared to other new EU member states, broadband coverage is similarly low, quality problems in mainlines remain pervasive, and prices high. The importance of further ICT development can be seen in the EU context, where ICT is credited with 50 percent of productivity growth between 1995 and 2000. Although productivity impact estimates have not been made for Turkey, if Turkey's recent gains in telecommunications coverage can be extended to other elements of ICT, similar gains can be expected.

**7.5** *Turkey brings strengths in facing the challenge of ICT development.* The telecommunications regulatory authority (TK) and competition authority (RK), have proven effective despite working in a difficult legal environment. That legal environment will improve as Turkey enacts and implements the relevant *acquis* provisions. Turkey has moved forward by ending the monopoly rights of Turk Telekom in 2003 and with a successful initial tendering for Turk Telekom in 2004 and the completion of the transaction (a block sale of 55 percent) in 2005, an important step toward market liberalization and improved efficiency. But Turkey's progress in telecommunications needs to be complemented by a strategy leading toward convergence to the EU's evolving ICT benchmarks.<sup>79</sup> Responding to an environment in which Turkey's household internet access is at 8.7 percent while the EU25 is at 42 percent, the government has intensified efforts to increase internet use, giving priority to schools from 2006.

**7.6** *Complementary actions, beyond the Acquis, are needed to facilitate ICT diffusion.* The importance of ICT as the enabler of the Information Society was enshrined in the Lisbon Strategy which represents Europe's response to the challenge of accelerating growth and job creation in the 'knowledge based economy'. The implementation of the *Acquis* for electronic communications will provide the regulatory and business climate for increased investment in ICT and thereby improve the competitiveness of Turkish businesses. *Acquis* requirements must be, however, complemented by supporting legal instruments related to data protection, privacy, and e-security, as well as a panoply of initiatives related to the application of ICT in such activities as e-government, health, learning, work, business, mobility, transport, content and inclusion. Possibly discriminatory taxes also burden the development of the mobile

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<sup>79</sup> See [http://europa.eu.int/information\\_society/topics/ecommm/index\\_en.htm](http://europa.eu.int/information_society/topics/ecommm/index_en.htm)

segment—a key underpinning of the ICT sector. In response, the Ministry of Finance is now reviewing sector tax policy.

**7.7 Continuing market liberalization will play a key role.** To promote ICT, the European Commission has emphasized the importance of continued implementation of Turkey's efforts to liberalize the ICT market, with a view to increasing competition and lowering prices.<sup>80</sup> The recent increase in market entrants signals the potential for meeting this goal, but legislative and regulatory behavior must work to curtail monopolistic behavior on the part of established providers. This effort, which has little fiscal cost to government, should head the ICT agenda. In particular, post-privatization of Turk Telecom, both TK and RK will need to be more vigilant regarding the progress of liberalization in order to ensure that the full benefits of competition in the sector materialize. A private Turk Telekom retains considerable market power over bottleneck facilities essential to the development of competition.

**7.8 Turkey should consider a mutually reinforcing set of actions that further speed the development of the ICT sector.** In addition to assigning cabinet-level responsibility for leading that work, Government should take the following set of priority actions:

- The transposition and effective implementation of the *acquis* for electronic communications well before EU accession.
- A re-examination by government of the definition and implementation of its ICT policy. Government needs to confirm their objectives regarding the e-agenda, including the aspect of social inclusion (especially regarding farming and rural areas) and broadband, and the role it will play in these developments, thereby sending clear signals to the market. The government can play a vital role through its procurement of ICT, both by fostering more intense competition in and by encouraging the aggregation of demand for certain goods and services to bring about lower prices.
- Reduction of taxes if review shows them to be discriminating against the mobile sector.
- Establishment of monitoring and evaluation schemes to measure progress and the fulfillment of objectives and reporting regularly.

## **7.2. LINKING UP WITH TRANS-EUROPEAN NETWORKS**

**7.9 The critical role of efficient transport in growth and the effective integration of the internal market lead to high EU attention to the sector.** The most recent (October, 2004) EU Progress Report for Turkey concludes: “Some progress could be recorded in all transport modes, excepted air transport, but overall alignment remains limited and all modes present problematic issues.” With the EU now Turkey's most important foreign

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<sup>80</sup> The EC makes this point in their “2004 Regular Report on Turkey's progress towards accession” {COM(2004) 656 final}

trade partner, progress in this area must focus not only on sector-specific reforms, but also on comprehensive trade and transport facilitation in major corridors implementing the EU Integrated Border Management Initiative and EU policies to address modal imbalance.

**7.10 *Major efforts remain to be made in implementing the National Program for the Adoption of the Acquis Communautaire.*** In the transport sphere, the following actions have been initiated as part of the Revised Accession Partnership short-medium term action plan: (i) alignment on road transport legislation (market access, road safety as well as social, fiscal and technical rules), railways and air transport (particularly air safety and air traffic management); (ii) ensure effective implementation and enforcement of transport legislation, particularly as regards maritime safety, road transport as well as air transport; (iii) complete alignment with EU maritime legislation in safety and non-safety areas; improve maritime safety, in particular improve the performance of maritime safety administrative institutions, first as a flag State, and then as a port State, and guarantee their independence; (iv) implement a program of adaptation of the Turkish transport fleet, particularly maritime and road transport, to Community technical norms; and (v) adopt a program with a view to identifying main transport infrastructure needs in Turkey and related transport-network projects, in coherence with the European Community TEN-transport guidelines. In terms of regulating the road transport market, two pieces of new national legislation (Road Transport Law and Road Transport Regulation) entered into force, elaborated in accordance with EU legislation concerning access to the market and the profession.

**7.11 *Government is reviewing a draft National Transport Strategy for approval.*** In addition, a Transport Infrastructure Needs Assessment (TINA) study is currently being carried out by the State Planning Organization (SPO) and Ministry of Transport (MoT), with a view to identifying main transport infrastructure needs in Turkey and related transport-network projects, in coherence with the European Community TEN-transport guidelines. One clear message from analytical work to date is that a shift is needed between the various modes of transport, especially for the transport of freight which should be gradually – but steadily – transferred from the road to the railways. Due to the steady increase of containerized cargo, intermodal transport systems should also be promoted to improve the connections between the various modes of transport, e.g., improved railway linkage to ports.

**7.12 *The challenges facing the transport sector go well beyond meeting the needs of the acquis.*** Road transport, the mainstay of the system, with 92 percent of freight traffic, has faced substantial underinvestment in maintenance and rehabilitation over the past decade. The percentage of roads in the state road network rated in good condition has slipped from 80 percent in 1993 to only 45 percent in 2003. The development of a sustainable model for road sector financing presents a major challenge.

7.13 ***National Road Administration (KGM) is a fairly effective organization dedicated to gradually increasing its efficiency in road management.*** However, it must do so in the face of: (i) insufficient funding for the maintenance and rehabilitation of the road network, especially with regard to rural roads and motorways; (ii) high injury and fatality rates from road crashes. Investments in traffic safety have led to recent progress, however, Turkey is still lagging behind European countries; and (iii) the need to further develop outsourcing road works to the private sector, especially through performance based contracts.

7.14 ***The rail system has been a major drain on government fiscal resources, while handling only some 5.7 percent of freight and 2.2 percent of passenger traffic.***<sup>81</sup> In 2004, TCDD, the Turkish State Railways, lost US\$780 million (US\$ 470 million including subsidies) and total government transfers, including the capital investment program, amounted to US\$1,023 million, or 0.4 percent of GDP. Although a very large sum, it must be noted that as a share of GDP this level of budget support together with uncovered losses is broadly comparable with other railways in middle-income countries in Europe<sup>82</sup>. Apart from the fiscal implications, within the transport sector, TCDD faces the greatest challenge in meeting the *acquis* requirement that social services be separated from commercial services.

7.15 ***In response to these challenges, the Government has taken a clear commitment for in-depth reform of TCDD,*** as will be defined in two new Laws: (i) a Railway Law providing a new legal framework for railway activity consistent with EU directives; and (ii) a TCDD Law supporting the reorganization of the national railway company. The restructuring includes the separation and eventually the privatization of the affiliated companies and of the ports operations, the reshaping of the labor force and the reduction in redundant staff. A social plan is to be implemented gradually in order to minimize the negative impact resulting from the staff adjustment process.

7.16 ***Port and rail sector reform are interrelated, as TCDD now manages the seven most important ports that are currently being privatized.*** The ports have been profitable, if inefficient, and at the end of 2004, the High Privatization Council announced that the Bandirma, Izmir, Samsun, Derince, Mersin, Iskenderun ports would be included in the privatization program.<sup>83</sup> Port assets will remain public property, with TCDD involved in post-privatization monitoring of investor's performance. The privatization plan calls for a transfer of operational rights for a 36 year duration.

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<sup>81</sup> The EC makes this point in their "2004 Regular Report on Turkey's progress towards accession" {COM(2004) 656 final}

<sup>82</sup> Croatian Railways (1.3% of GDP), Romanian Railways (0.7%), Bulgarian Railways (0.6%), Poland (0.4%).

<sup>83</sup> Privatization High Commission decision 2004/128, December 30, 2004

7.17 ***Port privatization requires careful design.*** The Bank has discussed the port privatization process with the Privatization Administration and raised a number of concerns, including: (i) the ability to effectively regulate the private monopoly that will now control each major port; (ii) tariff policy after the initial three year freeze; and (iii) whether the technical documents adequately address pre-qualification and other concerns. One of the key lessons from the Latin American port privatization experience of the past decade was the importance of an adequate regulatory framework for concessions. The Undersecretary for Maritime Affairs now acts as the National Port Authority with the power to: (i) regulate port tariffs; (ii) ensure security and safety within the Turkish ports; and (iii) manage the Harbor Masters' functions and responsibilities. The Undersecretary is involved in the design of the privatization process and will therefore play a key role in ensuring that recent international experience is incorporated in the regulatory approach finally adopted.

7.18 ***In maritime transport progress has been made, except for national cabotage services.*** The sector in Turkey is fully liberalized with significant progress recently observed in the quality of the vessels under Turkish flag complying with Paris Memorandum of Understanding (MOU) requirements. Regarding national cabotage services, the government has included its intention to liberalize national cabotage in the EU accession National Program, after EU membership.

7.19 ***Liberalization of domestic air transport.*** The recent opening of domestic air transportation to competition was followed by the emergence of several private carriers. These carriers provide cheaper transport options in certain high-volume routes with ticket prices reportedly around two thirds cheaper than THY. In 2004, the special process tax (ozel islem vergisi) and education support fund share (egitime katki payi) were eliminated from the airplane ticket prices.

### **7.3 ENERGY**

7.20 ***Government has focused for several years now on the restructuring of the energy sector, working for liberalization and regulation that will lead to more competitive, higher quality supply.*** In EU terms, Turkey is signatory to the Athens Memorandum, 2003 – the Memorandum of Understanding on the Regional Energy Market in South East Europe and its Integration into the European Union Internal Energy Market. While the other regional members signed the Energy Community Treaty in October 2005, Turkey is currently in discussion with the European Community on some aspects of the Treaty, before it considers signing the Treaty. Turkey however, remains committed to implementing the Acquis as demonstrated by the progress – albeit uneven – on its ambitious and complex reform program in energy.

**7.21** *While Turkey has implemented a number of the requirements of the EU and has actually achieved more than is required under the directives, its overall alignment with the EU directives remains uneven across different areas of energy policy.* The Government has, not allowed retail tariff increases over the past three years. They have partially compensated by increasing the use of hydro generation, the production cost of which is low. Government agencies and offices, notably municipalities, do not pay on time or adequately for their electricity consumption, leading to a further cash flow problem in the electricity sector – the Government is endeavoring to introduce new legislation to curb this problem. It is also hoped that with privatization of distribution, this problem of non-payment will reduce – privatization itself is delayed however, and it will take time to privatize the entire distribution network. There are delays in implementing the balancing market as well. There is a large degree of market opening at present, and Turkey aims to achieve the ambitious target of complete market opening by 2011.

**(a) Power**

**7.22** *Turkey has opened up the retail electricity market and is in the process of implementing a competitive market for electricity.* Currently consumers with up to 7.7 GWh of demand are considered “eligible”, i.e., they can choose their electricity supplier. Current market opening is estimated at almost 30% of the total Turkish electricity market. A transitional balancing market is also being tested at this stage, and will consist of a bilateral contracts market complemented by a balancing and settlement system. At a later date, a day-ahead market with “spot” prices will be instituted. The market, once it is functional, is expected to provide the necessary price signals for potential new generation.

**7.23** *With the exception of Turkey, by late 2004, all South East Europe power systems were synchronously interconnected.* The two existing 400 kV transmission lines between Turkey and Bulgaria would allow full integration of Turkey by the end of 2006. In addition to these lines, a new 400 kV line between Turkey and Greece is now under construction, with expected commissioning time is 2007. Turkey is not a member of the Union for the Coordination of Transmission of Electricity in Europe (UCTE), but would like to join. Turkey’s interconnection with UCTE is expected to contribute to the security of supply both in the South East Europe region and in Turkey through electricity trade. Turkey is undertaking key investments<sup>84</sup> required for joining UCTE, and detailed technical studies in this regard have been initiated in coordination with UCTE. Turkey is the dominant power producer and consumer in South East Europe – current generation capacity however, is projected as adequate only to meet demand through the next four years, and thus, security of electricity supply beyond 2009/2010 is a key government

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<sup>84</sup> The World Bank is financing some of these investments through ongoing loans, NTGP, and ECSEE APL2.

concern. However, given that the electricity market is in transition towards a competitive one, and given that the Government does not want to take on further liabilities with regard to new generation facilities, few alternatives remain. The Bank and Government are beginning work on exploring options for obtaining additional generating capacity in the current situation – a competitive market in transition and delays in privatization of distribution..

**7.24 Power prices are relatively high in Turkey.** In 2004, prices were approximately US\$0.085/kwh before VAT for households and US\$0.095/kwh for industrial consumers. These prices are higher than those faced by medium consumers in all but three of the EU15 countries.<sup>85</sup> Turkey currently has implicit cross-subsidies between regions and also for certain sub-categories of consumers. The Government is contemplating putting in place a transition period – through the use of a tariff equalization methodology which is envisaged for implementation starting in January 2006 – for reducing cross-subsidies and graduating to cost-reflective tariffs over the medium term.

#### **(b) Gas**

**7.25 Reform initiatives are in the right direction but should be fine-tuned.** The government has addressed the gas sector challenge through a 2001 Natural Gas Market Law<sup>86</sup> and subsequent secondary legislation. Current legislation is compliant with the EU Natural Gas Directive and is designed to open the gas market to competition and, eventually, foster a role for Turkey as a transit country. The Bank's recent policy note on the sector analyzes progress in implementing the law and highlights measures needed to achieve the objectives of the Government in the sector over the medium term.<sup>87</sup> Gas has grown rapidly as a percentage of total primary energy supply in the past decade, now reaching 23 percent. Moving to competitive gas wholesaling within Turkey, which is established policy in the EU, is important for promoting the efficiency of the sector. The policy note highlights the importance of moving to competitive gas wholesaling within Turkey. The note also states that it may not be feasible to transfer BOTAS gas contracts, advocating instead the use of volume release programs, an accepted approach in EU countries. The Law has been amended in June 2005 to allow volume releases as well. The Government has launched a contract/ volume release program for about 64% of existing demand, though the process has been delayed due to the amendment to the Law. Contract release tenders have been realized on November 30, 2005. Bids are currently being evaluated. BOTAS is also in the final stages of separating its transmission, storage

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<sup>85</sup> Using medium sized industrial consumers as the guide price. EU15 prices faced by small consumers equal or far exceed US\$0.085 in all but Sweden among the EU15.

<sup>86</sup> Natural Gas Market Law - Law No. 4646

<sup>87</sup> World Bank: Turkey: Gas Sector Strategy Note, Report No. 30030-TR, September 2004

and natural gas sales businesses into separate accounting entities, in preparation for eventual unbundling.

7.26 EMRA has also awarded licenses to private investors for building and operating greenfield gas distribution systems in 31 cities over the past two years. While it is still early to comment on the outcome of these privatizations, 20 of these cities are reported to have commenced the use of natural gas.

#### **7.4. COMMON REFORM DIRECTIONS**

7.27 *The long run gains offered by liberalization of infrastructure services offset the costs, but do require thoughtful timing and legislative action to realize.* The sectors discussed above share the qualities of high cost relative to comparator countries, and relatively low efficiency. The combination, while daunting, does mean that unlike many countries, Turkey has the potential to lower the cost of services while increasing quality and coverage. The means to achieve this – market liberalization to capture the benefits of competition – are embodied in the relevant *acquis* chapters, so Turkey’s on-going efforts to achieve that goal are consistent both with growth strategy and accession requirements. Furthermore, the needed actions typically have a low economic cost and offer fiscal relief. However, institutional reform comes with other costs that have slowed implementation. These include shifts in relative power among actors in the sector, with government agencies or state economic enterprises yielding power to more independent private entities (or state entities operating on commercial terms). The use of tariff policy as a social instrument will need to be altered in favor of explicit budgetary provision for social support. Finally, although the EU Acquis and practices allow for financial transactions and other practices through the “services of general economic interest” under well-defined conditions, the government’s flexibility in the use of Treasury shares, duty losses, and other *ad hoc* financial transactions with state economic enterprises should continue to be curtailed.