Information and Communications Technology, Regulations and Growth: Theory and Key Policy Issues

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1 Introduction

The world economy has become increasingly shaped by regional integration efforts in the 1990s. According to the WTO Report from 2002, only North Korea, Japan and Libya had not been involved in regional integration schemes at the beginning of the 21st century. Many motives stand behind regional integration schemes with economic aspects being a major element of the respective policy initiatives. Relatively poor countries are expected to gain from economic integration and to benefit from enhanced growth (BRETSCHGER, 2004). As regards economic growth, it is clear that not only integration and technological progress play a role but that monetary dynamics – including exchange rate changes (real appreciation in EU accession countries in the late 1990s vs. a real depreciation in most ASEAN countries) – can affect economic performance.

The EU has reinforced the integration process with the introduction of the Euro and the European Central Bank in 1999, but it also has expanded by way of EU eastern enlargement in 2004. In 2004, ASEAN countries decided to accelerate full steps towards a free trade area for the six original member countries of 1967. Fast

trade integration in Asia where ASEAN countries are eager to expand free trade arrangements with both China and India and possibly other countries indicates that the creation of regional trading blocs might be reinforced. At the same time economic globalization is continuing, mainly through high foreign direct investment and increasing “digital integration” which is partly based on the internet and new information and communication technology (ICT).

ICT has become a key field of innovation and investment in the triad in the 1980s and 1990s. Since the 1990s, new technological opportunities and competition-enhancing effects have emerged through digital convergence – the fact that digitization has blurred traditional market demarcations for voice transmission, TV transmission and data transmission. The liberalization of telecommunications worldwide has stimulated international communication and trade:

- In the 1990s, the internet emerged as the first global communication platform; main activity is business to business (B2B), only smaller fraction of e-commerce is business to consumer (B2C) or consumer to consumer (C2C). A prominent case for B2B is Covisint, a joint digital platform of automotive firms for buying intermediate inputs, and in the field of C2C, Ebay. These serve as examples of WALRAS meets Gates, that is digital auctioning on a software-based digital platform;
- Telecommunications markets were liberalized in most countries in the 1990, which not only helped to reduce telecommunications prices and stimulate digital innovations. It also gave new impulses to the telecommunications equipment industry where firms learned to deal less and less with state-owned monopoly operators but more and more with privatized telecommunications operators facing sustained competition;
- These technological and political developments have contributed to global standard setting in the telecommunications equipment industry;
- Digital communication in virtual networks have become a cheap high-performance option to effectively organize activities of multinational companies (MNCs). Given the imperfections of the markets for information, the long term move towards knowledge-based societies in Europe, Asia, North America and elsewhere is likely to reinforce the role of firm-internal transactions and hence the role of MNCs. The long term rise in the ratio for R&D expenditures to national income is reinforcing the growing role of MNCs, whose prime impulse for expansion is the drive to internationally exploit ownership specific advantages or to reinforce such advantages by international asset-seeking investment (read: investment in technology-intensive firms);
- E-government has become a growing field of government activity and naturally also a new element of cross-border cooperation;
- The WTO is involved in defining a global framework for digital products (GATT) and digital services (GATS; weaker set of rules), which is necessary in a world economy with a rising share of tradable digital goods and services;
- National governments and regional integration clubs – such as the EU and ASEAN – have started digital initiatives to promote regional integration and cooperation.