RECONFIGURING COMPETITIVENESS ON THE EUROPEAN E-TRADABLE SERVICES MARKET

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European economies are undergoing dramatic changes, determined by the rise in knowledge-intensity of economic activities, as an effect of the escalating pace of technological change, on one hand, and by the increasing globalization of economic affairs, driven by markets liberalization, on the other hand, having as consequence the emergence and development of a new type of economy, knowledge-based.

This paper aims at evaluating the positioning of Central and Eastern European countries (CEECs), and especially that of Romania, in the transformation process of their economic structure and organization towards a knowledge-based economy. In order to determine the specific characteristics of these countries, that could contribute to successfully developing a knowledge-based economy, we will focus our analysis on exploring the potential for offshoring e-tradable services, especially among developed countries, old EU members (EU 15) and CEE developing countries, new Member States of the EU.

Therefore, we aim at demonstrating that CEE countries, including Romania, have become part of this emerging global division of labor driven by fragmentation of production, through identifying the options available to these countries for participating in the exploding international trade in e-tradable services.

Key words: knowledge economy, competitiveness, e-tradable services, offshoring

Introduction

European economies are undergoing dramatic changes, determined by the rise in knowledge-intensity of economic activities, as an effect of the escalating pace of technological change, on one hand, and by the increasing globalization of economic affairs, driven by markets liberalization, on the other hand, having as consequence the emergence and development of a new type of economy, knowledge-based (Riddle, 1986; Rubalcaba-Bermejo, 1999).

In the same time and from a more specific perspective, (1) advances in technology, that influenced the structure and organization of services sectors, determined changes in the way services are internationalized and dramatically improved the tradability of services through electronic transfer; (2) innovations in business practice that have led to the out-location of services activities or functions, by multinational enterprises in the manufacturing and services industries, to their own operational units located abroad or to independent service providers; (3) substantial investments in education in a number of developing countries, that resulted in the creation of a relative abundance of skilled labor available at fairly low wages, due to the absence of proportionate employment opportunities have led to the disintegration of production and integration of services trade (Feenstra, 1998) in the global economy and, consequently, to the recent
positioning of e-tradable services (that can be traded across borders through electronic transfer) among the services subsectors with the highest growth rate in international trade (Mattoo, 2004). While industrial countries are the largest exporters of such services, with trade being still conducted predominantly among them, some of the most dynamic exporters are developing countries. Rapid advances in information and communication technologies (ICTs) and the ongoing global liberalization of trade and investment in services have increased the tradability of many service activities and created new opportunities for developing countries; thus, exporting e-tradable business services represents a major opportunity for “development after industrialization” (Kobrin, 1999) and has become a key driver of competitiveness and sustainable economic growth in a globalized economy (Stare, 2005).

With the transition to competitive markets, systemic barriers to the integration of firms from Central and Eastern European countries (CEECs) into international markets were removed. Until then, these countries remained outside the reach of the globalization process based on production fragmentation or sharing. As a result of the EU accession process, CEECs currently stand a good chance of taking advantage of the global disintegration of production.

Consequently, this paper aims at evaluating the positioning of Central and Eastern European countries, and especially that of Romania, in the transformation process of their economic structure and organization towards a knowledge-based economy. In order to determine the specific characteristics of these countries, that could contribute to successfully developing a knowledge-based economy, we will focus our analysis on exploring the potential for offshoring e-tradable services, especially among developed countries, old EU members (EU15) and CEE developing countries, new Member States of the EU, including Romania.

Thus, the question we are seeking to answer in this paper is whether CEE countries, including Romania, have already become part of this emerging global division of labor, driven by fragmentation of production, starting from identifying the options that developing countries have for participating in the international e-tradable services trade.

First, issues related to the crucial impact of rapid advances in information and communication technologies (ICT) on the tradability of services, as well as on the international organization of production are addressed. The second part of the paper examines some of the major aspects regarding offshoring, i.e. business models and factors shaping the decision on the implementation of the appropriate offshoring model. The third part of the paper focuses on the analysis of EU15 - CEECs trade and FDI in e-tradable services, to evaluate whether the statistical evidence supports offshoring trends towards the CEECs and to determine the geographic orientation of this trend. In the final section, potential factors that could explain the preference of the EU15 to offshore services to the CEECs, especially Romania, are considered. Furthermore, conditions that explain CEE countries’ and Romania’s potential to develop a competitive e-tradable services delivery capability are identified and analyzed. The characteristics of the new EU member states that could contribute to successfully developing the knowledge economy and to improving their competitiveness through exploiting the services market potential will therefore be revealed. The paper concludes by stating that a competitive market for these services throughout the enlarged Europe is the prerequisite to encourage an effective European integration.
1. The impact of ICT development on services tradability and business organization

The last twenty years have seen an explosion in the application of information and communication technologies (ICT) in all areas of business and community life. This explosion has been driven by sharp falls in the cost of computing and communications per unit of performance, and by the rapid development of applications relevant to the needs of users.

In economic terms, the central feature of the ICT revolution is the ability to manipulate, store and transmit large quantities of information at very low cost. An equally important feature of these technologies is their pervasiveness. While earlier episodes of technical change have centered on particular products or industrial sectors, information technology is generic. It impacts on every element of the economy, on both goods and services; and on every element of the business chain, from research and development to production, marketing and distribution.

Because the marginal cost of manipulating, storing and transmitting information is virtually zero, the application of knowledge to all aspects of the economy is being greatly facilitated, and the knowledge intensity of economic activities significantly increased, leading to the emergence of a new type of economy, knowledge-based (OECD, 1999; Foray, 2000; Chen and Dahlman, 2004).

The progress in ICT has determined significant transformations in the way services are transmitted across borders and has affected the organization and structure of services sectors.

Services activities that not long ago were considered non-tradable are now actively traded internationally. Technological innovation has improved the capacity of services to be incorporated in goods. What has accelerated the internationalization process, though, was the development of electronic networks that allowed for the separation of production and consumption for the e-tradable services and for their cross-border transfer. Moreover, the expansion of electronic networks and the decreasing communications costs, resulting from the implementation of new technologies, facilitated the introduction of new services and the access to market information.

Thus, due to the fact that recent technological developments led to a ‘tradability revolution’ in those services sectors associated with the convergence of information with communication technologies, e-tradable services can be expected to show a tendency towards international dispersal (UNCTAD 2004). And given their close functional integration with many aspects of the manufacturing process, the globalization of e-tradable services concerns not only the sector per se, but also the broader international division of labor in the new millennium.

The major transformations determined by ICT development are also evident at the international business organization level: the possibility to codify, standardize and digitize information allows for more and more activities to be fragmented in components of the production process, that can be supplied from different locations worldwide (offshoring), in order to benefit from cost and quality advantages, scale economies or other factors (Sauvant, 1990).

Technologies allowing for production fragmentation lead to a spatial distribution of production activity, as formerly integrated production processes are split into smaller components. The new dimension of this phenomenon is that production fragmentation occurs across national borders, with a new division of labor emerging in the world economy. This international division of labor is characterized by firms geographically
separating different production stages across the world economy to exploit differences in production costs. Thus, firms organize their activity in a global value chain.

With Eastern enlargement, Europe is reorganizing its international value chain. European firms offshore production to Eastern Europe. As a result, Eastern Europe is becoming an important location for European firms' international organization of production. This paper raises three issues. First, how do firms organize in an international value chain? Second, what is the extent of offshoring to the CEECs and Romania? Third, what determines empirically the preference of EU15 countries to nearshore to CEECs?

2. Why do firms organize in an international value chain? - offshoring models

The current trends on the global market, related to the international organization of services activities, namely (1) the redefinition of firms’ core activities through stripping away services functions that no longer fit the firms’ strategy, the emphasis being on “core competencies”, resulting in a separation of peripheral activities, in order to improve the operational efficiency and the capacity to create value added; (2) the geographical reconfiguration of firms’ value chain activities internationally, through redefining the roles and functions of individual corporate units; (3) the reconfiguration of firms’ activities through redefining the boundaries between internalized and externalized transactions, led to the emergence of new models for the international expansion of corporate services activities and functions, i.e. offshoring models.

According to UNCTAD (2004) and BCG Consulting (Colsman, 2005), offshoring - shifting an activity abroad - can be undertaken through: (1) internalization or captive offshoring - continuing to produce the services in-house, by transferring the supply of those services to an affiliate set up in a location with a cost advantage. Captive offshoring allows the company to benefit from the scale and cost advantages, while maintaining operational control of the offshored activities; (2) externalization or outsourcing - contracting the supply of services with a foreign independent service provider. Companies that choose this model aim at exploiting cost and specialization advantages of some locations or suppliers, while agreeing to give up operational control.

Hence, any offshoring decision requires a firm to choose to remove a service function previously undertaken in-house at home and entrust it to a provider – either its own foreign affiliate (internalization) or a third party (externalization) – located outside the home country.

Nearshoring, as a form of offshoring, entails the relocation of business processes to another country, located geographically near. For EU15 countries the nearshore locations are the CEECs.

(1) In the internalization case, companies offshore one or more functional activities along the value chain of services to affiliates abroad and integrate them with activities elsewhere within their production systems, in order to better exploit different locational advantages.

The significance of offshoring through internalization for CEECs has increased in recent years, with the type and purpose of FDI (main vehicle for captive offshoring) differing largely across the European transition countries: while in countries like Russia, Ukraine, Poland and the Czech Republic, FDI represents only a means to penetrate the market of the host country and the surrounding region and to supply services for these markets within the region, to facilitate market access and avoid trade
barriers (horizontal FDI), in countries like Estonia, Lithuania, the Slovak Republic, Romania, FDI is aimed at taking advantage of lower factor costs for parts of the services value chain and then at re-importing the services activities to the source country, as an input for the final production (vertical FDI).

(2) The potential for externalization of services is partly gauged by the progress in outsourcing of services at the national level. Once a company has outsourced an activity to an independent supplier in its home market, a logical next step may be to explore similar arrangements in other locations. Moreover, as domestic suppliers of outsourced services expand internationally, the scope for offshoring also increases.

The most dynamic segments of the services market, with a high potential for offshoring and a significant contribution to the increase in developing countries’ exports, as well as to their integration into the global trading system are e-tradable services, namely information technology services (ITS) (software development and implementation services, data processing and database services, IT support services, application development & maintenance, enterprise security, enterprise application integration, total infrastructure outsourcing, web services etc.) and business process (outsourcing) services (BPS) (customer interaction services, administrative services, sales-related services, operations, professional and other business services) (Mattoo, Wunsch-Vincent, 2004).

3. The research method: EU15 – CEECs offshoring practices

The estimates of the size and likely effects of offshoring for the EU differ and rely primarily on evidence focusing on the number of jobs that could potentially be relocated (Schaaf, 2004). The analysis of the EU27 employment distribution, for example, shows that, in 2004, 13.7 million workers worked in the fields of “computer and related services” and “other business services”, the two service sectors that best approximate activities that can be offshored. While EU15 account for the majority of jobs in these two sectors, the strongest growth rates in employment in the 2000-2005 period were experienced in the CEECs, partly due to the relocation of jobs from EU15 to CEECs (Huws & al, 2005), and indicate the growing capacity of CEECs to provide e-tradable services.

Because of the lack of reliable statistical indicators on the extent or the nature of offshoring (Van Welsum, 2004) examined from the point of view of potential jobs that could be shifted abroad, this paper will follow a different approach and will attempt to provide complementary data on the potential extent of the offshoring of services between EU15 and CEECs, based on data referring to trade and FDI in “other business services” and “computer and information services”, that will serve as proxy indicators. The main sources of data for the investigation are the balance of payments statistics on trade in “computer services” and in “other business services” and data on flows/stocks of foreign direct investment by activities.

Differences in the demand and supply of labor and wage levels in the recently enlarged EU have spurred intra-EU trade in IT and business process services. Western European companies are increasingly importing services from Eastern Europe, where salaries are modest and skilled labor abundant. Trade is further boosted by inflows of FDI from both EU and non-EU companies that locate regional headquarters and service centers in countries like Hungary and the Czech Republic to service customers in the European single market.
3.1. EU15-CEECs trade in e-tradable services

Data on services trade reveal the existence of positive growth rates of the CEECs exports of e-tradable services to EU15. Exports from the new member states to EU15 grew in the period 2000-2005 by 7.6% in information and computer services (ICS) and by 4.2% in business services. During the 1997-2005 period, EU15 imports of services from the CEECs grew faster than their total imports of services, and this in particular relates to information and computer services.

Trends in intra-EU15 trade are rarely similar to those in EU15 trade with the CEECs. EU15 imports of services from all CEECs, with the exception of the Czech Republic, recorded higher growth rates in the 2000-2005 period than intra EU15 trade in services. When longer time period is considered (1997-2005), the CEECs performed better than EU15, as the growth rates of the EU15 imports of ICS and business services from the CEECs (24.2% and 16.3%) surpassed those of intra EU15 trade (23.0% and 12.4%) (Eurostat, 2006).

The main competitors of the CEECs in supplying e-tradable services to the EU15 are Asian countries, with India topping the list. Although the volume of the EU15 imports of e-tradable services from India is larger than from the CEECs and the imports of ITS from India experienced much faster growth than from the CEECs throughout the 1997-2005 period, the EU15 imports of business services from the CEECs during 1997-2005 grew faster than from India (12.3%), mainly due to the performance of Lithuania (29.6%), Estonia (21%), Hungary (15%) and Romania (13%). If we take into account a more recent period (2000-2005), four CEECs (Estonia-16.7%, Lithuania-15.1%, Hungary-15.4% and Romania-12.7%) outperformed India (10.2%) in regard of the dynamics of e-tradable services’ exports to the EU15. Finally, it is worth noting that in the 1997-2005 period, all CEECs with available data (except for the Czech Republic) show higher growth rates in exports of services, business services and ICS to the EU15 than Asian countries (Eurostat, 2006).

As for Romania, exports of IT and business process services grew by 32.3% in the period 2003-2004 and by 40% in 2005, with over $250 million in exports in 2005. For the period 1995-2003, Romania witnessed an increase in these services of 28%, ranging 2nd in the world, after India. In addition, 70% of Romania’s trade with the EU is derived from outsourced facilities. Consequently, available empirical evidence tends to speak in favor of the CEECs potential to compete in the provision of information and computer services and other business services to the EU15.

3.2. EU15 – CEECs FDI in e-tradable services

Inward FDI in IT-enabled and business services in those CEECs countries with available data (Czech Republic, Estonia, Latvia, Poland, Hungary, Romania, Bulgaria), originating in EU15 countries have on average increased in the period 2000-2004 by 39%, with a stunning increase displayed by Latvia (78%), followed by Estonia (27%), Czech Republic (27%) and Poland (21%).

With respect to the distribution of FDI flows from EU15 to CEECs, Romania is on the 5th place, with 10%, Hungary, Czech Republic and Poland being on top of the list. It is also worth highlighting that EU15 FDI in IT-enabled and business services abroad have grown much faster than the intra EU investment (32.7% vs. 24.2% in 1997-2004 and 15.3% vs. 6.5% in 2000-2005). Moreover, FDI growth rates in intra EU15 were much smaller (6.5%) than FDI growth rates to the CEECs in business services (Eurostat, 2006).
Even though empirical data regarding trade and FDI in information and computer services and other business services from EU15 to CEECs is limited, we could at least assert that CEECs are supplying a higher quantity of such services to the EU15 countries than are importing from them and are dynamically increasing their supply of services to EU15. In addition, other factors support this statement and illustrate that nearshoring of e-tradable services from EU15 to CEECs is already taking place: (1) the AT Kearney consulting company report from 2003 placed Hungary, Slovakia, Romania and Czech Republic among the top EU offshoring locations for information services, indicating a very high potential for CEECs; (2) the McKinsey report from 2005 point to Hungary, Czech Republic, Poland and Romania as the most attractive locations for services offshoring (Farrel, 2005); (3) The Economist Intelligence Unit from 2005 places Romania on the 14th place worldwide as a services outsourcing destination, with a 7.08 score, as opposed to India, ranked the first, with a 7.76 score.

4. Research results: Central and Eastern Europe – a new player in the international division of labor?

The spatial configuration of firms’ assets and resources in different markets has become a key element of their competitive strategy. Firms need to build market presence in key growth markets and a strong competitive position in order to establish a leadership position in world markets (Douglas and Craig 1996). In addition, firms need to retain strategic flexibility in order to respond to changing demand, resources, and competitive conditions in international markets (Dunning 1998, Kogut 1985). Thus, the spatial deployment of firms’ assets, capabilities and resources - the offshoring locations, as well as the ability to manage and use these capabilities effectively – the offshoring model, have become fundamental components for establishing a global market position.

In the last fifteen years, the CEECs have experienced a dynamic growth of the services sector that resulted in narrowing the gap in relation to the EU15. The most advanced CEECs have surpassed the performance of some EU15 member states regarding services sector development, blurring the line between the old and the new EU members. The progress of the CEECs in services in terms of growth and improved range of services was enabled by privatization, regulatory and institutional reform, liberalization, technological and organizational change (Rubalcaba, 2005).

The level of labor costs in different locations plays a major role in offshoring and might also be a strong determinant of nearshoring from old to new Member States of the EU. Labor costs in the CEECs vary between 5.7% and 49.5% of the EU15 average in market services. In the case of Romania, labor costs represent only 7% of the EU15 average, while labor productivity is approximately 30% of the EU15 average. An index of productivity/labor costs points to countries like Romania, Bulgaria, Latvia and Slovakia that are more cost-attractive for nearshoring.

One of the obvious advantages for European companies of nearshoring to CEECs rather than offshoring to India or elsewhere is the issue of human capital, in terms of language skills, cultural affinity and education levels and qualifications. All CEECs achieve better result by education attainment than the EU15 average and four of the CEECs surpass the EU15 by the share of graduates from tertiary education per 1000 inhabitants (Estonia, Latvia, Lithuania and Poland). As for Romania, it ranks the 6th in the world by number of certified professionals in the field of information technology and the 13th by the number of graduates in the field (Brainbench, 2003). Currently, about 25,000 software professionals work in the industry and almost 1/5 of them are
involved in software export activities. Romania’s density of software graduates per thousand inhabitants is significantly higher than in the USA, it is two times that of Russia and nearly seven times that of India. Romania is in fact seen as the most promising location for IT outsourcing worldwide, due not only to low labor costs but also to well-educated and multilingual labor pool, competitive property costs and time zone (UNCTAD, 2004).

Another factor that influences the offshoring of services from EU15 to CEECs is the existence of cultural similarities, historical ties, geographical proximity to operations and a familiarity with language. The Romanian work force has some fairly unique language skills. Pierre Audoin Consultants (2004) found that 80% of the IT work force speaks English, 25% speaks French and 11-12% speaks German including native speakers, and many other western languages are present in smaller percentages. Also, some 60% of the Romanian population speaks a foreign language, mainly English.

Some additional reasons why EU15 companies may prefer to nearshore to the CEECs, including Romania, rather than to other low-wage locations relate to easier coordination of offshoring procedures, but also to harmonized standards and other regulations, as a result of the accession process.

5. Discussion of the results – Romania on the e-tradable services market

A specific analysis, along both lines presented above, i.e. service flows exported across borders as a result of outsourcing and flows engendered by captive offshoring (FDI, with impact on the domestic market), on the case of Romania yields the following results:

- the Romanian market for e-tradable services has not followed the same patterns of development over the last 20-25 years, as could be noticed in Europe or the United States. Not even during the accelerated growth of 1997-2000 did Romania belong to the group of countries with a spectacular development, as it was only at the beginning of the first major nationwide projects in the field. The weight of the private sector only started to grow after 2000, when foreign investments especially in the banking and telecommunications sectors finally started to target the IT area as well;

- the availability of international funds destined to Romania in view of its preparation for EU accession, as well as the mobilization of the authorities towards supporting the development of the IT industry (by setting up the appropriate legal framework, granting fiscal incentives and launching projects at the level of the central and local public administration) have created favorable conditions for the development of the software and e-tradable services industry;

- the improved perception about the Romanian business environment, the costs still substantially below those of developed countries, the fiscal incentives (tax reductions, industrial parks), a more mature company management in Romania, as well as the growing demand are the main determinants of Romanian exports of e-tradable services growth. At the same time, the previous crisis conditions had led to a very strong cost compression pressure. Against this background, the number of companies from developed countries wishing to externalize a part of their R&D projects in the IT field has risen by 28% over the five years (according to a 2006 poll by Pierre Audoin Consultants carried out in France and Germany);

- Pierre Audoin Consultants (2006) estimates that Romanian exports of e-tradable services will amount to EUR 385 million in 2008, as opposed to just EUR 146 million
in 2003. This growth will be partly accompanied by an increase of the number of employees involved in IT exporting companies, from 7700 persons in 2003, to 13500 in 2007. An important development is the productivity growth in this sector, from EUR 19,000/employee/year in 2003, to about EUR 28,000/employee/year in 2007. This will reflect several accompanying trends, that is, price increases for Romanian supplies (required in order to preserve profitability against the background of rising costs), involvement in higher value-added activities, improved local organization (better use of productive time available), as well as increased investments by some final users (Siemens, Alcatel, Motorola) in R&D facilities in Romania. Also according to PAC estimates, the software and computer services exports of Romania in 2009 will reach EUR 400 million, but the most important contribution will be that of international companies with a local presence (over 70%);

- Europe will remain the main destination of Romanian e-tradable services exports, but an important growth is expected in the demand by Japanese and Israeli companies. European companies have included Romania in their nearshoring strategies, given the advantages stemming from legislative, geographic, cultural and time proximity. The main problem of Romanian companies exporting e-tradable services is their very small size. Industry fragmentation makes it difficult to access large projects, with important value added, and discourages Western companies interested in investments or partnerships;

6. Concluding remarks

The reconfiguration of firms’ activities through redefining the boundaries between internalized and externalized transactions, the geographical reconfiguration of firms’ value chain activities internationally, through redefining the roles and functions of individual corporate units, in the context of unprecedented ICT development have determined:

- from the perspective of the demand (EU15 countries) - a reconfiguration of firm competitiveness, through applying new models for the international expansion of corporate services activities and functions, i.e. offshoring models.
- from the perspective of the offer (ECE countries) - a reconfiguration of firm competitiveness through efficiently exploiting location advantages.

The available evidence presented above suggests that future developments may speak in favor of EU concentrating a large part of services offshoring within its frontiers. This view is founded on the comprehension that differences in wages may not be sufficient condition for outsourcing to Asian locations with lower wages. The experience shows that offshoring is not an easy process for companies and that other costs may in the end surpass the differences in wages. These costs include direct and indirect costs that relate to business and legal framework, cultural barriers, etc. Hence, the harmonization of regulation among the EU member states, especially through the efficient implementation of the Directive on Internal Market for Services could help to alleviate rigidity in labor market within the EU and contribute to increased provision of services, thus favoring nearshoring of services within the enlarged EU. The European “proximity”, in the wide sense of the term, i.e. cultural, historical and geographical becomes a major competitive advantage of CEECs as a nearshoring location. It should, however, be complemented by an “economic proximity”, supported through the removal of obstacles to services trade and the creation of a pro-competitive regulatory environment required for improving service market competitiveness in Europe. An
enhanced service economy throughout the enlarged Europe is the prerequisite to encourage an effective European integration.

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