

Offshoring to new shores: Nearshoring to Central and Eastern Europe

Meyer, Thomas Deutsche Bank Research

14. August 2006

Online at http://mpra.ub.uni-muenchen.de/5785/ MPRA Paper No. 5785, posted 16. November 2007 / 15:31 August 14, 2006



Offshoring to new shores

Nearshoring to Central and Eastern Europe

Central and Eastern Europe (CEE) is an important region for services offshoring. The imports of IT-based services from Central and Eastern Europe into the EU-15 rose by an average of 13% per year between 1992 and 2004. Imports from India, by comparison, increased only slightly faster during the same period at 14% per year.

Close cultural and geographical ties make suppliers from CEE an attractive option. The close ties – in terms of culture, geography and partly language – between the CEE countries and the key Western European markets, the low wages, the high standard of education and stable macroeconomic and institutional environment constitute some of the strengths of the region.

However, CEE cannot boast any IT specialisation in exports or education. IT-based services account for less than 4% of total exports in CEE, whereas the share in India is 17% (see chart). Also, the share of graduates gaining information technology degrees – a key qualification for IT offshoring – is lower in CEE than the Western European and Indian averages. It is therefore unlikely that offshore production of standard IT services will become as important for CEE as is the case for India.

The comparative strength of CEE lies in more complex back-office processes. The cultural background shared by providers and their clients in CEE is particularly important for more complex business processes. Clients from outside English-speaking countries also appreciate the widespread language skills in CEE. Moreover, the lack of IT specialisation in CEE is less significant for typical back-office processes – such as bookkeeping.



Author

Thomas Meyer +49 69 910-46830 thomas-d.meyer@db.com

Editor Antje Stobbe

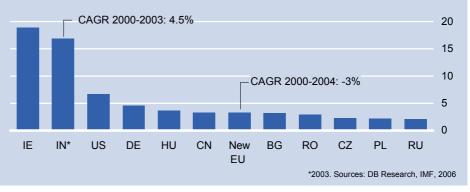
Technical Assistant Sabine Kaiser

Deutsche Bank Research Frankfurt am Main Germany Internet: www.dbresearch.com E-mail: marketing.dbr@db.com Fax: +49 69 910-31877

Managing Director Norbert Walter

Comparative advantage for Ireland and India

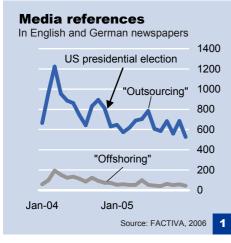
Exports of computer and information services and other business services as a share of a country's total exports in 2004, %



Examples of nearshoring

The logistics company DHL has been operating a computer centre in Prague employing 800 staff since the end of 2004. Along with other centres in the US and Malaysia it serves as an operations centre for global data traffic. Since early 2004 Commerzbank has also been offshoring in Prague, where it has payment transaction receipts checked. Skype, an internet telephony provider, operates a development centre in the Estonian capital, Tallinn, with a staff of around 130. Even Indian companies are arriving in CEE. Progeon, a subsidiary of the Indian IT service provider Infosys Technologies, offers BPO services to Western European clients from Brno in the Czech Republic.

Sources: Press releases and company reports



India has shown the way. And others want to follow. Many emerging markets and regions aspire to become not only the extended workbench of companies from high-wage countries but also their backoffice. Offshoring is a special form of trade in which certain business processes are spun off and outsourced to foreign locations. This applies in particular to IT services and general back-office process sectors.

The contracting-out of business processes to domestic providers is commonly known as outsourcing. The literature on IT-based services draws a distinction between *IT Outsourcing* (ITO) and *Business Process Outsourcing* (BPO). With traditional ITO the outsourcing of information technology cuts across several business functions – for example in the form of an external computer centre – whereas BPO refers to the outsourcing of individual processes with or without the associated IT.¹ These back-office processes include bookkeeping, human resources, as well as research and development (R&D). The contracting-out of services to providers in other countries is called offshore outsourcing or offshoring, for short.

This report focuses on nearshore locations in Central and Eastern Europe (CEE).² Nearshoring is one type of offshoring and refers to the outsourcing of business or IT processes to providers in nearby countries. Numerous companies now offshore their IT services and back-office processes to CEE – several examples are cited in the box. Above all they value the closeness of geographical, cultural and also language ties. The fact that compared with traditional offshoring locations CEE wages are mostly higher and communication more efficient suggests that the region will establish itself specifically in the segment for more sophisticated services. For simpler IT services the comparative advantage lies with the traditional offshore locations such as India.

IT offshoring: Robust growth from a low base

The economic significance of offshoring is debated controversially. A particularly heated discussion was ignited during the last US presidential election (see Figure 1).³ However, the international division of labour and specialisation constitute an important motor of world trade and the prosperity of nations. The global distribution of the internet along with high-powered computers and software have improved the tradability of services. They have made it possible to produce numerous services at different times and places from where they are consumed. The goods can be converted into digital form and distributed via global data networks. Many services can thus be produced in processes where there is a division of labour. Specialisation boosts productivity and offshoring allows international cost advantages to be exploited.

Offshoring is not reported directly in official statistics, so estimating the size of the market is not an exact science. Two methods are frequently used for measurement. Firstly, companies can be asked directly about their expenditure on offshoring. These figures are frequently used as the basis for estimates about the market as a

¹ See Wüllenweber, Kim et al. (2005). Business process outsourcing. E-Financelab. Frankfurt am Main. p. 15.

² Central and Eastern Europe consists of the new EU member states (excluding Malta and Cyprus) as well as Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Moldova, Macedonia, Romania, Russia, Belarus, Serbia and Montenegro as well as Ukraine.

³ See Mankiw, N. Gregory and Phillip Swagel (2005). The Politics and Economics of Offshore Outsourcing. AEI Working Paper, No. 122, pp. 3-6.



Statistical uncertainties

In some cases there are major discrepancies between the different estimates of the volume of the offshore ITO and BPO market. The reasons are demarcation problems and the lack of a common data pool.

The estimated total volume of USD 14.4 bn refers only to IT offshoring excluding captive offshoring. Assuming an offshore BPO market volume of USD 4 bn in 2006 and taking the share of US imports from affiliated companies in the computer and information services sector as a guide to the captive offshoring share (between 60% and 65%), a total market volume of between USD 46 bn and USD 53 bn seems realistic.

See also WTO (2005). World Trade Report 2005. p. 280ff.

whole. Consultancy firms and commercial data providers are the typical users of this instrument.⁴ A second method is to observe the trade flows reported in official balance of payments statistics. Authors at the OECD and the IMF are particularly keen users of this information.⁵

The technology consultancy IDC estimates that global expenditure on IT offshoring in 2006 will exceed USD 14 bn, with USD 11 bn being spent in the US and USD 2.5 bn in Western Europe. Other regions play only a minor role (see Figure 2).⁶ It is important to note that only traditional IT services were taken into account whereas BPO offshoring was not. Furthermore, services rendered as part of *Captive Offshoring* operations were not included. With *Captive Offshoring* the provider of the service is at the very least partly owned by the company outsourcing the service. If both BPO and *Captive Offshoring* are factored in, a realistic estimate of total market volume in 2006 appears to be between USD 46 bn and USD 53 bn (see box).

US companies are the biggest consumers of IT offshoring services. India is the most important production location. IDC estimates that in 2004 services worth USD 5.5 bn were provided in India for the US. Central and Eastern European output for the US was worth just under USD 0.5 bn, while the value of the Philippines' output for the US came to USD 0.4 bn.

Offshoring leads to imports and exports of services that are reported in international balance of payments statistics. For this reason some authors attempt to gauge the volume of offshoring using trade flows. Two items are frequently used in the literature:

- 1. Computer & information services (CIS)
- 2. Other business services (OBS)

Both items capture important transactions from the ITO and BPO segments. However, not all the trade flows logged there are the result of offshoring expenditure. The one-off purchase of a service, for example the production of a website, would also be included without a business process necessarily having been permanently outsourced. Some authors therefore use trade flows as an upper limit for the actual volume.⁷

Both the US and Western Europe are major importers and exporters of services. In 2004 the US posted an export surplus of over USD 25 bn on CIS and OBS, although the current account balance showed a record deficit overall.

In 2004 the EU-15 recorded an export surplus with CEE and an import surplus with India (see Figures 3 and 4). The volume of imports from CEE of nearly EUR 4.5 bn and from India of almost

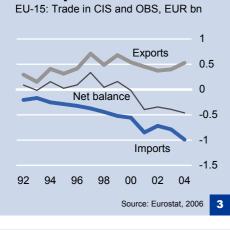
⁴ See Parker, Andrew et al. (2004). Mapping Europe's Offshore Spending Impact. Forrester Trends.

⁵ See Amiti, Mary and Shang-Jin Wei (2004). Fear of Service Outsourcing: Is it Justified? IMF Working Paper 04/186. p. 11f; and OECD (2005). Information Technology Outlook 2004. Paris.

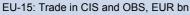
³ See IDC (2005). Worldwide Offshore IT Services 2005-2009 Forecast. No. 33529. p. 18 and p. 30.

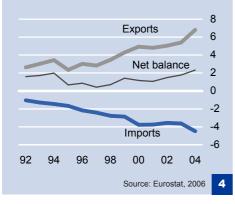
See WTO (2005) regarding the significance and limitations of this approach. World Trade Report 2005. p. 265ff.

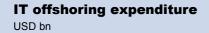
Net imports from India

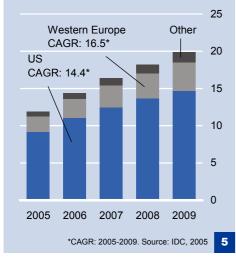


Export surplus with CEE









EUR 1 bn is however modest.⁸ Worldwide, the EU-15 imports CIS and OBS services worth nearly EUR 220 bn – primarily from other industrial nations.

Trade flows present a more mixed picture than is often painted by the media. The trade in IT-based services is not a one-way street: locations like India or CEE are both exporters and importers of these services.

High growth rates

While the volume of IT-based services rendered in low-wage countries for firms in high-wage countries is still modest, the growth rates are striking. IDC estimates that spending on IT offshoring will grow by an average of 14.4% per year in the US and by 16.5% per year in Western Europe until 2009 (see Figure 5). The highest growth rates of nearly 36% are expected in the Asia-Pacific region – however, starting from a very low base.

A look at the trade flows confirms the impression: the imports of ITbased services from offshore regions have risen considerably. Between 1992 and 2004 the nominal increase in global imports by the EU-15 of CIS and OBS amounted to nearly 9.3% per year. By contrast, their imports from CEE over the same period have climbed 13% per year and from India by 14% per year. By comparison, total imports of services have risen just 6.7%.

New production locations

Many new locations are trying to copy India's success in IT services. However, export structures reveal that India evidently possesses a pronounced comparative advantage.

The share of a country's total exports generated by a sector or industry is often regarded in the literature as an indicator of a revealed comparative advantage.⁹ It is a plausible assumption that countries specialise in those goods and services they produce more efficiently than other countries. Export specialisation is thus evidence of a comparative advantage.

The figures for IT-based services, that is the balance-of-payments items CIS and OBS, confirm India's leading role as an export nation. In India 17% of all exports are IT-based services. This figure is only topped by Ireland's 19%. In absolute terms the US is the biggest exporter of CIS and OBS, worth USD 76.4 bn, but these services constitute only less than 7% of all the country's exports.

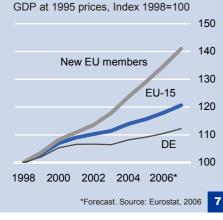
CIS and OBS account for less than 4% of exports from CEE countries, which is much lower than in other countries (see Figure 6). Russia's export share is just a little over 2%. In the Philippines only just under 0.8% of exports are generated with IT-based services. The growth rates are also interesting: while India has grown its CIS and OBS share of exports by an average of 4.5% per year in the past few years, the share in the new EU member states fell 3% per year on average. There has been a nominal increase in exports of IT-based services by both India and CEE – the only thing

⁸ Gravity models show that geographical and cultural ties are major determinants of trade volume. It therefore hardly comes as a surprise that imports from CEE are higher than those from India. Regarding the methodology and interpretation of gravity models, refer to, for example Bussière, Matthieu, Jarko Fidrmuc and Bernd Schnatz (2005). Trade Integration of Central and Eastern European Countries: Lessons from a Gravity Model. ECB Working Paper No. 545.

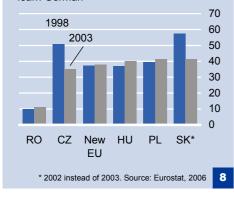
⁹ The reasoning is based on an article by Bela Balassa: Balassa, Bela (1965). Trade Liberalization and Revealed Comparative Advantage. The Manchester School of Economic and Social Studies 33. pp. 99-123.



The booming East



Do you speak German? Percentage of schoolchildren who learn German



is that exports by other sectors have increased even faster in the new EU member states.

The export structure however reflects the current state of specialisation. If demand increases, then the supply side will react in turn. It is therefore worth taking a closer look at the factors pertinent to locations in the CEE.

What Central and Eastern Europe has to offer

Most Eastern European countries have achieved impressive development since the fall of the Iron Curtain. Macroeconomic stabilisation, robust growth and a rising standard of living are the fruits of a largely successful transition process (see Figure 7).

Language skills and cultural ties make communication easier

CEE countries have close geographical and cultural ties with the markets of Western Europe. Typical nearshoring locations score high marks because of their lower costs for communication between the purchaser and the provider of the nearshoring service. There are three reasons for this:

- Personal contact: Complex problems are best solved face to face. Nearshoring locations are closer to the client, which makes visiting each other easier.
- Common language: Nearshoring locations often have personnel that are proficient in the language of their client – even though their official languages may differ.
- Cultural understanding: In most cases nearshore personnel have a better knowledge and understanding of the cultural background of their clients than their counterparts in offshore locations. This allows easier, more implicit communication as misinterpretations occur less frequently.

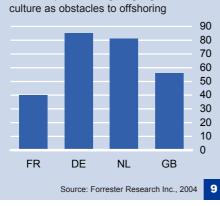
Language skills are particularly important. India's success is attributed in no small measure to the large supply of English speakers – and most offshoring contracts come from Anglo-American clients. This puts continental European companies at a disadvantage. Although English is regarded as a *lingua franca*, communication nevertheless becomes more efficient if both partners speak the language fluently. This is evidently not always the case in some continental European companies. Moreover, proficiency in the language used by the procuring company is essential for many services, for example for providing customer care in call centres or processing receipts issued in the client's native tongue.

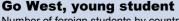
CEE is particularly interesting for German companies. Nearly 40% of schoolchildren in the new EU member states learn German. The proportion is particularly high in those countries bordering Germany (see Figure 8). Though this does not mean that German is spoken fluently, it does however signify that at least there is a basic level of proficiency that can be built upon. Furthermore, over 70% of schoolchildren learn English, which enables language gaps to be plugged. Romania is interesting for French companies as 85% of schoolchildren there learn French.

These language skills are an important selling point that should not be carelessly wasted. In some CEE countries, such as the Czech Republic or Slovakia, fewer schoolchildren are learning German than in 1998.

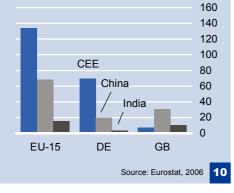
Along with speaking the language, knowledge of the culture and customs represent the prerequisites for efficient communication.

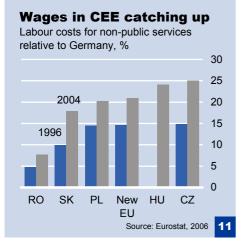
Few multiculturalists % of companies citing language and





Number of foreign students by country of origin: '000





Many companies in Europe perceive language and cultural differences as a hindrance to offshoring activities (see Figure 9). It is interesting that no less than 56% of UK companies see this as a problem despite the close language and cultural ties with their preferred offshoring location, India.¹⁰

Communication takes place at several levels. In addition to the formal – written or spoken – exchange of information, a major role is played by implicit signals and expectations. The understanding and the interpretation of these signals and expectations are dependent on the cultural background of the persons communicating. For example, in Albania agreement is indicated by shaking the head, instead of nodding as is customary elsewhere. If cultural peculiarities are not taken into account, this can quickly result in misunderstandings that give rise to additional costs.

Field reports emphasise the very meticulous approach of Indian personnel. Nevertheless this approach is often combined with highly process-oriented and formalised working methods. This increases the expenditure on communication and documentation and makes it difficult to react quickly and flexibly.¹¹

In Europe, by contrast, there is a broad canon of shared history and traditions that facilitates mutual understanding. Workers in CEE find it easier to interpret the implicit signals as they were meant by their sender. Often they have a better understanding of the client's objectives. This also means that they pose searching questions about their clients' specifications.

Personal experience enriches cultural bonds. This is gained during periods of study abroad, for example. In 2003 nearly 70,000 students in Germany came from Central and Eastern Europe – that is almost 30% of all foreign students. Indian and Chinese students are to be found in particularly large numbers in Great Britain (see Figure 10).

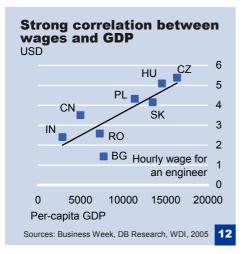
Big differences in wages

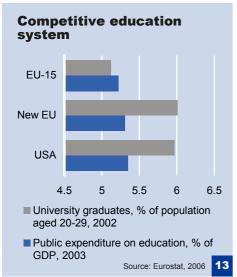
Cost savings are the primary motive for most outsourcing. Producing services is labour intensive, which is why wages and non-wage labour costs are important. In CEE, labour costs are much lower than in Western Europe: In the new EU member states the average labour costs for non-public services are around one-fifth of those in Germany. In Romania and Bulgaria labour costs are less than 10% of those in Germany (see Figure 11). The costs in recent years have however risen considerably: between 1996 and 2004 labour costs in the new EU member states rose by an average of 7.7% each year. In Romania they have climbed 8.1%, in Slovakia by 9.7% and in Lithuania by no less than 15% per year. By contrast, wage growth in Western Europe was modest: 2.1% in Germany and 3.4% in the EU-15. Wage differences remain pronounced, but they are narrowing.

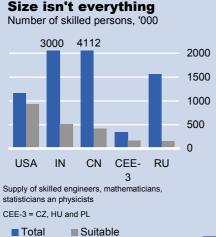
Most of the CEE countries are not among the cheap offshoring locations for skilled jobs. In China and above all in India the wages are mostly lower. Only a few non-EU countries can compete at that level. An engineer in the Czech Republic is paid about USD 5.40 per

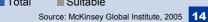
¹⁰ The low share among French companies is possibly even more surprising. There are however other more pressing problems. For example, 92% of respondents expressed concern about the behaviour of unions and 79% about resistance to offshoring among their own staff and managers. These worries are less pronounced in the other countries. See Méndez, Manuel Ángel (2004). Europe's Offshore Outsourcing Plans. Forrester Research Inc. p. 6.

¹¹ See Moore, Stephanie and Adam Brown (2004). Cultural Challenges in Offshore Outsourcing. Forrester Research Inc.









hour, whereas he can be hired for just USD 3.50 per hour in China or USD 2.40 per hour in India. In Romania the corresponding wage is around USD 2.60 per hour, and in Bulgaria it is only USD 1.40 per hour.¹²

As one would expect, there is a clear correlation between the wage level and gross domestic product (GDP) per capita (see Figure 12). India and China are alike in that they have a low per-capita GDP as well as low wages for engineers, whereas wages and GDP are comparatively high in Hungary and the Czech Republic. Only in Bulgaria do engineers earn wages that are well below average.

The decisive factors for the future development of wages are labour market supply and demand as well as the structural development of the labour markets themselves. Structural issues are still of less importance specifically in poorer offshoring locations. The correlation in Figure 12 indicates that the wages for skilled work rise as economic development progresses. Per-capita income in the advanced CEE countries is higher than in India or China, so the wage level is also higher. However, wages are not the only criterion when choosing a location. Other factors like the standard of education, infrastructure or institutional quality – which tend to be better in richer countries – can make up for wage cost disadvantages.

High standard of education – but no IT specialisation

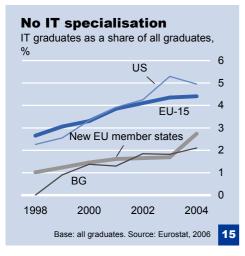
The supply of well-trained labour is a key determinant of the appeal of a location. Most Central and Eastern European countries can boast competitive educational systems. The number of graduates produced in the new EU member states is slightly higher than the average in the EU-15 or the US. Per 1,000 inhabitants aged between 20-29 there are around 60 students gaining degrees in the new EU member states and the US, while the corresponding number of students graduating in the EU-15 is about 51. Public spending on education is similar in all three regions at around 5.3% of GDP (see Figure 13).¹³ The figures are lower in most of the CEE countries outside the EU: In Bulgaria, for example, the graduate ratio is 4.1% and state spending on education is equivalent to 3.6% of GDP.

The pool of skilled labour is quite large in most offshoring locations. However, formal qualifications often provide very little indication of whether the people concerned are also suitable for employment by a service provider with international clients (insourcer). Not all universities satisfy the standards that are usually met in Western Europe or the US. Moreover, some degree courses do not provide the opportunities for students to gain sufficient language skills or practical experience. There can be a striking discrepancy between the number of persons with the requisite formal qualifications and the number of actually suitable job candidates. According to a study by MGI, just 10% of graduate engineers, mathematicians, statisticians and physicists in China or Russia are suitable

¹² Hourly wages as published in Business Week on December 19, 2005. Comparing wages internationally is difficult as the individual characteristics of employees and regional differences can lead to major fluctuations. These are rough figures for indicative purposes.

¹³ The low graduate ratio in the EU-15 is primarily due to Germany (only 3.2%). Many young adults in Germany regard the country's dual system of vocational training and education as an attractive alternative to university. In the US private expenditure on education is more significant than in Europe, which means that the "government spending on education" indicator underestimates the actual volume of investment in education.

Size of actual labour pool is put into perspective



No specialisation in IT or natural sciences

candidates – in terms of their training – for the jobs available at insourcers.¹⁴ In the Czech Republic, Hungary or Poland (CEE-3) the share is nearly 50%, whereas in the industrial nations about 80% of graduates are suited to working for international service providers. This puts into perspective the size of the actual labour pool (see Figure 14).

Although in India und China only a small proportion of trained specialists are suitable for skilled jobs at insourcers, there are nevertheless more of them – in absolute terms – than in other offshoring or nearshoring locations. Moreover, the low ratio of suitable candidates suggests that extensive reserves can be tapped in the medium term by improving the quality of training and education.

Many IT-based services require technical process skills and the ability to solve abstract problems. Technical, mathematical and natural science subjects are good preparation for this, as of course is studying information technology. These disciplines were particularly important in CEE in the past. In the meantime, however, many students appear to have lost interest. The number of information technology graduates is lower than in the EU-15 or the US: well under 3% of all graduates in the new EU member states studied IT. The picture looks similar outside the EU, in Bulgaria, for example. The share is over 4% in the EU-15 and close to 5% in the US (see Figure 15).

In 2003 the IT graduate share in Russia was more than 2.5%.¹⁵ For India the IT graduate share can be estimated between 6 and 7% for the year 2004/2005.¹⁶ These numbers may possibly turn out to be inadequate. Some observers fear there will be a shortage of specialists, which could put the brakes on the boom in the Indian IT industry.¹⁷

The IT graduate share generally increased between 1998 and 2003. However, it is unlikely that this trend will continue across the board. Many of those who graduated in 2003 in information technology were still influenced by the New Economy boom. In the meantime enthusiasm for IT has waned once again, so the graduate share is more likely to fall going forward – as it happened already in the US 2004.¹⁸

Besides IT there are other technical and scientific subjects that have a part to play: whereas in the EU-15 almost 12% of all graduates studied natural sciences or mathematics or IT, the figure in the new member states is only 6%. Outside the EU, the picture is similar: In Romania and Bulgaria the share is below 5%. The social, legal and economic sciences are popular among students in the new member states, accounting for close to 46% of all graduates, compared to 32% in the case of the EU-15.¹⁹

¹⁴ Farrell, Diana et al. (2005). The Emerging Global Labor Market: Part II – The Supply of Offshore Talent in Services. McKinsey Global Institute.

¹⁵ According to the industry association RUSSOFT, more than 42,000 IT students graduated in 2003, see RUSSOFT (2005). IT Outsourcing Destination: Russia. White Paper. p. 6. The basic information about all the graduates as a whole (nearly 1.6 million) comes from UNESCO.

¹⁶ See NASSCOM (2006). Knowledge Professionals in India. Press Information Note.

¹⁷ See Schaaf, Jürgen (2005) Outsourcing to India: Crouching tiger set to pounce. DB Research. Current Issues; and NASSCOM-McKinsey Report (2005). Ensuring

India's leadership in the global IT and BPO industries. ⁸ See ACM (2006). Globalization and Offshoring of Software. A Report of the ACM

Job Migration Task Force. Chapter 7. pp. 16-21.

⁹ All details for 2004. 14.2% of all graduates from the new member states are not categorised according to a particular course, in the EU-15 the corresponding figure is just 0.6%. This data underestimates the actual number of graduates in the

The general level of education in CEE is comparatively good – albeit without any specialisation in information technology. Once again this gives the impression that CEE does not enjoy any appreciable comparative advantage in the traditional IT services segment. However, a broad supply of skilled workers is an important advantage in the competition for more complex business processes.

Poor countries have weak institutions

Low wages for well-trained personnel are not the sole criterion when deciding on a location. Macroeconomic and institutional factors also play a part. After all, the offshored processes are often very important to the companies doing the offshoring – even if they are standard services. If, for example, an offshored IT support service were to become interrupted due to external influences, this could have major repercussions for the entire production process. Other problems arise if the offshore location does not take data protection or intellectual property rights seriously, if contracts are not honoured or if government behaviour is unpredictable.

The quality of a country's institutions is clearly correlated to its level of economic development (see Figure 16). In the literature the *International Country Risk Guide Composite Indicator* (ICRG) is often used as yardstick for institutional quality.²⁰ It combines estimates of political risk, the rule of law, the quality of bureaucracy etc. with economic and monetary policy variables. Since typical offshore locations are mostly poorer countries – as only they can offer the desired wage cost advantages – allowances thus have to be made on the institutional side.

Offshoring means that a medium to long-term supply relationship is agreed between the buyer and the seller for a specific service. The type and quality of the service is laid down in a *Service Level Agreement* (SLA). It is important that the specifications laid down in the SLA are fulfilled. In some countries, however, the costs of contract fulfilment are considerable. A general estimate of the average costs can be found in the Doing Business database of the World Bank, which measures how long it takes and how much it costs for the legal enforcement of a pecuniary claim in the case of a dispute.²¹ In India this can cost over 40% of the outstanding amount. In China and Russia the figure is over 20%. In Hungary and the Czech Republic, by contrast, the costs are lower than in Germany at less than 10%. In Romania and Bulgaria, too, the costs are under 15% (see Figure 17).

The contractual relationship becomes even more complicated by the fact that requirements change over time, for example thanks to technical developments or regulatory changes. These changes are not always foreseeable. Supplier and purchaser must therefore agree on changes during the life of the contract that were not expected when it was signed.

On account of the long life of an SLA and the frequent need for amendments there is a particularly high risk that the renegotiation of terms will result in a disadvantage for one of the contracting parties.



Log GDP per capita (USD, PPP)

ICRG scale from 1 (risky) to 100 (safe).

80

70

60

50

40

 $R^2 = 0.7487$

Sources: WDI, 2004; DB Research, 2006 16



individual disciplines from the new EU member states. However, it seems implausible that it can be attributed solely to the difference from the EU-15.

²⁰ See Knack, Stephen and Philip Keefer (1995). Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures. Economics and Politics 7(3). pp. 207-227.

²¹ Regarding methodology and interpretation, see Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer (2003). Courts. Quarterly Journal of Economics. Volume 118. No. 2. pp. 453-517.

The provider of a service can for example try to increase the price of its service by asserting that conditions have changed. Often it cannot be determined for certain whether the reason stated actually justifies the price increase. Good institutions, however, stabilise the business relationship by offering a reliable forum and set of rules for settling disputes that extends as far as a fair legal resolution.

India's IT industry has a special role

The aggregate data on institutional quality are average figures for the whole economy which mask the differences between sectors. This is important especially in countries like India where the differences between sectors are particularly stark. Indeed, the Indian service sector is more successful than other sectors: It employs just 20% of the workforce but generates over 50% of economic output. The IT industry has a special role. India's top providers have been in business for decades and have earned international respect and recognition. The trust that has been established provides security, and thus guarantees that the business relationship is maintained appropriately and amicably. After all, no provider wants to damage its reputation by renegotiating a contract in such a way that its client is disadvantaged. In CEE, the providers of ITO and BPO have a shorter history and therefore have hitherto had little opportunity to establish a similar reputation.

Buoyant demand

Backlog demand in continental Europe

Companies from the US and the UK are the leading purchasers of offshoring services. To date they have benefited from the supply structure as the most important supplier – India – has been able to cater mainly for their requirements.

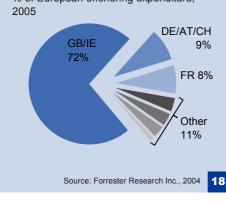
Over 70% of all European offshoring expenditure occurs in Great Britain or Ireland (see Figure 18). Germany, Austria and Switzerland account for a combined share of just 9%, while France claims 8%. Southern European countries like Italy, Spain and Portugal play only a very peripheral role.

Continental Europe is an attractive market for suppliers from CEE as the backlog demand there is bigger than in the UK and Ireland. Moreover, CEE possibly offers precisely those factors that companies in continental Europe have been waiting for – in terms of language and culture in particular. However, other regions are also playing to their strengths: French firms are finding French-speaking personnel in North Africa; Spanish companies are looking for partner firms in Latin America. Numerous Asian countries are developing offerings for the small, but fast-growing Japanese market.

Smaller firms are more reluctant to resort to offshoring. For them CEE offers an interesting range of offshoring services. Smaller firms tend not to be able to split up and standardise their processes as much as large firms. Their processes are also smaller in volume. For this reason the investment in selecting and monitoring an offshoring partner is often more costly than the potential savings. Nearshoring is an alternative in this case because the set-up costs tend to be lower.

New processes

Offshoring is no longer restricted to only the simplest programming tasks and call centres. Complicated and complex processes are also being outsourced to foreign locations where the expertise for these tasks is growing. Indian radiologists, for example, analyse and



Not only programming

The management consultancy McKinsey has been operating a research department in Madras, India, since 1998. There are more than 100 employees providing support to the consultants, for example by producing highquality presentations. The autoparts supplier Continental employs 200 staff in Sibiu, Romania, conducting research and development of electronic control components. Companies like GE, Citigroup, Dupont, Oracle and Cisco buy in legal services from India.

Sources: Press releases and company reports

UK and Ireland dominate offshoring in Europe % of European offshoring expenditure,

Reputation reduces the risk of

renegotiations

interpret X-ray images for American hospitals. Other skilled backoffice activities are also being offshored, such as legal advice (*Legal Process Outsourcing*) or the evaluation of economic data. The technology consultancy Forrester estimates that by 2010 nearly 39,000 legal advice jobs will have been outsourced from the US to offshore locations.²²

The inventiveness of companies knows no bounds when it comes to offshoring. Many services – and not only the traditional IT services – can be provided inexpensively in low-wage countries. Discovering suitable processes and creating the necessary corporate structures for outsourcing will increasingly develop into a business management skill.

An important indication of the potential for offshoring is gained by looking at outsourcing practices. Many processes are contracted out domestically (outsourcing), before being sourced abroad (off-shoring). More complex business processes tend to be categorised under *Business Process Outsourcing*, while traditional IT services fall under the term *IT Outsourcing*. IDC estimates that BPO will reach a volume of more than USD 35 bn in Western Europe by 2009 (see Figure 19),²³ bringing it almost on a par with ITO. In the US, BPO already accounts for nearly 90% of all outsourcing.

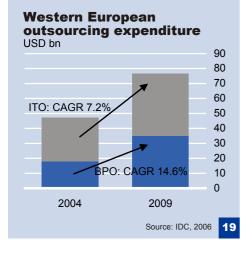
The growing importance of BPO specifically in Western Europe boosts the prospects for CEE. After all, suppliers from CEE play to their strengths particularly in more complex business processes.

Conclusion: Selective offshoring

IT services and back-office tasks for companies in high-wage countries are an attractive business area for many emerging economies. Offshoring creates well-paid jobs and export revenues there as well as promoting technology and knowledge transfers. It is no wonder that so many countries are attempting to imitate India's success by promoting themselves as an offshoring or nearshoring location. Central and Eastern Europe (CEE) is a promising location thanks to its close geographical and cultural ties with major markets and its comparatively attractive wage levels and educational standards.

The market for IT and other business process offshoring is expanding markedly. The growth rates are much higher than for other business activities – albeit starting from a low base. Continental European and Asian companies are still more reticent than their Anglo-American competitors, but they cannot ignore the expected cost advantages in the long term. In addition, the range of business activities is expanding, as new processes are discovered for offshoring – for example research and development.

On the supply side typical local factors are important. The wage level in the advanced CEE countries is lower than in the old EU member states, but higher than in the standard offshoring locations. Outside the EU, however, there are more inexpensive nearshoring locations such as Romania or Bulgaria. Typically, the poorer the country, the lower the wages. However, the macroeconomic and institutional risks increase when processes are offshored to particularly poor countries. This can become a problem if, for



CEE benefits from its close geographical and cultural ties

Offshoring volumes are still low, but growth rates are high

Wages are mostly higher in CEE than in standard offshoring locations

 ²² McCarthy, John (2004). Near-Term Growth Of Offshoring Accelerating. Forrester Research Inc.
²³ Research Inc.

³ See IDC (2006). Western European BPO Services Market 2005-2010, Forecast and Analysis, No. BPO1N; and IDC (2005). Western European IT Services Market 2004-2009, Forecast and Analysis, No. Q03M.

India's IT sector has a special role	example, there is very heavy dependence on the outsourced process or sensitive data is being processed. The Indian IT service sector enjoys a special role, because it has become more experienced and professional in recent decades. The low-cost CEE countries lack this advantage. That is why institutional shortcomings are more serious there.
	India has a specialised export structure made up to a large extent by IT-based services. This suggests a comparative advantage in producing these services. Both this specialisation and a specialisation in IT training are lacking in the CEE countries.
Close geographical and cultural ties make communication easier	CEE is playing to its strengths in precisely those areas where communication between the purchaser and provider of outsourcing services is particularly important. This is often the case with more complex business processes. Moreover, the lack of IT specialisation in CEE is less significant for typical back-office processes, such as bookkeeping. Their close geographical and cultural ties with the client make communication easier. This reduces misunderstandings and makes it easier to exchange complex and abstract information. Furthermore, many personnel in CEE have German and French language skills and can therefore service these markets more easily.
For simple services price is the decisive factor	Each company has to decide for itself how important it considers communication. It is to be expected that companies desire intensive communication with their clients regarding complex, innovative or creative processes. Inexperienced companies will pay closer attention to the offshoring relationship in the beginning and frequently seek reassurance. Simple, standardised services, by contrast, require less interaction. In these cases companies tend to base their decision on price, even if communication with the client is more complicated. A nearshoring location like CEE becomes more appealing as the intensity of the communication desired increases.

Thomas Meyer (+49 69 910-46830, thomas-d.meyer@db.com)

ISSN Print: 1619-3245 / ISSN Internet: 1619-3253 / ISSN e-mail: 1619-4756

[©] Copyright 2006. Deutsche Bank AG, DB Research, D-60262 Frankfurt am Main, Germany. All rights reserved. When quoting please cite "Deutsche Bank Research".

The above information does not constitute the provision of investment advice. Any views expressed reflect the current views of the author, which do not necessarily correspond to the opinions of Deutsche Bank AG or its affiliates. Opinions expressed may change without notice. Opinions expressed may differ from views set out in other documents, including research, published by Deutsche Bank. The above information is provided for informational purposes only and without any obligation, whether contractual or otherwise. No warranty or representation is made as to the correctness, completeness and accuracy of the information given or the assessments made.

In the United States this information is approved and/or distributed by Deutsche Bank Securities Inc., a member of the NYSE, the NASD, NFA and SIPC. In Germany this information is approved and/or communicated by Deutsche Bank AG Frankfurt, authorised by Bundesanstalt für Finanzdienstleistungsaufsicht. In the United Kingdom this information is approved and/or communicated by Deutsche Bank AG London, a member of the London Stock Exchange regulated by the Financial Services Authority for the conduct of investment business in the UK. This information is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. and in Singapore by Deutsche Bank AG, Singapore Branch. In Japan this information is approved and/or distributed by Deutsche Securities Limited, Tokyo Branch. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product. Printed by: HST Offsetdruck Schadt & Tetzlaff GbR, Dieburg