

Georg Erber* and Aida Sayed-Ahmed**

Offshore Outsourcing

A Global Shift in the Present IT Industry

The offshore outsourcing of IT services has become increasingly important for the global IT industry and is creating new uncertainties for the IT workforce in the USA and Western Europe. It is easy to overestimate the benefits of offshore outsourcing, however, if only wage cost differentials are taken into account and the many hidden costs are ignored. The following article discusses the advantages and risks involved in the different phases of offshore projects and presents some conclusions with regard to prospects.

Over the last 30 years, textile, automobile and steel manufacturers have outsourced work to foreign countries. Now it is the turn of information technology. Offshoring has created huge multinational corporations the turnover of which easily exceeds the GDP of most developing countries. Offshore outsourcing is currently changing the business models of IT companies and can be seen as a key force in the new post-dot-com era of the global IT industry. This transformation from highly concentrated IT industries in the developed economies to a more globally distributed value chain puts current business models of many IT industries at risk and creates new uncertainties for the digital work force, threatening their jobs with being moved offshore. These workers will face increased wage pressure if they have to compete with IT specialists abroad, in particular in India and China.¹ However, the offshoring of IT jobs is just one dimension of job losses, while labour-saving technological progress in IT production and application makes IT jobs obsolete regardless of where they are located. Currently we face a new trade-immiseration debate, this time concerning not only low-skilled workers in developed countries, but also high-skilled workers in IT services – an even more frightening prospect.

A New Terminology

Offshoring can be defined as the relocation of business processes (including production, distribution, and business services, as well as core activities like research and development) to lower-cost locations outside national borders. This term assumes the perspective of the country of origin. Offshoring can refer

either to the production of goods or to services. China has emerged in the 1990s as the preferred destination for offshore production, while India has become the destination for offshore services. But China, as well as many other developing countries, is currently expanding its capacity for the inshoring in particular of IT services.

Inshoring refers to the relocation of business processes from higher-cost to lower-cost countries, taking the view of the destination country.

Sometimes the literature distinguishes between offshoring and *nearshoring* (compared to true offshoring) when the location of the first destination is at a closer proximity to the country of origin. Major nearshoring destinations are Mexico and Canada for US businesses, while Ireland and Eastern Europe are nearshoring sites for European companies (cf. Figure 1). Geography and trade are therefore still closely linked even in the global information society when it comes to the offshoring of IT services.² Furthermore, business processes that stay in the country of origin are called *onshore processes*.

The theoretical foundation of the economics of outsourcing was first established by Ronald Coase in

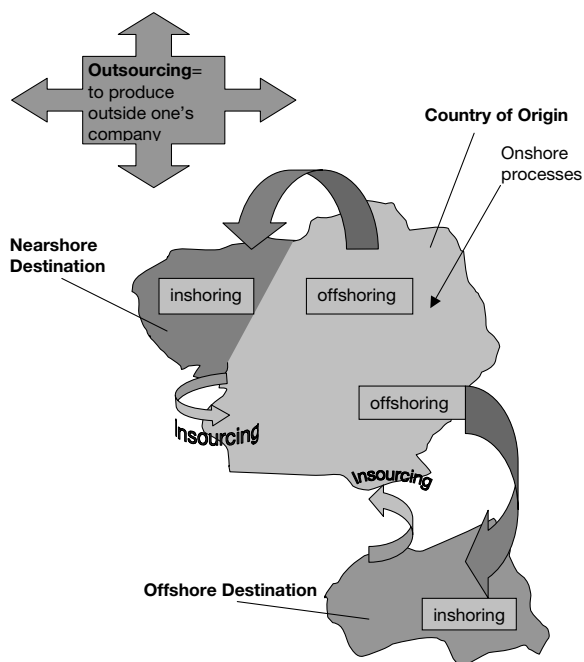
* Senior Researcher, German Institute for Economic Research, Berlin, Germany.

** Research Assistant, German Institute for Economic Research, Berlin, Germany.

¹ Cf. e.g. R. B. Freeman: Are your wages set in Beijing?, in: Journal of Economic Perspectives, Vol. 9, No. 3, 1995, pp. 15-32, who addressed the topic of global wage competition in the low-skilled labour market very early on. However, at that time, the empirical evidence was insufficient to support the hypothesis that offshore outsourcing of low-skilled jobs had a significant long-term impact on the US labour market. It now seems that this debate from the first half of the 1990s is again repeating itself, but from a different perspective. Today, high-skilled IT service jobs are under threat from low-wage competition through offshore outsourcing to China and India. Freeman drew the wise conclusion in 1995, "That we lack compelling evidence that trade underlies the problems of the less skilled in the past does not, of course, rule out the possibility that trade will dominate labour market outcomes in the future." Ibid., p. 30.

² P. Krugman: Geography and Trade, Cambridge, Mass. 1992, MIT Press.

Figure 1



1937 when he asked the question, “What establishes the boundaries of a firm?”³ By comparing the costs of the internal supply of a particular task or service with the external market costs of the same task or service, managers and entrepreneurs could decide about the efficiency of internal or external production by making internal/external cost comparisons. By establishing transaction cost calculation, Coase laid the foundation of modern transaction cost economics.⁴

In contrast to outsourcing, one can also find the term “insourcing”, which means that firms take back services previously outsourced to offshore or nearshore destinations.

Outsourcing became a popular buzzword in the 1990s. It was a welcome addition to the business vocabulary. By splitting the value chain of a company’s production process into a sequence of tasks, its comparative advantages over competitors could be utilised to increase the company’s profitability.⁵ By focusing each company on its own core competen-

³ See R. Coase: The nature of the firm, in: *Economica*, Vol. 4, 1937, pp. 386-405.

⁴ For a recent survey of transaction cost measurement see e.g. N. Wang: *Measuring Transaction Costs: An Incomplete Survey*, Working paper No. 2, Ronald Coase Institute, University of Chicago, February 2003.

⁵ See e.g. M. Hammer, J. Champy: *Reengineering the Corporation: A Manifesto for Business Revolution*, Harper-Collins, New York, 1993.

cies, it was able to achieve major improvements in efficiency and profitability.

Additionally, outsourcing reduces the amount of sunk costs in fixed investments which, with a volatile demand, could lead to significant underutilisation of production factors. By outsourcing some of the production capacity to subcontractors, a company might gain sufficient flexibility to be able to utilise its own capacity at a consistently higher level.

Outsourcing, however, involves transferring a significant amount of management control to the supplier. This creates the risk of diminished control over the supply chain. A typical outsourcing relationship seeks to reduce this risk through a higher degree of coordination than between totally independent buyers and sellers. Buying products from another entity is not outsourcing or out-tasking, but merely a pure vendor relationship. Likewise, buying services from a provider is not necessarily outsourcing or out-tasking. Outsourcing always involves a considerable degree of two-way information exchange, coordination and trust.

One way of exchanging this information is to transfer information to offshore outsourcing service providers. To enable efficient information transfer, companies offer specialised training to improve business processes. They then store, process and communicate information using a specific “system” of hardware and software.

Outsourcing of IT Services: the Beginning

The concept of outsourcing was first applied by Ross Perot, when he founded Electronic Data Systems (EDS) in 1962. EDS told a prospective client, “You are familiar with designing, manufacturing and selling furniture, but we’re familiar with managing information technology. We can sell you the information technology you need, and you pay us monthly for the service with a minimum commitment of two to ten years.”

Organisations that deliver such services feel that outsourcing requires that management responsibilities for running a segment of business be turned over to specialists. In theory, this business segment should not be mission-critical, but practice often dictates otherwise. Outsourcing business is characterised by expertise not present in the core of the client organisation.

A related term is out-tasking: turning over a narrowly defined segment of business to another business, typically on an annual contract, or sometimes a shorter one. This usually involves continued direct or

indirect management and decision-making by the client of the out-tasking business.

With the rise of globalisation, offshore outsourcing of IT is increasingly taking the form of business process outsourcing, where whole business processes (like support and development) are outsourced – in contrast to task outsourcing. The client is usually free to choose who provides the outsourced business processes. Pressure from the stock market to do more for less requires managers to take the cheapest offer they can get. Companies like IBM, Microsoft and Hewlett Packard either buy services from sub-contractors in countries such as India and China, or locate development and support jobs there.

One of the first mega-deals in the world of IT outsourcing was the \$3.2 billion contract between Xerox and EDS in 1994. The initiation of the IT offshore outsourcing process took place in 1994 and 1995. A key force in this development was shortages in the IT skilled labour force. Internal firm growth depended crucially on the outsourcing of IT services especially when the new economy was spurring growth in the US economy.

Since then, the number of IT offshore outsourcing companies has been steadily rising. The research company Gartner Inc., in Stamford, Connecticut, estimates that by the end of 2004 one of ten US IT companies, and one of twenty non-IT companies, will be planning to move offshore.

It is obvious that offshoring can take place either inside a single multinational corporation or through an outsourcing contract with a foreign company. Similarly, outsourcing can emerge inside the boundaries of one country. Thus, offshoring and outsourcing are independent options which, if they occur simultaneously, lead to offshore outsourcing as a specific form of outsourcing.

Typical Offshore Activities

Typical offshore activities are technology-based services. Industry-watchers agree that software programming is one of the first jobs to be offshored. The major reason for this can be seen in the fact that technology is easily teachable and learnable everywhere – a Java code does not know any cultural differences. Business activities that are closely entwined with national particularities do not move offshore as easily, if at all. To sum up, we can say that time-consuming, clearly definable work is particularly suitable to go offshore.

According to a CIO Research Report,⁶ 86 per cent of respondents in a survey said they currently outsource

application development offshore and 26 per cent move call centres offshore. Other activities frequently sent offshore include system administration/support (23%), help desk (17%) and business processes (e.g. financial applications) (17%). On average, the value of current offshore outsourcing contracts is \$16.2 million in the 101 organisations included in the survey – not very high for an economy like the USA with its \$10.3 trillion GDP. IT professionals most frequently answered that their organisations would not outsource system and architecture planning (45%), R&D (43%) or business processes (38%).

Advantages of Offshore Outsourcing

Globalisation in IT is driven by cost optimisation: the expected cost savings of up to 40% by offshore outsourcing IT services are simply too compelling to be ignored in today's economy. Let us consider India, for example: US companies are expected to save up to \$11 billion in 2004 by outsourcing to India.⁷ The shrinking life-cycle of many products and services from the IT industries has significantly increased the demand for higher flexibility of IT firms, which often lack time to build up sufficient human resources and other capacities to meet the actual timeframes of IT projects. The volatility of demand and the heterogeneity of IT projects also make it nearly impossible to maintain adequate human resources and capacities within an organisation to carry out tasks in time. Immediate access to external resources can thus give a company a major competitive advantage.

"We've been asked to do more with less," says Jim Honerkamp, CIO at Clopay Corp., an Ohio-based manufacturer of commercial doors. "At the same time, our application portfolio has been increasing. The only way to look at this was through an offshore solution."

Outsourcing companies can in particular cut labour costs, IT development time, maintenance costs and the timeframe of production processes overall.

- Outsourcing work and payments to low-cost countries can reduce fixed R&D costs. In addition, the substitution of fixed costs by variable costs gives the outsourcing company greater flexibility in reallocating its capital.
- Outsourced work conforms to companies' needs over a longer timeframe, whereas contracts with offshore service providers are made more on a short-term, case-by-case basis. The majority of co-

⁶ Lorraine Cosgrove Ware: Weighing the Benefits of Offshore Outsourcing, in: CIO Research Reports, 2 September 2003.

⁷ Estimated number by Sunil Metha, Vice-President of the National Association of Software and Service Companies (Nasscom), India.

operation with offshore programmers, for instance, is based on contract periods of between one and five years.

- Cutting costs can cut the IT budget by as much as 50 per cent, enabling the company to provide new market services faster, by optimising its process chain and improving customer perception. This adds up to a reduced time-to-market.
- Quality criteria are another incentive for offshore outsourcing. The ideal outsourcing partner assures high quality work at low prices and a modern IT infrastructure, and guarantees international quality standards.
- By outsourcing processes outside its core business, an enterprise can devote itself entirely to value-added activities within its core competencies. This can help to unlock internal resources.

Indeed, offshore outsourcing is a completely new area for IT. According to a CIO Research Report⁸ when 101 IT executives were surveyed in 2003, the majority (67%) said their company began outsourcing after 2000. The benefits of outsourcing are well known. In the following, several risks of moving offshore will be examined more closely.

Risks of Offshore Outsourcing

Many economically attractive labour pools abroad carry location-specific risks that must be balanced against the expected cost savings. Cost savings that make a location attractive at one point in time are sometimes significantly reduced by new taxes, exchange-rate volatility and rapid increases in local wage rates. Companies must therefore balance high potential returns against higher country-specific risks that depend on potentially shifting political, regulatory and economic conditions. One possible way for companies to address this problem is locational and/or vendor diversification. If a company uses only one location or a single vendor, this can be compared with investing in only one stock. Investing capital in several different companies or countries provides risk-reducing portfolio effects on invested capital. This is why analysts or consultants often advise managers to create significant outsourcing portfolios to hedge against business risks and high volatility of returns to capital.

Short-term IT offshore outsourcing decisions can later lead to specific problems. Such decisions are often induced by a company's lack of capital or its attempt to meet short-term objectives such as improving quarterly profit rates. The consequences of these

decisions are often, however, long-term as well, and affect organisations for years to come. This phenomenon of time inconsistency with regard to the short and long-term costs and benefits of outsourcing must be taken into consideration.

Often, companies make short-term IT outsourcing decisions after they have already been reducing their IT budgets for several years. These budget cuts might have been necessary or beneficial in the short run, but at a later stage significant upgrades to IT infrastructure may become necessary, and a backlog of application development may become visible. Therefore "offshore solutions" might cut costs in the short run but not necessarily in the long run. Some firms rush too fast into offshore arrangements because they are in vogue in the business community. Too often, only the hourly labour rates of IT workers are considered, which do not justify moving offshore if the total cost of offshore outsourcing is considered. Moving beyond day-to-day concerns is necessary, since short-sighted IT decisions can become very expensive later on. Therefore it is necessary for management to plan such a move carefully.

Huge current investments imply that the risks of IT offshore security have become manageable. India, considered an example of a mature offshore destination, can show double-digit growth in revenues from IT services, which are expected to reach \$57 billion in 2008, according to a joint study by McKinsey & Co. and Nasscom. Based on a US model of spending 5% to 7% of the IT budget on security, and with the IT budget consuming 15% of a service company's revenue, India is expected to spend \$450 to \$600 million on information security and assurance by 2008. According to Rich Mogull, research director for information security and risk at Gartner Inc., "The security risks offshore generally aren't any different than the security risk you face onshore." Only distance and, more crucially, different laws – especially regarding data security and copyright legislation – have to be considered. To minimise security risks, companies have to know their own security and privacy requirements before they move offshore. Key areas of offshore security are access control, network security, facilities and operations, and applications security. Experts suggest including stringent security measures in the service level agreement, including periodic assessments, audits and tests.

Switching Costs

The outsourcing company usually encounters costs when it changes even one single component of its offshore outsourcing system. In other words, the com-

⁸ CIO Research Reports, op. cit.

pany is to some extent locked in by an offshore relationship and faces switching costs when moving from one service provider to another, changing the offshore destination, or bringing outsourced IT activities back home.⁹ Varian and Shapiro point out that switching costs are the norm in the business relations of an information economy. They distinguish between several types of lock-in and associated switching costs. One type of lock-in effect concerns information and databases, which with regard to IT offshore outsourcing means huge investments in IT technology to store and manage the transferred information. If offshore service providers arrange upgrades or convert data into new formats, the outsourcing company might face incompatibilities or high switching costs if it changes to another supplier of such services. Switching costs can therefore create significant barriers to exiting from contracts.

Other types of lock-in mentioned by Varian and Shapiro are specialised suppliers and search costs. Among outsourcing contracts, lock-in effects can emerge if organisations change their offshore vendor or even the offshore destination, e.g. from India to China. Choosing one single service provider today will make the company more dependent in the future. Therefore, companies should maintain alternative sources of supply, which can be called a multiple sourcing strategy. By holding multiple offshore outsourcing service providers, the ability to switch vendors later on at comparatively low switching costs gives outsourcing companies a higher bargaining power. This is a strategy of risk insurance against otherwise high switching costs by keeping the amount of value at risk – associated with a particular contract partner – under control.

The search costs range from selecting and testing new vendors to identifying alternative offshore countries. In complex mass markets, these costs are often very substantial and the associated switching costs include productivity interruptions when changing ingrained habits in current business relations.

Newspaper headlines which take wage differentials of IT workers as a benchmark often suggest that companies save up to 80 per cent of wage costs by moving IT work offshore. This should, however, not be interpreted to mean that a cost advantage of this dimension can be translated into higher net profits of the same dimension for the outsourcing company. United Technologies, an acknowledged leader in developing offshore practices, currently saves only just over 20 per cent even when wage differentials are as high as

80 per cent.¹⁰ In order to realise such substantial cost savings, companies have always to consider the total costs of offshore activities.

Offshore Project Phases

Outsourcing consultants point out that unexpected costs can arise during any phase of the offshore project and therefore reduce the positive net effects of cost savings. An offshore project can be divided into three phases.

Phase 1: Selecting a vendor. The expense of evaluating and selecting a vendor can cost from 0.2 to 2 per cent of the annual costs of the deal.¹¹ This expensive process can take six months to one year, i.e. could cause a significant delay, requiring time commitments from senior executives in IT, and further expenditures of human resources in the IT, financial, legal and other departments. Project leaders, for instance, may work full-time on this, and hence, vendor selection is associated with high opportunity costs. Extensive travel expenses enter the picture as well, as companies need to see what the service providers' real capabilities are. Furthermore, the market for service providers is complex, and entails changing terms and conditions. Therefore in some cases organisations will need to buy expensive studies from independent consulting firms or even employ offshore outsourcing consultants. Clearly defined goals for the outsourcing project will shorten the process without disregarding its importance: choosing the vendor relationships carefully is a must-do for successful outsourcing.

Phase 2: The transition period. A further expensive phase of an offshore endeavour is the transition period, when knowledge is transferred from onshore workers to members of the outsourcing team, costing on average up to two to three per cent in addition to the annual offshore costs.¹² A contractor located offshore means extensive travel expenses and cultural or language training for employees who visit the contractor's site, possibly for months. Basically, in a state of transition the company's costs double: it pays for both the offshore worker and the in-house trainees. Those involved in-house do not produce anything during this period. Moreover, data transfer between client and outsourcing vendor might require additional network

⁹ C. Shapiro, H. Varian: Information Rules: A Strategic Guide to the Network Industry, Harvard Business School Press, Cambridge, Mass. 1999.

¹⁰ Stephanie Overby: The Hidden Costs of Offshore Outsourcing, in: CIO Magazine, 1 September 2003.

¹¹ Ibid.

¹² Ibid.

Table 1
Hidden Costs of Offshore Projects
(in \$ m.)

Hidden costs	Best case	Worst case
Vendor selection	\$16.2 x0.002 = \$0.0	\$16.2 x0.02 = \$0.3
Transitioning the work	\$16.2 x0.02 = \$0.3	\$16.2 x0.03 = \$0.5
Layoffs and retention	\$16.2 x0.03 = \$0.5	\$16.2 x0.05 = \$0.8
Lost productivity/ Cultural issues	\$16.2 x0.03 = \$0.5	\$16.2 x0.27 = \$4.4
Improving development processes	\$16.2 x0.01 = \$0.2	\$16.2 x0.1 = \$1.6
Managing the contract	\$16.2 x0.06 = \$1.0	\$16.2 x0.1 = \$1.6
Total hidden costs	15.2% = \$2.5	57% = \$9.2
Original contract value	+ \$16.2	+ \$16.2
Total costs of outsourcing	= \$18.7	= \$25.4

bandwidth and security technologies. Companies using an offshore outsourcing service will also need to comply with the other country's communications and data encryption regulations and requirements when upgrading networks.

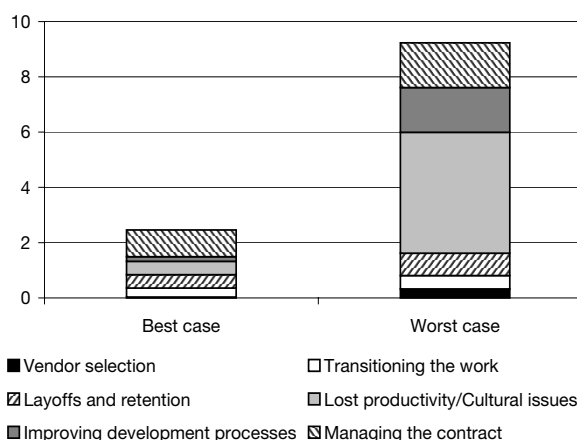
Organisations that make layoffs in the course of outsourcing jobs can incur human resource costs for severance pay and employee benefits. Some companies might have to pay retention bonuses to managers they want to keep within the organisation during the transition process and beyond. An extra three to five per cent of the original contract value is to be expected on average.¹³ Layoffs can also cause problems in workers' morale (on the politics of outsourcing see below), resulting in a significant decrease in productivity.

Offshore outsourcing takes time – at least two or three years, say experts – so CIOs can use that time to cut the workforce through attrition rather than layoffs. Additionally, offshore consultants claim that CIOs have to communicate the company's layoff plans and offshore goals honestly and early on in order to build consensus.

Another problem that should not be underestimated are the cultural differences, which may result in productivity lags. Companies have to face totally different attitudes when comparing American to Indian workers, for example. Offshore programmers have been known to say, "This doesn't make sense, but this is the way the client wants it." Such differences result in an average 20 per cent decline in application development efficiency during the first two years of a contract for IT organisations going offshore, according to Meta Group Vice-president of Service Management Strategies, Dean Davison. According to Meta Group,

Intereconomics, March/April 2005

Figure 2
Hidden Costs of Outsourcing
(in \$ m.)



lags in productivity can add as much as 20 per cent in additional costs to the offshore contract. Companies may have to bridge cultural gaps by sending in-house workers to their offshore partner more often than anticipated, as face-to-face interaction can help clear up misunderstandings and different interpretations.

In addition, the generally high turnover rates at offshore service providers diminish productivity. According to the National Association of Software and Service Companies (Nasscom), attrition rates are as high as 35 per cent in India. Therefore, the spending of an extra 3 to 27 per cent on productivity lags has to be expected when projects are sent offshore.¹⁴

Well-defined internal software development and maintenance processes are also a key to the efficiency of offshore projects. Onshore companies face productivity lags when moving to emerging markets but at the same time US companies have to adjust their internal standards to high standards in India. Companies often have to pay for costly and time-consuming training, education and support from consulting firms to bring themselves up to a CMM Level 3.¹⁵ Many organisations spend an extra one to ten per cent on improving software development processes.

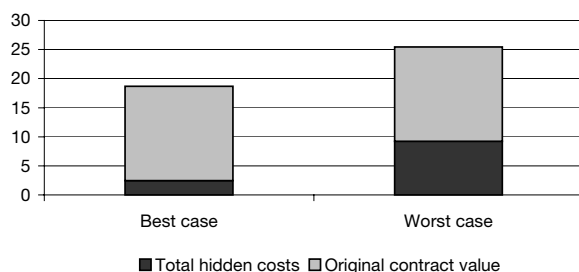
Phase 3: Managing the contract. Companies might underestimate the amount of effort and resources it takes to manage the actual offshore relationship properly. When work and data transfer are carried out daily, a significant number of invoices and time sheets

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Carnegie Mellon University's Capability Maturity Model, an acknowledged measuring unit. A select group of experienced IT appraisers assess the effectiveness of development processes on a scale from one to five (= best value), <http://www.sei.cmu.edu/cmm/cmm.html>.

Figure 3
Total Costs of Outsourcing
(in \$ m.)



have to be audited. An additional payment of six to ten per cent has to be expected for managing the offshore contract.¹⁶

All three phases taken together add up to a considerable amount of hidden costs. For example, if a company spends \$16.2 million on offshore outsourcing contracts,¹⁷ then it will actually spend 15.2 per cent in extra hidden costs even in the best-case scenario, and up to 57 per cent in the worst-case scenario (cf. Table 1 and Figures 2 and 3).

Risk of Failure

The hidden costs of offshore IT outsourcing increase when considering the hidden risk of failure, which should be determined under the assumption that most rational investors are risk averse. The concept of "risk aversion" implies that when facing choices with comparable returns, one tends to choose the less risky alternative, a construction we owe largely to Milton Friedman and Leonard J. Savage.¹⁸

It is well-known that offshore IT outsourcing and internal IT-projects have a high failure rate, which is difficult to quantify since companies tend to be reticent about their total failures. A study by Standish Group¹⁹ found that one-third of major IT projects are terminated ahead of schedule. This may provide an initial impression of the potential failure rate of offshore IT outsourcing as a part of major IT projects.

According to another study (November 2002) by DiamondCluster International, a Chicago management consultancy, 78 per cent of executives who have outsourced an IT function have had to terminate their

¹⁶ Stephanie Overby, *op. cit.*

¹⁷ \$16.2 million = the average value of offshore contracts for 101 companies recently surveyed by the CIO Magazine. Cf. Lorraine Cosgrove Ware, *op. cit.*

¹⁸ M. Friedman and L. J. Savage: The Utility Analysis of Choices Involving Risk, in: *Journal of Political Economy*, Vol. 56, No. 4, 1948, pp. 279-304.

agreements prematurely. Poor service, a change in strategic direction and costs were the most frequently cited reasons for the outsourcing companies' dissatisfaction. The conclusion could be drawn that outsourcing companies are perfectly irrational. However, IT firms progress along the offshore IT outsourcing learning curve (see below) rapidly, which decreases offshore IT outsourcing failure rates. First-time movers might therefore not generate the pertinent information on long-term costs and benefits in this rapidly changing environment. Furthermore, a riskier investment must have a higher expected return in order to provide an incentive for a risk-averse investor to select it. It has been already mentioned that the expectation of significant cost savings, or increasing returns on investment are companies' major incentives for offshore IT outsourcing.

Often, offshore IT outsourcing project failures are cited as anecdotal evidence that the expected cost savings (especially of hidden costs) are completely unattainable. However, this could be an overstatement in the long run. Companies that follow the IT offshore trend often learn from the experiences and mistakes of their predecessors. Therefore offshore outsourcing of IT services exhibits all the same patterns that other innovation processes do. One can expect that the hidden costs of offshore IT outsourcing will diminish over time following a learning curve of offshore outsourcing. This decrease in costs is due to effects from learning-by-doing²⁰ or learning-by-using²¹ over time. However, there is currently no systematic statistical information about these developments beyond the individual company level, i.e. anecdotal evidence.

Four Stages of Going Offshore

Organisations are confronted with many challenges when they outsource IT work offshore. Although each company faces its own specific problems, a scheme by John C. McCarthy, Research Director of Forrester Research, divides firms into four sections, the "four stages of going offshore". This classification has two central advantages for our analysis:

- it helps differentiate the risks;

¹⁹ "The Standish Group research shows a staggering 31.1% of projects will be cancelled before they ever get completed. Further results indicate 52.7% of projects will cost over 189% of their original estimates. The cost of these failures and overruns are just the tip of the proverbial iceberg. The lost opportunity costs are not measurable, but could easily be in the trillions of dollars in the United States alone." Chaos Report, Standish Group, 1995, http://www.it-cortex.com/Stat_Failure_Rate.htm.

²⁰ K. J. Arrow: The Economic Implications of Learning by Doing, in: *Review of Economic Studies*, Vol. 29, No. 3, June 1962, pp. 155-173.

²¹ N. Rosenberg: Exploring the Black Box: Technology, Economics and History, Cambridge University Press, Cambridge, UK 1994.

Table 2
Four Types of Companies

Bystanders	Experimenters	Committeds	Full exploiters
• 60 % of the Fortune 1000	• 25-30 % of the Fortune 1000	• 5-10 % of the Fortune 1000	• <5 % of the Fortune 1000
No offshore relationship	Have offshore experience and relationships	Employ OOSPs for more complex application management and mission-critical development services	Take full advantage of offshore activities; for example, one company in this group has 95 per cent or more of its legacy maintenance done in India.
	OOIT is not a key element of their IT strategy	Incorporate sophisticated governance techniques, such as creating an offshore-specific sourcing office	OOIT is a core skill and investment in the IT process maturity makes up a high percentage of work offshore; processes based on CMM
	Multiple OOSP (often more than 10)	2 or 3 service providers	

Source: J. C. McCarthy (Forrester Research): Commentary: Four stages of going offshore, in: Cnet News, 22 December 2003, <http://news.com.com/2030-1011-5130813.html>.

- it clearly shows that, despite the offshore “hype”, many firms have still not started to move IT work offshore.

As he has observed in his research, companies can be classified into four types: bystanders, experimenters, committeds and full exploiters (cf. Table 2).

Bystanders might perceive that the savings in offshore deals are overstated. Their scepticism is also rooted in security risks that make them uncomfortable. Therefore, members of this group especially need to hear about vendors’ base-level security investments and processes, as well as disaster recovery plans. Additionally, bystanders need simple spreadsheets that show the costs and savings based on case studies.

The biggest challenge for *experimenters* is their lack of a centralised global programme management office and, therefore, their lack of a system when collaborating with multiple offshore vendors. Vendors need to develop their soft project management skills in order to assist clients in setting up their management offices. Suppliers with consistent on-time and on-budget delivery track records can use their resulting credibility to share best practices from committeds or full exploiters on consolidating and managing multiple vendors.

Committeds need further support if they plan to broaden outsourcing activities across their organisation and to push a higher percentage of the work offshore. Therefore, vendors need to offer workshops on best practices and consult on how to raise the companies’ CMM capabilities.²²

Full exploiters want to hear about innovative pricing and relationship models. They seek to evolve their relationships into full partnerships. In this segment, vendors need to deploy their domain expertise and train accounting teams to have business-level discussions with non-IT executives.

Offshore Countries

About one in five (21 per cent) global companies that outsource abroad send IT work to India, with cost savings currently listed as the number one reason global companies outsource IT work.²³ The low-cost labour pool, high quality work and experience delivering a variety of services continue to make India one of the top outsourcing destinations for US companies looking to cut IT development and maintenance costs in the coming years. One area where Indian companies still need to upgrade their capabilities is in upstream IT consulting services.

As regards software development and process methodologies, all top-tier Indian vendors are certified at CMM Level 5, which is the highest possible level.²⁴

An increase in offshore wages might compensate or even overcompensate for the benefits of India’s mature offshore infrastructure. This depends crucially on the development of demand and supply in mature offshore labour markets. If driven by a rapid increase in demand for cheap IT-skilled labour by multinational companies, current supply will not be able to meet the increasing foreign demand and wages will increase rapidly. This might in the long run diminish the wage differentials between the countries of origin and country of destination. Furthermore, other destinations that have not been targeted as attractive locations for offshoring activities might become increasingly competitive. India is facing the problems of wage inflation of IT workers and of offshore destination countries like Canada, China, Israel, Russia and South Africa challenging its lead. Gartner Inc. analyst Iyengar expects demand to outstrip supply within five years.

²² Cf. footnote 15.

²³ Marian Heddesheimer: Outsourcing für Entwickler, in: IT Toolbox, No. 5, 2003, pp. 34 ff.

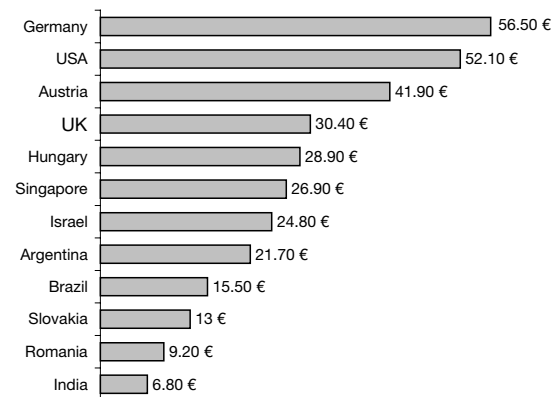
²⁴ Cf. footnote 15.

Currently, the United States is the frontrunner in offshore IT outsourcing. But European or Japanese companies are joining the offshore movement in increasing numbers. Besides the UK, Germany – Europe’s strongest economy – primarily owes its experience in offshoring not to small and medium-sized enterprises but to global players like Siemens and SAP, which progress along the offshore learning curve rapidly.

On March 22, 2004, the German labour union IG Metall evaluated that 10,000 German IT jobs at the Munich-based Siemens Corporation are endangered by outsourcing to alternative sites like China, Eastern Europe and India.²⁵ This figure includes the announced relocation of 2,300 German jobs in Siemens’ mobile phone sector ICM to Brazil. In Germany, Siemens currently has 170,000 employees, representing only 40 per cent of its total workforce.²⁶ The home base of German multinational companies has been shrinking rapidly in terms of the share of domestic employees for many years. The view that multinationals by nature act in the national interest (“What’s good for General Motors is good for America”) sounds less and less convincing to the public in most countries, especially when those countries are small in the context of the global economy. The ability of governments to control multinational companies at the national level is diminishing, leaving only the USA (with about one third of global GDP) and the EU as significant players that could exercise a countervailing power to the multinationals.

Multinational companies are increasingly spreading their production locations more evenly around the globe, aiming ultimately to become entities with global citizenship.²⁷ IBM Germany’s director Walter Raizner spurred major public debates with his estimation that Germany’s ICT sector lost 70,000 jobs in 2003. At the CeBIT, an annual computer fair in Hanover, Germany, Bitkom spokesman Volker Müller challenged this estimate by arguing that the job losses occurred not during 2003 but over the period 2001-2003. However, the threat of offshore IT outsourcing becomes a significant bargaining chip in wage negotiations at home. So the question remains unanswered whether offshore IT outsourcing job losses are being hyped up or downplayed by particular interest groups to put pressure on policy-makers. However, it should be kept in mind that the expected leap in high-skilled employment in the German IT industry during the internet bubble years has not materialised.²⁸ Instead, significant labour shedding has taken place since then, and the outlook seems bleak for the coming years. The devaluation of

Figure 4
Siemens’ Estimates: Average Labour Costs per Hour for Software Engineers in 2001



IT work through global offshore IT outsourcing, however, already signals that these jobs are losing their high status at home. Similarly to airline pilots, who face low-wage competition in developed countries, the traditional high rank of IT jobs on the job market due to the high level of IT skills needed is diminishing. The standardisation of IT jobs leads to de-skilling relative to the average skill level of the labour force.

Currently, no official statistics reliably measuring offshore movements of jobs are available. Hence, reports of an increasing relocation of German IT jobs are based only upon partial information and speculation drawn from case studies and non-representative statistical surveys.

It should be kept in mind, from a macroeconomic perspective, that IT job losses are not the final impacts on the particular countries. Income generated abroad and a new international division of labour will sooner or later lead to an increase in export demand for commodities and services where the country of origin still holds a comparative advantage. Machinery

²⁵ Cf. IG Metall: Offshore - Total Global?, Frankfurt am Main, 2004. Siemens CEO von Pierer pointed out that the cost of employing 12,000 engineers in China is equal to employing 2,000 engineers in Germany. (Source: Reuters)

²⁶ Other recent studies come up with different numbers. See e.g. J. Schaaß: IT-Outsourcing: Zwischen Hungerkur und Nouvelle Cuisine, in: Digital Ökonomie und Struktureller Wandel, No. 43, DB Research, Frankfurt am Main, 6. April 2004. He expects 50,000 IT-jobs in Germany are at risk due to OoIT, assuming a total number of IT-jobs in Germany of about 1.4 million.

²⁷ World Economic Forum: Global Corporate Citizenship: The Leadership Challenge for CEOs and Boards, Davos 2004.

²⁸ The German Federal Ministry of Economics and Labour expected in 1994 that the ICT industries would create up to 350,000 additional new jobs. See e.g. BMWA: Innovation und Arbeitsplätze in der Informationsgesellschaft im 21. Jahrhundert, Aktionsprogramm der Bundesregierung, Bundesministerium für Wirtschaft und Technologie, Berlin/Bonn 1999, p. 2.

or automobile manufacturers in Germany might create jobs through increased exports compensating for job losses in the IT industry or IT services. Therefore the number of job losses is not the net effect on the whole economy. Since e.g. Germany – currently the world champion in exports with a huge surplus in net exports – could hardly claim to be an exporter of jobs to other countries. Rather, the opposite seems to be true as long huge net surpluses prevail in foreign trade. Countries with huge trade deficits, like the USA, might much more rightfully claim to be net job exporters.

A study published by the Centre for Economic Policy Research (CEPR) in London found that German companies created 430,000 jobs in Eastern Europe between 1990 and 2001. According to the study, a large part of these jobs emerged because German companies needed local affiliates to enter foreign markets and reduce production bottlenecks at home. Furthermore, new jobs have been created in Germany as well (e.g. by parent companies providing their eastern subsidiaries). The CEPR study yields the result that Germany experienced only a net drain of 89,196 jobs to eastern Europe from 1990 to 2001 – less than 9,000 jobs annually – which is a surprisingly small number. This is due to the fact that German jobs normally do not compete with jobs at offshore destinations in eastern Europe.²⁹

Moreover, heated outsourcing debates may cool off when job losses due to outsourcing are considered in relation to 241,000 IT job losses in Germany in 2002 alone, due to the bursting of the stock market bubble.³⁰ Up to now, outsourcing by German enterprises has focused primarily on nearshore destinations like Bulgaria, the Czech Republic, Hungary, Ireland, Poland, Romania and Russia. However, offshore destinations will increasingly include Brazil, China, India and the United States.

One key incentive to go offshore currently remains the still significantly lower wage costs of IT-workers, and this dominates other incentives like better access to local markets etc. (see e.g. the labour cost comparison published by Siemens for software engineers in Figure 4).

Politics of Outsourcing – Winners and Losers

Economists call it globalisation, but IT workers, especially programmers and technicians in call centres, call it unemployment due to job exports. It would be

²⁹ D. Marin: A Nation of Poets and Thinkers – Less so with Eastern Enlargement? Austria and Germany, Centre for Economic Policy Research, Discussion Paper No. 4358, London, March 2004.

³⁰ Mark Schieritz: Outsourcing kostet laut Studie kaum Jobs, in: Financial Times Deutschland, April 1, 2004.

difficult to refute their claim that they are the losers in this process. To quote Paul Krugman, a leading international trade theorist, “Yet it’s bad economics to pretend that free trade is good for everyone, all the time. ‘Trade often produces losers as well as winners’, declares the best-selling textbook in international economics (by Maurice Obstfeld and yours truly). The accelerated pace of globalisation means more losers as well as more winners; workers’ fear that they will lose their jobs to Chinese factories and Indian call centers aren’t irrational.”³¹

Several groups represent this growing opposition to these negative impacts of globalisation. One example is “The Organization for the Rights of American Workers”, known as Toraw, a group of displaced, angry American workers. Its goal is to guarantee that US citizens and immigrants with permanent Green Card status are gainfully employed before non-immigrant foreign workers fill such positions, and it has set about lobbying for visa reform.³² At the end of 2003, one year after its founding by 12 workers, Toraw had 225 members from 27 states. This is still a far cry from a strong labour organisation comparable with the traditional trade unions in other industries, like the AFL-CIO, but the latter have also begun lobbying to restrain the current rapid offshore outsourcing of IT services.³³

However, IT jobs will – given a liberal trade regime – increasingly move to emerging markets. This is an inevitable process and a matter of simple arithmetic: computer programming, for instance, is calculated to cost \$80 per hour in the USA, \$22 per hour in India, and \$15 an hour in China. This wage differential is a persistent structural wage gap, as opposed to a cyclical one, which will change the future global IT labour market in a persistent way. However, the expectation that IT wages in India could climb to US level will remain a pipe dream of Indian programmers.

Labour market experts do not see a “white knight” industry providing an easy alternative for IT workers in the developed market economies as the services sector did for displaced manufacturing workers in the past. In the short run, IT employees in these countries

³¹ P. Krugman: The Trade Tightrope, in: The New York Times, February 27, 2004.

³² Two types of visas are criticised: the H-1B, which allows highly skilled workers to work for US firms, and the L-1, which allows companies to transfer workers based in other countries to facilities based in the USA. Unlike H-1Bs, L-1s do not require that workers be paid in accordance with the prevailing wage. Cf. A. Jahnke: Should We Put a Cap on the Number of L-1 Visas?, in: CIO column ‘soundoff’, 5 June 2003.

³³ See e.g. AFL-CIO: Key Elements of the AFL-CIO’s 301 Petition Regarding Violation of Workers’ Rights in China, (2004), http://www.aflcio.org/issuespolitics/globaleconomy/key_elements_301.cfm.

will probably not gain from this development. To stay employed in this era, they will sooner or later have to accept lower wages, change jobs more frequently, or even relocate and consider retraining for new professions and skills. In addition, colleges teaching IT in the USA and Europe need to change their curricula to prepare students for global competition by focusing on skills needed onshore.

Thus, taking the USA as an example, the lack of highly skilled IT workers may be due to fast technological progress associated with large increases in productivity growth.³⁴

Productivity growth and outsourcing are mutually dependent. In a recent study by the Institute for International Economics in Washington, Catherine L. Mann found that globalised production and international trade made IT hardware 10 to 30 per cent less expensive.³⁵ These lower prices translate into higher productivity growth at home. She concludes that, in the same way, the globally integrated production of IT software and services reduces these prices and stimulates the further diffusion of IT, leading to even higher demand for workers who can design, tailor and implement IT packages.

Therefore, there is a two-way interdependence between high productivity growth and the need for outsourcing. But pointing out the compensatory effects will not calm the storm at the losing end. For IT employees, it is currently hard to accept that after having been a well-paid élite for a number of decades, they are now the losers in a global offshore IT outsourcing game, and that their current or former companies are now the winners.

Effects on the US Economy

India's National Association of Software and Services Companies, Nasscom, commissioned a report by Evaluserve, which found that offshore outsourcing is even important to maintaining growth in the US economy. According to the report, for every \$100 worth of work sent abroad by US companies, \$130 to \$145 will be reinvested in the US economy. However, these reinvestments do not necessarily take place in the areas and locations where jobs are lost. Even if overall US welfare increases make an impact, at least in the long run, the short-run losses and distributional effects cannot be ignored, especially by those facing the negative consequences. A study in *The McKinsey Quarterly*³⁶ found that the US economy gains from offshore IT outsourcing in four ways:

- cost savings, which create additional value in the US economy;
- new revenues from Indian outsourcing firms buying new equipment from American companies;
- repatriated earnings, because many Indian outsourcing firms are US companies that repatriate offshore earnings;
- redeployed labour, where the money saved creates new jobs, as during the past 20 years after US manufacturing jobs moved abroad to places like the Macquiladoras in Mexico after NAFTA went into effect in 1992.

These overall welfare benefits will not easily divert the focus from lost IT jobs. It is a delicate task to convey a more balanced view to policy-makers regarding the beneficial long-term economic effects of outsourcing, much less to convey the situation to those potentially affected or even the voting public. It is also challenging for employers in the IT industry who have to communicate their offshore visions to staff, risking negative impacts on workers' morale and productivity and even backlash effects on their company name. A good example is the US toy industry, which faced severe public criticism and boycotts after jobs were outsourced to Chinese prison workers, many of them political prisoners.³⁷

President Bush's annual economic report, released on February 9, 2004, highlighted the benefits of sending jobs to other countries. Gregory Mankiw, Chairman of the Council of Economic Advisers also regarded outsourcing favourably. "Outsourcing of professional services is a prominent example of a new type of trade. The gains from trade that take place over the Internet or telephone lines are no different than the

³⁴ See e.g. the remarks by Alan Greenspan at the Boston College Finance Conference 2004, "But for the past twenty years the real incomes of skilled, especially highly skilled, workers has risen more than the average of all workers, whereas real wage rate increases for lesser-skilled workers have been below average, indeed virtually nonexistent. This difference in wage trends suggests that, at least in relative terms, we have developed a shortage of highly skilled workers and a surplus of lesser-skilled workers." <http://www.federalreserve.gov/boarddocs/speeches/2004/20040312/default.htm>.

³⁵ C. L. Mann, J. Kirkegaard: Globalization of Information Technology Firms and the Impact on Economic Performance, Institute for International Economics, Washington DC 2003.

³⁶ McKinsey&Company: Offshoring: Is it a Win-Win Game?, MGI perspective, August 2003.

³⁷ For evidence that such claims might sometimes have been exaggerated see e.g. N. R. Lardy: Do China's Abusive Labor Practices Encourage Outsourcing and Drive Down American Wages?, Institute for International Economics Testimony before the Senate Democratic Policy Committee Hearing, March 29, 2004. However, this still has a significant impact on public opinion around the world.

gains from trade in physical goods transported by ship or plane. When a good or service is produced at lower costs in another country, it makes sense to import it rather than to produce it domestically.³⁸

In response to the Annual Economic Report of the President and the protests by IT workers and the US public, US Senate Democrats proposed a new law, the Jobs for America Act.³⁹ This act requires companies that lay off 15 or more workers and send their jobs overseas to provide at least three months advance notice. It also requires notification to the Department of Labour, the State Department and local government agencies. The legislation, which amends the Worker Adjustment and Retraining Notification (WARN) Act, will require the Department of Labour to compile statistics of offshored jobs and report them to Congress on an annual basis. This will increase public awareness of the current process and thus make companies more cautious about the effects of such actions on public opinion. Similar initiatives in Europe seem to be possible in the future.

As polls in the USA show that jobs are the top issue for most voters, it is not surprising that offshore outsourcing was part of the Bush election campaign in 2004. John Kerry, the Democratic nominee, proposed a series of tax programmes on March 26, 2004, aimed at slowing outsourcing and creating ten million new jobs in four years. He unveiled his programme in Michigan, where 6.6% of all workers are unemployed.

Details of Kerry's recently released plan included the following.

- Closing loopholes that give tax breaks to companies exporting jobs. Corporations can currently take advantage of tax deferrals for money earned overseas, as long as the money is kept overseas. Kerry proposed forcing companies to pay the same tax rate for money earned overseas as they pay in the United States. The tax reform would apply only to US-owned factories that import those foreign-made products to the USA.
- A jobs tax credit giving companies in industries threatened by outsourcing a break on payroll taxes for each new worker hired in the USA.
- A cut in corporate taxes of 5%.

Thus, Kerry proposed tax disincentives to discourage companies from moving jobs overseas and the removal of existing incentives for offshoring. Cur-

rently American companies can defer paying taxes on income earned by their foreign subsidiaries until they bring the income back to the United States, and if they keep the money abroad, they avoid paying US taxes entirely.⁴⁰

It is a moot point whether these political measures would really affect the companies' behaviour. Bradford DeLong, professor of economics at the University of California at Berkeley argues, "Kerry's measures look too small to have a material impact on the labour market. It is like putting a finger to plug up a dyke." He points out the significantly increasing number of outsourced jobs, and echoes a view held by many economists that the Democrats have exaggerated the impact of offshore IT outsourcing on unemployment.⁴¹ Forrester Research estimates that the USA has lost 400,000 IT jobs to outsourcing over the last few years, which is painful for the employees affected but small in relation to an economy employing about 130 million people.

The World Trade Organisation deplored attacks by both Democrats and Republicans on restraining outsourcing and pointed out that the USA benefits from free trade in goods and services, and not from withdrawing into a shell.⁴² It is also highly disputable whether such an approach complies with current GATS regulations on non-tariff barriers.

Outlook

Gartner Inc. found that by 2004 more than 80 per cent of executive boardrooms in the United States will have discussed offshore outsourcing, and more than 40 per cent of US enterprises will have tried a pilot programme or actual outsourcing, either offshore or nearshore (Canada, Mexico, South America etc.) Forrester Research predicts that \$136 billion in wages, or 3.3 million jobs, will move offshore from the USA in the next 15 years. But economists also respect compensatory job effects. "Frequently cited projections indicate that millions of jobs will be lost to offshore workers. What these projections ignore is that the glo-

³⁸ Council of Economic Advisers: Economic Report of the President, Washington 2004, p. 25.

³⁹ February 12, 2004.

⁴⁰ More than 99% of companies paying corporate taxes would see their tax bills lowered, the campaign says. But the 1% paying higher taxes are some of the biggest and most powerful companies in the USA. Kerry's campaign estimated the change would save \$12 billion a year, which were to be used to reduce the corporate tax rate from 35 to 33.25 per cent. For another comment on Kerry's Tax Reform Plan see e.g. G. C. Hufbauer, P. Grieco: Senator Kerry on Corporate Tax Reform: Right Diagnosis, Wrong Prescription, Institute for International Economics, Washington DC, April 2004.

⁴¹ Cf. e.g. D. F. Drezner: The Outsourcing Bogeyman, in: Foreign Affairs, Vol. 83, No. 3, May/June 2004.

⁴² "Closing the door to the service trade is a strategy for killing jobs, not saving them," WTO director general Supachai Panitchpakdi said at the National Press Club, Washington, March 2004.

balisation of software and IT services, in conjunction with diffusion of IT to new sectors and businesses, will yield even stronger job demand in the United States for workers with IT proficiency and skills,” writes Catherine L. Mann.⁴³

As more jobs will move to emerging markets, the IT work done offshore will approach higher levels. Indeed, it already has. A CIO Magazine survey found that 11 per cent of the companies had outsourced system and architecture planning offshore, and 14 per cent had outsourced research and development, two categories that analysts and chief information officers had predicted would never leave these shores.

IT labour that can be sent offshore will be sent there sooner or later, but many outsourcers expect that within five years, operations automation will erode the competitiveness of offshore labour. Therefore, the whole process of IT job exports might become simply another episode in the economic history of the international division of labour. Currently, the main task will be to contain disruptive changes that might trigger protectionist sentiments in the USA and Europe against a global free-trade environment. The best way out of this dilemma would be to help spread the benefits of this new division of labour within the USA and Europe more evenly so that the winners do not heap the negative impacts on a few losers.

These impacts can be compensated by the public welfare system, which is becoming increasingly problematic due to high deficits in US and European budgets. To start a dialogue between business leaders and local governments, social organisations including trade unions and other NGOs should discuss the framework of global corporate citizenship proposed at the last World Economic Forum.⁴⁴ This might give a reasonable agenda for a dialogue to establish a code of conduct for companies engaged in offshore IT outsourcing such as the following.

- Set the strategic direction for corporate citizenship in your company and engage in the wider debate on globalisation and the role of business in development.
- Define key issues, stakeholders and spheres of influence which are relevant for corporate citizenship in your company and industry.
- Establish and implement appropriate policies and procedures and engage in dialogue and partnership with key stakeholders to embed corporate citizenship into the company’s strategy and operations.

- Build confidence by communicating consistently with different stakeholders about the company’s principles, policies and practices in a transparent manner, within the bounds of commercial confidentiality.

Without establishing a global dialogue between all stakeholders in offshore IT outsourcing and ways to balance the different interests, a disruptive way of offshore outsourcing of IT services will lead to major backlashes, which will harm all stakeholders in the end. Up to now many companies that have expanded to become multinational corporations have failed to become global corporate citizens in the process. There remains some hope that this might change in the future. Otherwise, political pressure could lead to a backlash on globalisation.

In the current protectionism debate based on the social costs of globalisation, Joseph Stiglitz has pointed out, “But if those [displaced workers] in developed countries – where unemployment is low, strong social safety nets are in place and there are high levels of education – turn to government for help, how much more necessary is assistance in developing countries?”⁴⁵

Stiglitz is one of 24 members of the World Commission on the Social Dimension of Globalisation,⁴⁶ which issued a report recently. Its basic approach is “that social progress cannot be separated from economic development. But it [the report] differs from the conventional wisdom on globalisation in arguing, first, that economic progress by itself may not entail social progress and, second, that the policies pushed by the international economic institutions - especially market liberalisation and an unbalanced trade liberalisation agenda may not lead to economic growth and stability in developing countries.”⁴⁷ Since 1990, global GDP growth has been slower than in previous decades. This, the Commission said, “is at variance with the more optimistic predictions on the growth-enhancing impact of globalisation.”⁴⁸

⁴³ Catherine L. Mann: Globalization of IT Services and White Collar Jobs: The Next Wave of Productivity Growth, in: International Economics Policy Briefs, December 2003.

⁴⁴ World Economic Forum, op. cit.

⁴⁵ Joseph Stiglitz: The social costs of globalisation, in: Financial Times, 25 February 2004, p. 13.

⁴⁶ The commission was established by the International Labour Organisation in 2002 and is co-chaired by President Tarja Halonen of Finland and President Benjamin William Mkapa of Tanzania.

⁴⁷ Joseph Stiglitz, op. cit.

⁴⁸ ILO: A Fair Globalization: Creating Opportunities for All, Report of the World Commission on the Social Dimension of Globalisation, ILO, Geneva, February 24, 2004.