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The ReLOC project –

Method report for implementing a cross-border company survey in Germany and the Czech Republic

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Mit der Publikation von Forschungsberichten will das IAB der Fachöffentlichkeit Einblick in seine laufenden Arbeiten geben. Die Berichte sollen aber auch den Forscherinnen und Forschern einen unkomplizierten und raschen Zugang zum Markt verschaffen. Vor allem längere Zwischen- aber auch Endberichte aus der empirischen Projektarbeit bilden die Basis der Reihe.

By publishing the Forschungsberichte (Research Reports) IAB intends to give professional circles insights into its current work. At the same time the reports are aimed at providing researchers with quick and uncomplicated access to the market.

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Abstract

Economic integration typically goes along with a disintegration of production through outsourcing and offshoring. The consequences of foreign direct investments (FDI) especially for the labour market are an issue of ongoing debate. The countries of origin fear job losses. However, a range of models and studies show that the productivity gains lead to job growth at the domestic plants. Therefore, the direction of the consolidated effect is an open research question. Further topics discussed concern the impact on different qualification groups, their wage levels, job volatility and task structures in companies both in the country of origin and in the target country. The discussion is even more eager where high-wage countries share a common border with low-wage countries.

So far, linked international firm-level data to study these effects on both sides of a border are missing. The IAB in cooperation with Czech research partners constructs a cross-border data set by conducting an empirical research project on the interface between old and new EU member states. It focuses on German direct investment in the Czech Republic and is conceived as a data collection by a large number of face-to-face interviews. The survey covers both countries entirely and involves the German parent companies and their Czech subsidiaries as the two treatment groups, complemented by Czech firms in purely Czech ownership and German companies with no FDI at all. For the four groups specific questionnaires were developed which are closely interlinked and allow comparative analyses, but do not neglect differences of neither the characteristics of the two survey groups nor the national (labour market) particularities. The method report presents the questions which arose through a cross-border company survey and the solutions found. The process of the implementation is described, focussing on the creation of the database as well as on the questionnaire development.

Acknowledgements

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Zusammenfassung

Ökonomische Integration geht oftmals mit einer Aufsplittung der Produktion durch Outsourcing und Offshoring und befürchteten Produktionsverlagerungen einher. Die Folgen der ausländischen Direktinvestitionen vor allem für den Arbeitsmarkt werden in der Öffentlichkeit immer wieder kontrovers diskutiert. In den Ursprungsländern der Investitionen dominiert die Angst vor Beschäftigungsverlusten bei den Mutterunternehmen. Allerdings zeigt eine Reihe von Modellen und empirischen Studien, dass die erreichten Produktivitätssteigerungen dort sogar zu einem Aufbau von Beschäftigung führen können. Die Richtung des Gesamteffekts ist eine offene Forschungsfrage. Ebenfalls diskutiert werden die Effekte im Ursprungs- als auch im Zielland auf unterschiedliche Qualifikationsgruppen, ihr jeweiliges Lohnniveau und Arbeitsplatzunsicherheiten ebenso wie die Betroffenheit verschiedener Tätigkeitsgruppen in einem Unternehmen. Die Diskussion wird noch intensiver, wenn Hochlohnstandorte eine gemeinsame Grenze zu Ländern mit niedrigerem Lohnniveau teilen.

Bisher existieren keine internationalen Mikrodatensätze auf Unternehmensebene, die eine Analyse auf beiden Seiten der Grenze erlauben. Gemeinsam mit tschechischen Kooperationspartnern baut das IAB einen solchen länderübergreifenden Datensatz auf. Das empirische Forschungsprojekt ist an der Nahtstelle zwischen alten und neuen EU-Mitgliedsstaaten angesiedelt. Der Fokus liegt hierbei auf deutschen Direktinvestitionen in der Tschechischen Republik. Das Projekt basiert auf Daten, die in Form von persönlich-mündlichen Interviews in beiden Ländern erhoben wurden. Es wird ein Vergleichsgruppenansatz verfolgt. Ausgangspunkt sind deutsche Unternehmen, die ihre Aktivitäten und Tätigkeiten firmenintern im Ausland erbringen, wobei sowohl die inländischen als auch die tschechischen Unternehmensteile betrachtet werden. Verglichen werden diese jeweils mit deutschen und tschechischen Unternehmen, die mit keinem ausländischen Unternehmen verflochten sind. Für diese vier genau abgegrenzten Untersuchungsgruppen wurden spezifische Fragebögen entwickelt. Sie sind möglichst stark aufeinander bezogen und erlauben vergleichende Analysen, berücksichtigen aber die Unterschiede zwischen den Untersuchungsgruppen und die nationalen Eigenheiten zum Beispiel des Arbeitsmarktes. Dieser Forschungsbericht beschreibt als Methodenreport die zentralen Fragestellungen und Lösungen bei der Konzeption und Durchführung dieser grenzüberschreitenden Unternehmensbefragung, wobei auch ausführlich auf den Aufbau der Datenbasis und die Fragebogenentwicklung eingegangen wird.

Anmerkungen

Das ReLOC-Projekt wird in Zusammenarbeit mit einem Forschungsteam des Volkswirtschaftlichen Instituts der Tschechischen Akademie der Wissenschaften (Národohospodářský ústav AV ČR) unter der Leitung von Daniel Münich durchgeführt. Es wird finanziell unterstützt vom Tschechischen Bildungsministerium im Rahmen des COST-Projekts Nr. OC09017.

Wir danken Martin Abraham von der Universität Erlangen-Nürnberg, Lehrstuhl für Soziologie und Empirische Sozialforschung, für seine sehr hilfreiche Beratungstätigkeit zur Methodik und zur Erstellung der Befragungsinstrumente. Ebenso danken wir Michael Pflüger, Universität Passau, Lehrstuhl für Außenwirtschaft und Internationale Ökonomik, für seine wertvollen Beiträge. An die Unterstützung der Deutsch-Tschechischen Industrie- und Handelskammer (DTIHK) erinnern wir gerne, genauso wie an den Beitrag von Tor Viking Eriksson und Mariola Pytlikova (Universität Aarhus, Aarhus Business School).

Im IAB möchten wir uns vor allem bei Uwe Blien (Regionale Arbeitsmärkte) und Joachim Möller (Direktor) für ihre Unterstützung mit Rat und Tat und bei Michael Moritz für die Leitung des gesamten Projekts herzlich bedanken. Für die Durchführung des deutschen Pretests sind wir den Projektmitarbeiterinnen und Projektmitarbeitern in den Stützpunktagenturen (ProIAB) sehr verbunden. Dank geht auch an Lutz Bellmann und das gesamte Team des IAB-Betriebspanels, zudem an Frauke Kreuter, Herbert Brücker, Katrin Hohmeyer, Emanuel Bennewitz, Kathrin Huber und Jo-Ann Müller.

1 Background and innovative character of the research project

The results of the increasing integration of markets are a repeated source of public controversy, as the falling away of trade barriers often goes hand in hand with production being split up by outsourcing and offshoring (e. g. Krugman 1995; Feenstra 1998; Hummels/Kei-Mu 2001; Grossman/Rossi-Hansberg 2006; Blinder 2007). The particular focus of debate here is foreign direct investments (FDI), which are frequently connected to the transfer of production activities to other countries.

While the fear of job losses dominates public discussion, the results of scientific research are by no means homogeneous. On the one hand, there is empirical evidence to show that companies' involvement abroad leads to job losses in the home country (Sinn 2005), but other studies show that no significant effects on the number of employees are to be observed or that the number of employees even increases due to increased productivity in the home country (Marin 2004; Grossman/Rossi-Hansberg 2006; Buch et al. 2007; Klodt/Christensen 2007; Becker/Muendler 2008; Temouri/Driffield 2009). In addition, the effects can vary for different qualification groups in both the home and the target countries (Feenstra/Hanson 1997). The same applies to different tasks in a company (Autor et al. 2003) and the respective wage level (Moritz/Gröger 2007; Geishecker/Görg 2008; Temouri/Driffield 2009).

Empirical research reveals a similarly ambivalent picture in regard to the motives behind FDI. The theory generally differentiates between horizontal direct investments which serve the development of a new market and vertical direct investments made in the expectation of saving costs (Markusen 2002). However, empirical research shows that it is not always possible to separate these two motives.

The Institute for Employment Research (IAB) in cooperation with the Czech Center for Economic Research & Graduate Education – Economics Institute (CERGE-EI) has approached the complex topic of FDI in the form of a company survey (for a definition of the term "company" see Chapter 2.3) which highlights not only the German viewpoint and the investors' motives for investing abroad.[1] As part of the cross-border research project for Germany and the Czech Republic (see Chapter 2.1 for the selection of the target country), the effects of German direct investments are examined in both the home country – in the German parent companies – and the target country – in their Czech affiliates –, with the main focus on the employment effects. Here the focus is not only on total numbers but also on effects which may be different for the individual employment groups. What is also innovative is that a dif-

[1] Pflüger et al. (2013: 105): "As Egger and Egger (2002: 83) critically note "… the theoretical analysis and empirical assessment … of international outsourcing is rather new and at least concerning its implications for developing countries it seems to be still in its infancy". Footnote: Pusterla and Resmini (2007: 839) reinforce this view: "The Central and Eastern Europe region has been only marginally considered in the empirical literature on firm location choice.""

ference is made not only between different qualification groups but also between different tasks, such as manual, interactive or analytical activities. In more recent studies this task-based approach has proven relevant for analysing the effects of the organisation of multinational, in-house production (Autor et al. 2003; Spitz-Oener 2006).

However, the survey not only involved huge challenges to the empirical concept due to its cross-national nature and the ensuing problems of conducting a survey in different countries, it also proved difficult to define the right unit of analysis and build up the sample in the run-up to the survey.

Accordingly, this method report is intended to document the project work and its underlying considerations. Chapter 2 gives an overview of the survey concept and presents the selection of the target country, the survey design, the definition of the unit of analysis and the subprojects concerning data acquisition. Chapter 3 addresses the creation of the database in detail, as this stage of the project involved especially innovative approaches, particularly in regard to compiling address data and the sampling procedure. Chapter 4 deals with the preparation for the main survey focussing on the development of the survey instruments including translations and pretests. In Chapter 5 the conducting of the main survey is described, procedures to achieve a high data quality are presented and an overview of the completed interviews is given. Chapter 6 offers an outlook for the future.

2 ReLOC concept

This chapter presents the fundamental concept of the “ReLOC” project. The acronym stands for “Research on Locational and Organizational Change” and is used for the purposes of external communication and for communication with the companies taking part in the survey. As IAB Research Project No. 1169 it bears the more descriptive title “Labour Market Effects of Cross-Border Outsourcing through EU Enlargement: The Case of Germany and the Czech Republic”, which is particularly employed in connection with research work, participation in conferences and specialist publications.

Based on the example of Germany and the Czech Republic, the ReLOC project investigates whether cross-border transfer of production and service activities causes employment effects at German and Czech locations, and if so, which ones. The following sections outline the elementary components and decisions necessary to create the database.

2.1 Selection of target country

One special characteristic of this research project is that we observe the effects of German direct investments not only in the country of origin but also in the target country. Accordingly, we focus on Germany and one other country for the purposes of data collection.

We selected the Czech Republic. First, this accommodates the increasing significance of Central European states for FDI by German firms. By the end of 2006, around 60 % of German company relocations went to the new EU member states (*Statistisches Bundesamt* (German Federal Statistics Office) 2008). Although the portfolio of direct investments in the EU15 states has not yet been matched here, the dynamics of the development are disproportionately greater (ibid.). Second, the Czech Republic is the one country in Eastern Europe which attracted the highest primary and secondary German direct investments in 2008 to a total of over 22 billion euro (ibid.), thereby ranking ahead of target countries like Brazil, Russia, India or China. Third, due to a series of exogenous shocks – the falling of the Iron Curtain in 1989, the Czech Republic joining the EU in 2004 and the free movement of workers to Germany in 2011 – it is possible to define precise points in time where strong movements of adjustment are to be expected. Equally, the Czech Republic is Germany's only neighbour with borders to both Western and Eastern Germany. Furthermore, the Federal Republic of Germany shares its second longest border (over 800 km/500 miles) with the Czech Republic. At the same time there is a marked wage differential between the two neighbouring countries. From the regional economic viewpoint, this situation makes the content of a survey of both sides of the border even more interesting (Enright et al. 1997; Krätke 2001; Niebuhr/Stiller 2006).

2.2 Thematic focus and survey design

Table 1 gives an overview of the various fundamental possibilities open to a company in terms of organising its production or its provision of services. The necessary activities to achieve this can either be carried out in-house or the primary and intermediate products can be obtained from external suppliers – the latter being described as outsourcing. Both means of procurement are available at home and – for multinational companies – abroad.

Table 1
Classification of the company organisation

Activity carried out	**at home**	**abroad**
in-house (associated suppliers)	domestic insourcing	**offshoring/integration (horizontal & vertical FDI)**
External (purchase from other firms)	domestic outsourcing	international outsourcing

Source: Pflüger et al. 2013

For the purposes of the research project we pursue a reference group approach. The starting point are firms which carry out their activities in-house abroad (and are therefore part of the offshoring group). Hereinafter these multinational enterprises are referred to as MNE group. We observe both the home and the Czech business units. This covers horizontal direct investments, which mainly serve market development, and vertical FDI, with the dominating motive of cost savings. These firms are compared with those companies which are not merged with a foreign company.

To this effect there are four clearly differentiated survey groups.

- MNE group in the Czech Republic (subsample ReLOC-C):

The Czech MNE group consists of Czech firms with German equity investment. Here it is a question of GmbHs, AGs, KGs, OHGs[2] and branches. GmbHs, AGs and KGs in which less than 25 % of equity shares were German-owned did not qualify for the MNE group. Sole proprietorships which are also listed in the commercial register are not included. On the one hand, this is because for this legal form the listing in the commercial register provides no information about the permanent residence of the entrepreneur, but only lists the business address. On the other hand, these businesses are very small units which are not particularly relevant in regard to impact analyses.

As a basic principle we only considered firms which were either directly legally connected to a German company itself or where they had a legal connection to a German company via its owner. Therefore, not all of the 5,700 Czech firms with German owners were relevant to the survey. 51 % of this total sample were not owned by a German firm but by one or more German private individuals. And of these 51 %, only firms with a German owner who also owned at least one German firm were selected for the survey.[3] This meant that the potential number of survey participants was reduced from 5,700 to 3,875 (see Chapter 3.1 for a more detailed description of the composition of the MNE group). If there were two or more Czech companies which had the same residence and German owner, only one, randomly drawn, was included in the survey. After this reduction 3,651 affiliates were selected for the survey. The database used for ReLOC-C is large in comparison with other studies. The Amadeus database of Bureau van Dijk, which is often used for scientific purposes, for example, contained 1,150 Czech companies with German owners in February 2011. 935 German affiliates in the Czech Republic are indicated in the MiDi-database from the *Deutsche Bundesbank* (German Federal Bank) in December 2010 (Deutsche Bundesbank 2012).

- Reference group in the Czech Republic (subsample ReLOC-R):

This group consists of Czech companies which are purely Czech-owned and do not even have an indirect foreign owner. This means that even those Czech companies which did not have foreign owners but where other Czech firms with foreign owners held shares in them were excluded. The “foreign” criterion is defined according to the registered office of the parent company or to the permanent residency of the owner when he is a natural person. Exclusion is possible up to the fourth level. The information concerning the existence of a foreign partner was obtained from the Creditinfo database.

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2 German legal forms corresponding to limited liability companies, joint-stock companies, limited partnerships and general partnerships, respectively.

3 In this case the connected German and Czech firms are sister companies.

For further illustration: There are five Czech companies, A, B, C, D and E. Company A has a foreign owner. Company A holds shares in Company B, Company B in Company C, Company C in Company D and Company D in Company E. All other owners of companies A, B, C, D and E are permanent residents of the Czech Republic. Companies A, B, C and D would be excluded from the reference group, while Company E would be included.

The net number of cases planned for the subsample ReLOC-R was 850. To achieve this number, 10,262 company addresses were collated and made available to the survey institute.

- MNE group in Germany (subsample ReLOC-G):

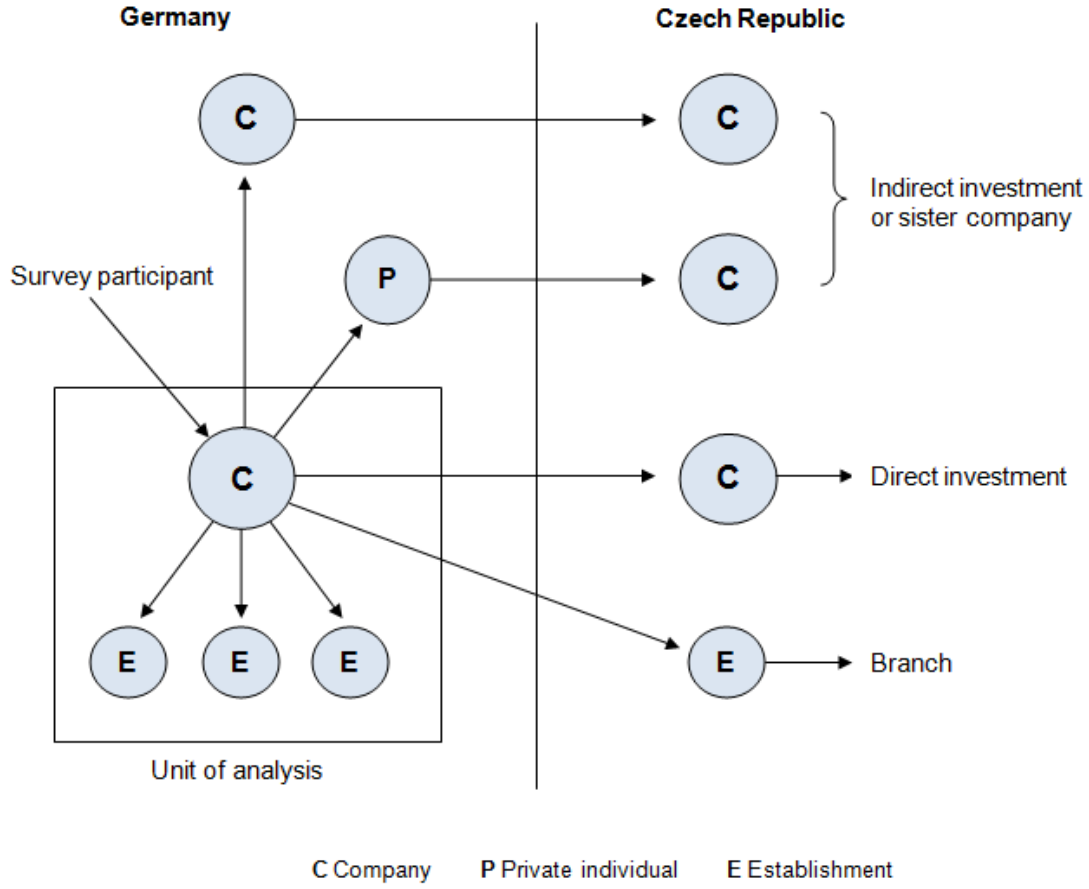
The starting point for the German MNE group were the German owners of the 3,875 companies in the Czech MNE group. For 3,274 of these 3,408 German owners the registered office was identified and finally used in the survey. The number in the German MNE group is naturally lower because some German owners were involved with more than one Czech company.

The ReLOC-G group consists mainly of firms with a direct equity investment in a Czech company or a Czech branch (see Figure 1). If a holding or management company with its domicile in Germany had shares in the Czech Republic, it was excluded from the MNE group in favour of another German company in the affiliated group that was more active in the core business (see Chapter 3.1 for more details concerning this procedure).

Parallel to the Czech MNE group, German companies whose owner was a private individual, who also owned a Czech company were included in the German MNE group. Only one company was selected for each owner (see Chapter 3.1).

Hence the MNE group consists of both German companies with a direct investment or a branch and German companies with an indirect investment or a sister company in the Czech Republic (see Figure 1).

Figure 1
Representation of possible relationships – with an affiliate in the Czech Republic

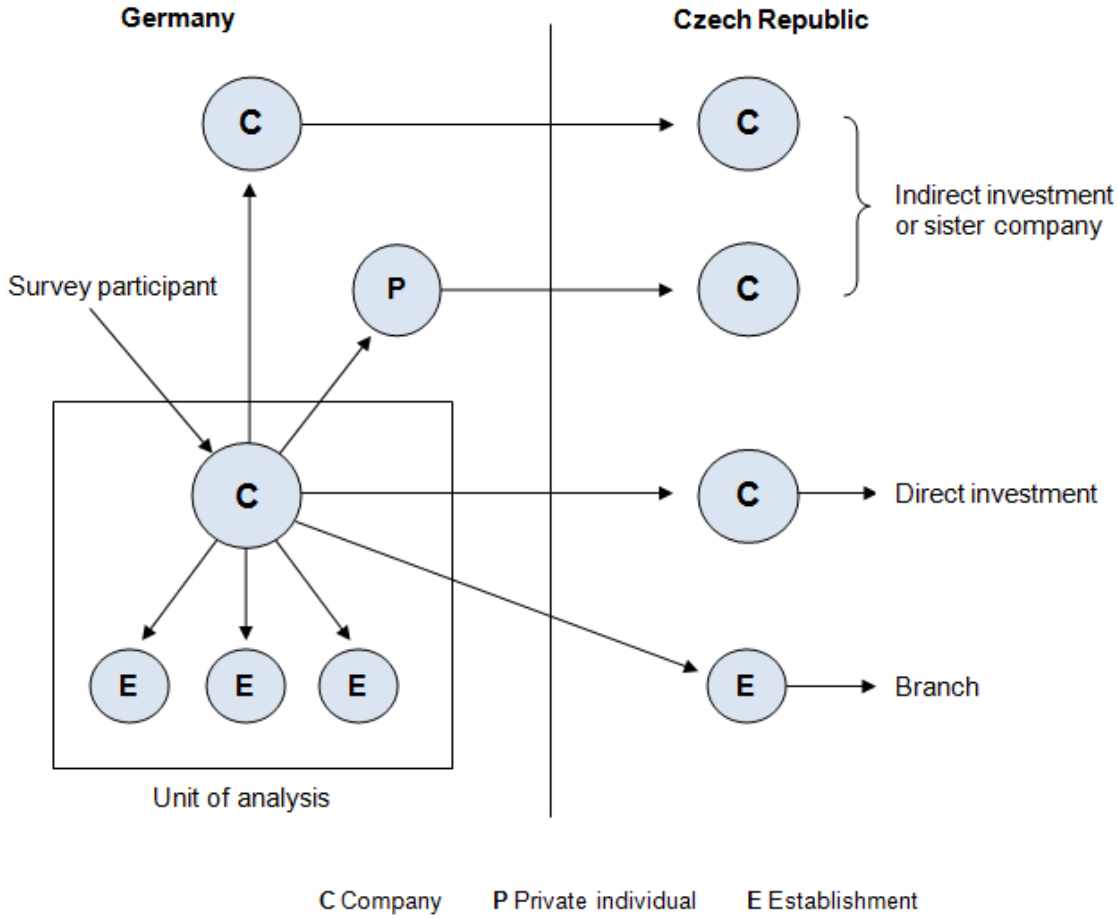


Source: ReLOC questionnaire TNS Infratest Sozialforschung, screener MNE group Germany

- Reference group in Germany (subsample ReLOC-N):

This consists of German companies which had (in August 2010) neither direct nor indirect equity investments abroad nor foreign sister companies (see Figure 2). Exclusion was possible up to the first level.

Figure 2
Representation of possible relationships – with no foreign affiliate



Note: The depiction was designed for the screener of the reference group to assure that the company definitely had no kind of foreign investment. To make clear which forms of engagement could possibly exist, the different forms were included on the right-hand side of Figure 2.

Source: ReLOC questionnaire TNS Infratest Sozialforschung, screener reference group Germany

For further illustration:

Exclusion in cases of direct FDI, indirect FDI or foreign sister companies: There are three companies, A, B and C. Company A has an investment in Company B. Company B has an investment in Company C. If Company A has a direct investment in a foreign company, neither Company A nor Company B can be included in the reference group. If only Company C has a location abroad on the other hand, Company A (but not Company B) can be included in the reference group.

The net number of cases in this group is 1,285. The addresses were acquired via TNS Infratest from a commercial data provider.

2.3 Units of analysis – Establishment vs. company level

Before the definition of the unit of analysis is dealt with in more detail, it is necessary to define the standard terms “establishment” and “company”. The term “company” denotes a legally independent unit. It does not have to be located in one place, but can include several establishments in various locations which are not legally inde-

pendent. They are legally dependent parts of their companies and places of business where companies conduct some or all of their activity. If a company only consists of one establishment – so that both terms mean one and the same –, it is named a “single-site company”, whereas if it consists of several establishments, the term “multi-site company” is used.

To analyse the motives behind a FDI and its employment effects, various approaches are possible: separate establishment or company surveys can be conducted, or a combination of the two. Due to experience the latter was tested in the German pretest, but was discarded (see Chapter 4.3 for more details).

The advantages of an establishment survey are the precisely defined spatial limits and therefore the “manageability” of the unit of analysis. This would make it possible for the survey respondent (usually the Chief Operating Officer (COO)) to provide more detailed and perhaps more precise information than would be possible at company level, particularly in regard to the employment structure. As the company level may encompass other establishments which also operate almost completely independently, it might be difficult under the circumstances to separate information according to individual establishments. In this project, one particular advantage of the establishment level would arise in regard to the question concerning the necessary level of involvement of the different groups to create the establishment’s main product or service. Apart from this, it is very possible for a company’s FDI to affect the company’s establishments differently. As the establishments are located on different sites, the effects of a direct investment on the region can also vary. On the other hand, the establishment level also involves a series of disadvantages. In particular, in most cases the decision process concerning whether an investment abroad should be implemented, and if so, where, occurs at company level and not at the establishment level. Furthermore, it could also happen that in very large companies containing many establishments a COO might not even be aware that the company is also active in the Czech Republic. However, the greatest disadvantage of an establishment survey is the great likelihood that not all establishments in a company active in the Czech Republic will feel the effects of the company’s foreign investment to the same degree. It is conceivable, therefore, for employment to be reduced in one establishment and increased in another, while in a third establishment in the same company there may be no change at all. This is problematic in that it is not to be expected that all establishments in a company will take part in the survey. It is possible that non-participation in the survey may depend on the effects of the company’s activities abroad on the development of the establishments. This selectivity would in turn lead to a distortion of the results.

These problems can be avoided by means of a company survey, in which all information is collected for the company as a legally independent unit. Employment development is therefore recorded for all establishments belonging to the company. However, the danger of a survey of very large companies with a large number of establishments can be that the respondent does not have detailed information about

the employment structure. Besides this, it is no longer possible to differentiate between regional and establishment-specific effects.

What was ultimately pivotal for the concept of a company survey – apart from weighting up the advantages and disadvantages mentioned above – was the cross-border approach of the research project. For sound analysis it is of central importance to link the data from the Czech and German survey groups as extensively as possible, therefore the data structure in both countries has to be the same. In Germany we use additional data of the *Bundesagentur für Arbeit* (Federal Employment Agency (FEA)). This data is based on the establishment level and identification is possible via the establishment identification number which every establishment is given and must specify for its mandatory social insurance declarations. In the Czech Republic, on the other hand, the main reference is based on a company code number: The IČO (Identifikační číslo ekonomického subjektu) is the same for all establishments belonging to the same company. The Czech Statistical Office collects establishment information only for companies with 20 employees or more and the lists may be incomplete. Therefore, it is not possible to identify individual establishments systematically.

Thus, to establish parallelism between the structures and ensure equivalence of the MNE as well as the reference groups, it is essential to define the company level as the unit of analysis. The survey participants are required to provide information for their company as a legally independent unit and to give all information for the same establishment throughout the questionnaire. If other establishments belong to this company in the home country, they should be included in the responses to the questions. Legally dependent establishments abroad, however, should not be included. Equity investments in other companies at home or abroad should not be taken into account either (see again Figure 1 and Figure 2). If no information can be provided for a company because the necessary information is only available for a larger or smaller unit, the unit for which information has been provided should have been described on the back of the address protocol.

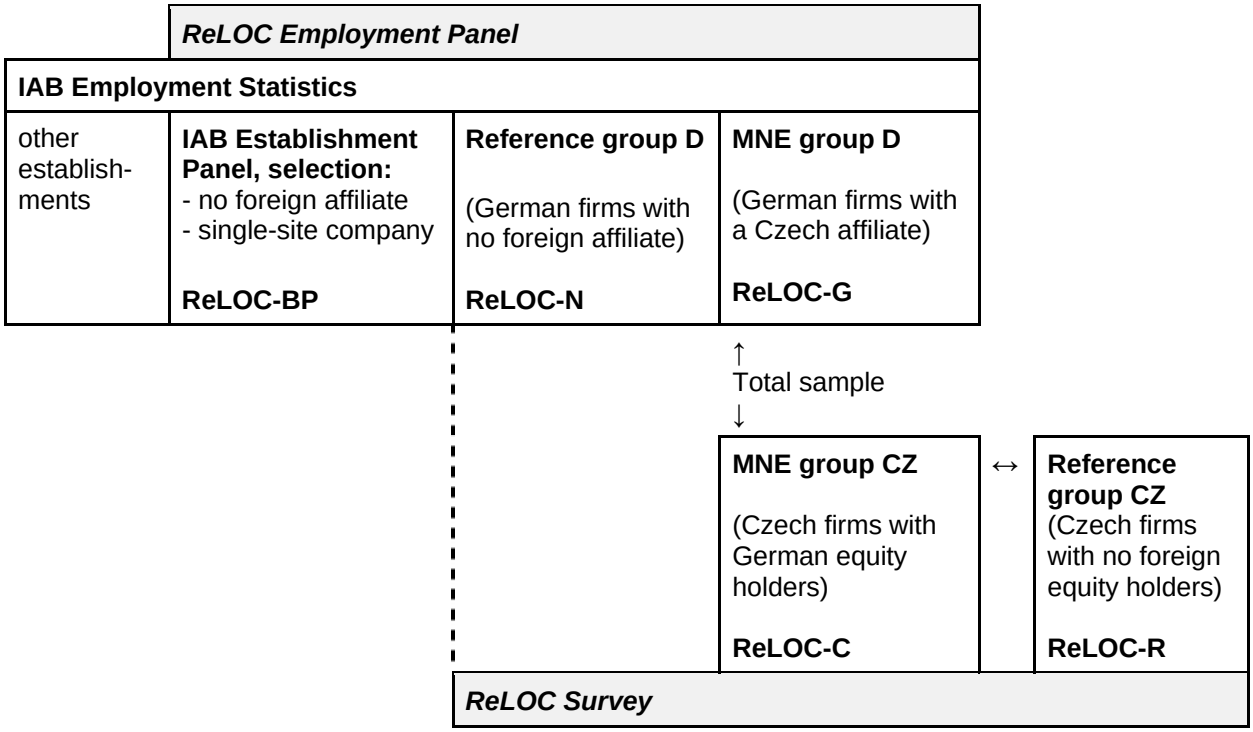
Besides the company and establishment levels, there is a third level which receives attention in the project. In many cases, multinational companies also share the characteristic of being part of a larger affiliated group. This means that they not only have an investment in the Czech Republic but have further investments, parent companies or affiliates. If a German company which is part of a corporate group invests in the Czech Republic, the problem arises – as with the comparison between company and establishment levels discussed earlier in this chapter – that this investment in the Czech Republic can have a different effect on the other companies in the corporate group. However, questions posed to a company or affiliated group concerning the number of employees or the employment structure at corporate group level would be too complex. Nevertheless, in order to be able to control the analyses regarding these data at least, a question was included in regard to whether the company was part of an affiliated group. As the company's position in the corpo-

rate group can have an influence on the type of effects of an investment in the Czech Republic, a question concerning whether the company functioned as a holding or management company within the corporate group was included in the questionnaire. This makes a clear demarcation between the company, establishment and corporate group levels possible, which is of significance for the precision of the analyses.

2.4 Subprojects for data acquisition

To acquire data, a two-part survey design was developed (see Figure 3) consisting of the ReLOC Survey and the ReLOC Employment Panel, which builds on it to some extent. The reason for this was to enable identification of the effect of FDI on employment in the home country which was formulated by the main research question.

Figure 3
Survey design



Source: Own illustration

ReLOC Survey

In this subproject the companies in the sample were contacted (see Chapter 4) and the data acquired in personal interviews (PAPI). The questionnaires are designed to make them suitable for an interview situation, but in such a way that in exceptional cases they can be left with the company for respondents to fill out themselves if they so desire. See Chapter 4 for more details.

In addition, information from the IAB Establishment Panel (IAB Betriebspanel) is also evaluated. Here, data from single-site companies with no foreign affiliates can

be used as a supplement. These companies enlarge the reference group of German companies with no foreign affiliates.

ReLOC Employment Panel

In this subproject all the address data from both the German MNE group and the reference group is linked to and enriched with FEA data. The aim is to generate a comprehensive longitudinal data set, independent of the survey response, which allows the direct analysis of effects of FDI on employment. This will be done by comparing the development of companies after their investment in the Czech Republic with the companies in the reference group.[4]

The FEA is a rich source for employment data. It collects and administers data from the notification process of the social security system. The "Integrated Labour Market Biographies" is a data set that comprises the universe of all German employees liable to social security since 1975 with detailed information on their characteristics (wage, skill, age, occupational status, etc.). The social security records are reported on the establishment level. Each establishment with at least one employee liable to social security[5] receives an establishment identification number assigned by the *Betriebsnummernvergabestelle,* an FEA office.

The challenge for the subproject comes from ReLOC's character as a company survey (see the discussion in Chapter 2.3). For conducting an interview for each company only one address, the registered office, was identified. In the FEA data there is no additional company identification number that would allow a straightforward assignment of establishments to companies. However, to get a concise picture of a company's development it is necessary to identify as many of its establishments as possible. In this context record linkage has necessarily to be done via the company name. This is possible, as an establishment is a legally dependent part of a company and so bears its name.[6] Hence, for each establishment the *Betriebsnummernvergabestelle* records the company name. A source of possible mismatch here is the fact that company names are not necessarily unique. This depends largely on a company's operating distance. As a rule, companies with nationwide activities have exclusive names protected by trademark laws. Firms with local or regional radius bear a name that is protected for their location, but not automatically on a larger geographical scale (§ 5 II Satz 2 MarkenG). The protection gets weaker the larger the difference between the industries in which the companies operate. The Com-

4 The investment date is extracted from the Czech Commercial Register for the whole German MNE group.

5 Since 1999 establishments with at least one marginal part-time worker are also included.

6 An exception are autonomous branch offices. They are legally dependent parts of a company, but engage in business activities independently. An autonomous branch office can use its own name affix but the company name must also appear. However, they account for approximately 0.06 % of all establishments, only. Often, their name consists of the firm name amended with the term "branch office" and their location (for example: XYZ GmbH, branch office, Berlin).

mercial Register is used by chambers or specialised firms to check if the requested name of a start-up already exists. So this source allows verification if establishments bearing the same name are really part of the same company. [7]

To improve matching quality in record linkage, in a pre-processing step the names have to be standardised. For instance, special characters, umlauts, the legal form and possibly blanks have to be omitted or spelt in the same manner. As for FEA data, behind the company name additional information like an establishment's location is appended in some cases. This difference in structure can be solved by identifying the legal form by an automatic procedure and cutting off the affixes coming after it.

The major contribution of the ReLOC Employment Panel is the record linkage of the company-level ReLOC address data and the establishment-level FEA data. As it will be based on administrative data the accuracy is expected to exceed the one of other data generated by surveys by far.

3 Preparations for the ReLOC main survey

In this chapter the preparations for the main survey are described. These concern firstly the identification of the MNE groups including the construction of the database and the acquisition of the address data. Secondly, the drawing of the sample for the reference groups is described. Technically, the survey work described in the next two chapters is guided by the most advanced sociological methodology (see e. g. Groves et al. 2009).

3.1 Address data and identification of MNEs

Database

To avoid selectivity in our database and to possibly identify the entire population of German-Czech affiliates, we had to use other data sources than the data products from Bureau van Dijk (Markus, Amadeus, Dafne or Orbis) or the MiDi-database (Microdatabase Direct investment) from the *Deutsche Bundesbank*. At the time when the survey was prepared these databases included only a small fraction of all German-Czech affiliates. Although these sources are often used in scientific research on FDI, they were selective with respect to the characteristics of the investing firm and/or the foreign affiliate. At present, the MiDi-database contains only firms which have a foreign subsidiary with a balance sheet total of at least 3 million euros

[7] The Commercial Register contains all limited liability companies, joint-stock companies, limited partnerships, general partnerships and registered merchants. In contrast, very small sole proprietorships and the Gesellschaft bürgerlichen Rechts (GbR) are not obliged to register. However, these firms are supposed to comprise not more than one establishment. Thus, for these cases the one address in the ReLOC sample can be used for record linkage.

(Pflüger et al. 2013).[8] Also the data products of commercial data providers had a bias towards FDI of larger firms because many small and medium-sized enterprises did not publish their annual statements, including information about their FDI, before 2007.[9] This might be one reason for the small number of Czech affiliates that had been designated in commercial databases during the survey preparations in 2009. Furthermore it is very laborious to identify sister companies which are affiliated via a private person and not via a parent company. These legal connections arise more often among smaller firms. Hence, to identify possibly all German affiliates in the Czech Republic we had to refer to databases that draw directly on the Czech Commercial Register.

Therefore three data sources were used. The first was a data set from the German-Czech Chamber of Industry and Commerce (DTIHK). It holds 3,427 Czech companies with German owners. This data set served to compile the company register "German companies in the Czech Republic" from 2007, created to enable contact with German-Czech companies. One advantage of the data set was that it also included Czech companies where a German company was not the direct owner. For instance, the listed owners were holding companies from Holland, Luxembourg or Switzerland connected to German companies. The second source was a database from Creditinfo (September 2009). This database contained 186,365 active Czech companies independent of the ownership structure (GmbHs, AGs, KGs, OHGs or foreign branches). Regarding that, according to the Czech Statistical Office, there were around 230,000 active Czech companies in December 2008 the Creditinfo database covers a high share of all Czech firms. A database from Čekia (December 2009) was the third source, It contained 74,770 companies obliged to publish their balance sheets. However, this source provided no additional information as nearly all firms were also included in the Creditinfo database. This gave a total of 188,760 evaluable Czech companies.[10]

The Czech Commercial Register was used to verify the existence of a German equity investment between January and August 2010. This register is available free of charge on the Internet and delivers the company number (IČO), name, address and also the names and addresses of the owners (the head office for legal persons

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8 Its selectivity is shown in Buch et al. (2007) by a comparison with the 'Going International survey' from the German Chambers of Industry and Commerce (DIHK 2008).

9 In 2007 the Elektronischer Bundesanzeiger for electronic submission of annual statements was introduced in Germany. Before, many small and medium-sized enterprises refrained from it. On the one hand it involved substantial administrative work and on the other hand the risk of prosecution was quite low as hardly anyone objected to the missing annual statements of smaller firms. Since electronic collection proper submission is checked automatically. For illustration, in 2006 6 % of small, 24 % of medium and 92 % of big limited companies published their annual statements (IHK Saarland 2008). However, the coverage of smaller firms is continuously expanded since.

10 The Creditinfo database covered 98.7 % of the data. 1,955 companies were listed in the Čekia database but not in the Creditinfo database. 440 additional companies were recorded in the DTIHK database.

and the principal residence for natural persons). This offers the possibility to find out whether a Czech company has a German owner – and this owner can be identified.

After all sources were evaluated, analysed and synchronised, a total of 5,591 Czech companies were shown to have a direct German owner. In addition, 62 companies had an indirect German owner and 47 companies were joint-stock corporations with more than one owner.[11] It was checked if also German companies had shares in them. These 109 special cases come from the DTIHK database. Altogether, there were 5,700 Czech companies which had a direct or an indirect German owner.

Special cases and Internet research

Basically, the German owners of these 5,700 companies can be divided into two different groups of approximately the same size: companies and natural persons. Two subgroups of these 5,700 companies posed a challenge to the survey, particularly in Germany.

Holding and management companies

The first group consisted of parent companies that functioned as holding or management companies. The pretest in Germany (see Chapter 4.3) revealed that these companies strongly rejected participation in the survey because they did not see themselves as being suitable for a company survey. The reason for this is, on the one hand, that some of these companies are high-up corporate divisions which have a limited and very specific function, for instance making decisions concerning finance, investment and controlling. On the other hand, they are often very small and have either very few employees or none. As it is the core company which is of interest for the survey, these types of companies were generally not contacted. Instead, by means of Internet research, i. e. with the help of the business register, search engines and firm websites, the one company was selected that would be most likely to stand for the core purpose of the group.

Holding or management companies were identified by means of the online firm database FirmenWissen[12], using the company name combined with the main industry. So for all companies that had the term "*Holding*", "*Beteiligung*", "*Verwaltung",* "*Gruppe*" or geographical references such as "*International*" or "*Osteuropa*" in their names[13], the main industry was tested. The most frequent industries listed for the companies investigated (based on the official NACE industry classification) were "activities of head offices" (NACE code M70.1) and "activities of holding companies" (NACE code K64.2). If the project team judged a company's main activity to be

[11] For joint-stock corporations with only one owner, this shareholder is listed in the Czech Commercial Register.

[12] FirmenWissen is a product of the commercial data provider Creditreform. It takes the main industry from the commercial register if no other information has been unearthed through their own research.

[13] The terms in English: "holding", "management", "group", "international", "East European".

solely management, strategic or financing activities, respectively, another potential firm affiliated with the Czech company was sought for. In the marked majority of cases there was a company whose own name and address was identical to that of the company to be substituted and whose name did not contain the above mentioned terms. Often the company was a GmbH & Co. KG[14], which also had the strongest Internet presence in the corporate group and also obviously appeared on the market as a producer of goods or services. In such cases the company to be substituted acted mostly as a general partner of the substitute company.

Example: XYZ Holding GmbH was substituted by XYZ GmbH & Co. KG and both companies are located at the same address. XYZ Holding GmbH is the general partner of XYZ GmbH & Co. KG.

In other cases, either there used to be a still-existing company in the corporate group listed as the owner of the Czech company in the past or the corporate group has a subdivision which carries the same name as the Czech company.

Example: XYZ Holding AG has investments in XYZ Sealing Technology GmbH and XYZ Car Tires GmbH. The Czech subsidiary is called XYZ Těsnící technika, spol. s.r.o. (translated: XYZ Sealing Technology GmbH). XYZ Sealing Technology GmbH is included in the survey.

Owner substitution was effected for 459 Czech firms. To sum up, in 62 % of the cases the name and address of the substituted companies were identical with those of the substitute companies. In 81 %, the two companies shared the name and in 91 % the company name or the address were identical or both. 17 % of the substitute companies had already owned the Czech company in the past.

German private individuals

The second special case concerned Czech firms whose owner proved to be a German private individual and not a German company. A company can choose if it is holding the investment itself or if the person who owns the German company has made the investment in the Czech Republic as a private individual. According to the German-Czech Chamber of Industry and Commerce (DTIHK), this choice does not reliably indicate how closely the German and Czech company are connected to each other. This coincides with the experiences from Internet research. It is not unusual that, despite the fact that a German company posts a Czech location on its website and the connection between the two firms is obviously close, the German owner in the Czech company is a private individual.

As around half of the German-Czech companies showed a German private individual as the owner, the search for suitable affiliated companies – in this case sister companies – revealed a high potential for increasing the coverage of all relevant

[14] A limited partnership with a limited liability company as general partner.

investments. This raises not only the size but also the representativeness of the survey sample.

In the search for potential affiliated companies in Germany the name and address of the German private individual and also the name, industries and owner history of the Czech company were drawn on. Apart from the use of Google and the German Company Register, the search for individuals was mainly conducted with the help of the people search engine 123people. It bundles the people search results in the FirmenWissen and GENIOS databases, which both include names and addresses of owners and directors of German firms. Both FirmenWissen and GENIOS refer to the data from Creditreform, which comprises information about 3.9 million German firms. Furthermore, GENIOS uses the information from Hoppenstedt, Dun & Bradstreet, bedirect and other providers of personal information (about management activities or other management functions such as Department Manager, for example).[15]

For 38 % of the Czech companies in question a potential sister company was identified in Germany. Only one German sister company per German private individual was included in the survey. As only those companies located very closely to the domicile of the private individual were selected, we are sure that the assumed sister relationship between the German and Czech companies actually exists in the great majority of cases.

The addresses of these individuals and the German firms and/or the names of the German and Czech companies could be used as criteria for the quality of a link between a private individual and a company. In 49 % of the cases, the individual's residence and head office of the German company researched were in the same street. 43 % showed a noticeable similarity between the names of the companies. For the majority, the similarity between the names occurred as a complete match between the company names, taking into account the different languages. Or important components – generally a specific coinage – appeared in both names. In 3 % of the cases, the German company was the direct owner of the Czech company in the past. As for the similarity of name, same address or past ownership, at least one of the three criteria was fulfilled for 71 % of the cases. Subsequently, out of this group we checked 20 randomly drawn cases and for 19 we found a 100 % equivalence of the names (forename and surname) and address or birth date of the owners of the Czech and the matched German company. So the criteria are suitable to predict the existence of an affiliate relationship. Checking the owners of 50 randomly drawn companies of the remaining 29 % resulted in 41 cases where the name (forename and surname) and address or the name (forename and surname) and birth date of

[15] One of the sources used by these commercial data providers are public directories and registers, e. g. the Commercial and the Trade Register. In addition, they conduct their own searches, e. g. in annual statements, business reports, in daily newspapers, on websites and by direct contact.

the owners of the Czech and the matched German company were identical. In three cases, the Czech company itself is the owner of the German company. Hence, we can expect that 93 % of these affiliate relationships are correct.

Final composition of the MNE groups

The Czech Republic

For 70 % of the companies in the Czech MNE group, at least one German firm had a direct investment or the company was a German branch. 28 % of the companies were owned not by a German company but by a German private individual who also owns a German firm. In 1 % of the cases German companies had an indirect investment in the Czech company, very often via a foreign holding company from Holland, Luxembourg or Switzerland, for example. 1 % were joint-stock companies with more than one owner, so he could not be clearly identified.

Germany

59 % of companies in the German MNE group had a direct investment. 12 % of the companies were included in the survey purely as a result of the substitution of a holding or management company and 29 % were owned by a private individual who also appeared in the Czech Republic as an owner. In total, 59 % of the German survey participants had a direct investment, 41 % had an indirect investment or a Czech sister company.

3.2 Drawing the sample for the reference groups

Of both MNE groups the total population was included in the survey. Accordingly, the following section refers to the drawing of the sample for the reference groups, only.

Germany

The prerequisites for a company to be assigned to the reference group in Germany were that it should have a) no direct investment in a foreign company, b) no foreign sister company and c) no indirect investment abroad (see again Figure 2). To compile this group, TNS Infratest used addresses from a commercial data provider. This data set included information on investments, company size and main industry of all companies in the German Commercial Register.

When composing the reference group the aim was to approximate the distribution of size and industry in the MNE group as closely as possible. Accordingly, stratified sampling was conducted. However, in the original address data used to identify the companies of the German MNE group there was no information concerning the number of employees or the industry affiliation of the German MNE firms. To find out the distribution of this group it was necessary to use an expedient. For the companies in the MNE group, the main industry – based on the WZ 2008 – was determined for a random sample of roughly 1,000 companies using the online firm database FirmenWissen. The result is depicted in Table 2.

Table 2
Distribution according to industry for the random sample and groups 1 and 2

	the base: a random sample	distribution group 1	distribution group 2
Agriculture & forestry, mining	3 %	4 %	6 %
Manufacturing	41 %	40 %	18 %
Construction	3 %	5 %	5 %
Trading & repairs	19 %	9 %	12 %
Business-related services	32 %	36 %	54 %
Other services	2 %	4 %	5 %

Source: Column 2 ReLOC Survey; columns 3 and 4 TNS Infratest

The distribution of this random sample of companies in the MNE group was compared to the distributions of two alternative groups of companies for which information on industry and number of employees is available. Via the data provider, TNS Infratest supplied the distributions of both variables. Group 1 encompasses companies with foreign direct investment in any country. However, as sister relationships and indirect investments were partly taken into account for the German MNE group, the address provider also issued the distribution of all German companies with direct or indirect foreign investments or with foreign sister companies in any country (named group 2). It was shown that the distribution of industries of the random sample of around 1,000 companies from the MNE group was more similar to the pattern of group 1 (see Table 2). This was presumably because the clear majority of the MNE companies had a direct investment in the Czech Republic. So group 1 was chosen as base for drawing the sample for the German reference group. We assume that not only the distribution of industry but also the combined distribution of firm size and industry follows a similar pattern. On this basis the planned number of cases for the survey is calculated, see the cell coverage in Table 3.

Table 3
Final planned number of cases for the main survey in the German reference group (N=1,200)

	Employment classes				
	0-19/ no info.	20-49	50-199	200++	Total
Agriculture & forestry, mining	10	10	10	20	50 (4 %)
Manufacturing	56	36	130	280	502 (42 %)
Construction	8	8	8	25	49 (4 %)
Trading & repairs	53	18	53	70	194 (16 %)
Business-related services	150	40	90	100	380 (32 %)
Other services	5	5	5	10	25 (2 %)
Total	282	117	296	505	**1,200**

Source: ReLOC Survey

Because holding and management companies all came into the category “business-related services” and were substituted by other firms in the preparations for the survey, the service sector was not weighted as strongly as in group 1. For the companies from the category “business-related services” category, this was only detrimental to small service providers (with fewer than 20 employees or where there was no information given concerning the number of employees). The other industries were weighted more strongly.

The planned number of cases from the trading sector increased the most. As can be seen from the sample, German trading companies are expected to be very well represented in the Czech Republic.

The Czech Republic

Table 4 shows the distribution of the Czech MNE group. Here the proceedings were less complex, as information on industry affiliation and firm size of the Czech MNE group was available in the Czech Business Registry. So the companies for the reference group could be drawn directly. From a selection of approximately 164,000 potential reference companies, 10,262 addresses were drawn to achieve the net number of cases of 850 companies in the reference group. The starting point for drawing the addresses was the company size and main industry of the companies in the MNE group, whereby less occupied cells were filled to a disproportionately high degree. The representation of companies with at least 200 employees was disproportionately low in the reference group, as the number of big enterprises necessary to achieve exact proportionality was not available. However, each cell of the stratification matrix covered at least 1.33 times the value of the MNE group.

Table 4
Distribution of the Czech MNE group

	Employment classes				
	0-19/ no info.	20-49	50-199	200++	Total
Agriculture & forestry, mining	56	9	15	4	84
	1.45 %	0.23 %	0.39 %	0.10 %	2.17 %
Manufacturing	452	247	342	215	1256
	11.68 %	6.38 %	8.84 %	5.56 %	32.46 %
Construction	69	9	15	6	99
	1.78 %	0.23 %	0.39 %	0.16 %	2.56 %
Trading & repairs	1.006	113	64	38	1221
	26.00 %	2.92 %	1.65 %	0.98 %	31.55 %
Business-related services	901	100	104	45	1150
	23.29 %	2.58 %	2.69 %	1.16 %	29.72 %
Other services	41	8	5	5	59
	1.06 %	0.21 %	0.13 %	0.13 %	1.53 %
Total	2,525	486	545	313	3,869
	65.26 %	12.55 %	14.09 %	8.09 %	100.00 %

Source: ReLOC Survey

4 ReLOC Survey

In this international research project not only the creation of the database was demanding but also the development of high quality survey instruments. The differences in the language, culture and social structure, which make a cross-border study so interesting, also make it more difficult to achieve equivalence at the same time (Smith 2003: 69). How it was dealt with these difficulties within the framework of the project will be shown in the following paragraphs. This includes the creation of the different questionnaires for the 4+1 surveys (four survey groups plus the IAB Establishment Panel), the translation of the survey documents and conducting the pretests. After a limited call for tenders, the contract for conducting the main survey was awarded to the survey institute TNS Infratest Sozialforschung, which was also involved in the preparations to a certain extent.

4.1 Questionnaire development

Based on the newly created address material, in the ReLOC Survey the data were collected in face-to-face interviews based on written questionnaires (PAPI). This laborious method was chosen for three reasons. First, the questionnaire contained several sections requiring detailed information about the employment structure, direct wage costs or intermediate inputs – some of it was also required retrospectively – so that the contact partners may not have been able to answer the questions immediately. In this case the questionnaire could be left with the company to research the missing data. It could be supplemented by the interviewee later or provided by different members of the company. Second, the questionnaire was complex due to numerous filters and lists, so that the presence of an interviewer made it easier to complete the different sections.[16] Third, the PAPI method is also used in the IAB Establishment Panel. As single-site companies with no equity investment abroad could be taken from this data set and included in the reference group (see Chapter 2.4), it was necessary to apply the PAPI method in the ReLOC Survey as well to avoid method effects. For this reason, in the ReLOC Survey the field time and data validation were comparable to those used by the IAB Establishment Panel and the interviewing standards were the same.

Because of country and group specific differences an adjusted version of the questionnaire was needed for each of the four company groups. These four ReLOC questionnaires were developed in close cooperation with Czech collaborators from CERGE-EI and the Chair of Sociology and Empirical Social Research of the University of Erlangen-Nuremberg using a parallel approach (Harkness et al. 2003: 22 f.). From the start, one of the important goals was to design and formulate as many identical questions and items as possible for Germany and the Czech Republic. This procedure increases the likelihood of a high level of equivalence (Vijver/Leung 1997: 37). Due to language restrictions and the continuous coordination necessary

[16] In exceptional circumstances the interviews could be conducted by telephone or mail.

on the team, a single master version in the lingua franca English was used until just before the pretest. The extra time required by the many feedback processes was tolerated willingly. The advantages were estimated to be more important when taken against the background of the innovative approach of the ReLOC project and the numerous new and adapted questions. Instruments prepared in this way are assumed to work better interculturally speaking than those developed sequentially. In addition, stumbling blocks due to questions or items possibly being misunderstood were also more likely to be avoided (Harkness et al. 2003).

The ReLOC questionnaires are based on the IAB Establishment Panel.[17] As this survey has been conducted every year since 1993 (Fischer et al. 2009), the instruments used have been tested and documented accordingly (Harkness et al. 2003), have proven themselves in the field and have been adjusted to current developments. Parts of the written CORIS survey, the Cluster Oriented Regional Information System, were also used (Möller/Litzel 2008). As far as possible, questions from the current IAB Establishment Panel wave which were thematically useful for the ReLOC Survey were taken word for word. However, not all questions could be transferred in their original form but had to be adapted in various ways. First, ReLOC's cross-border character required a range of items to be adjusted. Deviations between the Czech and the German versions specific to a particular country made terminological and factual adjustments necessary. The employment classifications, for example, have been affected of such adjustments as there is, on the one hand, no equivalent to the German system of marginal employment (400 euro jobs) in the Czech Republic. On the other hand, "self-employed employees", for whom the employer does not have to pay social insurance, are very common there, but do not exist in Germany. Concerning the wage system there have been clear differences, too. The in Germany well known terms "Haustarifvertrag" and "Branchentarifvertrag", referring to the company wage agreement and industry wage agreement, respectively, are incomprehensible in the Czech Republic. In addition to this, collective wage agreements are considerably less common in the Czech Republic than in Germany. "Collective wage agreements of higher order" do exist, but they are only common in traditional industries such as metal processing. Besides, there are many company unions which negotiate company wage agreements with their employers. These company unions also take on the function of works councils, which are separate institutions in Germany. Thus, the questions concerning employee representatives are different for Germany and the Czech Republic. Further adaptations have been necessary due to the fact that ReLOC is addressing companies, not estab-

[17] As the units of analysis "establishment" and "company" are one and the same for single-site companies, the information provided by the IAB Establishment Panel participants who have no foreign affiliate can also be used to supplement the ReLOC data for analysis (see Chapter 2.4). A question concerning the identification of single-site companies which are relevant for ReLOC is annually included in the IAB Establishment Panel (question no. 83 in the 2010 survey). Accordingly, a new question (no. 84) was included to collect information on an establishment's foreign affiliate.

lishments. In some questions it was enough to change terms and in others structures had to be altered.

Equivalence, which is an essential prerequisite and important attribute of international surveys, is achieved by the approach described above. It minimised the differences in content between the German and Czech versions, whereby attention was also paid to the uniformity of scales and units (with the exception of currency). Here, discussions within the binational team and with the survey institutes in Munich and Prague showed that the differences between the two neighbouring European countries were not very marked in regard to cultural sensibilities toward scaling. Furthermore, the pretests in the two countries showed that the distribution of the scales used in both countries was comparable, which supports the idea that the scales were used equivalently in both countries (Vijver/Leung 1997: 33).

Because of the numerous possible sources of error, evoked by the linguistic and cultural differences as well as the institutional peculiarities of the labour markets in the two countries, all versions of the survey were tested before the fieldwork phase. In various phases of completion, the questionnaires were shown to German and Czech experts from different fields, which was indispensable for identifying possible sources of error (Blair/Piccinino 2005: 20). Several of the experts were native Czechs, so that difficulties in comprehension based primarily on linguistic errors could be avoided. Likewise, experts from the DTIHK were consulted, especially with questions concerning the labour market structures or labour law. The German survey institute focussed especially on the practicability of the questionnaires. Furthermore, pretests were carried out in both countries (see Chapter 4.3 for a more detailed explanation), their results tested for plausibility and consistency and the questionnaires adjusted accordingly.

For all four survey groups the questionnaires were divided into the following thematic blocks: EU enlargement to the East, employment, foreign involvement (for the reference groups: areas of operation), corporate policy and development, investments and innovations, wages and salaries, company activities and further information concerning the company. Appendix A contains a structural plan of the questions common to the four ReLOC instruments, and of the questions and items specific to each country (emic/etic model, see Harkness et al. 2003).

4.2 Translating the survey documents

In international surveys the translation of the survey documents is an important step. When transferring the questionnaire to another language errors can easily arise. As a consequence, this can lead to distorted and incomparable survey results. To avoid such problems, the TRAPD approach (translation – review – adjudication – pretesting – documentation) is regarded as the state-of-the-art procedure in the literature (Behr 2009, referring to Harkness 2008). In practice, this method is often confronted with financial, personnel and time constraints – thus also in this project. However, all efforts were made to get as closely as possible to the TRAPD proce-

dures. This paragraph shows how the cooperation with Czech partners, the integration of German native speakers with profound knowledge of the Czech language in the project team and the intensive exchange with the translators helped to obtain good translation results.

As mentioned, the binational team worked with a master version in English until just before the pretest. This was a working version which had originally been translated from German (due to recourse to the IAB Establishment Panel and CORIS) and was discussed, amended and altered in the course of many meetings over several months. To prepare for the pretest this English master version was freely transcribed back into German by the German project team in cooperation with the German survey institute and the Chair of Sociology and Empirical Social Research of the University of Erlangen-Nuremberg and compared to the notes from the discussions in order to achieve the desired formulations in the native language. First, the questionnaire for the German MNE group was finished, as this version is most similar to each of the other three versions. The same accounts for the screener, the data protection sheet and the cover letter. The three other instruments (questionnaires for the two reference groups and the Czech MNE group, each including screener and data protection sheet) were created on the basis of this new source version. The two Czech questionnaires were also finished in German language. For the pretest, these questionnaires were translated by a qualified translator into Czech and reviewed by the Czech cooperation partners and the German team members with knowledge of the Czech language.

The improvements required by the pretest were all made in the German source version of the questionnaire so that all four versions were finalised in German. English was only used in the discussions with the Czech partners concerning the creation of the final version. For the main survey, the complete survey documents of the target country were translated into Czech by a qualified translator under the direction of the project team to ensure the high quality of the translation. The translator contacted the team with various questions in order to be able to translate the content of the questions as precisely as possible and in line with the intention of the research project. Subsequently, this version was translated back into German by another qualified translator. By comparing the source version and the retranslated version translation errors and comprehension problems became visible and could be eliminated. But it has to be noted critically that this procedure is very common in practice but controversial. There is the possibility that errors in the Czech version are automatically corrected by the translator responsible for the back translation to the German language. Therefore, these errors are no longer visible when comparing the source version and the retranslated version (Harkness 2003). As the Czech speaking members of the German team as well as the Czech cooperation partners checked the final versions of the survey instruments, this problem was avoided in the ReLOC project.

4.3 Pretest

As cultural differences can influence every step of the response process (Johnson et al. 1997) pretests were carried out in both countries. This was the best way to check whether the factual and linguistic adjustments to the two versions of the Czech questionnaire described in Chapter 4.1 were sufficient or whether further alignments were necessary.

The MNE group in the main survey consisted of all German-Czech companies. As this group should not be reduced by the pretest, its sample was slightly changed. In Germany it consisted of firms which had been involved in direct investments in Slovakia. The information to this effect was accessed from the German-Slovakian Chamber of Industry and Commerce (DSIHK 2009). For the Czech Republic, on the other hand, companies with an Austrian parent company were selected. This sample was drawn on the basis of the Czech commercial register. This ensured that all four questionnaires could be tested without the total sample being reduced.

In Germany, the IAB project staff ("ProIAB") located in different employment agencies to support the IAB's research activities were deployed for the pretest. The ProIAB team conducts the pretest for the IAB Establishment Panel every year and also carries out further surveys for the Institute, so that most of the project researchers have years of experience in this field. To prepare for the peculiarities and demands of the ReLOC Survey in regard to content, they received project-specific training before the pretest. As the two German ReLOC versions built on the questionnaire of the IAB Establishment Panel, an abridged general questionnaire was tested here in the form of cognitive interviews[18] (Willis 2004). Here, even a small number of interviews can help in recognising weaknesses in the instrument (Vijver/ Leung 1997: 31). Interviewees were only given the blocks of questions which had been newly developed for the ReLOC Survey in order to keep the pretest at an acceptable length for the interviewees. The 34 interviewees were asked to mention directly any difficulties they were having in understanding anything while they were answering the questions. Furthermore, the interviewers were advised to observe the subject answering the question and to ask about problems they were seeing or sensing. After the interview, the interviewees were also asked set questions about the individual sections of the questionnaire. In this way it was possible to recognise problems on all levels of the response process, for example in regard to understanding questions, capacity for remembering, formulating and providing answers and subsequently to correct the questions accordingly. In particular, these cognitive in-

[18] When developing a questionnaire, cognitive interviews are carried out to get insight into the cognitive processes that occur when answering questions. Of special interest is how respondents interpret and understand the questions and concepts used in the questionnaire, how they retrieve information and events from their memory, how they decide about what to answer and how they finally assign their response to the formal response categories provided in the questionnaire. The main aim of cognitive interviews is to get information on various problems concerning the questions (Prüfer/Rexroth 2005).

terviews revealed that German holding and management companies do not regard themselves as belonging to the target group and therefore often refused to participate in the survey. For this reason, these companies have been replaced as described in Chapter 3.1.

The pretest in the Czech Republic was conducted by interviewers from the survey institute TNS AISA. In this case it was a conventional pretest[19] with 84 companies and two establishments, where the interviewees received the entire questionnaire for the main survey. Altogether, 38 companies with an Austrian parent company and 48 purely Czech companies took part in the pretest in the Czech Republic. The answers were evaluated descriptively and possible sources of errors were deduced from the results of the evaluation. In addition, the interviewers provided information on difficulties they had observed, which were also taken into account in drawing up the final versions of the questionnaires. The fundamental survey design was revised once more after the pretest was completed. Initially, a combined company and establishment survey was considered for the project in order to avoid the disadvantages which would occur in a survey which was restricted to either establishments or companies. This approach was also tested in the Czech pretest. The original idea was to approach every subordinate establishment in a company with an establishment questionnaire and to approach the head office for information on the company as a whole. However, it transpired that such a procedure would not deliver the desired results as the number of establishments in a company which could be possibly included in the survey was too low. To find the individual establishments, interviewees in the pretest were asked about the number of further company locations in the Czech Republic. Here, the participants were asked to give the precise addresses of the five most important locations in the Czech Republic in their view, so that in a second step representatives of these establishments could also be interviewed with the help of the establishment questionnaire. Here, the respondents' willingness to provide information proved to be extremely low what in addition to the general non-reponse reduced the number of participants at the establishment level enormously. The pretest thus resulted in the decision to conduct the ReLOC Survey as a pure company survey without an additional establishment survey.

5 Conducting the ReLOC main survey

The main survey was conducted by TNS Infratest Sozialforschung in Germany and by TNS AISA in the Czech Republic. Field time was September 2010 to May 2011. The process for the main survey was jointly developed by TNS Infratest Sozialforschung and the IAB ReLOC team. So parts of the following sections describing the

[19] "Conventional pretesting is so named because it is the most common form of pretesting (…). The technique is based on a kind of emulation of the survey. A small sample of respondents from the target population is sampled and the survey is administered to them just as intended in the actual study" (Blair/Piccinino 2005: 24)

project stages are taken from the internal technical report by the survey institute (TNS Infratest Sozialforschung 2011).

5.1 Identifying and making contact with the correct survey participant

The initial contact with the company was sought at management level. In Germany a personalised cover letter from the IAB and a letter of recommendation from the DTIHK were sent to the desired interview partners. These letters informed them about the background and aim of the research project and were intended to motivate them to participate. In addition, detailed information on the privacy policy was given, including the institutions involved in the project, the way the data collected is dealt with and on how the absolute confidentiality of the data is ensured. Subsequently, these people were contacted directly by the interviewers and an appointment was requested for an interview. For purposes of documentation, the following information about the most important contact person(s) was stored in the address protocol: name, function, telephone number, e-mail and also the length of the conversation, whether appointments took place, and if so, when. In addition, the interviewer noted at the end of the questionnaire how many interviewees participated in the survey.

The address protocol, programmed as CAPI, served as a means for checking whether the company came into the target group before the interview. Thus, the members of the MNE group were asked whether the company currently had foreign investments in the Czech Republic or whether it had financial dealings in the Czech Republic via a private individual or another company. In this regard, the precise definitions as described in Chapter 2.2 are contained in the Appendix. If the contact partner replied to both questions in the negative, no interview was conducted. The address protocol for the reference group was constructed in the same way, although in this case no interview was conducted if the contact person answered one of the two questions in the affirmative.

To make contact with companies in the Czech Republic in the run-up to the survey, personalised cover letters were sent – in this case by CERGE-EI – together with a letter of recommendation from the DTIHK and the letter providing information on the privacy policy. Several interviewers preferred to go to the companies in person, present the cover letter and immediately arrange a date for the interview.

The address protocol contains the same basic data as in the German version. To identify the correct survey participants, the companies in the MNE group were first asked whether they currently had a German partner. If they answered in the affirmative, the interview was conducted. For the reference group the control questions referred to a foreign partner. If they replied that they currently had no such partner, the interview was conducted.

If a company was not to be found at the address given, an intensive search was carried out to discover whether the firm had been dissolved or whether it had simply changed location.

5.2 Conducting the interviews

Native-language interviewers from the respective home countries were assigned in both Germany and the Czech Republic. This guarded against communication problems (Vijver/Leung 1997: 34) and counteracted possible reservations in regard to cross-border surveys. For the German and the Czech survey the interviews were collected by trained interviewers belonging to the staff of TNS Infratest in Germany and TNS AISA in the Czech Republic, respectively. In the case of TNS Infratest the interviewers obtain a basic training and are continuously controlled. If necessary, additional training is provided. Therefore, the briefing for a specific study can be restricted to the project's special characteristics and handed out in a written way.

The Czech survey should be carried out in the same way, but TNS AISA has – in contrast to TNS Infratest – not the experience in conducting the IAB Establishment Panel for over 20 years now. Therefore, the Czech contact interviewers were instructed to the particular requirements of this survey during a half-day workshop before the beginning of the main survey. The requirements were also documented in the written interviewer instruction but due to the complexity of this survey a personal meeting was held. Especially the contact phase, the identification of the right unit and ways how to achieve a high response rate were part of the workshop.

It is a complex procedure, as interviewers had to decide on how to proceed in individual cases. Normally, the interviews should be face-to-face and PAPI. If necessary, especially on request of the interviewee or to complete questions that could not be answered spontaneously, the questionnaires could be left with the company to complete. As the interviewers are responsible for the successful implementation of the interview, they had a certain degree of liberty in fulfilling their task. This procedure proved to be successful in the IAB Establishment Panel. If the interviewers or the interviewees had questions, they had the possibility to call TNS Infratest Sozialforschung or TNS AISA.

In the Czech Republic the interview partners received a bottle of good wine for participating in the survey. These incentives have only been offered in the Czech Republic. This method is very common, as traditionally the response rates in company surveys are very low.

5.3 Data quality, data preparation, data validation and editing

The preconditions for maximising data quality and interviewer training, assignment of qualified personnel and identifying the correct survey participants have already been elucidated.

In addition, the editing is of special importance for the quality of the data set. It is possible to correct errors with regard to content and to form as well as to control for and – if necessary – to correct implausible indications. The ReLOC editing procedures were mostly the same as with the IAB Establishment Panel. For Germany, the editing took place in the period from October 2010 to May 2011, for the Czech Republic from October 2010 to June 2011. Cases showing errors concerning filtering, inconsistencies or implausibilities were edited via telephone. In Germany, data validation as well as editing was performed by TNS Infratest Sozialforschung, in the Czech Republic data validation was also done by the German survey institute, but for the editing TNS AISA was responsible.

Basically, the data validation and editing process consisted of the following steps:

- Controlling for formal completeness.
- Transferring the questionnaire data to disk in two passes (capture and control capture) to minimise entry errors.
- Unclear or not readable entries were marked by a code, as well as annotations written by hand. Cases with that code were automatically included in the editing process.
- Programme-based validation of the data according to 71 criteria in Germany and to 61 criteria in the Czech Republic: If one of the validation criteria was violated, an error protocol was produced and thereby the case included in the editing process automatically, too.
- Manual validation and if necessary correction of the cases for whom the validation programme revealed incorrect, incomplete or implausible indications or that have been marked by data entry: If the error could not be corrected by reviewing the original questionnaire, the interviewee in the respective company was contacted again by telephone.
- After adopting the changes required by the editing, the corrected cases have been checked again by the programme. This process was repeated until the validation programme marked the case as correct.

The data validation and revision by telephone could lead to the following results:

- The questionnaire data were incorrect and were then corrected. The next validation run classified the corrected data as correct.
- If the company confirmed that a fact classified as false by the programme was actually correct, this validation criterion received the code “value allowed, although plausibility criterion violated”. This code was only possible in case of plausibility tests, but not in case of logical errors.
- If errors could not be corrected after calling the interviewee, the respective indications in the data set have been deleted and the code “not specified” has been applied.

5.4 Overview of the completed number of interviews

In Germany, 459 interviews were completed in the MNE group and 1,286 in the reference group (see Table 5). As in the MNE group 3,274 addresses and in the reference group 8,079 addresses were used for fieldwork, the unadjusted response rate is 14.0 % in the MNE group and 15.9 % in the reference group (see Table 6).

Table 5
Overview of conducted interviews

	Czech Republic	Germany
MNE group	474	459
reference group	858	1,286
total number	1,332	1,745

Source: ReLOC Survey

Table 6
Adjusted and unadjusted response rates

	Czech Republic		Germany	
response rate	unadjusted	adjusted	unadjusted	adjusted
MNE group	13.0 %	14.9 %	14.0 %	18.5 %
reference group	12.0 %	12.9 %	15.9 %	19.1 %

Source: ReLOC Survey

In the Czech Republic 474 interviews were conducted in the MNE group and 858 in the reference group. As in the MNE group 3,651 addresses were used the unadjusted response rate equals 13.0 % and thus is slightly lower than in the respective German group. In the reference group the required number of interviews was reached with using only 7,158 addresses of the 10,262 available ones. The unadjusted response rate is 12.0 % and is also lower than the value in the corresponding German group.

The adjusted response rate is 18.5 % in the German MNE group, 19.1 % in the German reference group, 14.9 % in the Czech MNE group and 12.9 % in the Czech reference group. The differences between the adjusted and the unadjusted response rates are explained by companies that were not active anymore, not findable or not in the right peer group. That they were no longer relevant for the survey only became clear after trying to make contact and they dropped out of the sample in the proceedings. This concerns mainly the two MNE groups as they do not only drop out when the company itself is no longer active, but also when the parent or affiliate does not exist anymore.

6 Project outlook

The next step of the project is the finishing of the ReLOC Employment Panel (see Chapter 2.4). In the long run it would be conceivable to extend the study to further countries, predominantly to Poland and Slovakia.

References

Autor, David H.; Levy, Frank; Murnane, Richard J. (2003): The Skill Content of Recent Technological Change: an Empirical Exploration. In: The Quarterly Journal of Economics, 118 (4), p. 1279–1333.

Becker, Sascha O.; Muendler, Marc-Andreas (2008): The Effect of FDI on Job Security. In: The B.E. Journal of Economic Analysis & Policy, 8 (1) (Advances), Article 8.

Behr, Dorothée (2009): Translationswissenschaft und international vergleichende Umfrageforschung, Qualitätssicherung bei Fragebogenübersetzungen als Gegenstand einer Prozessanalyse. GESIS-Schriftenreihe, 2, Bonn: GESIS.

Blair, Johnny; Piccinino, Linda (2005): The Development and Testing of Instruments for Cross-Cultural and Multi-Cultural Surveys. In: Hoffmeyer-Zlotnik, Jürgen H. P.; Harkness, Janet A. (Eds.): Methodological Aspects in Cross-National Research. ZUMA-Nachrichten Spezial Volume 11. Mannheim.

Blinder, Alan S. (2007): Offshoring: Big Deal, or Business as Usual?. CEPS Working Paper 149.

Buch, Claudia M.; Schnitzer, Monika; Arndt, Christian; Kesternich, Iris; Mattes, Anselm; Mugele, Christian; Strotmann, Harald (2007): Analyse der Beweggründe, der Ursachen und der Auswirkungen des so genannten Offshoring auf Arbeitsplätze und Wirtschaftsstruktur in Deutschland. Tübingen/ München: IAW Tübingen und Seminar für Komparative Wirtschaftsforschung (LMU München).

Deutsche Bundesbank (2012): Bestandserhebung über Direktinvestitionen, Statistische Sonderveröffentlichung 10, Deutsche Bundesbank, Frankfurt.

DIHK – Deutscher Industrie- und Handelskammertag (2008): Investitionen im Ausland – Ergebnisse einer DIHK-Umfrage bei den Industrie- und Handelskammern, Deutscher Industrie- und Handelskammertag, Berlin.

DSIHK – Deutsch-Slowakische Industrie- und Handelskammer (2009): Deutsche Unternehmen in der Slowakei, Ausgabe 2009.

Egger, Hartmut; Egger, Peter (2002): How International Outsourcing Drives Up Wages in Eastern Europe. In: Weltwirtschaftliches Archiv, 138 (1), p. 83–96.

Enright, Michael J.; Scott, Edith D.; Dodwell, David (1997): The Hong Kong Advantage. Hong Kong: Oxford University Press.

Feenstra, Robert C. (1998): Integration of Trade and Disintegration of Production in the Global Economy. In: Journal of Economic Perspectives, 12 (4), p. 31–50.

Feenstra, Robert C.; Hanson, Gordon H. (1997): Foreign direct investment and relative wages: Evidence from Mexico's maquiladoras. In: Journal of International Economics, 42 (3–4), p. 371–393.

Fischer, Gabriele; Janik, Florian; Müller, Dana; Schmucker, Alexandra (2009): The IAB Establishment Panel – things users should know. In: Schmollers Jahrbuch. Zeitschrift für Wirtschafts- und Sozialwissenschaften, 129(1), p. 133–148.

Geishecker, Ingo; Görg, Holger (2008): Winners and losers: a micro-level analysis of international outsourcing and wages. In: Canadian Journal of Economics/ Revue canadienne d'Economique, 41 (1), p. 243–270.

Grossman, Gene M.; Rossi-Hansberg, Esteban (2006): The Rise of Offshoring: It's Not Wine for Cloth Anymore. In: The New Economic Geography: Effects and Policy Implications, Jackson Hole Conference Volume, Federal Reserve Bank of Kansas City, p. 59–102.

Groves, Robert M.; Fowler, Floyd J.; Couper, Mick P.; Lepkowski, James M.; Singer, Eleanor; Tourangeau, Roger (2009): Survey methodology. Chichester: Wiley.

Harkness, Janet A. (2008). Round 4 ESS Translation Strategies and Procedures. [Online]: http://www.google.de/url?sa=t&rct=j&q=harkness+Round+4+ESS+Translation+Strategies+and+Procedures&source=web&cd=2&cad=rja&ved=0CDYQFjAB&url=http%3A%2F%2Fwww.europeansocialsurvey.org%2Findex.php%3Foption%3Dcom_docman%26task%3Ddoc_download%26gid%3D210%26itemid%3D80&ei=qeOPUJC-FoXKswbM34DoDQ&usg=AFQjCNFEmDV_9_MaGQa0MM6YxQWurNZb8g, 12.10.2012.

Harkness, Janet A. (2003): Questionnaire Translation. In: Harkness, Janet; van de Vijver, Fons J. R.; Mohler, Peter Ph. (Eds.): Cross-Cultural Survey Methods, Hoboken, New Jersey: Wiley-Interscience, p. 35–56.

Harkness, Janet A.; van de Vijver, Fons J. R.; Johnson, Timothy P. (2003): Questionnaire Design in Comparative Research. In: Harkness, Janet; van de Vijver, Fons J. R.; Mohler, Peter Ph. (Eds.): Cross-Cultural Survey Methods, Hoboken, New Jersey: Wiley-Interscience, p. 19–34.

Hummels, David; Kei-Mu Yi, Jun Ishii (2001): The nature and growth of vertical specialization in world trade. In: Journal of International Economics, 54, p. 75–96.

IHK Saarland (2008): EUHG – Neue Publizitätspflicht für Kapitalgesellschaften, presentation by RA Thomas Riemann (Leiter Rechtsabteilung – Verband der Vereine Creditreform e.V., Neuss), 24.01.2008.[Online]: http://www.saarland.ihk.de/ihk-saaand/Integrale?SID=F51529306E92149DECF43C9BEBA4560D&MODULE=Frontend.Media&ACTION=ViewMediaObject&Media.PK=1165&Media.Object.ObjectType=full, 10.05.2013.

Johnson, Timothy P.; O'Rourke, Diane; Chavez, Noel; Sudman, Seymour; Warnecke, Richard; Lacey, Loretta; Horm, John (1997): Social cognition and responses to survey questions among culturally diverse populations. In: Lyberg, Lars E.; Biemer, Paul; Collins, Martin; De Leeuw Edith D.; Dippo, Cathryn; Schwarz, Norbert; Trewin, Dennis (Eds.): Survey Measurement and Process Quality, New York: John Wiley & Sons, p. 97–113.

Klodt, Henning; Christensen, Björn (2007): Home Market Effects of Foreign Direct Investment: The Case of Germany. In: Aussenwirtschaft, 62 (1), p. 63–76.

Krätke, Stefan (2001): Regionale Wirkungen der EU-Osterweiterung. In: Informationen zur Raumentwicklung, 11/12, p. 769–778.

Krugman, Paul (1995): Growing World Trade: Causes and Consequences. In: Brookings Papers on Economic Activity, 1:1995, p. 327–377.

Marin, Dalia (2004): 'A Nation of Poets and Thinkers' – Less So with Eastern Enlargement? Austria and Germany. Discussion Paper No. 77, GESY – Governance and the Efficiency of Economic Systems.

Markusen, James R. (2002): Multinational firms and the theory of international trade. 1st paperback ed. Cambridge, Mass.: MIT Press.

Möller, Joachim; Litzel, Nicole (2008): Measuring specialisation and concentration in regional clusters – an empirical analysis for Eastern Bavaria. In: Blien, Uwe; Maier, Gunther (Eds.): The economics of regional clusters. Networks, technology and policy, New horizons in regional science, Cheltenham u. a.: Elgar, p. 119–144.

Moritz, Michael; Gröger, Margit (2007): Labor Market Effects in the German-Czech Border Region: An Empirical study Using the IAB Employment Sample (IABS). In: Journal of Borderland Studies, 22 (2), p. 57–76.

Niebuhr, Annekatrin; Stiller, Silvia (2006): Integration and labour markets in European border regions. In: Zeitschrift für ArbeitsmarktForschung, 1/2006, p. 57–76.

Pflüger, Michael P.; Blien, Uwe; Möller, Joachim; Moritz, Michael (2013): Labor market effects of trade and FDI – recent advances and research gaps. In: Jahrbücher für Nationalökonomie und Statistik, Bd. 233, H. 1, p. 86–116.

Prüfer, Peter; Rexroth, Margrit (2005): Kognitive Interviews, ZUMA How-to-Reihe, Nr. 15, Mannheim.

Pusterla, Fazia; Resmini, Laura (2007): Where do foreign firms locate in transition countries? An empirical investigation. In: Annals of Regional Science, 41 (4), p. 835–856.

Sinn, Hans-Werner (2005): Die Basar-Ökonomie. Deutschland: Exportweltmeister oder Schlußlicht?, Berlin: Econ Verlag.

Smith, Tom W. (2003): Developing Comparable Questions in Cross-National Surveys. In: Harkness, Janet; van de Vijver, Fons J. R.; Mohler, Peter Ph. (Eds.): Cross-Cultural Survey Methods, Hoboken, New Jersey: Wiley-Interscience, p. 69–91.

Spitz-Oener, Alexandra (2006): Technical Change, Job Tasks and Rising Educational Demands: Looking Outside the Wage Structure. In: Journal of Labor Economics, 24 (2), p. 235–270.

Statistisches Bundesamt (2008): 60% der Unternehmensverlagerungen gehen in die neuen EU-Länder. Pressemitteilung Nr. 046, 07.02.2008.

Temouri, Yama; Driffield, Nigel L. (2009): Does German Foreign Direct Investment Lead to Job Losses at Home? In: Applied Economics Quarterly, 55 (3), p. 243–263.

TNS Infratest Sozialforschung (2011): Labour Market Effects of Cross-Border Outsourcing through EU Enlargement – The Case of Germany and the Czech Republic. Methodenbericht zur Unternehmensbefragung 2010/11. München. Unpublished internal report.

Vijver, Fons J. R. van de; Leung, Kwok (1997): Methods and data analysis for cross-cultural research. Cross-cultural psychology vol. 1.

Willis, Gordon B. (2004): Cognitive Interviewing: A Tool for Improving Questionnaire Design, Newbury Park: Sage Publications.

Appendix A
Structural plan of questions common to the four ReLOC instruments, and country-specific questions and items

GERMANY		CZECH REPUBLIC	
MNE group	**Reference group**	**MNE group**	**Reference group**
A: Introduction: EU enlargement		**A: Introduction: EU enlargement**	
A1: Change in indicators since 2004 (in CEECs: Export, import, competition, sales, FDI)	A1: Change in indicators since 2004 (in CEECs: Export, import, competition, sales, FDI)	A1: Change in indicators since 2004 (in EU15: Export, import, competition, sales, FDI)	A1: Change in indicators since 2004 (in EU15: Export, import, competition, sales, FDI)
	A2: previous capital investment abroad		
	A3: FDI plans for next 2 years		
	A4: FDI (>10 %) have been considered		
B: Employment		**B: Employment**	
B1: Employees 2010, 2009, 2003	B1: Employees 2010, 2009, 2003	B1: Employees 2010, 2009, 2003	B1: Employees 2010, 2009, 2003
B2: Employee groups 2010	B2: Employee groups 2010	B2: Employee groups 2010	B2: Employee groups 2010
B3: Leased labourers/freelancers 2010	B3: Leased labourers/freelancers 2010	B3: Leased labourers/freelancers 2010	B3: Leased labourers/freelancers 2010
B4: Qual.structure 2010, change since '03	B4: Qual.structure 2010, change since '03	B4: Qual.structure 2010, change since '03	B4: Qual.structure 2010, change since '03
C: Foreign investment	**C: Area of operation**	**C: Foreign investment**	**C: Area of operation**
C1: No. of CZ locations		C1: Owner of company/ owner structure, since when?	
C2: Employees in CZ			
C3: FDI status 2010, 2003			
C4: CZ affiliate since when			
C5: FDI prior to CZ? new FDI since CZ?			
C6: Type of investment (subsidiary > 50 %, investment < 50 %, subsidiary/ foreign representation, sister co. etc.)		C2: relation to German partner, < 50 %, > 50 %	
C7: Share in CZ company 2010			
C8: Alternative locations to CZ – where?			
C9: FDI motivation in CZ – due to cost-saving/market development			
C10: Choice of micro-location			
C11: Areas of operation in D, in CZ	C11: Areas of operation in D	C3: Areas of operation in CZ, relocation from D to CZ	C1: Areas of operation in CZ

GERMANY		CZECH REPUBLIC	
MNE group	**Reference group**	**MNE group**	**Reference group**
C12: Relocating areas of operation from D to CZ – which?			
C13: Relocating areas of operation from CZ to D due to restructuring		C4: Relocating areas of operation from CZ to D due to restructuring	
C14: Inv. in existing company		C5: Company existing prior to inv.	
C15: Relocating areas of operation from CZ to D – which?		C6: Relocating areas of operation from CZ to D – which?	
C16: Closing establishments in CZ? in D?		C7: Closing establishments in CZ?	
C17: Effect on employees in D		C8: Effect on employees in CZ	
C18: Decision-making authority in D/in CZ		C9: Decision-making authority in CZ/in D	
D: Company policy and development		**D: Company policy and development**	
D1: Sales vs. business volume	D1: Sales vs. business volume	D1: Sales vs. business volume	D1: Sales vs. business volume
D2: High business volume 2009	D2: High business volume 2009	D2: High business volume 2009	D2: High business volume 2009
D3: D1 & D2 summarised again	D3: D1 & D2 summarised again	D3: D1 & D2 summarised again	D3: D1 & D2 summarised again
D4: Export share – target regions (CZ, CEECs, West, rest) Share of CZ location	D4: Export share – target regions (CZ, CEECs, West, rest)	D4: Export share – target regions (SK, CEECs, West, rest) Share of German parent	D4: Export share – target regions (SK, CEECs, West, rest)
D5: Share of inputs/third-party costs re. sales 2009	D5: Share of inputs/third-party costs re. sales 2009	D5: Share of inputs/third-party costs re. sales 2009	D5: Share of inputs/third-party costs re. sales 2009
D6: partially taken from abroad?	D6: partially taken from abroad?	D6: partially taken from abroad?	D6: partially taken from abroad?
D7: Share of CZ location		D7: Share of German parent	
E: Investments and innovations (last business year)		**E: Investments and innovations (last business year)**	
E1: Inv. in land/buildings, DP/ITC, assets, transport	E1: Inv. in land/buildings, DP/ITC, assets, transport	E1: Inv. in land/buildings, DP/ITC, assets, transport	E1: Inv. in land/buildings, DP/ITC, assets, transport
E2: Sum of investment	E2: Sum of investment	E2: Sum of investment	E2: Sum of investment
E3: Share of expansion investment	E3: Share of expansion investment	E3: Share of expansion investment	E3: Share of expansion investment
E4: technical status	E4: technical status	E4: technical status	E4: technical status
E5: Product improved/developed further	E5: Product improved/developed further	E5: Product improved/developed further	E5: Product improved/developed further
E6: existing product included in offering	E6: existing product included in offering	E6: existing product included in offering	E6: existing product included in offering
E7: brand new product included in offering	E7: brand new product included in offering	E7: brand new product included in offering	E7: brand new product included in offering
E8: new procedure with marked improvement in processes	E8: new procedure with marked improvement in processes	E8: new procedure with marked improvement in processes	E8: new procedure with marked improvement in processes

GERMANY		CZECH REPUBLIC	
MNE group	**Reference group**	**MNE group**	**Reference group**
E9: Organisational changes: internal labour, purchase, new acquisition, new marketing	E9: Organisational changes: internal labour, purchase, new acquisition, new marketing	E9: Organisational changes: internal labour, purchase, new acquisition, new marketing	E9: Organisational changes: internal labour, purchase, new acquisition, new marketing
E10: Restructuring since 2004: Takeover, business foundation, spin-off, closure, relocation in D, relocation abroad – effect on employees	E10: Restructuring since 2004: Takeover, business foundation, spin-off, closure, relocation in D, relocation abroad – effect on employees	E10: Restructuring since 2004: Takeover, business foundation, spin-off, closure, relocation in CZ, relocation abroad – effect on employees	E10: Restructuring since 2004: Takeover, business foundation, spin-off, closure, relocation in CZ, relocation abroad – effect on employees
F: Wages and salaries		**F: Wages and salaries**	
F1: Wage agreement	F1: Wage agreement	F1: Wage agreement	F1: Wage agreement
F2: Wages: Oriented toward wage agreement	F2: Wages: Oriented toward wage agreement	F2: Wages: Oriented toward wage agreement	F2: Wages: Oriented toward wage agreement
F3: Wages above wage agreement?	F3: Wages above wage agreement?	F3: Wages above wage agreement?	F3: Wages above wage agreement?
F4: how much %	F4: how much %	F4: how much %	F4: how much %
F5: Gross wage/total salary 06/2010	F5: Gross wage/total salary 06/2010	F5: Gross wage/total salary 06/2010	F5: Gross wage/total salary 06/2010
G: Company activities		**G: Company activities**	
G1: Industry (WZ, 43), CZ in same?	G1: Industry (WZ, 43)	G1: Industry (WZ, 43), D in same?	G1: Industry (WZ, 43)
G2: Product (free text)	G2: Product (free text)	G2: Product (free text)	G2: Product (free text)
G3: Position value chain	G3: Position value chain	G3: Position value chain	G3: Position value chain
G4: Tasks – for main product	G4: Tasks – for main product	G4: Tasks – for main product	G4: Tasks – for main product
G5: Tasks – change in share since CZ		G5: Tasks – change in share since D	G5: Tasks – change in share since 2003
H: General information		**H: General information**	
H1: Workers' representative	H1: Workers' representative	H1: Workers' representative	H1: Workers' representative
H2: Legal form	H2: Legal form	H2: Legal form	H2: Legal form
H3: Executive (owner, management)	H3: Executive (owner, management)	H3: Executive (owner, management)	H3: Executive (owner, management)
H4: Part of concern/ corporate association	H4: Part of concern/ corporate association	H4: Part of concern/ corporate association	H4: Part of concern/ corporate association
H5: Position in concern: holding, management, investment company	H5: Position in concern: holding, management, investment company	H5: Position in concern: holding, management, investment company	H5: Position in concern: holding, management, investment company
H6: Founding year	H6: Founding year	H6: Founding year	H6: Founding year
H7: No. locations in D	H7: No. locations in D	H7: No. locations in CZ	H7: No. locations in CZ
H8: 5 most important company locations in D with address	H8: 5 most important company locations in D with address	H8: Address of German parent	
H9: Company number social insurance (max. 6)	H9: Company number social insurance (max. 6)		

Source: Own illustration

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