

Multinational Companies in Cross-National Context

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Abstract

This paper outlines the key features of an international research project consisting of parallel surveys of MNCs and employment practice in four countries: Ireland, Canada, Spain and the UK. The surveys are the most comprehensive investigations of the employment practices in MNCs in their respective countries. In setting up the comparative analysis of these data, the paper has three objectives. First, we explore the processes of integration and differentiation in MNCs, and the impact for employment practice. Second, the importance of foreign direct investment (FDI), and the similarities and differences between the systems of industrial relations, in the four countries in question are charted. Third, we outline the key elements of the research design, chart the process of collecting data and discuss the extent to which the surveys were comparable.

1. Introduction

Multinational companies (MNCs) are central actors in the contemporary international economy. There are 82,000 of them in the world, controlling 810,000 foreign affiliates, accounting for around a third of total world trade, employing approximately 77 million people (United Nations 2009). MNCs are sometimes seen as 'an emerging global class of organizations' with the potential to 'form their own intra-organizational field' (Kostova *et al.* 2008:996) leading to them having major effects on employment practices in the host environments in which they operate (Edwards and Walsh 2008). In summarising the findings and implications of comparative research in call centres, Batt *et al.* (2009:474) note the importance of fresh research into MNCs, arguing that they 'disproportionately influence the direction of change' and stress the importance of being able to study how MNCs 'operate similarly or differently'. Yet, our understanding of how such firms operate has many gaps. In particular, while the way that MNCs develop and operate HR policies for their operations across countries has been extensively studied, previous surveys of MNCs are either explicitly partial in coverage (for example, because they are confined to certain sectors or particular countries of origin) or there are major question marks concerning their representativeness (Edwards *et al.* 2008). Case study research has been revealing in many ways concerning how MNCs operate but has tended to focus on certain types of MNCs, especially large, US-based firms (Collinson and Rugman 2005).

Much of the debate about the role of MNCs in HRM and employment relations has been dominated by the issue of the 'global-local' tension in management practice. In this paper, and in the wider research project, we will go beyond this problematic, by addressing the variety of ways in which MNCs simultaneously integrate across national employment systems and differentiate between them. The research is the product of an international network of academics conducting parallel surveys of MNCs and employment practice in four countries: Ireland, Canada, Spain and the UK. The surveys are the most comprehensive investigations of the employment practices in MNCs in their respective countries. Each documents the variety of employment practices among MNCs and explores the level at which decisions on such issues are determined, how practices are transferred across borders, and how policies are monitored and enforced. To date, the survey data have been analysed independently at national level¹. The current phase of the research is enabled by the creation of an international dataset and extends this in a novel direction through cross-national comparative analysis of the closely co-ordinated surveys, extending our understanding of the factors underpinning patterns of similarity and difference.

This opening paper has three objectives. First, we explore the processes of integration and differentiation in MNCs, and the implications for employment practice. Second, the choice of the four countries is explained in the light of the importance of foreign direct investment (FDI) and the similarities and differences between the

systems of industrial relations. Third, we outline the key elements of the research design, chart the process of collecting data and consider the extent of the comparability between the parallel surveys.

2. MNCs and the Integration and Differentiation of National Systems of Employment

A central theme framing the research is the role of MNCs in both integrating and differentiating, between and within, national employment systems. Integration of national systems stems from the ways in which MNCs are building stronger linkages between their international operations (Dicken 2007), and can be explored at two levels. The first is the basic configuration of the firm. This concerns the extent to which the functions of operations in different countries are similar or different, and the ways in which business activities are inter-linked across countries. The second concerns the presence, and forms, of any transnational dimension to MNC employment practice: formal structures such as elements of the HR function that are international in nature and international codes and agreements, and/or more informal mechanisms of cross-border coordination such as working groups designed to promote organizational learning.

Our notion of differentiation goes beyond the way that the term is traditionally conceived in the literature. This is primarily distinguished between home and host operations, reflecting the original evolution of MNCs in which sales and manufacturing operations were established in other countries, whilst the full range of headquarters functions remained in the home country. With the progressive growth strategic functions being located outside the country of origin, often termed 'internationalisation of the second degree' (Forsgren *et al.* 1992), and subsidiary mandates (Birkinshaw and Hood, 1998), headquarters functions have also become geographically dispersed thereby opening up multiple lines of differentiations within MNCs. Thus one form of differentiation is the way in which MNCs differentiate *between* countries, something that also relates to the configuration of MNCs, arising from their spatial decisions to locate different functions according to the inherent properties of different national systems in terms of costs, skills, forms of flexibility, etc. (Dedoussis 1995). The role of MNCs in consolidating differences between host systems in this way inverts the logic of adaptation, prominent in the literature, under which MNCs 'take' local systems as they find them; rather, they shape these systems and are in turn shaped by them (Meardi and Tóth 2006).

The second form of differentiation is the one that takes us beyond the way the term is traditionally conceived and is differentiation *within* host systems, and this requires a further distinction to be made, concerning differences between otherwise similar companies in a country on the one hand and differences that emerge in a given multinational's national operations on the other. The former arises through 'country of origin' effects (Ferner 1997) under which MNCs implement employment practices associated with their respective home countries. Thus MNCs are differentiated from one another according to their nationality. The latter –

differentiation within a multinational – occurs through variation in the pattern of central determination and local discretion according to workforce group, including the contrast between managers and non-managerial employees (Kristensen and Zeitlin 2005). Differentiation within a multinational's national operations can also occur through variation in the extent to which different employment practices are subject to tight control by the HQ or left to the discretion of national operations, reflecting considerations of both choice (some aspects of practice being deemed more strategic than others) and constraint (through the impact of local institutions) (Rosenzweig and Nohria 1994).

In exploring these patterns of integration and differentiation, the study goes beyond, but does not dispense with, the analysis of the global-local tension that has dominated scholarly analysis (see Edwards and Kuruvilla 2005). This analysis has been framed by two longstanding debates. One is the extent to which MNCs are shaped by their national origins. Many studies in the 1990s demonstrated that most MNCs retain strong links with their country of origin, with their approach being shaped by the home business system (e.g. Doremus *et al.* 1998). More recently, however, some observers have found evidence of convergence towards 'dominant' practices, influenced by the US model (Pudelko and Harzing 2007). The second debate concerns the extent to which MNCs are constrained by host business systems. While some have argued that 'adherence to local practices is the dominant influence' on MNCs' employment practice (Rosenzweig and Nohria 1994:250), others have emphasised the malleability of host systems (Kostova *et al.* 2008). Analysis of the concurrent tendencies of greater integration and differentiation are used to explore the ways in which the strategies and practices of MNCs within national systems depend not only on which countries, types of practice or workforce groups are under consideration but also on the configuration of MNCs and the roles of national subsidiaries. Three particular lines of analysis can be identified.

International Integration and HR Strategy in MNCs

First, MNCs can derive synergistic benefits from integrating their operations across borders, with two main configurations being evident (Hill and Hoskisson 1987). Some MNCs are configured through segmentation, with local operations taking on distinct roles that differ markedly from others in technological and occupational terms. National operations supply others, are supplied by others or both, resulting in the MNC being linked through 'chains' (Wilkinson *et al.* 2001), creating scope for synergies from vertical integration. Other MNCs are configured through replication in which local operations perform similar functions to each other, have comparable technologies and occupational profiles and serve a local or national market (Ivarsson and Alvstam 2005), creating the potential for synergies from horizontal integration (Gupta and Govindarajan 1991). In contrast, some MNCs are not configured to realise synergies from international integration, pursuing instead

'financial economies' (Hill and Hoskisson 1987) through the operation of an internal capital market amongst autonomous businesses.

International integration gives rise to stronger pressures for a transnational dimension to employment practice in MNCs when compared with non-internationally integrated MNCs (Edwards forthcoming; Marginson and Meardi 2010). This dimension may embrace formal arrangements such as international management-policy making bodies (Tregaskis *et al.* 2005) or European Works Councils (Marginson *et al.* 2004). It also includes informal channels that lead to cross-border coordination, such as management development and succession planning programmes that, through socialisation and forms of networking, facilitate the diffusion of knowledge (Frost and Zhou 2005). However, the extent and form of any transnational dimension may differ according to MNCs' configuration. Segmentation may limit the attractiveness of global HR policies given that the technologies deployed and the occupational profile of each site differ markedly (Dedoussis 1995). Yet, realising the synergies from segmentation may prompt MNCs to build a transnational dimension focused on forms of management networking aimed at promoting a smooth exchange of components and knowledge across countries. Such MNCs may also be vulnerable to disruption from local disputes (Marginson 1992) with this risk being reduced by establishing formal structures to ensure consistency in practice across borders. Amongst replicated MNCs, the incentives for managers to develop a transnational dimension to employment relations differ (Edwards and Zhang 2008). Since production routines are identical across countries, benefits derive from elaborating common policies and avoiding precedent-setting in a context where workforces, as well as managers, can more readily compare across borders. The extent of the transnational dimension will be shaped by whether MNCs tailor their products to national markets or standardise across them, with impetus towards a transnational dimension being relatively stronger amongst the latter.

Subsidiary Roles and the Character of Employment Relations in MNCs

Second, given that forms of configuration differ, the company level is not the only relevant unit of analysis. An examination is also needed of the roles that subsidiaries play, how these roles differ and how this is tied to such issues as control mechanisms (e.g. Bouquet and Birkinshaw 2008; Jarillo and Martinez 1991; Luo 2005). To the extent that MNCs differentiate the roles of national units from one another, there are profound implications. Subsidiaries are likely to differ in the extent to which they are the source of innovations that are spread to other parts of the company and in their capability to shape the formation of company policies. Case study evidence concerning the phenomenon of 'reverse diffusion', whereby MNCs identify practices operating in their foreign operations and subsequently transfer these to operations in other (including the home) countries, suggests that differences in national institutions mean that actors in subsidiaries are differentially placed to engage in this process (Edwards and Ferner 2004; Edwards *et al.* 2005). Reaching beyond national

effects, it is plausible that subsidiaries with strategic roles, through the generation of R&D expertise within the wider company or possession of an international product 'mandate' (Birkinshaw and Hood 1998), are those most likely to be the source of new practices implemented elsewhere. Moreover, within segmented MNCs knowledge flows may mirror the flows of other resources across the company: the nature of the linkages between a national subsidiary and others – as supplier and/or recipient of services or components within the multinational – may shape whether it is the source of new practices.

Interactions within and between National Systems

Third, a key issue concerns how practice in one nationality of MNCs compares with others. As bearers of the traits of the national business systems in which they originate, MNCs may differ in their employment practices according to nationality. Insofar as this is the case, the weaker are the constraints posed by the host system, the more clearly will the distinct national preferences of MNCs show through. The varying degrees of centralisation exhibited by MNCs of different nationalities within a given host country has, for example, been extensively examined (e.g. Child *et al.* 2001). Yet few studies have looked at the approach of MNCs of the same nationality across countries (Fenton O'Creevy *et al.* 2008). It is plausible that the operations of MNCs in countries with more deregulated labour markets will exhibit clearer evidence of home country effects when compared with those in more regulated countries. Thus there may be variability in the extent to which distinct country of origin effects hold across host countries. Variations in country of origin influences may also arise at source, reflecting heterogeneity within countries (Crouch 2005). Nationality will not give rise to uniform effects; its impact is more varied, shaped by such factors as the range of management styles exhibited in the home country – such as those between the New Deal union and HRM union substitution approaches in the US (Almond and Ferner 2006) – or differing sectoral conditions (Colling and Clark 2002), which underpin intra-model variation.

3. The Four Host Countries

All four countries that feature in this study are the recipients of, and in some cases also the sources of, large amounts of FDI. The UK economy has long been open internationally, with British MNCs expanding into the colonies of the empire in the nineteenth and twentieth centuries, and more recently into Europe and North America. Britain has also become a centre of strategic importance for many MNCs, with many from outside Europe locating their regional HQ in the UK. The expansion of Spanish MNCs in the post-Franco era has focused on countries in Latin and Central America which once formed part of its empire, and many have made large international acquisitions in recent years. In addition, FDI into Spain rose sharply in the last two decades following Spanish entry into the EU. Ireland and Canada share the characteristic of a high degree of

dependence on US MNCs, with FDI from the USA making up a particularly high percentage of the total in both cases. Canada has exhibited significant outward FDI for many decades, while in Ireland this is an emerging, yet significant, phenomenon. The patterns across these four countries are summarised in Figures 1 – 6. Of particular interest are Figures 3 and 6 which confirm that all four have higher than average stocks of inward and outward FDI in relation to national GDP, with this being particularly high for the UK for outward and for Ireland for both outward and inward.

More specifically, the four countries allow comparisons on the basis of a set of strong similarities and marked differences according to three sets of features: FDI profile, as indicated above; national business system; and institutional arrangements for industrial relations. Comparison between the UK and Ireland lends itself to a 'most similar research design' in which the cases share many characteristics, sources of variation are reduced and differences can be attributed to distinctive features (Djelic 1998). Both countries offer an Anglophone, 'liberal market' platform from which MNCs can service the European market. Both have 'voluntaristic' systems of industrial relations (IR) and 'single channel' forms of employee representation. Yet there are also differences. Foreign direct investment started earlier in the UK, but inwards FDI now plays a more prominent role in Ireland, accounting for a higher proportion of output than in the UK. Recent institutional trajectories also diverge: in Ireland national-level concertation delivered from 1986 to 2009 a series of agreements on wages policy and other matters, whereas since the early 1980s the UK has seen the disappearance of virtually all supra-firm IR institutions. The study will treat the two countries not as exemplars of a fixed liberal market system but as national systems with core similarities and variations on the theme (Crouch 2005).

In different ways, Canada and Spain introduce greater degrees of differences into the research design. By so doing the potential for a most similar research design 'to systematically bias research by favouring some forms of explanation at the expense of others' (Wailles 1999: 1024) can be avoided. The history and motivation for MNC activity in Canada has been dominated by its proximity to the world's largest economy, the US, and by its abundant natural resources. Like the UK, Canada became a significant destination for FDI early on and there is growing concern over MNCs' potential role in 'hollowing out' Canada's economy as headquarters, R&D and knowledge-intensive functions become concentrated in the US (Arthurs, 2000). Canada is also a predominantly Anglophone liberal market economy which in industrial relations shares some features with Ireland and the UK, notably a tradition of single channel representation, but differs in the strong legal framework which underpins the system (Thompson and Taras 2004). In Spain, substantial inwards, and latterly outwards, FDI is a recent phenomenon, reflecting rapid economic growth since the transition to democracy at the end of the 1970s and subsequent EU membership and integration into Europe's single market. Spain is seen as a type of coordinated market economy by some, but it is clearly distinct from those such as Germany, leading to those such as Amable characterising it as an example of 'Mediterranean'

capitalism in which there is 'more employment protection and less social protection than the Continental European model' (2003: 15). In industrial relations, the Spanish case introduces further variety since there is a complex web of legal regulations that ostensibly constrain MNCs' employment practices, although *de facto* there is considerable flexibility for employers. A further contrast is the dual channel system of representation, characterised by the co-existence of trade unions and works councils and by mandatory rights to consultation within firms (Martinez Lucio 1998). In sum, the four countries allow varying degrees of similarity and difference to be investigated.

4. The Research Design, Process and the Comparability of the National Surveys

The project sought to go some way to filling the gaps in our understanding of MNCs identified in section 2. We set out to realise a co-ordinated set of parallel, nationally representative surveys of employment policies and practices in MNCs that would lend themselves to comparative analysis. Many of the team members had spent some years studying MNCs, including collaboration across countries between many of us on various different projects. The planning behind this project goes back almost a decade, yet despite the length of planning it has encountered more challenges than any of us imagined. Many of the issues described below are summarised in Appendix A.

Research Design

There were a number of features of the surveys that were agreed at the outset. Crucially, each survey sought to be comprehensive in its coverage of the private sector of the economy and of the countries of origin of MNCs and, hence, to be representative of the wider population of MNC operations in that country. All of the surveys focused on medium- and large-sized MNCs, defined in terms of common employment-size thresholds, with the unit of analysis being the national operation of the MNC and the respondent being a senior HR executive at this level of the company. In every survey an initial 'screening' check was carried out prior to the main stage of the fieldwork. All of the surveys involved the use of a structured questionnaire instrument, which had a particular focus on four aspects of employment policy and practice (pay, training, employee involvement and consultation) and distinguished between policies towards managerial employees and those towards the largest occupational group of non-managerial employees. The surveys use some established questions and measures – such as those used by the Workplace Employment Relations Surveys (WERS) in the Britain and the Company Level Industrial Relations Surveys (CLIRS) that some of the current project team were involved in (Marginson *et al.* 1993) – but also broke new ground in developing questions based on our extensive case study-based research into MNCs. These questions tackled such issues as the

integration of production or service provision across borders and the level of discretion enjoyed by the national operations of MNCs.

Six additional aspects of the research are important to note. First, an initial step in each survey was to establish a population listing of all but the smallest MNCs. Medium- and large-sized MNCs were defined by employment size criteria, for foreign-owned MNCs of at least 500 employees worldwide and at least 100 in the country concerned, and for domestically-owned MNCs of at least 500 employees worldwide with at least 100 in one or more countries outside the country of origin. In order to compile a comprehensive listing, we investigated the merits of various sources of company information. Despite the availability of a number of databases that claim or imply that they are comprehensive, our experience is that there is no single database that does in fact cover all MNCs. In the UK, for example, we began with two well-known databases (FAME and AMADEUS) and used our size criteria to generate two lists. While these lists produced similar numbers of firms, there were some that appeared on one listing but not on the other and vice versa. Moreover, some MNCs, such as those in financial services, did not appear on either. It quickly became apparent that there was going to be no substitute for using multiple listings and resolving discrepancies through labour intensive cross-checking. Even when multiple listings had been reviewed, however, we still had reservations concerning the reliability of the information. One aspect of this was that in many cases employment data were missing, while another is that it was often not clear whether some of the companies were part of another firm or not. Thus all four teams carried out a 'screening' exercise to check crucial aspects of the listing. This was a time consuming and expensive process, involving a combination of telephone interviews and web-based checks. Many companies 'screened out' at this stage because they were in fact smaller than the initial listing had suggested, they were part of another 'ultimate controlling company' or they had closed down or moved. As we were unable to carry out a screening interview with every single firm, even after this process some uncertainty remained over the true size of the population. In the UK, where this was a notable problem, this led us to estimate an upper and lower bound for the population total. The details of how the populations were constructed are set out in the first section of the Technical Appendix.

Second, the survey covers both foreign-owned and home-owned MNCs. Therefore, the level of the company at which the interview was conducted was not quite equivalent in the two types of firm: whereas it was the national subsidiary level (the HQ of the operations in the given country) in foreign MNCs, it was the global corporate HQ in domestic MNCs. The rationale for the inclusion of both was partly that the latter provided a benchmark against which the policies and practices of the former could be judged and also that the inclusion of domestic MNCs generated data of substantial interest in its own right. However, this aspect of the design did mean that the questionnaire needed to be adapted for the questions to make sense, and for some issues this means that the data are not identical across both sets of firms. We draw attention to this where relevant.

Third, a key part of the planned analysis of the data was to explore differences between MNCs. One aspect of this was to analyse differences by nationality and we were anxious to contribute to and extend our understanding of this issue. Thus we considered stratifying the screened population listing to ensure that the companies surveyed contained sufficient numbers of firms from different national groups, while stratification could also make sure that we had adequate numbers of firms from the key sectors and different size groupings. In the UK, Canada and Spain the teams judged the population to be sufficiently large for it to be highly likely that the companies that took part in the survey contained reasonably high numbers in each of the categories. In Ireland, in contrast, the listing was stratified by ownership, size and sector (see the third section of Appendix A).

Fourth, our research design placed importance on seeking information from an individual who was able to speak for the national operations in question. Thus we sought to carry out the survey with a senior HR respondent at the national HQ, asking questions about the nature of employment policies and practices in the country and about the structure and nature of the wider firm internationally. One challenge in this respect was that some MNCs do not have an operational HQ at national level. While there is almost always some sort of national HQ, in some cases it is very small, dealing only with tax issues for example, with major functions such as HR having no presence. The absence of an operational national HQ was more common in firms with several divisions in very different sectors and in those in which regional HQs have become more influential in recent years. We had to find a way round the problem and the pragmatic solution to it was to seek a respondent at the largest division or site in those firms where there was no national HQ or where there was one but it was so small that it did not have anyone with responsibility for HR. The second section of the Table in Appendix A demonstrates that the data relate to all of the operations in the country in between 80% and 95% of cases.

Fifth, by identifying a key HR informant able to speak for the relevant national operation, the surveys relied on a single respondent per firm. Seeking two or more respondents in each firm to answer a lengthy questionnaire would inevitably have significantly increased the cost and adversely affected the response rate, something that was demonstrated in the experience of the second CLIRS, which was based on matched pairs of interviews with senior HR and finance executives (Marginson *et al.*, 1993). However, this can lead to the problem of common method variance (CMV) in which bias is introduced through key variables being derived from the same respondent (Chang *et al.*, 2010). As Podsakoff *et al.* (2003) note, this is likely to be 'particularly problematic in those situations in which respondents are asked to provide retrospective accounts of their attitudes, perceptions and/or behaviors' (2003:881). We feel that CMV is unlikely to be a problem in this research, partly because the data were collected in two stages (with the variables derived both from the initial

'screener' interviews or checks and from the main stage) and partly because the scales and anchors differed across our key variables. Both of these factors are recommendations of Chang *et al.* (2010) as ways of avoiding CMV. Perhaps even more importantly, most of the variables are derived from questions about contemporary aspects of the organization, particularly its basic features, structures and the existence of certain HR policies and practices, and are consequently not primarily retrospective, attitudinal or perceptual measures.

Sixth, there was a need to translate the questionnaire into two languages. The questionnaire was designed in English (the working language of the international research team) and subsequently translated into the home language of the survey country. Back-translation of each national questionnaire into English was undertaken as a means of assessing that the equivalence in meaning had not been distorted through language translation (c.f. Brewster *et al.* 1996; Hult *et al.* 2008). The Canadian team translated it into French with respondents able to choose which language they wanted to use. This was relatively straightforward as some of the team members are bilingual and are used to working with dual language research instruments. The translation into Spanish required rather more collaboration between national teams, with one of the UK team members, Anthony Ferner, who is fluent in Spanish, helping the team through this process and checking the equivalence of terms (see the seventh section of Appendix A).

Process

The project relied on a comparative parallel survey design, with surveys in each country being created collaboratively by the research teams, devising equivalent questions where necessary to allow the same phenomena to be explored, whilst taking account of national context. This comparative parallel design represents an alternative to integrated or post-hoc designs: integrated designs place an emphasis on the collaborative development of near identical questions and thus tend to focus on structures and practices that lend themselves more readily to transnational comparison (e.g. Cranet); post-hoc comparative designs attempt to align questions from similar national surveys at the point of data analysis (e.g. WERS in Britain) which constrains the scope of comparisons.

The surveys yielded a total of 1100 responses from MNCs operating in the UK (n=302), Ireland (n=260), Spain (n=330) and Canada (n=208). The response rates varied across the four surveys, from just over 14% to just over 50%. (It should be noted that because of the difficulty in establishing the definite number of MNCs that meet the size criteria in the UK, we used an estimated response rate as well as a minimum.) The lower response rates were in the countries with the larger populations, meaning that the overall numbers of participating firms in each national survey did not vary as much as the response rates. In all of the surveys the

teams carried out checks of the representativeness of the responding firms in relation to the population according to the three criteria of nationality, size and sector available in the population listings. In Canada and Ireland the profile of the responding firms was in line with the population. In Spain, larger- and home-based MNCs are over-represented and weights are being constructed to adjust for this. Likewise in the UK the firms taking part in the main survey were found to be mildly skewed towards manufacturing compared with those in the 'screening' stage. This was adjusted for through weighting the data. (See the eighth and ninth sections of Appendix A). In the analysis the data are either weighted or unweighted depending on the specific type of analysis used.

The survey instrument contains a set of questions, such as those relating to country of origin and size levels, which were phrased in exactly the same way in each survey. A further set of questions were almost identical but national teams added or reduced response options because of institutional differences or question saliency in each country. Thus, data transformation was required to produce equivalent data. A third set of questions were functionally equivalent in that questions were asked about the same issue, but because the institutions governing this activity varied across countries, the question was adapted to take this into account. For example, in exploring the influence of unions the survey instrument needed to reflect different national arrangements underpinning union presence within firms. Here again data transformations were required. A fourth set of questions were thematically equivalent; questions asked about the same phenomenon, but due to institutional differences the structures and practices examined were unique to each country. These questions provided valuable national contextual insights that expand upon some of the functionally equivalent and identical data. Considerations of functional equivalence and, for non-core questions, data availability in each national data set, mean that the scope of comparative analysis will vary according to issue, with some involving 2- and 3- rather than 4-country comparisons.

Given that the research involved a comparative parallel design, with many questions that were not identical, the task of integrating the datasets was not straightforward. Substantial and painstaking work was undertaken by an international working group that identified the identical and equivalent questions and produced a code book defining the SPSS transformations to be undertaken, with syntax being written which converted the original national variables into new comparative variables. The process of the integration of the national data into one comparative international dataset was centralised, to minimize error, with an expert located in the UK undertaking the merging process. Substantial cross checking was carried out to ensure the integrity of the international data, with subject experts taking responsibility for each section. This had the advantage of checking data across countries rather than solely within countries. The checking process was extremely time intensive, involving variable by variable checks between the merged and unmerged data and a revisited discussion on the conceptual utility of the transformed data.

Comparability

The resulting comparability of the surveys was high, but not complete. Below we detail the main ways in which we were challenged in this regard.

a. Method of Survey Administration

A further challenge in the research design concerned how to administer the questionnaire. Previous experience of surveys highlighted some advantages to using a personal interview, notably that it opens up the scope to develop a longer questionnaire since once respondents have agreed to an interview they tend to feel obliged to continue to the end. For similar reasons, they tend not to skip questions that are demanding or complex (McKnight *et al.*, 2007). This was pursued in the three countries where it was feasible: the UK, Ireland and Spain. The exception was Canada where the huge geographical distances involved made face-to-face interviews prohibitively expensive. A choice of completing the questionnaire through a paper version or online was presented to respondents (see the fourth section of Appendix A). In the Canadian survey, it is possible to check whether the profile of companies responding was the same in each mode. Reassuringly, there were no significant differences by country of origin, sector or size in the companies that took part through the web-based questionnaire as opposed to the postal version. In addition, there is other research that confirms the measurement equivalence of internet-based and paper-and-pen modes of data collection (De Beuckelaer and Lievens, 2009). Nonetheless, the difference between face-to-face administration in three countries and self-completion in the fourth remains.

b. Sourcing of Interviews

For the three countries that used personal interviews as the mode of administration, a further issue to resolve was who was to carry out these interviews. There are some advantages to contracting out the interviews to a professional survey firm, particularly the infrastructure to support large surveys that they possess in general and the use of Computer Assisted Programmed Interviewing (CAPI). On the other hand, the use of survey firms is evidently expensive and means the surveys were carried out by individuals with no expertise in the subject matter. There was variation on this issue: the UK team contracted the professional survey firm GfKNOP to carry out the survey using CAPI but were also closely involved in the process e.g. through interviewer briefings; in Spain the research team conducted the interviews themselves; and in Ireland there was a mix of professional interviewers and research team members carrying out the interviews (see the fifth section of Appendix A). In the latter case, initial checks have indicated that there were not systematic

differences in relation to missing values or key variables between those companies where a professional interviewer carried out the data collection and those where a research team member did so.

c. Timing

A further issue to consider in assessing the comparability is the timing of the surveys. The research teams secured the resources at different times and so there was some limited variation in this respect; the bulk of the fieldwork in the UK, Canada and Ireland was completed during 2006 but in Spain until the end of 2008 (see the tenth section of Appendix A). Such a time lag between surveys used in comparative analysis is not unusual (e.g. Whitfield, Marginson and Brown 1994; Coutrot 1998; Schnabel, Zagelmeyer and Kohaut 2006). Evidence suggests (c.f. Tregaskis and Brewster 2006) small temporal variation as in the case of the UK, Canada and Ireland, is likely to have an insignificant impact on a wide range of variables and even a 2 year time lag may have only a marginal impact. One factor that makes this time difference less significant in this study compared with those of issues, such as pay settlements, is that many of the questions concerned phenomena that tend not to change quickly, such as structures for employee representation. However, we did not want to leave the issue there, and instead carried out some checks for whether the data gathered towards the end of the fieldwork period in Spain are significantly different from those gathered in the early part of the period. This is particularly important given the sharp change in economic and financial conditions which characterised the final phase of the fieldwork in Spain. Reassuringly, there were very few areas in which the pattern of responses differed over time (and we draw attention to this issue in the few areas where it is a factor).

Method of Comparative Analysis

In undertaking analysis on cross-national data two approaches are possible. The first is to carry out parallel analyses by partitioning the dataset by host country. This allows for comparisons to be made of differences in the overall significance of the models and of the coefficients on key variables. Under a regression analysis, for example, expectations about the impact of host country environments could be explored by examining differences in Beta coefficients and the variation accounted for, respectively capturing 'uniformity' and 'determination' effects. This is the approach taken in the small number of cross-national analyses of data from workplace surveys of employment relations such as those in Australia, Britain, France and Germany (e.g. Whitfield et al., 1994; Coutrot, 1998; Schnabel et al., 2006). The second is to carry out a single analysis on the integrated data set and include a dummy variable for survey country, which would pick up any differences in local institutional and legal environment. In effect, other right hand side variables besides country are

constrained to have the same Beta coefficients. This is the approach taken in the majority of the studies that formed the Special Issue of ILRR in 2009 on the international call center research (see Batt et al., 2009).

The former, parallel analysis, is more appropriate when examining national / local phenomena in MNCs across host countries, particularly where functionally equivalent variables are involved. Integrated analysis, on the other hand, is better suited to transnational structures, policies and practices. To better understand the relative advantages of the two approaches, a given issue can also be explored using both modes of comparative analysis. Indeed, this is the approach taken by van Jaarsveld et al. (2009) on the call center research; in analysing the effects of institutional and organizational characteristics on types of workforce flexibility in the US, Canada and the UK, they carry out both integrated analysis on the three-country dataset and separate analysis on each national dataset, with the latter allowing them to 'further examine within country differences' (2009: 582).

One issue that integrated analysis highlights is the unit of analysis. As indicated above, this was the national operations of the multinational, and this was applied in an identical way across countries. Given this, it was inevitable that some MNCs would appear in more than one national survey and we were conscious that the integrated dataset would contain information from two or more parts of the same parent firm in some cases. In attempting to explain variation across firms, therefore, we faced the prospect of encountering constrained variation. In one respect this was not a problem: the primary focus was on policies and practices at national level and there is no reason why these should not vary across countries within the same firms; indeed, we know from case study research that they often do. However, constrained variation in an integrated analysis can affect the standard errors of regression estimates. We have investigated the scale of the problem, with 140 of the 1090 cases being affected. At 13% of the dataset, this is not large but is too small to ignore and we are in the process of devising strategies to address this, starting with the creation of an identifier for such cases which will enable data analysis to be re-run omitting the relevant cases to establish whether findings are affected.

5. Summary

This opening paper has explored the processes of integration and differentiation in relation to MNCs and the impact that these concurrent tendencies have on employment practice. In addition, it has set the scene for the analysis by establishing the key aspects of the four countries in terms of the importance of (FDI) and the similarities and differences between the systems of industrial relations and has outlined the key elements of the research design, charted the process of collecting data and discussed the comparability of the surveys. What follows are five papers that pick up these themes. Together, they make a contribution to filling gaps in

our understanding of how these key players in the global economy operate similarly or differently across borders.

Hyman (2009:12) recently observed that 'comparative analysis is essential but perhaps impossible'. This paper also documents the main challenges confronting a cross-national project aimed at generating data for comparative analysis from a set of parallel, large-scale, nationally-based surveys. At each step, the approach of the teams involved has been to recognise the challenges and forge solutions which deal with them as best we can. Given constraints arising from differences in the available directory information on MNCs, resources available to the research teams, and pressures and priorities of funders across countries, pragmatic compromises had to be made at times. Documenting the process of undertaking such a comparative research project provides transparency as to how the four research teams set about realising 'the art of the [im]possible'.

Endnotes

1. Details of the publications developed from the national data can be found at www2.warwick.ac.uk/fac/soc/wbs/projects/mncemployment

An account of the design and method and an overview of the findings of the national surveys are provided in Edwards, T. et al. (2008) and Edwards, P. et al. (2007) for the UK, in Bélanger et al. (2006) for Canada, Gunnigle et al. (2007) for Ireland) and Quintanilla et al. (2010) for Spain.

2. A second wave of surveys are in the field in Argentina, Mexico, the Nordic area (Denmark/Norway), Australia and Singapore and one is planned in Belgium.

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APPENDIX A

1. CONSTRUCTION AND CHECKING OF THE POPULATION LISTING				
Experience shows the inadequacies of a single listing, pointing to the need to use multiple listings and to carry out extensive checks of the resulting amalgamated listing before carrying out the survey				
	Canada	Ireland	Spain	UK
a. primary data sources	Dun & Bradstreet proprietary database	IDA Ireland Enterprise Ireland	SABI, AMADEUS, HOOVERS ORBIS	FAME AMADEUS
b. data checking	databases (Lexis-Nexis, Mergent Online, Fortune's Global 500, Financial Post 500); internet searches, co. websites, annual reports; direct telephone or internet inquiries; Conference Board links	Údarás naGaeltachta; Shannon Development; Irish Times List of Top Co's; Kompass; Major Companies of Europe; M' ship lists of 2 Irish bodies; D&B 'Who Owns Whom'; International Financial Services Centre Companies list; <i>Top 5000 Companies</i> ; Irish manufacturing cos list; Irish cos listed on UK SE; Irish Stock Exchange; use of private consultant; website and direct tel. Checking	<i>Actualidad Económica</i> ; Bolsa de Madrid; <i>Expansión</i> ; <i>For certain sectors:</i> Asociación Española de Banca Dirección general de seguros Multinacional Marketing list; <i>other</i> UNCTAD, <i>World Investment Report</i> 2005; Spain-US Chamber of Commerce; website checks; IESE contacts	FT Top 500 companies; Personnel Managers' Yearbook 2001/2; ETUI MNCs Database 2000; Hoover Online; Lexis-Nexis Professional; Global Access; FT company online facility; Datastream; individual company websites <u>updating</u> through: <i>Acquisitions Monthly</i> UKTI database Pers. Managers H'book 2004-5
c. due diligence challenges	multiple listing of same co.; establishing real UCC; establishing employment size of foreign ops of Can. MNCs; establishing nationality	lack of comprehensiveness of databases, missing firms and sectors; difficulty of identifying Irish owned firms; duplication of firms; discrepancies between lists; inaccuracy of data; multiple firm levels in IRL	establishing employment size; identifying HQ/UCC; country of location of UCC; firm duplication through multiple names and levels; missing sectors in principal database (SABI); companies missing from d-base; establishing key contact	incomplete and discrepant database listings (many firms not common); UCC unclear; duplication of firm entries; nationality of 'flag of convenience' firms, questionable attributions (e.g. NL);
d. screening	Telephone screener with polling co Echo Sondages, telephone follow up to remove doubts	Research team carried out telephone and web-based checks	Random telephone screening by survey team	Telephone screener of population carried out by survey firm (GfKNOP)
e. final population total	1398	517	1083	2148 (upper), 1729 (estimated), see Edwards et al., 2008)

2. ABSENCE OF A COUNTRY HQ

Previous experience and the screening process revealed that many MNCs do not have an operational HQ at national subsidiary level, raising the issue of establishing the most appropriate level at which to carry out the main interview

	Canada	Ireland	Spain	UK
Approach taken and outcome	<p>identification of key individuals through tel. screener – confirmation of org level of respondent through q're;</p> <p>respondents asked whether answering for all ops or their own; 86% of respondents reporting multiple ops in Canada could answer for all ops</p>	<p>where no Irish HQ, sought to interview senior HR respondent from largest Irish op;</p> <p>respondents asked whether answering for all ops or their own; in foreign MNCs, 80% of respondents able to provide response for whole of Irish ops</p>	<p>where no Spanish HQ, contact with senior HR respondent for largest Spanish operation</p> <p>respondents asked whether answering for all ops or their own; 95% of respondents able to provide data for the whole of the Spanish ops</p>	<p>where no British HQ, respondent asked whether respondent could answer for all UK ops or only part</p> <p>respondents asked whether answering for all ops or their own; 81% able to provide data for all ops in the UK</p>

3. STRATIFICATION

The national teams considered the merits of stratifying the population in order to make sure that the key categories (e.g. by nationality) had sufficient cell size

	Canada	Ireland	Spain	UK
Approach taken	stratification not needed given population size	stratified sample of 414 drawn up by ownership, size, sector	stratification not needed given population size	stratification not needed given population size

4. METHOD OF SURVEY ADMINISTRATION

Choice between face-to-face and self administration

	Canada	Ireland	Spain	UK
Method chosen	<p>paper copy mailed to every company in database; possibility to complete questionnaire through web (54.8%) or by mail (45.2%)</p> <p>No significant differences are observed in the method of response by major control variables: country-of-origin, size, sector, etc.</p>	<p>face-to-face paper-based survey by researchers from study team and interviewers from Economic and Social Research Institute (ESRI) (research team did 47% while ESRI did 53%)</p>	<p>face-to-face, not using CAPI, administered by survey team members</p>	<p>Face-to-face CAPI by survey firm contract interviewers (GfKNOP)</p>

5. SOURCING OF INTERVIEWS				
The guidance given to respondents and training of interviewers where they were used				
	Canada	Ireland	Spain	UK
Approach taken	self-administered with option of having a team member to talk the respondent through the questionnaire	ESRI + survey team with common ½ day training for interviewers	survey team	GfK NOP survey firm with survey team supervision of interviewer training
6. STRUCTURE AND CONTENT OF QUESTIONNAIRE				
The structure and content of the questionnaire needed to vary slightly to take account of national context				
	Canada	Ireland	Spain	UK
Structure adopted	<ul style="list-style-type: none"> - same basic structure as UK relative to HR areas, discretion and company structures - additional sections on Canadian operations in the global value chain and additional questions on institutional context - sequencing adjusted to balance response burden and ensure logical links in the light of pilots 	Follows UK model with some differences: <ul style="list-style-type: none"> - screener Qs integrated into q're - section on coll. repr. adapted to Irish context (esp. re central p'ship agreements) - additional Qs on experience of MNCs in IRL, and their mandate 	near identical to UK version <ul style="list-style-type: none"> - added section on diversity; - significant differences in employee representation section 	Base
7. TRANSLATION				
The questionnaire needed to be translated into French for Quebec and Spanish for Spain				
	Canada	Ireland	Spain	UK
Procedure adopted	team members have capability in both languages; test interviews conducted with French respondents to validate translation of terms	NA	translation checked by Anthony Ferner who is bilingual, with subsequent revisions emerging from equivalence exercise; changes incorporated into q're; problems minimised by involvement of team members in interviewing	NA

8. RESPONSE RATE AND N				
The number of responses and the proportion of the population				
	Canada	Ireland	Spain	UK
Outcome	N = 208 14.9% of total population	N = 260 50.3% of total population (62.8% of the stratified sample)	N = 330 30.2% of total population	N = 302 14.1% of upper limit of population; 17.5% of estimated population (33.4% of 'screened' population)
9. REPRESENTATIVENESS				
Checks were carried out to ensure that the responding companies were representative of the population				
	Canada	Ireland	Spain	UK
Checks and action taken	Profile of the responding firms is in line with the population	Profile of the responding firms is in line with the population	Initial over-representation of large US co's – corrected for during data collection process. Outcome is that the profile of responding firms is in line with the population	Concordance checks screener → database (response bias not detected); representativeness checks main response → screener under-representation of services → adjusted through weighting so that profile of responding firms is in line with the population
10. TIMING				
The carrying out of the compilation of the population, screening of the population and carrying out of the fieldwork differed slightly from one country to the next				
	Canada	Ireland	Spain	UK
a. database compilation	Sept 2004 - Dec 2005	Nov 2004, updated to start of fieldwork in May 2006	2005, updated 2007	2002, updated 2004
b database checking/screening	Aug – Dec 2005	Continuous screening of database through to fieldwork stage	Jan-Mar 2006	screener May 2005 – March 2006
c. start/end fieldwork	Dec 2005 – Dec 2006	Feb 2006 – Feb 2007	June 2006 – Aug 2008	Nov 2005 – June 2006

Appendix B

The Number of Companies in Multiple Combinations Across the National Surveys

Country Combinations	No of cases	% of Possible Cases
Canada – Spain	20	9.7
Canada – Ireland	12	5.8
Canada – UK	12	5.8
UK – Ireland	13	5.0
UK – Spain	22	7.3
Ireland – Spain	40	15.4
Canada – Spain – Ireland	7	3.4
Spain – Ireland – UK	5	1.9
Ireland – UK – Canada	3	1.5
Spain – Canada – UK	3	1.5
UK – Canada – Spain – Ireland	3	1.5

The percentage overlap is calculated by dividing the number of cases by the number of companies that could be a part of the combination (the denominator is the smallest N of the surveys concerned).

The Number of Companies in Pairs of Countries Across the National Surveys

Country Combinations	No of cases	% of Possible Cases
Canada – Spain	33	16.0
Canada – Ireland	25	12.1
Canada – UK	21	10.2
UK – Ireland	24	9.2
UK – Spain	33	10.9
Ireland – Spain	53	20.4

In this table the number of cases is calculated by combining the two, three and four country combinations together, giving the total number of cases featuring in the six pairs of national surveys.

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Figure 1: Inward Stock of FDI in Value

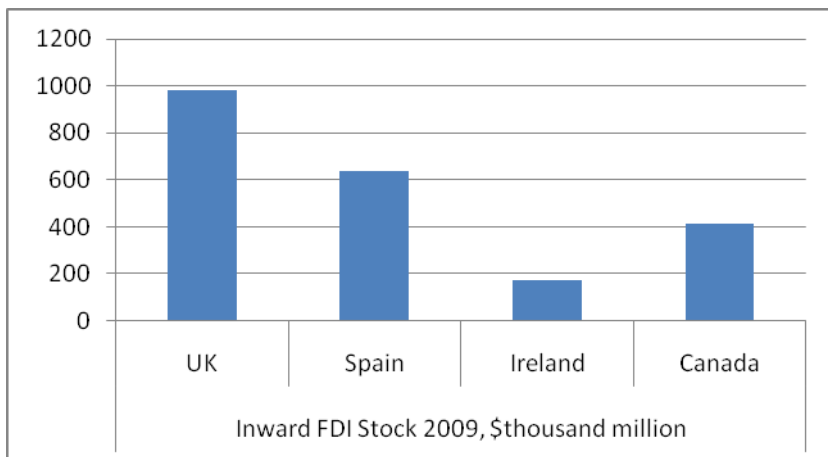


Figure 2: Inward Stock of FDI as a % of Global FDI

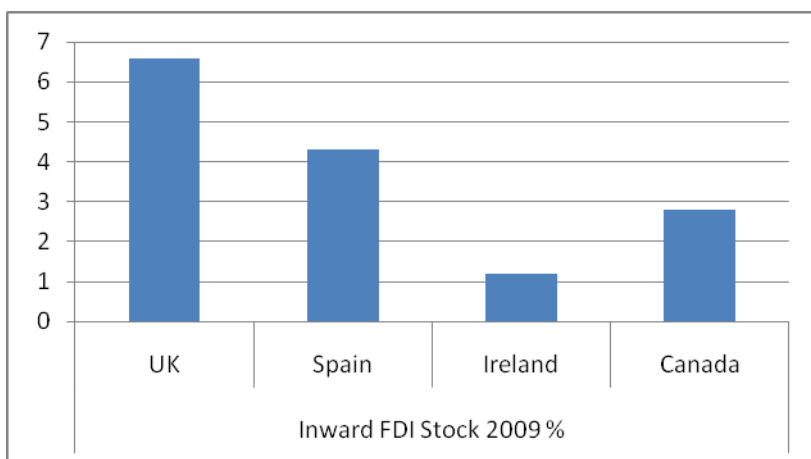


Figure 3: Inward Stock of FDI as a % of GDP

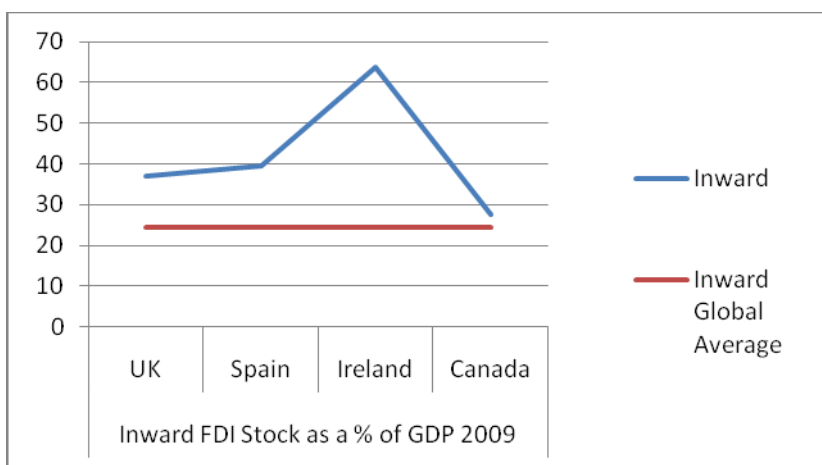


Figure 4: Outward Stock of FDI in Value

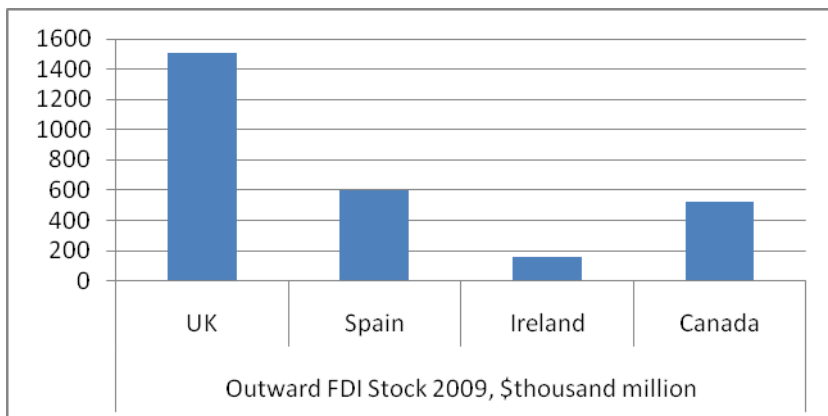


Figure 5: Outward Stock of FDI as a % of Global FDI

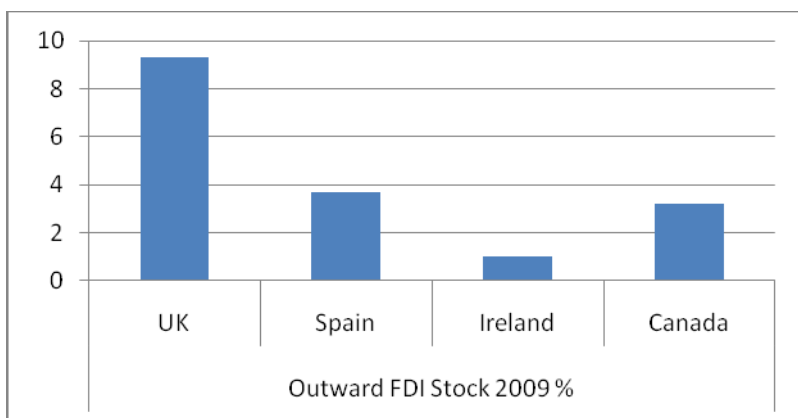


Figure 6: Outward Stock of FDI as a % of GDP

