



Alternative routes to good jobs in the service economy

**Employment restructuring and human
resource management in incumbent
telecommunications firms**

**Final Project Report
ESRC Grant RES-061-25-0444**

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Introduction

In recent decades, governments across the global North have liberalized their service markets and privatized major service providers with the aim of reducing prices, improving service quality, and enhancing competitiveness and innovation. Incumbent firms have responded by restructuring employment within and across organizational boundaries, as well as experimenting with new approaches to work organization and human resource management (HRM). These firms face similar challenges, such as reducing the size of the workforce, adjusting skills to new technologies and more differentiated markets, and reducing labour costs while improving productivity and customer service. However they have adopted very different strategies to meet these challenges – with significant implications for the structure and quality of service jobs.

This report presents the findings of a three-year study comparing the different approaches that incumbent telecommunications firms in Europe and the USA have taken to restructuring service jobs over the past two decades. The study was motivated by a concern with the conditions under which ‘mutual gains’ can be achieved that benefit both employers and employees, over a period when management is under increased pressure to reduce labour costs and downsize employment. In an industry where markets are rapidly becoming more competitive and internationalized, have the former monopolists adopted different restructuring strategies – and if so, what explains these differences? Under what conditions are employers more likely to adopt ‘high road’ practices, investing in high pay, skills, and opportunities for employees to participate in decision-making? To what extent do these kinds of high road practices benefit both a broad cross-section of employees and their employers – and what factors make it more difficult to realize mutual gains? Is there any evidence to suggest that certain best practice models can be sustained or replicated in other settings?

To answer these questions, we compared approaches to employment restructuring in ten major incumbent telecommunications firms in Europe and the USA. Case study companies were chosen from countries representing different national ‘models’, recognized for having distinctive sets of labour market and corporate governance institutions. These included:

- 1) Nordic: **TDC** (Denmark) and **TeliaSonera** (Sweden)
- 2) Centre European: **Deutsche Telekom** (Germany) and **Telekom Austria/ A1** (Austria)
- 3) Mediterranean: **France Telecom/ Orange** (France) and **Telecom Italia** (Italy)
- 4) Anglo-American: **BT** (UK) and **AT&T** (USA)
- 5) Central and Eastern European (CEE): **Telekomunikacja Polska/ Orange Polska** (Poland) and **Český Telecom/ O2 Telefónica Czech Republic** (Czech Republic)

These countries have important historic differences in institutions across a range of areas – including collective bargaining coverage and extension mechanisms, employee participation rights, training systems, employment protection rules, and transfer of undertakings legislation. These, in turn, can be expected to affect both the ability of employee representatives to influence management practice as well as the scope for companies to exercise strategic choice as they restructure employment. Each case study firm also has faced distinctive constraints or resources from its history of civil service employment, collective agreements, ownership structure, and past practice. Through comparing changes in strategy over time, we are able to ask how these diverse institutions and stakeholder relationships influenced practices and outcomes at incumbent telecommunications firms.

In order to trace differences in employment practices and outcomes, we focused on two major employee groups: **technicians** and **call centre employees**. These two areas were chosen because they represent a large share of service employment at our case study companies, and have been the target of restructuring and work reorganization.

The data collection had two parts.

First, we analysed changes in organizational restructuring strategies and their impact on employment and pay structures at all ten case study firms. In each country, we created a database of major 'restructuring measures' between 1995 and 2010 – including downsizing, subsidiary creation and spin-offs, relocation or consolidation, and outsourcing. These measures were identified through newspapers and trade publications, company annual reports, the Thomson Banker One database, and in-depth interviews with management and employee representatives. We distributed a survey to union, works council, and management representatives in which we asked about the numbers of jobs affected by these measures and accompanying negotiations or social plans. We also gathered data through this survey and our interviews on collective bargaining institutions at each company and on pay structures for call centre and technician jobs. In four of our cases – Deutsche Telekom, Telecom Italia, AT&T, and BT – we were also able to collect historic pay data, allowing us to compare changes in pay levels and structures over time.

Second, we conducted more in-depth case studies comparing approaches to work reorganization and associated human resource management practices in five case study firms – one from each 'national model' described above. These included **TDC** (Denmark), **Deutsche Telekom** (Germany), **France Telecom/ Orange** (France), **BT** (UK), and **Telekomunikacja Polska/ Orange Polska** (Poland). In each of these cases, we conducted 20-50 interviews with management and employee representatives, as well as site visits involving interviews with local management, employee representatives, and supervisors at technician and call centre workplaces. Interviews focused on the recent evolution of work organization and skills, performance management, and working time or scheduling arrangements – allowing us to analyse key differences in the overall approach to organizing similar jobs and motivating employees within these jobs.

Altogether, we conducted over 150 interviews with management and employee representatives, supplemented by archival data, surveys, and institutional databases.

Structure of the report

In this report, we summarize the main findings of the comparative study described above, in a format intended to communicate these findings to industry representatives and policy-makers. To this end, we provide both analysis and recommendations based on our analysis. Throughout the report, we highlight examples of 'best practices', focusing on cases in which restructuring and work reorganization have benefited employers while securing outcomes important to employees: high pay, job security, professional discretion or autonomy, and opportunities to develop and use skills.

In **section 1**, we provide background on the case study firms, including trends in markets and ownership patterns; as well as labour market and industrial relations institutions at firm and national level. These factors set the context for an analysis of restructuring strategies and outcomes in three areas:

- **Downsizing and employment adjustment (Section 2):** In this section, we discuss strategies the case study firms have adopted to adjust workforce numbers and skills in response to changes in markets and technologies. We first compare approaches to managing downsizing and consolidation. These show variation in policies between companies and over time, as well as in the extent of cooperation or conflict with employee representatives over these policies. We then examine mitigating policies negotiated between employers and unions, including redundancy packages, retraining, and relocation assistance.
- **Diversifying employment contracts (Section 3):** A second category of restructuring encompasses a variety of measures that result in changes to or diversification of employment contracts for certain employee groups, typically as a means of enhancing flexibility in increasingly differentiated and cost-conscious markets. This can occur within the firm, through the introduction of new job titles or employment terms and conditions for the existing workforce or through the creation or acquisition of subsidiaries with different structures of pay and conditions. Diversification of employment contracts can also occur across firm boundaries, through the sale of subsidiaries or establishments or through the increased use of different combinations of subcontracting and temporary agency contracts. In this section, we first summarize and compare the different measures that incumbent firms have adopted to diversify employment contracts. We then ask what impact have these measures had on pay and working conditions for similar employee groups. We focus on technician and call centre jobs to analyse outcomes, although we include a wider range of jobs in our overall description of strategies.
- **Work organization and human resource management (Section 4):** In this section, we compare current approaches to work organization and human resource management across the case study companies, and analyse how changes in these practices have been negotiated with employee representatives. We focus on call centre and technician jobs at TDC, Deutsche Telekom, France Telecom, BT, and Orange Polska, where we conducted more in-depth research involving site visits and interviews with management at multiple levels. The discussion is organized around two areas of employment practice: 1) work organization and skills, including job specialization, training and development activities, and use of teams; and 2) performance management, including variable pay, performance evaluation, coaching, and monitoring.

In each section, we compare practices adopted by employers with a view to both analysing the factors that contribute to the development of different strategies in each area, but also to drawing out some 'best practices' that represent strong mutual gains for employees and employers. These are highlighted in case study boxes throughout the report. The final section presents conclusions and policy recommendations following from the findings presented in the report.

Section 1

The context of restructuring: Markets, ownership, and institutions

The telecommunications industry has transformed over the past two decades from one organized around national markets and dominated by state-owned public telecommunications operators (PTOs) or regulated monopolies to a highly competitive and internationalized 'information services' industry. This shift was partially due to technological changes, as costs of establishing competing networks fell and new market segments such as mobile, internet, and cable began to compete directly with telephone services. It has also been driven by changes in regulation and ownership. National governments in Europe fully or partially privatised their PTOs – in the mid-1980s in the UK and in the 1990s in the rest of Europe – and passed laws aimed at curtailing their market power. EU directives were central to the timing and form of these regulatory changes, as they required member states to end monopolies and establish full competition by 1998. In the USA, following an anti-trust lawsuit, the monopoly provider AT&T had to relinquish control of its regional subsidiaries which were established as seven Regional Bell Operating Companies.

The case studies we focused on in this study went through similar changes in markets and ownership. However, they experienced key differences in several areas. These include:

- **Market liberalization**
- **Ownership and finance**
- **Collective bargaining and labour market institutions**

We briefly summarize some key differences in each area below.

The **liberalization of telecommunications markets** occurred at different times and rates across countries. The USA and UK passed legislation in the mid-1980s promoting competition in certain markets, such as long distance; but incumbent firms continued to have protected markets in certain areas. For example, in the USA, full competition was introduced in the long distance market in 1984, but the 'Regional Bells' maintained their monopolies in regional local calls markets until 1996. BT competed in a 'duopoly' with Mercury Communications from 1982 until 1990, when licences to operate fixed-line networks were opened up to a wider range of companies.

Elsewhere in the EU, the timing of liberalization was influenced by a Council of Ministers directive in 1993 requiring all EU member states to end monopolies on telecommunications network infrastructure and voice telephony services by January 1, 1998. Denmark, Austria, Germany, France, and Italy all introduced similar legislation complying with this directive between 1996 and 1998 (see Table 1.1). Sweden was a distinctive case: the telecommunications market was largely unregulated, with the state-owned provider Televerket holding a de facto rather than a formal or regulated national monopoly. The government began to allow competitors to connect to Televerket's network in 1980. The company's monopoly on phones and telephone exchanges ended between 1985 and 1989.

A third pattern is in the Central and Eastern European countries where strategic foreign investors (France Telecom in the Polish and Telefónica in the Czech case) acquired a stake, and later a majority stake, in Telekomunikacja Polska and Český Telekom respectively. Neither Poland nor the Czech Republic were EU members in 1998; however, liberalisation was required as part of both countries' EU

accession negotiations. Hence, the national monopoly was abolished in 2001 in the Czech Republic and in 2003 in Poland.

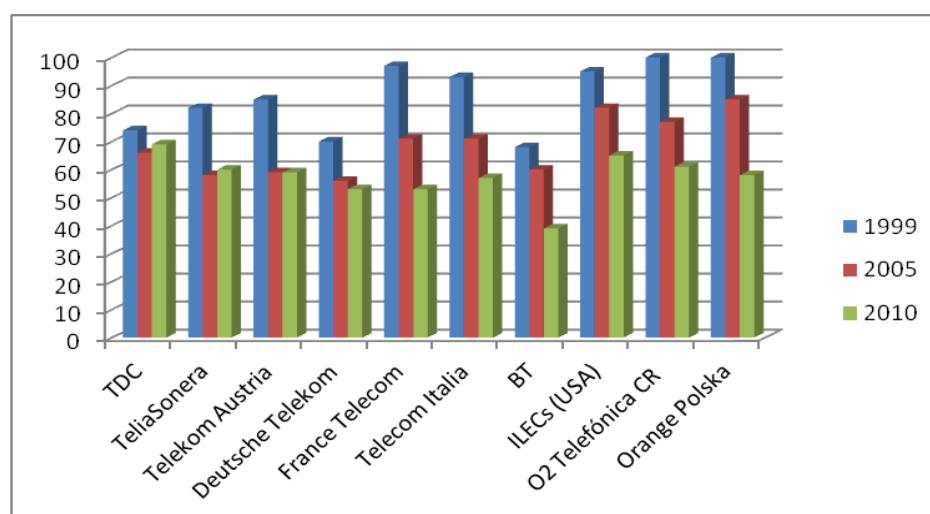
Table 1.1: Market liberalization and privatization of incumbent firms

	Year first public share offering	Year fully privatized or (% state ownership)	Year market liberalized (fixed-line segment)	Market share (fixed-line segment) 2010*
TDC	1994	1998	1996	67%
TeliaSonera	2000	(51%)	1993	59%
A1	2002	(28%)	1998	55%
Deutsche Telekom	1995	(32%)	1998	52%
France Telecom	1997	(27%)	1998	51%
Telecom Italia	1997	2003	1997	56%
BT	1984	1993	1990	39%
AT&T	1885	1885	1996	N/A
O2 Telefónica CR	1995	2005	2001	60%
Orange Polska	1998	2010	2003	57%

* **Source:** European Commission (2010)

These differences in the timing and pace of market liberalization are important in the context of this study because they affect incumbent firms’ market power, as well as the intensity of pressure for radical measures to downsize and restructure employment in different time periods. Figure 1.1 illustrates changes between 1999 and 2010 in market share of incumbent firms in the local or national market for fixed-line calls, which are traditionally the largest market segment for incumbents, as well as the target of government efforts to increase competition. This shows that most firms experienced a steep fall between 1999 and 2005. For example, France Telecom’s market share fell from 97% to 71% over this period, dropping further to 53% by 2010. In most countries, the drop in market share stabilized between 2005 and 2010. However, patterns differ by country. BT experienced the most dramatic drop in market share between 2005 and 2010, falling from 60% to 39% while TDC’s market share increased somewhat from 66% to 69%.

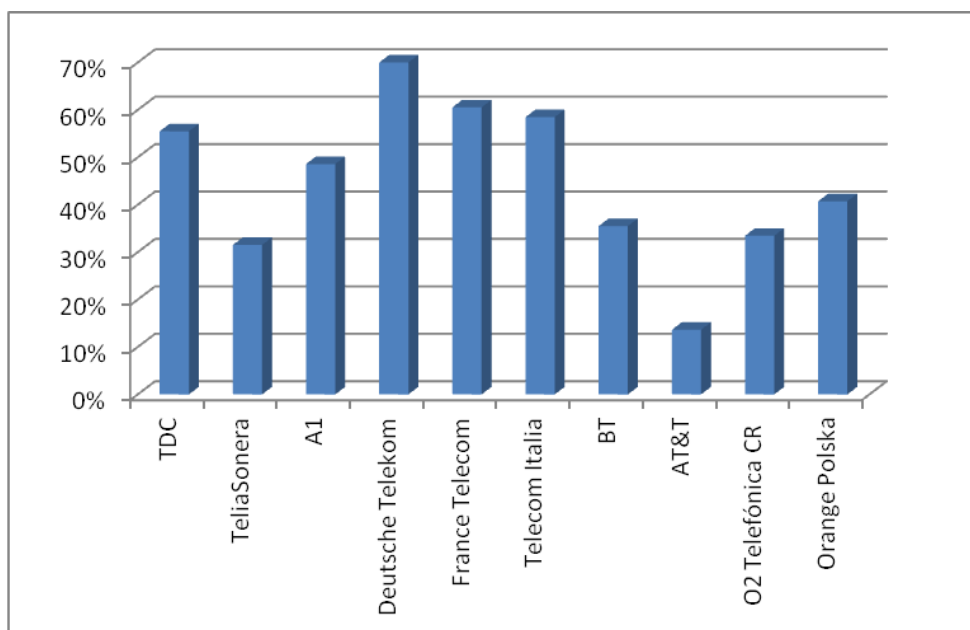
Figure 1.1: Change in market share of incumbent firms in local or national market, fixed-line calls



Sources: EU countries from European Commission (2012); USA from Federal Communications Commission (2013 and 2007) **Note:** 1999 and 2005 data for Germany, France, Italy, UK. Czech Republic, and Poland refer to local market only. US data refer to market share of incumbent local exchange carriers (ILECs -- former RBOCs) in local market.

Figure 1.2 illustrates the percentage of employees in the telecommunications industry of each country that are employed by the incumbent firms. This provides a different set of measures for the comparative importance of each incumbent in its national market. For example, while Deutsche Telekom has an average market share relative to the other firms, it represents a larger proportion of total industry employment. We see that TeliaSonera, BT, AT&T, O2 Telefónica Czech Republic, and Orange Polska all represent less than 40% employment .

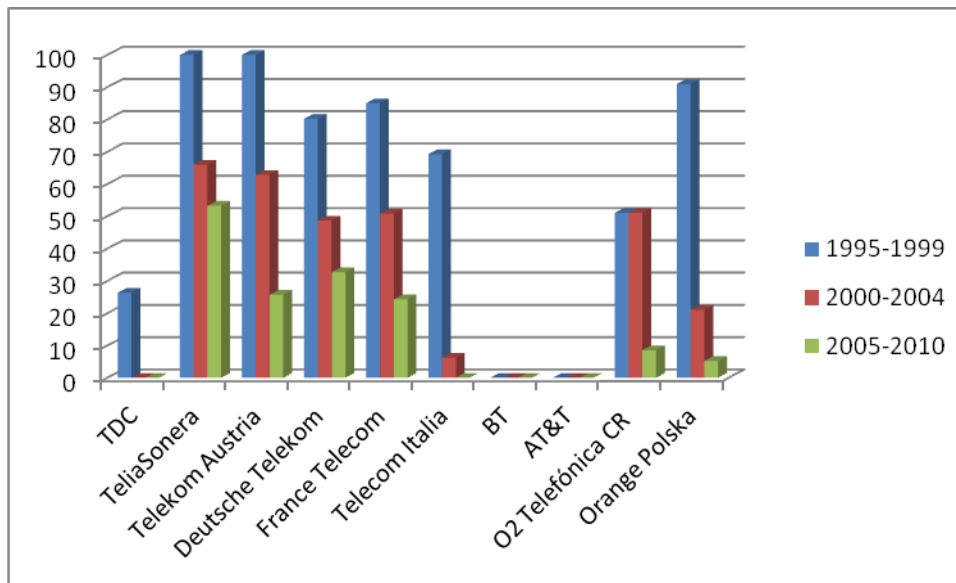
Figure 1.2 % employees in the telecommunications industry of each country employed by the incumbent firm, 2010*



Source: Company reports and Union surveys; Total employment in telecommunications industry from: a) USA: Current Population Survey, CIC 6680 ‘wired telecommunications carriers’ and CIC 6690 ‘other telecommunications services’; b) Austria: 2004 estimate EIRO (2005); c) Germany: Bundesnetzagentur (2011); other countries: Eurostat (2013): ‘Number of persons employed’ in NACE [J61]

A second area in which the case studies differ is **ownership structures and changes in ownership over time**. The most obvious difference is in patterns of government or state ownership of incumbent firms (see Figure 1.3). Again, the Anglo-Americans are distinctive here: AT&T was a regulated natural monopoly, with no state ownership, while BT was the first European operator to be privatized – with a majority of shares sold to the public in 1984 and the remaining government-held shares sold in 1993. The other European countries held onto majority government ownership for longer, but, again, differed in the timing and extent of privatization. TDC and Telecom Italia are both fully privatized, with no government ownership; while TeliaSonera has the highest state ownership, with shares owned by both the Swedish (46%) and Finnish (19%) states.

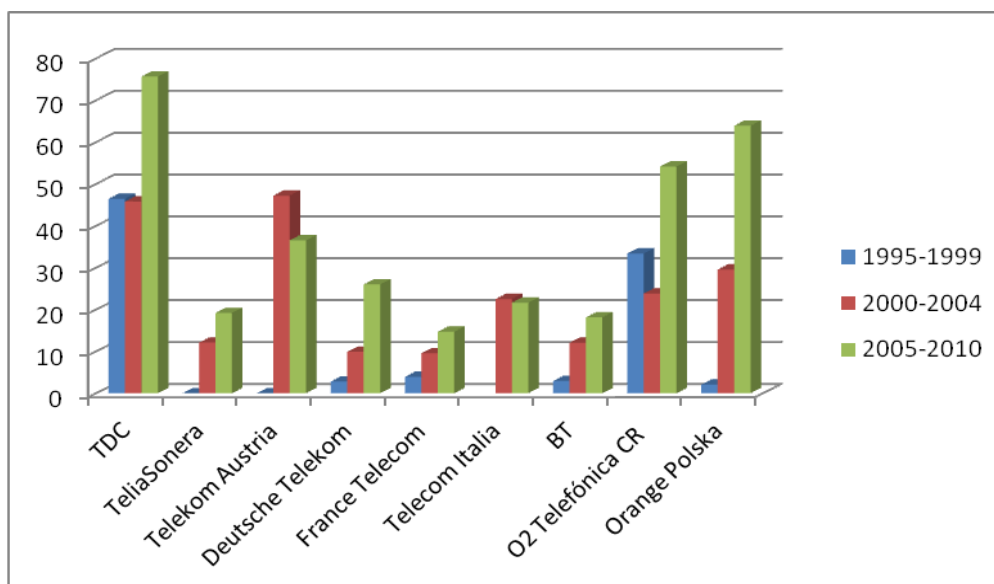
Figure 1.3 Average % state ownership of incumbent firms



Source: Thomson Banker One **Note:** Average % ownership calculated by time period

The decline of state ownership has been accompanied by a growth in foreign ownership, or shareholdings by institutions or individuals based outside of the incumbent’s home country. Figure 1.4 illustrates differences in the percentage of foreign-held shares between the incumbents and how these have changed over time. In all cases, we see some increase. However, again, patterns differ. France Telecom shares were still largely held by French investors in the late 2000s, with only 15% foreign ownership; while TDC was over 75% foreign-owned.

Figure 1.4 Average % foreign ownership of incumbent firms

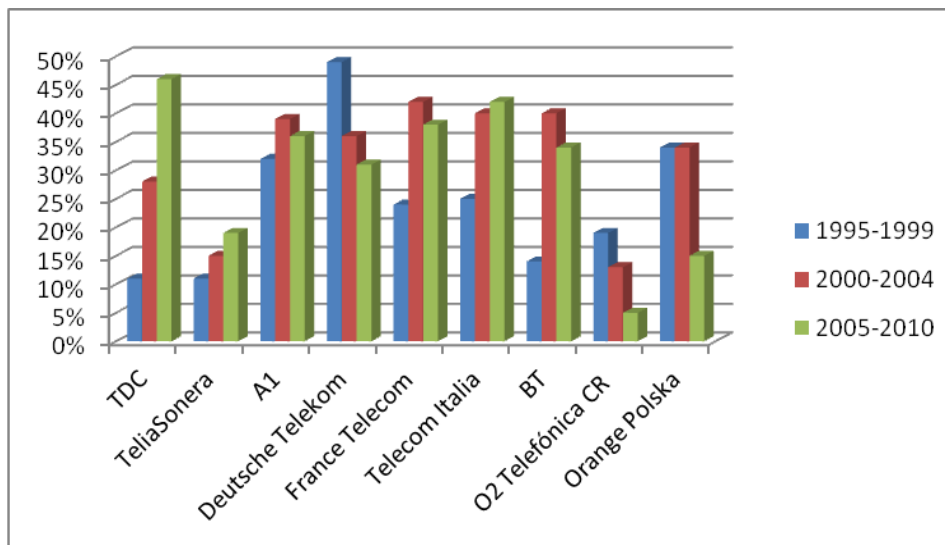


Source: Thomson Banker One **Note:** Average share ownership calculated by time period

These ownership patterns can be attributed in part to differences in how shares were sold or acquired – and in particular the role of cross-border and domestic mergers and acquisitions (M&As). In some cases, major telecommunications operators based in other countries acquired majority ownership. For example, Telekomunikacja Polska in Poland was acquired by France Telecom (and subsequently re-branded Orange Polska), and Český Telecom was acquired by O2 Telefónica. TDC in Denmark was acquired by Ameritech, which was subsequently taken over by SBC; and then in 2005 a majority stake in the company was acquired by a consortium of five private equity funds based primarily in the USA and UK. TeliaSonera was formed by a merger between the former state-owned firms Telia (Sweden) and Sonera (Finland) in 2002. In other cases, acquisitions or takeovers occurred between domestic firms, such as the takeover of Telecom Italia by Olivetti in 1999 – carried out through a system of “Chinese boxes” in which a chain of holding companies was created with each company owning a (typically minority) part in the next company.

A final difference is in the source of finance incumbent firms rely on. One distinction is the debt ratio, or the percentage of a company’s assets provided via debt (compared to equity) (see Figure 1.5). Many companies took on debt in the early to mid-2000s to finance acquisitions and expansion. For example, France Telecom doubled its debt ratio from 24% in 2000 to 48% in 2003 to finance a wave of international acquisitions. BT saw even larger increases, from 14% in 2000 to nearly 60% in 2002. TDC shows a different pattern of nearly doubling its debt ratio in all three time periods shown in Figure 1.5 – which can be attributed to its majority ownership by private equity funds.

Figure 1.5: Average debt ratio of incumbent firms



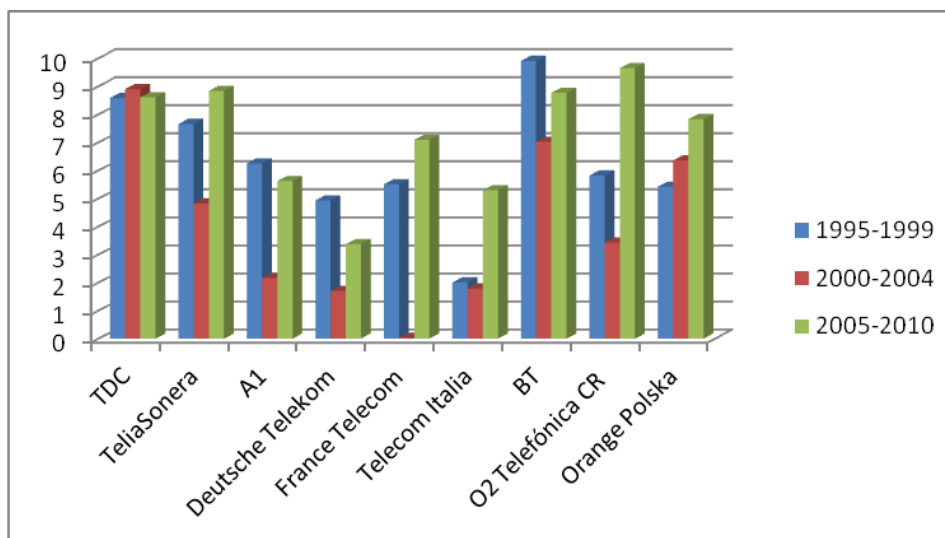
Source: Thomson Banker One **Note:** Average debt ratio calculated by time period

These different patterns of ownership and finance have had an impact on the pressures management faces to maximize cash flow and reduce costs, as well as goals and objectives pursued through restructuring. Traditionally, companies in continental European countries have relied on more long-term forms of finance or ‘patient capital’, characterized by cross-shareholding between large firms and bank-based loans. This has been argued to reduce pressures for short-term growth and cost-cutting more typical of the more liberal and financialized Anglo-American countries. The state has been one of the most patient shareholders, with a longer term view to infrastructure investment.

The changes in finance and ownership detailed above have meant that all of our case study companies have experienced increased pressure for maximizing shareholder value and securing short-term returns. At the most extreme end is TDC in Denmark, where ownership changed dramatically over a short period, with majority (foreign-based) private equity ownership and large debt ratios. However, even where shareholdings continue to be more concentrated and held by national investors and the state, major institutional investors appear to have become more important in encouraging radical forms of restructuring. For example, although the private equity investor the Blackstone Group owns 4.4% of Deutsche Telekom shares, union and management representatives observed in interviews that it was highly influential in encouraging outsourcing and subsidiary spin-offs in the mid-2000s. Continued state ownership of incumbents may have some impact on corporate governance and strategy – for example, the French state encouraged a change in leadership at France Telecom after a wave of employee suicides in the mid-2000s. However, increasingly national governments seek to avoid direct intervention in management decision-making at incumbent firms.

Finally, overall performance or profitability has an influence on restructuring pressures and strategies in different periods. Figure 1.6 shows average return on assets for the case study firms. This measures net income in relation to average total assets, or the profitability of assets in generating revenue. In most cases, the period 2000-2004 shows the largest drop in ROA – a time when most incumbents were adjusting to a large drop in domestic market share while financing a wave of domestic and international acquisitions. However, again, we see variation across companies, with TDC showing stable and high ROA rates and TeliaSonera and BT maintaining overall high ROA.

Figure 1.6: Average Return on Assets (ROA) for incumbent firms



Source: Thomson Banker One **Note:** Average ROI calculated by time period

The above summary shows some of the ways in which markets, ownership, and finance patterns differ across our case study firms and in different time periods. **Institutions at the national and company level** also play an important role in influencing how incumbents respond to pressures from markets and investors.

One set of institutions concern **collective bargaining**. Table 1.2 summarizes the major collective bargaining institutions and actors in each country.

Table 1.2: Collective bargaining institutions in the telecommunications industry

	Major labour union(s)	Sectoral agreement	Employers' Associations	Company-level bargaining institutions
Denmark	Dansk Metal HK Privat	Yes – but competing agreements	Dansk Industri and Dansk Erhverv	<i>Samarbejdsudvalg</i> (cooperation committees) have consultation rights but no co-determination rights
Sweden	UNIONEN SEKO	Yes	Almega IT employers	no works councils; unions have strong consultation rights, but no co-determination rights
Austria	GPA GPF	Yes – but does not include incumbent	Austrian Federal Economic Chamber, Wirtschaftsbereich Telekommunikation	<i>Betriebsräte</i> (works councils) have strong consultation and co-determination rights with veto across a wide range of management areas
Germany	ver.di IG Metal IG BCE	No	None with collective bargaining role	<i>Betriebsräte</i> (works councils) have strong consultation and co-determination rights with veto across a wide range of management areas
France	CGT-PTT SUD-PTT F3C-CFDT CFTC CFE-CGC FO	Yes	UNETEL	<i>Comités d'entreprise</i> (works councils), <i>délégués du personnel</i> (workforce delegates), <i>délégués syndicaux</i> (union representatives), and CHSCT, <i>les Comités d'Hygiène, Sécurité et des Conditions de Travail</i> (health and safety councils) have information and consultation rights but no co-determination rights
Italy	SLC-CGIL FISTEL-CISL UILCOM-UIL UGL-COM	Yes	ASSTEL (from 2002)	<i>Rappresentanze Sindacali Unitarie</i> are elected union representatives with information and consultation rights but no co-determination rights
UK	CWU Prospect	No	None	Unions represent employees through contract enforcement (via grievances); bargaining rights limited
USA	CWA IBEW	No	None	Unions represent employees through contract enforcement (via grievances); bargaining rights limited
Czech	OSZPTNS	Yes	Český svaz	No works councils; unions

Republic	OOPR		zaměstnavatelů pošt, telekomunikací a distribuce tisku	have consultation rights, but no veto rights
Poland	SKPT NSZZ Solidarność and FZZPT are representative	No	Konfederacja Pracodawców Polskich and PKPP Lewiatan	<i>Rady pracowników</i> (works councils) have limited consultation rights

First, the structure and coverage of collective agreements in the telecommunications industry differs across the ten countries. One major difference is the structure of collective agreements at industry level. In Denmark, Sweden, Austria, France, Italy and the Czech Republic, employers' associations negotiate sectoral collective agreements with peak union confederations that cover almost all of the telecommunications workforce. Germany stands out as the only western European country without these institutions – despite having a tradition of industry-level agreements in other sectors. As in most countries, there was no structure of sectoral bargaining before market liberalization because there was only one major employer. However, these institutions were set up between the mid-1990s and early 2000s in other countries with a tradition of sectoral agreements. In Denmark and Sweden, the incumbents voluntarily joined employers' associations in the mid-1990s, and applied agreements followed by a majority of telecommunications firms. In Austria, France, and Italy, all employers in the industry are formally covered by agreements – in Austria, due to mandatory membership in employers' associations, and in France and Italy due to different mechanisms used by the state to extend agreements to all firms. This has resulted in close to 100% bargaining coverage, although, as described in the sections below, this typically does not include employees working for subcontractors or under different forms of contingent contracts. In the Czech Republic, the sectoral framework agreement establishes certain broad parameters for pay and conditions, but detailed agreements are then negotiated at company level. In the UK, the USA, and Poland, agreements primarily cover the incumbent firm or firms.

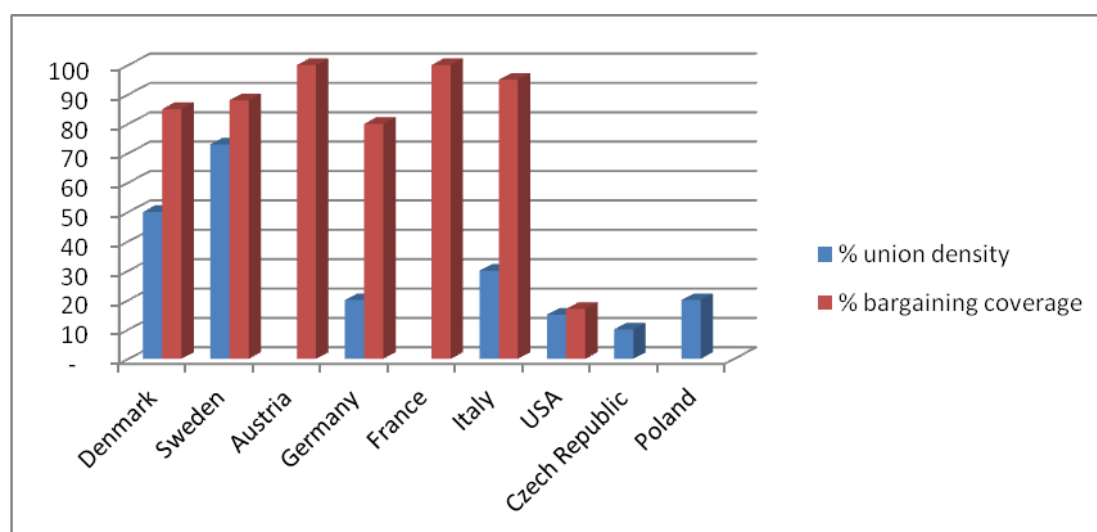
A second important difference concerns the degree of union competition. We observe four patterns. In Denmark, Austria, and Germany one major union is present in the incumbent and a different union or unions represent employees at most other major telecommunications firms. The Czech Republic is distinctive in having one major union both in the incumbent and for the industry. In Sweden, the UK, and the USA, multiple unions are present in the incumbent but represent clearly delineated groups, with no or minimal competition. In France, Italy, and Poland, multiple unions compete for members and influence within the incumbent – Poland being the most extreme case with about 20 unions present at Orange Polska.

Finally, bargaining rights and structures at company level differ across the countries (see last column in Table 1.2). This affects the areas in which employee representatives are able to influence management strategy, as well as their bargaining power in negotiations over restructuring. Works councils in Germany and Austria have among the strongest co-determination rights, giving them a veto over management decisions in areas such as the implementation of new technology. In Denmark and Sweden, elected workplace representatives are more closely tied to the unions and have weaker formal

rights, and so are heavily dependent on union bargaining power and management’s willingness to cooperate. Formal bargaining rights are weakest in the UK, the USA, Poland, and the Czech Republic.

Figure 1.7 shows a comparison of union membership density and bargaining coverage for the telecommunications industry in each country. These figures are union reported (with the exception of the USA), and in many cases unions were not able to estimate density or coverage. However, they provide a rough comparison. Based on these figures and interviews with stakeholders, we can observe three different patterns: in the Nordic countries, the telecommunications industry has both high union density and high bargaining coverage; the Centre European and Mediterranean countries have low density but high coverage; and the Anglo-American and Central and Eastern European (CEE) countries have low coverage with low density. Differences in bargaining coverage and variation within each group can be explained by the different mechanisms available to extend collective agreements in the continental European (non-CEE) countries. In countries with high coverage, we would expect there to be less pressure to negotiate concessionary agreements with unions, as all companies would be covered by the same minimum terms and conditions. However, as we will see below, incumbent firms often have company agreements with more generous terms; while the substantive impact of sectoral agreements on pay and working conditions for different categories of employees differs substantially across the cases.

Figure 1.7: Union density and bargaining coverage for the telecommunications industry of case study countries



Sources: European countries: estimates by union representatives (2011-2012); USA: 2012 data from the Current Population survey, 'Wired telecommunications carriers' and 'Other telecommunications services', Hirsch & MacPherson (2013)

Note: union density figures not available for Austria, France, and the UK; bargaining coverage figures not available for the UK, Czech Republic, or Poland

There is also variation in bargaining structures within the incumbent firms’ ‘corporate groups’. First, they differ in the degree of bargaining centralization. For example, TDC and Deutsche Telekom both have separate agreements and pay structures for subsidiaries, with some coordination between them. AT&T has a large number of collective agreements, with differing terms by region for similar employee groups. In contrast, Telecom Italia closely follows the pay and conditions outlined in the sectoral

agreement, with small differences in bonuses and terms across its subsidiaries; while France Telecom has a standard model for pay and variable pay that applies across the corporate group.

Second, several of the incumbents employed or continue to employ civil servants covered by separate collective bargaining structures. TDC, TeliaSonera, A1, Deutsche Telekom, and France Telecom all had a large proportion of their workforce at the time of privatization who were civil servants, with distinctive rights and pay structures – typically including lifetime job security and more generous pension arrangements. These companies negotiated different arrangements for transitioning these employees to private contracts or allowing them to retain their status (see details in Table 1.3 and in Section 2). The continued presence of civil servants or former civil servants with strong job protections has had a significant impact on downsizing and outsourcing measures.

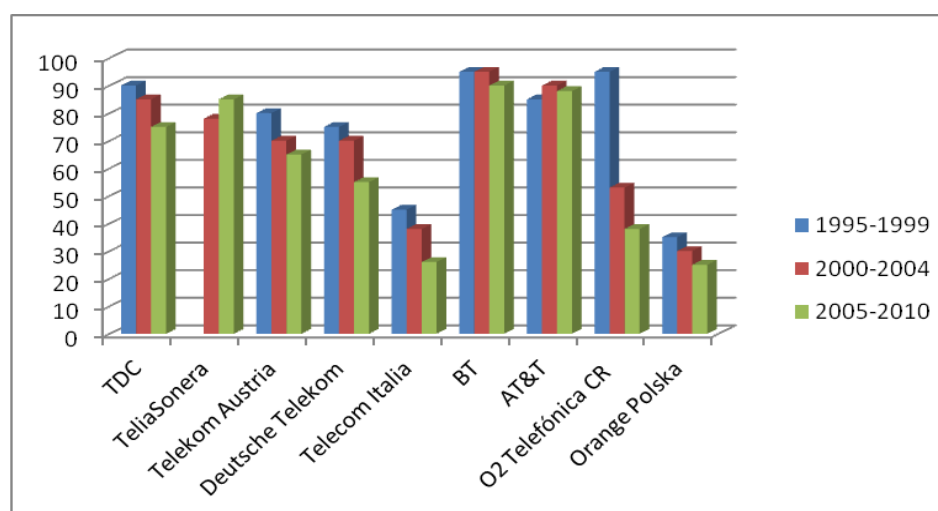
Table 1.3 Civil servants at incumbent firms

Company	% civil servants at incumbent 2010	Changes in civil servant status with privatization
TDC	[36%]*	Civil servants lost their status, but kept pension (10-15% higher) and right to 3 years' salary if made redundant
TeliaSonera	0	At time of privatization, employees had to give up civil servant status if they remained at Telia
A1	75%	Civil servants kept their status across the corporate group
Deutsche Telekom	35%	Civil servants could keep their status, but had to give it up if transferred to subsidiaries (with right of return)
France Telecom	70%	Civil servants kept their status across the corporate group

* percentage refers to former civil servants

Another point of comparison is union density within the incumbent firms. Figure 1.8 shows that most incumbents continue to have high union membership rates – in all cases higher than the industry as a whole. BT and AT&T have maintained very high rates, at or above 90%. While there is a general pattern of membership decline, this is not universal: unions reported that membership has increased at TeliaSonera and Telecom Italia. These density figures provide some indication of unions' strength and mobilization potential.

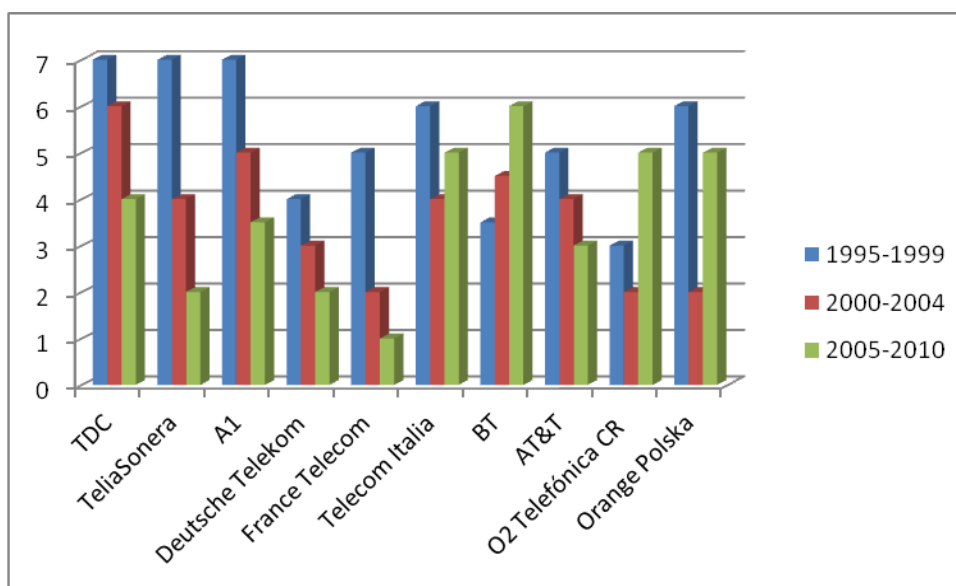
Figure 1.8 Average % union membership density in incumbent telecommunications firms



Source: Union and management estimates. **Notes:** Historic membership density at AT&T is calculated based on % membership at AT&T, BellSouth, Ameritech, Southwestern Bell, and Pacific/Nevada Bell – which through M&As make up the current company ‘AT&T’. No data was available for France Telecom. Union density data for Telecom Italia do not include data for UIL and UGL.

A final difference related to collective bargaining is the degree of cooperation or conflict between employee and management representatives. We asked union representatives to describe the relationship between the union and management at different time periods, based on a scale ranging from ‘very conflictual’ (1) to ‘very cooperative’ (7). Figure 1.9 illustrates their responses. This shows a deterioration in four of the case studies: TDC, TeliaSonera, A1, Deutsche Telekom, and France Telecom. However, BT shows an improvement over time, while Telecom Italia, O2 Telefónica, and Orange Polska all experienced a decline in the period 2000-2004 followed by an improvement in recent years.

Figure 1.9 Level of labour-management cooperation: 1=very conflictual, 7= very cooperative



Source: survey of union representatives from each company. Answer to question: ‘How would you describe the relationship between the union and management at these different time periods? Please indicate on the scale below from [1] very conflictual to [7] very cooperative.’

A final area of national labour market institutions that may influence restructuring are legislated **employment protections**. Employment protections in Denmark and the Czech Republic are among the weakest in Europe, meaning employers face few restrictions to laying off or dismissing employees. In Sweden, the Employment Protection Act includes more strict provisions on notification periods and priority rules (‘last in, first out’). However, unions and employers’ organisations at the central level can negotiate or approve deviations; and central unions are able to delegate the power to negotiate deviations to local union representatives – giving employers a strong incentive to negotiate these plans with unions. In Austria, Germany, France, and Italy, formal employment protections for employees on permanent contracts are stronger, but contingent contracts typically have weaker protections and can be lower paid. There are also provisions in several of these countries for short-time work arrangements, allowing employers to reduce or suspend working hours during temporary crises with state-supported salary replacement. National legislation in Poland, the UK, and the USA provides weak employment protections, but unions have negotiated often very strong agreements protecting job security for incumbents’ employees. In addition, across Europe, transfer of undertakings rules require employers to

adhere to collective agreements for a period after outsourcing or spinning off an establishment to a new owner; while firms in the USA do not face these restrictions. These different national frameworks of rules and restrictions affect the costs associated with different restructuring strategies, as well as the bargaining power of unions as they seek to influence these strategies.

The above discussion has illustrated some of the ways in which markets, ownership and finance arrangements, and institutions differ across the incumbent firms and the countries in which they are based. It has also shown changes in each of these areas over time. In the following sections, we examine how these factors have influenced restructuring strategies and outcomes.

Section 2

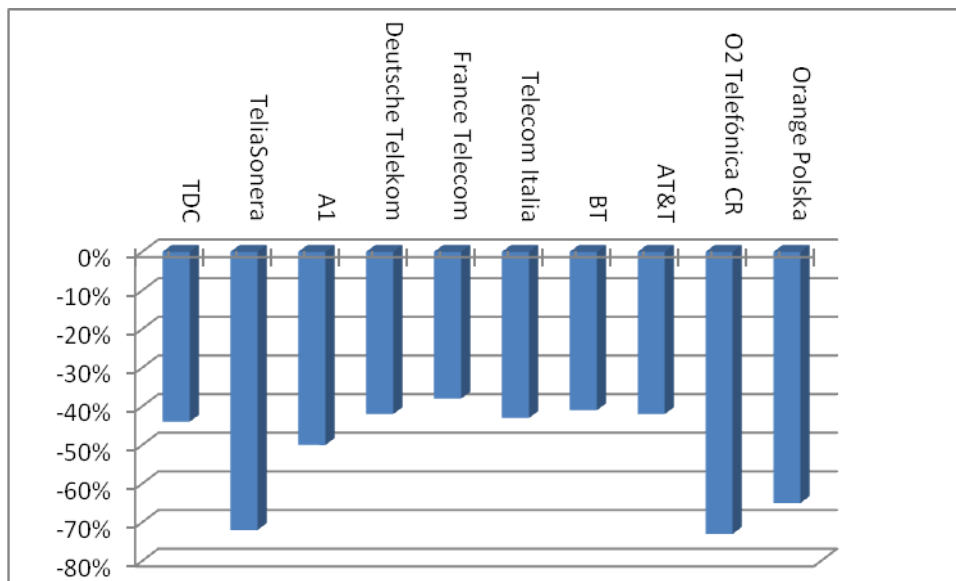
Downsizing and employment adjustment

In this section, we discuss strategies the case study firms have adopted to adjust workforce numbers and skills, focusing on the period between 1995 and 2010. We first compare approaches to managing downsizing and consolidation. This shows variation in policies between companies and over time, as well as variation in the extent of cooperation or conflict with employee representatives over these policies. We then examine alternatives to redundancies negotiated between employers and unions, including reduced hours arrangements and retraining measures.

1. Downsizing and redundancy policies

All of the incumbent firms have downsized their workforce over the past two decades. Changing ownership structures, the emergence and intensification of competition, as well as technological advances that rationalised many work processes together created strong pressures to reduce employment. These trends led to massive downsizing, with companies shedding between 38% and 72% of their workforce in the 1995-2010 period. Figure 2.1 illustrates the percentage change in employment at incumbent firms in their home countries between 1995 and 2010.

Figure 2.1 % change in employment at incumbent firms within their home countries, 1995-2010



Note: Change in employment for FT from 1996; CT from 1997; TA, OP and TI from 1998. Figures for AT&T include former BellSouth, Ameritech, Southwestern Bell, Pacific/Nevada Bell, and SNET.

Downsizing intensity, as well as labour conflict associated with downsizing, varied greatly between firms. At BT, AT&T, and O2 Telefónica Czech Republic, for example, downsizing occurred through a gradual process that accompanied these incumbents' transformation from simple fixed-line providers to more sophisticated multimedia companies. All three also maintained largely cooperative relations with their unions in this area, without substantial strikes or protests over redundancy measures. In other

countries, downsizing at incumbent firms was carried out during concentrated periods, often associated with large restructuring plans. As discussed below, there was often a high degree of cooperation around the time of market liberalization and/or privatization, with generous voluntary redundancy and early retirement plans. However, nearly all of the companies experienced a period in the 2000s of often intense labour conflict over changes in these terms.

One factor contributing to the degree of conflict or cooperation with labour concerned redundancy policies, including the use of voluntary or compulsory redundancies, and the terms of early retirement and voluntary redundancy packages given to employees. Table 2.1 summarizes the policies negotiated at incumbent firms between the late 1990s and early 2000s; and changes in terms of redundancy packages by the early 2010s.

Table 2.1 Redundancy policies at incumbent firms

	Redundancy policies (late 1990s – early 2000s)	Change in terms, mid-2000s – 2010s
TDC	<ul style="list-style-type: none"> - voluntary redundancies - non-civil servants: 1 year’s paid leave; up to 3 months paid training - former civil servants: up to 3 years’ paid leave 	<ul style="list-style-type: none"> - compulsory redundancies introduced - non-civil servants: between 3 and 6 months paid leave
TeliaSonera	<ul style="list-style-type: none"> - voluntary redundancies - 3-year preparation period for another job, while being employed by Telia - Early retirement at 57 	<ul style="list-style-type: none"> - from 2008 new agreement: 2-year preparation period for another job, while being employed by Telia – can take money or early retirement
A1	<ul style="list-style-type: none"> - voluntary redundancy - early retirement, severance pay 	<ul style="list-style-type: none"> - compulsory redundancies introduced - increasing emphasis on early retirement
Deutsche Telekom	<ul style="list-style-type: none"> - early retirement and voluntary redundancy - from 2002: some compulsory redundancies from positions, but moved to ‘Vivento PSA’ subsidiary 	<ul style="list-style-type: none"> - increased transfer of civil servants to public sector - working time reduced in 2004 to avoid redundancies
France Telecom	<ul style="list-style-type: none"> - early retirement at 55; employees received 70% of their salary and a bonus of 60% of 1 year’s salary 	<ul style="list-style-type: none"> - early retirement plan ended 2006 - from 2009 senior employees could work 50% of their regular hours while being paid 80% of a full-time salary
Telecom Italia	<ul style="list-style-type: none"> - early retirement and voluntary redundancy; employees received up to 90% of their salary -re-training 	<ul style="list-style-type: none"> - ‘solidarity contracts’ introduced; working time reduced for many employees to avoid redundancies
BT	<ul style="list-style-type: none"> - voluntary redundancy and early retirement - pre-2001: employees taking voluntary leave received a voluntary redundancy payment and up to 6.7 years enhancement of their pensionable service - from 2001 ‘NewStart’: for each year of service employees received a month’s salary, up to a maximum of 12 months. The first £30,000 was tax-free. 	<ul style="list-style-type: none"> - NewStart terms have been reduced over time: from a 12-months to a 3-9 months payment; and the pension option was withdrawn
AT&T	<ul style="list-style-type: none"> - compulsory redundancy, voluntary redundancy and early retirement - severance pay based on years spent in the company: maximum 104 weeks pay for over 30 years of service 	<ul style="list-style-type: none"> - compulsory redundancy declined - increased use of VTP in ‘non-surplus’ conditions

	- 'Voluntary Term Pay' (VTP) allowed a more senior employee to take their full termination pay if they volunteered to take redundancy	
Orange Polska	- voluntary redundancy and early retirement - severance pay specified in the collective agreement	- severance pay increased due to being linked to the more generous 'social package' (2000-2004) and subsequent agreements
O2 Telefónica Czech Republic	- partly voluntary but largely forced redundancies - severance pay above the level required by law - early retirement	- partly voluntary but largely forced redundancies - further increases in levels of severance pay - early retirement

At TeliaSonera, a collective agreement with the union gave redundant employees a generous package of benefits from the mid-1990s, including training and early retirement – ensuring no involuntary dismissals and giving employees 3 years to find new jobs within or outside the company. However, union representatives reported that labour relations deteriorated in 2008, leading to increased conflict as well as reinterpretation of existing agreements. A new agreement in 2010 provided employees with 2 rather than 3 years of salary when they were downsized, with the option of taking the money or a pension through early retirement; and no additional funds for further training or redeployment within TeliaSonera.

In Denmark, unions at TDC were able to negotiate favourable agreements during the first wave of downsizing in the late 1990s, which ensured that nearly all redundancies were voluntary, and which gave employees one year's salary paid and up to three months training paid by the employer. The second major wave of redundancies occurred between 2003 and 2004, before the takeover by the capital funds in 2005. After the takeover, management adopted a policy of cutting 5-6% of the workforce a year. In some years those targets rose to 8-10%. Subsequent agreements on redundancy packages were also less generous.

Until 2001, BT offered a voluntary leavers' package that offered certain employees a maximum enhancement of their pensionable service of up to 6.7 additional years. In other words, if an employee who was 53 years old retired, she could take her pension early with no adverse financial consequences.¹ In 2001, BT introduced a new early leaver payment called 'NewStart' providing some additional payments based on years of service (see case study box below). At its peak, NewStart provided a twelve-months payment. However, the terms of NewStart have been reduced over time, with a current minimum of three months and a maximum of nine months.

Deutsche Telekom, France Telecom, and A1 were constrained by the large proportion of civil servants at each firm who could not be dismissed, as well as by collective agreements protecting private law employees from compulsory redundancies. From 1995, Deutsche Telekom offered a generous early retirement programme as well as bonuses for employees taking voluntary redundancy. At France Telecom, one union signed an agreement on voluntary retirement in 1996, in which employees were able to leave 'pre-retirement' when they were 55 with 70% of their salary and a bonus worth 60% of one year's salary. Around a third of the workforce took early retirement under these terms between 1996

¹ This maximum enhancement was applicable provided that it did not take retirees past the age of 60. For example, if an employee retired at 59, she would receive an enhancement up to 60 but not beyond.

and 2006, when the agreement was terminated. In addition, a large number of civil servants were transferred to the public sector over this period: for example, over 1,600 transfers were made between 2003 and 2004. Conflict with the unions intensified after France Telecom's controversial NEXT plan was announced in 2006, which included a 3-year plan for 22,000 redundancies and 14,000 job changes. Following a 'social crisis' in which a wave of employee suicides were associated with aggressive restructuring policies, France Telecom negotiated a series of social accords with the unions aimed at improving the working environment. In 2009, France Telecom negotiated a plan for senior employees that allowed them to work 50% of their regular hours while being paid 80% of a full-time salary. The plan was adjustable, so part-time could be accumulated to allow an employee to leave earlier.

Both Deutsche Telekom and A1 made use of leasing firms that received transfers of large numbers of civil servants (and other employees) and could hire them out back to the respective firm and to other firms. In 2002, ver.di and Deutsche Telekom negotiated an agreement that allowed the company to move employees who wanted to remain with the company after their jobs were made redundant into a new subsidiary called Vivento Personal Service Agentur (PSA), a 'temporary employment and qualification company'. These employees were then placed in different divisions for short term projects, or recruited to fill new job openings. Vivento was set up as a temporary agency that would also offer services on the private market, but this segment grew too slowly to employ the thousands of redundant workers. Deutsche Telekom initially maintained these employees' former pay level when they moved to Vivento; although subsequent agreements reduced pay when employees were not working. Deutsche Telekom also used Vivento to transfer civil servants to other areas of the public sector – representing 9,000 employees in the 2008-2010 period.

A similar strategy was adopted at A1 in 2008. However, it was met with substantially more labour conflict than at Deutsche Telekom. McKinsey's 'Target09' programme involved transferring civil servants to an existing leasing firm (Österreichische Industrieholding AG) that could hire them out to other firms. This was derisively called an attempt to create a 'Beamtenparkplatz' (parking lot for civil servants). The employees rejected the plans, and the union threatened strikes. In the end, transfer to the pool was voluntary, and certain incentives such as wage security, the right to take up one's previous employment and training were offered. A1 also increasingly made use of a new form of early retirement. In total, about 2,500 civil servants whose jobs had become redundant were given pre-retirement leave in return for a reduced salary.

At Orange Polska, downsizing accelerated in 2000. After some protests over early downsizing moves, the unions managed to negotiate a social package that was available from 2000 until 2004. This guaranteed that there would be no collective redundancies and guaranteed additional severance pay, above the level stipulated in the collective agreement. Thus, if an employee had worked for Orange Polska for 25+ years, she would be entitled to 15 times the individual average monthly salary of a staff member in the last three months of employment. However, some unionists charged that employees were compelled to leave despite a formal policy of only voluntary redundancies. There were many related disputes and union protests over downsizing between 2001 and 2005. After the company announced a new round of redundancies in 2005, the unions held a strike referendum, leading to a nation-wide strike (which management considered illegal) and a hunger strike. After several weeks, the conflict ended with management modifying its original proposals by increasing the amount of severance pay. Moreover, the agreement also prohibited attempts by management to coerce 'voluntary' resignations.

In all of the cases discussed above, redundancy payments were reduced over time. Telecom Italia, AT&T, and O2 Telefónica Czech Republic were exceptions to this, with stable or increasingly generous redundancy policies. As in most of the incumbents, Telecom Italia and its unions agreed on a no-dismissals policy, instead making use of early retirements and re-training. The Italian government provided a form of unemployment insurance that gave employees a minimum replacement income for their salary for two years in northern Italy, and three years in southern Italy. Thus, employees were encouraged to take voluntary redundancy when they were 2-3 years from retirement age, with an added incentive that TI topped up retirement pay allowing them to receive 90% of their salary. This downsizing procedure was first implemented in 1995 and had not changed by the late 2000s.

At AT&T, management has relied on a combination of involuntary layoffs and voluntary leave, with increased use of voluntary redundancy over time. The level of termination payments for employees who were involuntarily laid off were linked to seniority, with a maximum of 104 weeks pay for employees with over 30 years of service. Because of this, more junior employees were typically selected first for layoffs. Prior to the early 1990s, more senior employees could volunteer to take the place of more junior employees, but they would get only the level of termination pay that the junior employee was eligible for. This was replaced by 'Voluntary Term Pay' (VTP), which allowed a more senior employee to take their full termination pay if they volunteered to take redundancy. This was originally intended to be used only when a surplus was declared. However, an arbitration case in the early 2000s held that AT&T could offer VTP at any time. Union representatives observed that management had used VTP to replace permanent employees with subcontractors, as it allowed management to by-pass terms in the collective agreement stating that work could not be outsourced if employees performing that work had been laid off. Another programme called 'Extend-comp' allowed redundant employees who were close to pensionable age to stay on the payroll until they became 'pension eligible', with rights to be called back to work for temporary assignments.

At O2 Telefónica Czech Republic, redundancy has become more generous over time. Until 1995, if an employee was dismissed, he or she was entitled only to the legal minimum amount of severance pay. In 1996, the union negotiated an increase in the severance payment based on age, years left until retirement or years spent in the company. This varied at different points in time; however, the union had to drop its attempt to secure a single level of severance pay for all employees leaving the company. The level of severance pay has gradually been growing, both nominally and in comparison to current pay levels.

Both the form downsizing has taken and labour conflict over downsizing policies varied between countries. Conflict was probably most severe at France Telecom and Orange Polska, where management practices to encourage voluntary resignations were perceived to be particularly aggressive. TeliaSonera, TDC, A1, and Telecom Italia had a high level of conflict over downsizing during certain periods, which took the form of strikes or organized protests. However, all four also maintained a tradition of labour management cooperation in negotiations over these plans. Conversely, downsizing was characterised by particularly cooperative relations between unions and management at BT, O2 Telefónica Czech Republic, and Deutsche Telekom. This is due to the gradual nature of downsizing, strong job security protections against compulsory redundancies, as well as the relatively generous social packages that accompanied redundancies. Still, as we will see below, Deutsche Telekom generated significantly more labour conflict with other policies to consolidate jobs and outsource large areas of work, which contributed to massive job losses and created more substantial disruption for employees.

2. Consolidation and relocation

Consolidation, or a concentration of tasks in a smaller number of locations, has been another important trend. These measures are related to downsizing, as they directly affect the existing workforce, and often are accompanied by some form of redundancy. Even if employees are formally offered the possibility to move and 'follow their jobs' to a new location, they often decide to leave the company.

Downsizing was often linked to moves from a regional to a more centralised structure. For example, in 1996, TDC brought together six regional companies, which was accompanied by planned workforce reductions of around 2,500 employees between 1997-1998. A similar process took place at O2 Telefónica Czech Republic after 1998 and at Orange Polska in 2005.

In 1995-1999, Telecom Italia started a process of centralisation towards Rome, which was occurring at the same time as the first round of redundancies. The agreement negotiated between the union and management tried to avoid redundancies through employee transfers from areas with staff surpluses to understaffed areas. Telecom Italia paid relocation costs, gave financial support for buying a new house, and offered salary increases and a part-time position for family members at Telecom Italia.

Consolidation of call centres has been particularly common, and was typically part of an efficiency drive to bring down call handling time and increase sales. BT announced in 2002 that it would close about 50 out of 150 of its call centres and consolidate the work in 16 new generation call centres. Unions negotiated over this process, so that BT retained a larger number of locations than initially planned, and the chosen locations ensured an even geographical spread of the remaining call centre work. Moreover, the unions prevented any compulsory redundancies connected with the consolidation by insisting on reskilling and redeployment. AT&T (and the former Regional Bells that merged into AT&T) also dramatically consolidated call centres over time. For example, Ameritech reduced its centres by more than half between 1995 and 1996; SBC closed centres in California and moved the work to lower-cost locations in the Southwest in the early 2000s; and BellSouth closed two-thirds of its centres in 2002. In these cases, management provided some relocation incentives as well as 'guaranteed job offers' in cases of redundancies; however, a minority of employees took these offers, resulting in thousands of job losses.

O2 Telefónica Czech Republic and Teliasonera both reduced the number of their call centres by two thirds. At O2 Telefónica Czech Republic, only about 50 people transferred to new locations while 450 left their jobs. They received severance pay above the level required by law, as negotiated by the union for all downsizing measures. Teliasonera consolidated its call centres from 25 to 8 locations in 1998-1999. The union had agreements in place on relocation that ensured employees were offered jobs in the expanding locations, as well as providing relocation assistance for employees and their families.

TDC has also sought to create efficiencies through consolidation and relocation with a focus on call centre and technician jobs. There were two major consolidation 'events' in recent years, both of which occurred in 2008. One involved the concentration of TDC customer call centres to Denmark's four largest cities. Seven call centres, with 280 employees, were closed, and most of the affected employees quit. Around the same time, TDC also consolidated its field technician operations. This involved shutting down local offices in 13 regional departments, cutting 70 technical positions at those locations, and relocating a proportion of the workforce. Those who did not wish to relocate were either laid off or left voluntarily.

At Deutsche Telekom and France Telecom, consolidation was at least partially tied to the creation of a leaner management structure. France Telecom consolidated engineering and call centre functions between 1993 and 2006, which was related to a gradual centralisation of the company structure and to a reduction in the size of the workforce. These changes were associated with the large-scale movement of employees to different jobs across the company described in the section below, and accelerated after 2006 - contributing to massive conflict with the unions during this period. A mobility agreement in 2009 committed the company to halting systematic closures of locations and concentration of work in larger cities; although some consolidation continued to occur as employees retired from smaller locations.

At Deutsche Telekom, the most contentious consolidation measures have targeted call centres. In 2006, DT announced plans to close 45 out of its 96 call centres. The company offered internal transfers to the 3,300 employees affected. In 2008, DT announced a plan to close 39 of its call centres by 2011 and consolidate the jobs in 24 centres. 8,000 of 18,000 call centre workers would be offered jobs at the remaining operations. Ver.di led a series of protests, and management eventually agreed to keep 33 centres open through 2012 and to maintain job security provisions. Generous social plans were also negotiated to help employees relocate, including a balance of interests, an indemnity, and various subsidies for child care and travel costs. Additional costs were compensated for a period of up to 3 years. However, location migrations led to very high turnover, largely because of long commuting distances.

At Orange Polska, in the run-up to the creation of the subsidiary OCS in 2010, several call centres were consolidated. A special 'allocation system' was negotiated by the unions, whereby if workers agreed to move, the company would pay for the move and for these workers to establish themselves in a new city. In 2012, these benefits involved a one-time payment and a refund for a loan. Between 2009 and 2012, 873 employees received allocative benefits, with a decreasing tendency as the consolidation neared its conclusion.

The above discussion shows that while there has been some conflict over consolidation, typically unions succeeded in negotiating agreements that compensated employees through generous relocation packages or some form of assistance in commuting or moving to a new location. TDC is distinctive in offering very little relocation assistance for employees. BT, Deutsche Telekom and France Telecom represent distinctive cases in which unions succeeded in negotiating agreements committing management to keep certain locations open or to modify past consolidation plans.

3. Alternatives to redundancies: Short-time working and retraining

The incumbent firms also negotiated measures that sought to reduce the need for redundancies through reduced hours or short-time working and retraining existing employees for jobs in growth areas.

Telecom Italia and Deutsche Telekom both negotiated agreements to reduce working hours, which followed announcements of job cuts and associated labour conflict. Telecom Italia signed an agreement in 2010 with the unions at the Ministry of Labour that created so-called 'solidarity contracts' for short-time work arrangements. The workers affected had to take a pay-cut in order to prevent collective redundancies. The agreement also stipulated the organisation of specific courses for the professional re-training and re-employment of workers covered by the Solidarity Contract. If Telecom Italia employees affected by solidarity contracts attended a re-training class in their remaining time, they were fully

remunerated. Deutsche Telekom similarly negotiated an employment pact in 2004 with its union that reduced working time from 38 to 34 hours, with only partial wage compensation – meaning employees would be paid for the equivalent of a 35.5 hour work week. Civil servants also had their weekly working time cut, even though they were not officially covered by the agreement, but retained their full pay. In return, management extended job security protections until the end of 2008.

Most companies in this study have offered certain retraining opportunities, but a few introduced some fairly sophisticated training programmes to mitigate downsizing. Unions tend to be in favour of re-training, which they see as an alternative to redundancies. Indeed, retraining programmes were often developed against the background of no-layoff guarantees.

At BT, a broad retraining strategy was formulated in the context of the company's eschewal of compulsory redundancy (see case study box below). The CWU supported redeployment and retraining and, even when they involved unpopular measures such as retraining engineers into call centres, played an important role in communicating the company strategy to the affected employees.

Case study: Voluntary redundancy and retraining at BT

In 1995, BT employed 150,000 people in the UK. In 2013, it employed 75,000. Redundancy plans were based on voluntary leave and early retirement throughout this period, and were negotiated based on close partnership between management and unions. Until 2001, BT offered a voluntary leavers' package that offered certain employees a maximum enhancement of their pensionable service of up to 6.7 additional years.

In 2001, the company's redundancy package 'NewStart' was introduced. Initially, if somebody was given NewStart, they would also be given a full pension and very generous conditions: for each year's service, employees would get a month's salary, up to a maximum of 12 months. The first £30,000 would be tax-free. This was often accompanied by additional incentives to encourage people to leave voluntarily – for example, they would receive three months' extra if they decided to leave by a certain date. The terms of NewStart were reduced over time, and are currently capped at nine months' pay.

At the same time, the CWU negotiated a 'commitment for commitment'. This meant that the company would try very hard to keep those made redundant in employment. In return, the union would encourage these employees to accept retraining and redeployment into a new position. This work would normally be in their old location or within a certain distance of the old location. Interviewees estimated that tens of thousands of employees were redeployed through this programme.

In 2008, BT established a BT Transitions Centre (BTTC) to facilitate the movement of groups of workers with similar skills, allowing the company to centralize redeployment and retraining functions. Initially large groups of employees in similar areas could be assisted at one time in the BTTC – for example, 200 engineers would be moved from one function to another, receiving similar training and placement services. As surplus labour declined, the BTTC evolved from centralised planning of big movements of employees with similar skills to individualised placement. The target was to redeploy an employee within 3 months, with a 70% skills match – meaning the retrainee must have 70% of the skills for an advertised role. Thus, in most cases, engineers were retrained into engineering functions, administrative

jobs, or other types of support functions. Redeployed employees kept their terms and conditions as well as their previous pay and pension entitlements.

In Sweden, TeliaSonera created a 'staff support division', in which employees were given training and job search assistance helping them to move to a new job within or outside of TeliaSonera, while being paid their regular salary. If they did not get a job, they had three years to prepare for another job – but continued to be employed at Telia during that time. The division was disbanded at the end of 1998; however, employees continued to be given three years to retrain for jobs within or external to the company until 2010.

At A1 and Orange Polska, retraining programmes were identified as alternatives to downsizing after particularly conflictual periods. At A1, several hundred civil servants were retrained in 2008 with the intention of moving them to other public sector positions, e.g. at the police or the finance ministry. At Orange Polska, the climate changed after 2005, when workers of French-owned companies organised a strike in front of the French Embassy. Following this, the company created a rule to favour internal over external recruitment. The next rounds of redundancies were negotiated up front between the unions and management. To show goodwill, the company began to offer mitigating policies far beyond the requirements of the law. Policies included so-called mini-internships, where employees could see what jobs are available and decide whether they wanted to retrain. An intensive retraining programme was also offered (Program Przemieszczeń Pracowniczych) to build competencies in key business areas such as sales, customer service, marketing and technical support. Call centres were one of the most common places where redundant employees from other positions found work.

France Telecom represents a distinctive case in which unions opposed retraining and redeployment programmes implemented by management. Civil servants in France Telecom had long been moved from areas with shrinking employment (such as technician areas) to those with expanding jobs (such as call centres and shops). These measures were associated with a reported 10-12,000 job changes a year by 2000, up to 13,800 in 2001 – or almost 10% of FT's workforce annually. Job changes were facilitated by civil servant mobility rules. The 2006 NEXT restructuring plan was accompanied by measures intended to accelerate these changes, including a policy at this time called 'Time to Move', which made it a requirement that employees change their job every three years - often combined with mandatory physical relocation. Management pulled back from this policy after the 'social crisis' of 2007-9, negotiating an accord stating that employee mobility should be voluntary. However, employees could continue to change their occupation or job through an intense (FT-provided) training course in an area where there was a particular need for recruiting additional employees – called 'pathways to professionalization'.

Policies aimed at retraining and working time reduction offered alternatives to redundancies that (at most firms) were widely regarded as providing 'mutual gains' to employees and employers. Training policies at TeliaSonera and BT were particularly innovative solutions to changing skill demands, and both designed and implemented in close cooperation with unions. However, interviewees observed that it was becoming progressively more difficult to retrain employees, as companies became leaner and as retraining opportunities became more specialised.

Comparison

The case study firms all faced similar challenges in reducing the size of the workforce, adjusting to changing skill demands, and achieving economies of scale through consolidation. These often involved conflict with employee representatives, leading to different compromises that protected employees through enhanced job security or investment in skills.

We observed some differences across the cases. First, the timing and intensity of downsizing varied. In a few companies, this was a gradual process but in others, downsizing came in waves around changes in ownership or in the shape of often controversial plans. Typically more gradual downsizing involved a lower degree of conflict with employee representatives.

Second, the case studies adopted different policies for managing redundancies, including voluntary or compulsory redundancies, the level of enticements such as early retirement plans or severance payments, and the extent of investment in retraining or redeployment of the existing workforce. Differences in these policies can be attributed to several factors.

First, the sources of union bargaining power or leverage in negotiations over redundancies differed. This was linked in large part to the level of employment security at the company or national level. At TeliaSonera, management negotiated a very generous agreement in the mid-1990s that gave employees 3 years to re-train or move within the firm. Management agreed to this structure in part because a collective agreement with the unions allowed them to by-pass more rigid legal requirements in Sweden, which required dismissals to be made according to a 'Last In First Out' order of priority; as well as priority rights for employees who had been dismissed to be re-employed. The collective agreement allowed Telia to suspend these rules, meaning management could keep employees who had the skills desired or required and could concentrate downsizing and retraining on employees in shrinking areas (Eurofound 2002). At other incumbents, similar incentives to negotiate generous redundancy packages or retraining and reduced working time measures were associated with strong job protections in past collective agreements or due to a large proportion of civil servants.

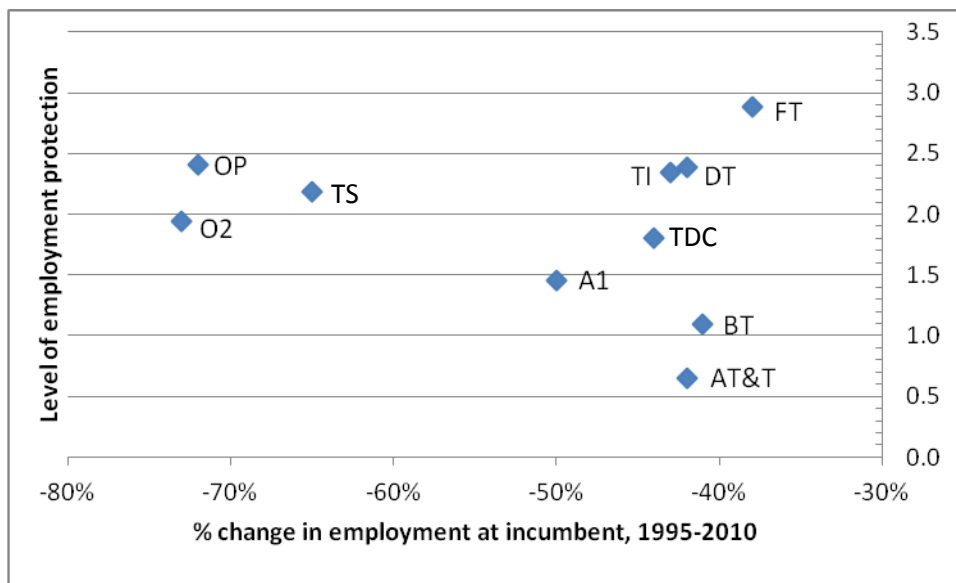
Second, differences in redundancy policies can also be attributed to variation in the support provided by different national governments for early retirement and retraining. This influences the extent to which companies can externalise the cost of dismissals due to generous unemployment benefits or subsidies. For example, unemployment insurance in Italy gave employees a minimum replacement income for their salary for 2-3 years, and Telecom Italia complemented this with a 'top up' to encourage a state-supported form of early retirement. In the Nordic countries, Italy, and France, different forms of training subsidies encouraged development of generous re-training and redeployment policies.

At most of the incumbent firms, the terms of redundancy and early retirement plans became less generous over time. This can be attributed in part to a change in the conditions described above: unions lost a past source of bargaining power as employment protections weakened over time, due to declining numbers of civil servants and the gradual erosion of job security. However, an important contributing factor was increased pressures on management to reduce the cost of generous redundancy packages. Market liberalization, increased competition, and changing ownership structures combined with growing debt ratios pushed employers to pursue more aggressive cost-cutting across a range of areas. These pressures were particularly severe in firms that were purchased by multinationals or where large

ownership stakes were purchased by international investors pursuing short-term cost reduction. Finally, there is a significant role of management strategy: at several of the companies, including TeliaSonera, France Telecom, Orange Polska, and Telecom Italia, unions pointed to a period when labour relations deteriorated due to particularly poor relations with a top management team. At all of these companies, there have been recent changes in management that led to improved relations and renewed commitment to social partnership.

A final difference between the incumbent firms concerned the decline in total employment over this period. One explanation may be that employers faced different formal constraints on their ability to reduce employment levels. As outlined above, employment protections were strongest in the companies that inherited large proportions of civil servants (A1, Deutsche Telekom, France Telecom) and in countries that endowed workers with solid legal employment protections (Italy, Sweden), followed by companies that negotiated employment protections with their unions (BT, AT&T, Orange Polska). Employment protections were weakest in Denmark and the Czech Republic. However, the companies that lost the largest proportions of employees include those with weaker company-level employment protections, such as Orange Polska and O2 Telefónica Czech Republic, and those that had strong employment protections, such as A1 and TeliaSonera. As Figure 2.2 shows there is also no correlation between employment protection rules at the national level and the reduction in employment over this fifteen-year period.

Figure 2.2 Relationship between the level of employment protection and % change of employment at incumbent, 1995-2010

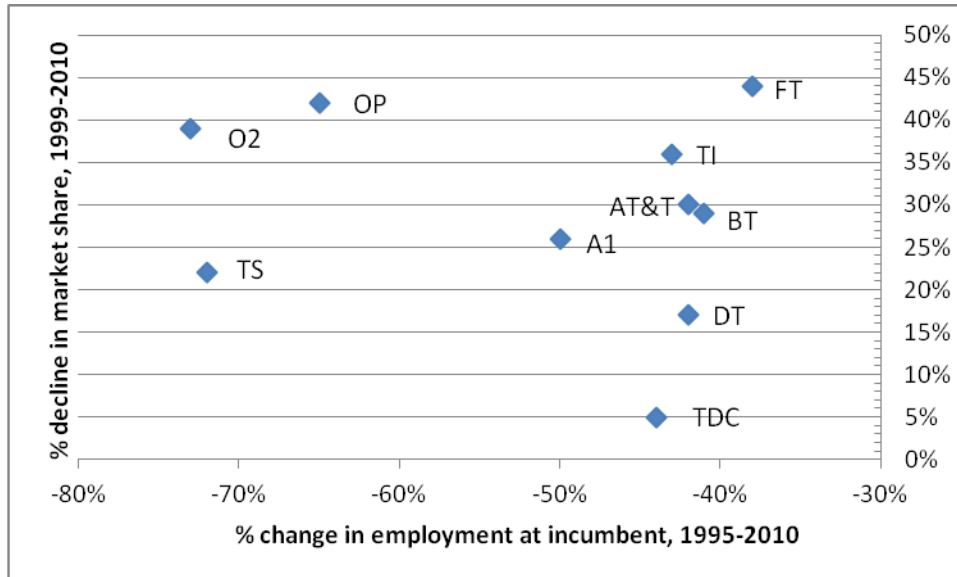


Note: Employment protection figures from OECD ‘Employment Protection Summary, weighted’. Includes measures for regular contracts, temporary contracts, and collective dismissals – scale from 0 (least restrictions) to 6 (most restrictions). See www.oecd.org/employment/protection for weights used to calculate sub-indicators.

Another explanation for differences may be change in market share: we would expect more downsizing to occur at those firms that experienced the largest drop in market share. However, as Figure 2.3 shows, there is also no clear relationship between decline in market share and the extent of downsizing. France Telecom experienced the largest drop in market share between 1995 and 2010, but had the smallest

decline in employment over this period. Meanwhile, TeliaSonera had a relatively moderate decline in market share, but cut a large number of positions.

Figure 2.3 Relationship between % change in market share and % change in employment at incumbent, 1995-2010



Note: Employment protection figures from OECD ‘Employment Protection Summary, weighted’. Includes measures for regular contracts, temporary contracts, and collective dismissals – scale from 0 (least restrictions) to 6 (most restrictions). See www.oecd.org/employment/protection for weights used to calculate sub-indicators.

Part of the explanation for the lack of a clear relationship to employment protections or change in market share is that the decline in total employment at incumbent firms was linked to broader restructuring policies, including outsourcing or spin-offs of different business areas; as well as increased use of temporary agency employees. The companies with the most significant change in employment – Orange Polska, O2 Telefónica Czech Republic, and TeliaSonera – all outsourced most of their technician jobs over this period. The following section compares these policies to diversify employment contracts across the companies, which were carried out parallel to the redundancy, consolidation, and retraining policies described above and also were strongly shaped by collective negotiations with employee representatives.

Section 3

Diversifying employment contracts

The above section compared approaches to downsizing and redeployment of staff, with the objective of adjusting workforce numbers and skills to changing market demands. A second category of restructuring encompasses a variety of measures that result in changes to or diversification of employment contracts for certain employee groups, typically as a means of enhancing flexibility in increasingly differentiated and cost-conscious markets. This can occur within the firm, through the introduction of new job titles or employment terms and conditions for the existing workforce or through the creation or acquisition of subsidiaries with different pay and conditions. Diversification of employment contracts can also occur across firm boundaries, through the sale of subsidiaries or establishments or through the increased use of different combinations of subcontracting and temporary agency contracts. While these measures can be motivated by a range of objectives, they have similar effects in either bringing about a change in pay and conditions within the incumbent firm or across employees performing similar jobs for the incumbent's subcontractors, subsidiaries, and temporary agencies.

In this section, we first summarize and compare the different measures that incumbent firms have adopted to diversify employment contracts. We then ask what impact these measures have had on pay and working conditions for similar employee groups. We focus on technician and call centre jobs to analyse outcomes – although we include a wider range of jobs in our overall description of strategies.

1. Introduction of new job categories or pay scales in-house

In many of the case study firms, employers negotiated agreements with employee representatives that created parallel job categories – typically for new employees – with different pay and conditions from the existing workforce.

One way that this occurred was through the introduction of private law contracts in workplaces that traditionally employed a large proportion of civil servants. Deutsche Telekom, France Telecom, and A1 have separate structures of pay and conditions for private law employees, as civil servants' pay continues to be set by or negotiated with the national government. France Telecom has attempted to equalize the pay between the groups, through adopting a salary supplement that aligns the salary of civil servants with its private law employees. However, there continue to be differences – for example, civil servants receive automatic seniority-based pay increases not available to private law employees. At TDC, over half of former civil servants lost their status when the company was privatized, but the union was able to negotiate exceptions that allowed these employees to keep their civil servant pension, as well as the right to up to three years' salary if made redundant. At all of these companies, civil servants have a higher degree of job security than private law employees.

A second trend in many companies has been negotiation of 'two-tier' collective agreements, with newly recruited employees entering on a lower pay scale and often less generous conditions than existing employees in similar jobs. For example, when Telecom Italia joined the new collective agreement negotiated for the telecommunications industry in 2000, it applied the terms of this agreement to all new hires, with the existing workforce retaining a separate structure of pay and conditions based on TI's

former, more generous, company agreement. Holidays were reduced by three days for employees' first ten years, they lost the right to an additional (14th) month's wage, and the number of seniority levels was reduced by half – to seven from fourteen. The agreement also allowed management to hire 30% of the workforce on temporary contracts, which made it possible to further differentiate employment contracts in this way.

In the USA, the CWA negotiated a number of lower tier job titles at the companies that merged into AT&T, resulting over time in large variation in pay and conditions for certain employee groups, particularly for certain categories of lower skilled call centre employees and technicians. The union often negotiated these contracts in exchange for bringing certain subcontracted jobs in-house or retaining jobs in-house; although it was often able to improve pay and conditions over time. For example, AT&T agreed to in-source around 3,000 DSL help desk jobs into call centres under a lower-paid "Tier 1" title, in what was at the time called the 'AT&T Internet Services' contract. The new company also negotiated a new customer service title for existing call centre employees, in which 40% of pay was based on commission from sales. Under the agreement, employees were given the option to move to the new title, but were able to move back to the old title if they were dissatisfied. Another important source of differentiation at AT&T is the variety of different regional contracts with widely varying pay scales and conditions for similar jobs, due to historic differences in collective agreements.

Similar to AT&T, BT also negotiated agreements in 2006 and 2012 that committed the company to reducing the share of agency and offshore work. The 2012 agreement involved union concessions in return for work being brought back from India: a salary that was lower than the pay of existing permanent grades, longer hours and less favourable sick pay and scheduling arrangements. Both TDC and Deutsche Telekom have negotiated similar agreements with their unions that establish different contract terms for new call centre employees. At TDC, new hires are not paid for their lunch breaks during their first 11 months; while at Deutsche Telekom, pay is around 30% lower for new employees compared to former pay scales.

2. Creation and acquisition of subsidiaries

A second set of strategies for diversifying contracts within firms has occurred across a corporate group, through either the acquisition of subsidiaries or the creation of new subsidiaries.

First, some firms have acquired new companies and continued to operate them as independent subsidiaries, preserving some differences in pay and conditions between core and subsidiary employees. TDC acquired the call centre subcontractor Call Centre Europe in 2002; NetDesign, a provider of IP/LAN infrastructure for business customers, in 2004; and a number of 'no-frills' brands (for example, mobile phone virtual providers) between 2004 and 2011, which retained their own separate networks of call centres and stores. Pay and conditions at these companies differed from those at TDC at the time of purchase, as they either had agreements with different unions or no collective agreements. Call Centre Europe and the no-frills brands had lower pay levels for similar call centre and retail employees and more extensive use of variable pay compared to TDC's in-house workforce (see discussion of pay below), while NetDesign technicians enjoyed higher pay compared to TDC technicians serving business customers. These differences were retained, and the subsidiaries continue to have different pay structures and conditions compared to internal TDC employees.

Another example of this strategy is Telecom Italia's (TI) creation of the call centre subsidiary Telecontact in 2001. Telecontact both opened new centres on greenfield sites and purchased existing call centre subcontractors, expanding over time through acquisitions. For example, Telecontact purchased 20% of its former subcontractor Atesia and internalized a proportion of its workforce. Similar to TDC's Call Centre Europe, Telecontact was used as an internal subcontractor while simultaneously selling services to external clients. While employees were covered under the same sectoral agreement as the TI workforce, they did not receive the annual bonus secured for core employees in a TI company agreement, they were on lower pay scales due to their relative youth, and many were initially hired on part-time and temporary agency contracts.

The purchase of these subsidiaries allowed employers to introduce lower cost structures for certain types of work or for jobs serving particular (often lower value) market segments without reducing or renegotiating terms and conditions for existing employees. However, these differences often affected the core workforce through benchmarking or employee transfers. For this reason, unions have sought to narrow the gap between pay and conditions at subsidiaries. For example, the unions at TI negotiated a company-level agreement with Telecontact on variable pay in 2007, which almost closed the wage gap between TI call centre agents and Telecontact employees; and in 2008 they achieved the transition of 1,600 20-weekly-hour contracts into 30-weekly-hour contracts, and the takeover of 300 agency workers as permanent employees. Their ability to negotiate these improvements was helped by their success in organizing members at the subsidiary, which had around 40-50% membership density.

A second kind of subsidiary strategy pursued by incumbent firms has involved establishing new subsidiaries and moving some portion of the existing workforce into these companies. This often has entailed some renegotiation of collective agreements or a change in pay and conditions over time. Subsidiaries established for different market segments or business services often become 'profit centres', responsible for balancing their own books or selling services to the corporate group, which increases short-term cost pressure on management and the workforce. It can also be a first step to concentrating work in a certain area before spinning it off or selling it to a third party (discussed below).

One motivation for establishing new subsidiaries has been the need to respond to changing regulation of different market segments - for example, requirements that incumbents separate their fixed and mobile networks. To examine the impact this had on employment contracts, it is useful to compare Deutsche Telekom (DT) and France Telecom (FT), which (similar to many incumbents) established or purchased subsidiaries for expanding mobile phone and internet market segments. In both corporate groups, civil servants had the option to transfer from core wireline business units to subsidiaries with rights of return. However, the majority of the workforce in new subsidiaries was hired externally, and thus covered by the company's private sector agreements. This intensified the difference in contractual arrangements, as core business units serving fixed line segments had a larger proportion of civil servants.

In both companies, terms and conditions for similar groups of employees at the subsidiaries also came to diverge over time. At FT, central collective agreements were extended to the new subsidiaries. However, this was coupled with a series of separate company-level agreements. In 1997, a 'social agreement on employment' at FT defined a two level bargaining procedure, whereby a central agreement is followed by bargaining between local management and union representatives. The subsidiaries Orange (mobile) and Wanadoo (internet) initially had their own bargaining process and

rules. This was replaced by a global negotiation structure, with one agreement governing base pay, job classifications and promotion criteria. However, rules varied based on the status and trajectories of employees. At DT, T-Mobile negotiated a separate company-level agreement; and T-Online never concluded an agreement with the union, despite ongoing negotiations. Employees transferred to T-Online from other parts of DT were able to keep their former working conditions, but new employees were brought in under a variety of pay scales. The presence of separate (or no) collective negotiations for DT's subsidiaries resulted in much larger differences in pay and conditions compared to across FT's subsidiaries, where the main difference was in a higher proportion of individual incentive pay.

Both corporate groups re-integrated these market segments over time, to take advantage of market convergence through pursuing bundling strategies. This was also accompanied by a merger between groups of employees, with some attempt to standardize pay and conditions. In both cases, the mobile subsidiaries – with more flexible working conditions and a higher proportion of variable pay – served as the model for the new combined workforce. FT maintained separate call centres for fixed line and mobile markets (with some cross-selling), but by 2011 had standardized variable pay and work organization between them. Meanwhile, DT adopted a 'shared services' model, based on further subsidiary creation. Around the time that mergers were occurring between the subsidiaries, management shifted 50,000 of its technical service, technical infrastructure, and call centre jobs to three new subsidiaries, under the name 'T-Service'. After some conflict, including a strike, the union and management eventually agreed to increase working hours without pay compensation for existing workers, increase or introduce variable pay, and reduce pay for new hires.

An interesting contrast to Deutsche Telekom is Orange Polska, which shifted its fixed-line and mobile (PTK Centertel) customer service call centre employees into the new subsidiary Orange Customer Service (OCS) in 2010. Although there was an attempt by management to negotiate different terms and conditions for this group, in the end the unions negotiated an agreement that extended the same collective agreement and pension terms available to core employees – which constituted a gain for former Centertel employees. Employees also received a two-year employment guarantee and no salary reduction.

AT&T and its predecessor companies (BellSouth, SBC, SNET) have also established subsidiaries with different pay and conditions – again, with a focus on call centre services. However, these typically did not involve employee transfer and were accompanied by negotiation of separate contracts or pay grades. For example, SNET set up a subsidiary in 1998 to sell outsourced call centre services to other companies. The union cooperated with this effort, and was able to represent employees, although at a wage that was around two-thirds that of in-house customer service and sales representatives. In another example, BellSouth created a new business unit called NDA/CA (National Directory and Customer Assistance) in the late 1990s that performed directory assistance services for BellSouth and other clients, with different benefits and a lower pay scale.

3. Spin-offs and transfer of employees to subcontractors

A related set of strategies resulting in changes to or differentiation of employment contracts involves the sale of subsidiaries or establishments to third party firms. This typically involves a shift of transferred employees to different collective agreements or pay structures. It can also be an indirect means of downsizing through reducing workforce numbers in-house and turning over responsibility for managing

future reductions to a third party firm. Most major incumbent firms have used these strategies in some form – with the notable exception of A1 and France Telecom.

One set of activities that have been a target of subsidiary sales or outsourcing with staff transfer are various support services. Orange Polska started spinning off building administration and cleaning services in 1997. Since then many other activities have been sold to external companies, including drivers, couriers, security services, accounting, and remote computer maintenance. Telecom Italia spun off at least five units between 2000 and 2004 (IT, payroll, cars and maintenance, logistics, cleaning), resulting in the transfer of over 2,250 employees to other companies. DT sold its real estate and training subsidiaries in 2008, with partial employee transfer. TDC sold or outsourced a range of services between 2005-2010, including the sale of TDC Directories (2005) and satellite business (2009). In most of the above cases, transferred employees maintained their pay and conditions for a transition period, under national transfer of undertakings rules or collective agreement, but then were switched onto new agreements – often with lower pay and terms.

IT services have been one major target. Between 2003 and 2008, TDC transferred around 1,000 IT employees to Computer Sciences Corporation (CSC). They were able to keep their terms and conditions of employment for 2 years but then were moved to a new agreement under the service union HK. At different points in time, BT likewise transferred several hundred IT employees to companies such as Hewlett Packard, Computacenter, or Tech Mahindra. The employees involved were TUPE transferred which, under UK law, meant they would retain their terms and conditions. Telecom Italia progressively transferred most of its IT employees to companies belonging to the TI group until the creation of the IT subsidiary Shared Service Center (SSC) in 2003. In 2009, TI transferred 2,000 additional employees to SSC. SSC is covered by the sectoral agreement and has a second-level agreement for variable pay since 2009.

Several companies also externalised major areas of technician services. In two cases, this involved the externalisation of the mobile network. In 2008, TDC outsourced its mobile network operations to Ericsson, which became responsible for the operation, maintenance and expansion of its mobile network. This involved the transfer of 276 TDC employees – most of whom were technicians. However, unlike the CSC outsourcing deal, transferred employees remained under the TDC collective agreement, retaining their former terms and conditions of employment. This was because a large proportion of the employees were former civil servants, and Ericsson could not legally take over civil servant rights. More dramatically, BT sold its entire mobile subsidiary, O2, in 2001, affecting 2,000-3,000 employees.

In Sweden, Poland, and the Czech Republic, incumbent firms outsourced either all or the majority of their fixed-line technician services. In 2001, Telia moved its business services and technician services into subsidiaries that were subsequently spun-off, involving the transfer of close to 11,000 employees. Today, TeliaSonera subcontracts all of its technician services to several competing companies, two of which were formed through these spin-offs. Similarly, Orange Polska spun off network services in 2002, involving the transfer of 6,000 service technicians to external companies. Telefónica O2 Czech Republic closed its own technical services between 2005 and 2011, shifting the work to external companies. In this case, only around 500 technicians were transferred to contractors, while around 2,000 technicians were dismissed – although many subsequently found work at the new subcontractors.

All transferred employees in these cases maintained their pay and conditions when transferred to the subsidiaries and when subcontracted, remaining on their contracts for the duration of the collective

agreement. However, TeliaSonera was the only case in which transferred employees maintained pay and conditions over time (see case study box).

Case study: Negotiating flexibility with equity at TeliaSonera

TeliaSonera established a range of subsidiary companies for different business lines and activities. In each case, there was no renegotiation of collective agreements or change in terms and conditions of employment: 'they move all their working conditions, salaries, everything, right over to the new company, because they use the same collective agreement' (Interview, SEKO official, 28 May 2012). The most significant events involved the establishment and sale of subsidiary companies responsible for internal services and installation and network maintenance activities between 2001 and 2007. This affected close to 11,000 employees, most of who were transferred to subcontractors.

In 2001, TeliaSonera formed the 'Telefos Group', made up of 9 formerly internal businesses with 5,600 employees predominantly handling business services; and the 'Orbiant Group', made up of 6 companies with 5,400 employees responsible for network and maintenance as well as equipment installation and servicing. The venture capital firm Industrikapital purchased 51% of the Telefos Group in 2001, and each individual company was sold between 2001 and 2007. Flextronics purchased 91% of shares in the Orbiant Group in 2001 and the remaining 9% in 2002.

As a result of these measures, nearly all of the field and network technicians formerly employed by TeliaSonera were transferred to subcontractors. Following a series of reorganizations and mergers, two companies emerged as major contractors: Relacom and Eltel. By 2012, TeliaSonera purchased almost all technician services from these contractors, as well as from Npower and MTS.

TeliaSonera was the first major incumbent telecommunications operator to divest all of its network services. As a result of these sales, close to 11,000 employees were moved to subcontractors between 2001 and 2007. Pay and basic employment terms and conditions were protected when employees were moved to the TeliaSonera-owned companies, and then when the companies were sold. Under Swedish law, employees continued to be covered by agreements for one year following a transfer of ownership, and then they could be moved onto new agreements, but with the same basic pay scale and pension rights.

According to a union official, the local trade unions were closely involved at all stages of outsourcing, and were able to get favourable agreements to ease staff transfer and retraining:

'All these persons, they were moving from Telia to the new companies. And they looked after it so everyone would have a job after they left... when Telia sold it, all the people had these possibilities. But if they worked for TeliaSonera and were moved to this new company, and they don't want to move to this new company, they had special solutions for them. For instance, early retirement, they had possibilities to be educated. And they also could receive money to go out of the company and have two years of payment.' (Interview, SEKO official, 28 May 2012)

Employees at the new companies experienced some reduction in job security. One way that this occurred was through the replacement of permanent contracts with temporary contracts. In 2005, the temporary staffing agency Manpower launched 'Manpower Network Services,' and Relacom downsized its staff – many of whom got jobs at Manpower and then were sent back to Relacom as agency

employees on temporary contracts. This appears to be a model that all of the companies have followed. A union representative from one subcontractor estimated that 25-30% of its workforce was employed through temporary agencies (Interview, SEKO official, 10 May 2012).

At the same time, employees transferred under these arrangements continued to be protected by collective agreements. Temporary agencies were required to pay employees the same salary as colleagues doing similar work. Agency employees had permanent contracts and received 90% of their salary during the time when no work was available in their area. This meant that the agency shared some of the risk of business fluctuations or seasonal changes in labour demand with the employee. The union also was able to negotiate agreements stating that the subcontractors could not hire temporary agency workers until 9 months had passed after layoffs; and within that time period, employees who were laid off had to be re-hired if there was a need for additional staff.

At Orange Polska, the unions negotiated the programme 'Work for the worker' ('Praca za pracownika'), which provided additional job security for 1.5-3 years and a wage cut of about 15% but with financial inducements from the company (see case study box).

Case study: 'Work for the worker' programme at Orange Polska

Spin-offs of work processes and the workers performing them were one of the most prominent forms of downsizing at Orange Polska. Article 23 of the Polish labour code stipulates that benefits provided under the collective agreement must remain valid for at least 12 months.

Orange Polska spun off network services in 2002, and 6,000 service technicians went to external companies. At this time, the unions negotiated the 'Work for the worker' ('Praca za pracownika') programme. In return for standing orders from Orange Polska, these external companies agreed to employ former Orange Polska employees on indefinite contracts and to guarantee them work for 1.5-3 years, depending on the region of Poland. The new employment contracts were individually negotiated by workers, who took a wage cut of about 15% on average. However, Orange Polska paid them some fairly generous financial inducements (an average of 20 thousand zloty – or 4,000 GBP/ 5,000 Euros). The decision to move was voluntary, but if technicians decided not to move, they could be made redundant. The majority of affected employees took the opportunity to leave because the terms offered went far beyond what is required by Polish law. Even though work guarantees were only temporary, unionists considered this settlement to be quite advantageous.

At Deutsche Telekom (DT), major spin-offs have affected both call centre and technician jobs. DT's subsidiary T-Online sold three of its five call centres in 2002 to different subcontractors. In January 2004, DT established two subsidiaries, Vivento Customer Services (VCS) and Vivento Technical Services (VTS), to handle the corporate group's call centre work and technician work as well as to sell services in both areas to other firms. The two companies remained under the DT collective agreement, but the union agreed to a reduction in pay of 8.75% for existing workers, with a lower pay grade for new workers hired into the company. DT then sold 12 of its 19 VCS establishments to different subcontractors between 2006 and 2008. Around 1,800 employees were affected. When T-Service was created in 2007, 1400 VTS employees were transferred to DT Technischer Service; and in 2008, the remaining 1,600 employees were transferred to Nokia Siemens Networks through a strategic partnership agreement. In all of these

cases, pay and conditions of transferred employees were protected for a transition period, but then were typically reduced to market levels more typical of the subcontractor sector.

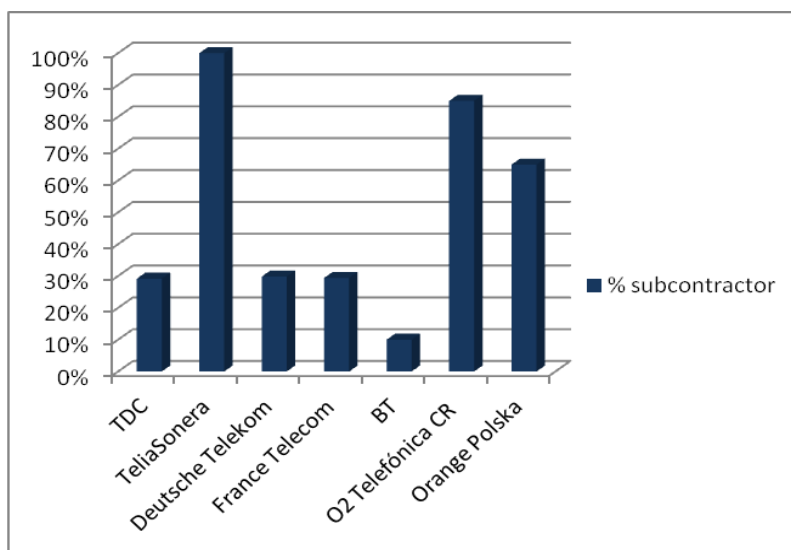
4. Increased use of flexible employment contracts: subcontractors and temporary agencies

A fourth set of measures that differentiate employment contracts involves the use of subcontractors and temporary agencies. Similar to the spin-offs discussed above, these measures shift primary responsibility for employment contracts to a third party. However, unlike outsourcing with staff transfer, they do not represent a direct change in employer for the incumbent’s employees, with the possibility of a change in pay and/or conditions. Instead, this typically occurs parallel to downsizing or is used for business areas where the volume of work is expanding, in the place of internal hiring.

It is more difficult to compare these forms of externalization as a series of restructuring ‘events’, as they often happen gradually over time. However, we can compare how companies use subcontractors and temporary agencies, as well as how pay and working conditions across employee groups have been shaped by negotiations with unions. We focus here on call centre and technician jobs, as details on overall strategies in this area are difficult to obtain.

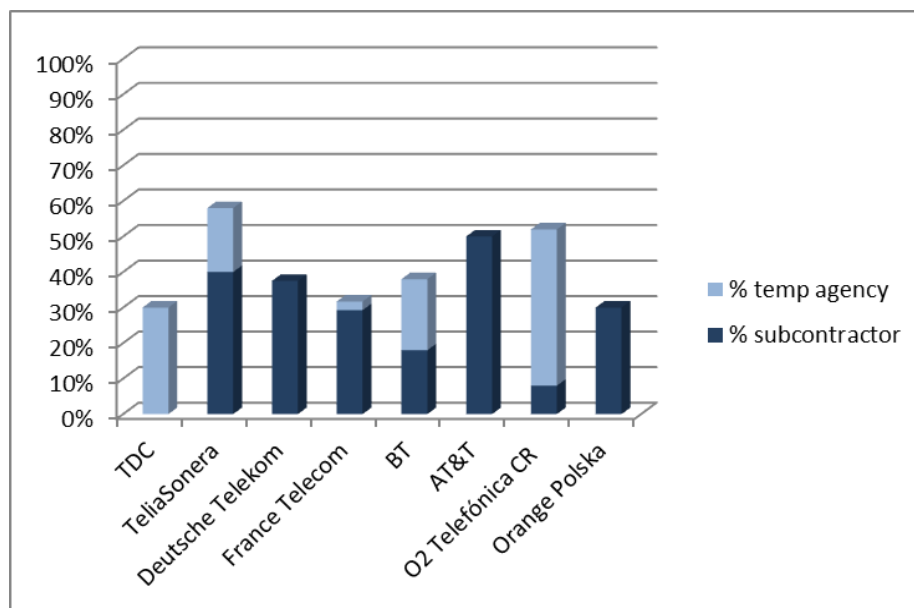
All of the incumbents outsourced or used temporary agencies for some portion of their call centre and technician work. This provides flexibility in ensuring services during ‘unsocial’ working hours (late nights and weekends), as well as for meeting peaks in demand. It can also provide access to expertise in particular areas – although most of the case study firms externalized primarily their most transactional or lower skilled areas of work. However, they used them in different ways (see Figures 3.1 and 3.2). For example, TDC had a large number of temporary agency staff working in its call centres (estimated 20%), with some areas such as outbound sales staffed almost entirely by agency employees. France Telecom, Deutsche Telekom, and TeliaSonera appeared to be the highest users of subcontracting for call centres, representing between 30% and 40% of call centre jobs. The highest users of subcontracting for technician services were TeliaSonera, O2 Telefónica Czech Republic and Orange Polska – all of which had subcontracted all or a majority of their field technician services to third parties. Interestingly, TDC, Deutsche Telekom, and France Telecom all used subcontractors for around 30% of jobs in field technician services.

Figure 3.1 Estimated % of employees outsourced in field technician area (consumer segment) 2010-12



Note: These figures are based on estimates provided by interviewees, and so should be interpreted with caution. No figures were available for A1, AT&T, or Telecom Italia.

Figure 3.2 Estimated % of employees externalized in call centres (consumer segment) 2010-12



Note: These figures are based on estimates (sometimes rough estimates) provided by interviewees, and so should be interpreted with caution. No figures were available for A1, AT&T, or Telecom Italia.

One factor influencing these strategies is the ability of incumbents to differentiate pay and conditions or achieve flexibility internal to the firm. For example, TDC, Deutsche Telekom, Telecom Italia, BT, and AT&T all have call centre subsidiaries with lower pay and/or lower tier agreements for new employees, as described above. Deutsche Telekom, AT&T, and Telecom Italia also have differentiated terms and conditions within their technician workforce. Indeed, unions often negotiated these agreements introducing lower pay grades or increased flexibility in exchange for employer commitments to bring outsourced, offshored, or temporary agency work back in-house – or even as a precautionary measure to prevent further outsourcing. For example, TDC negotiated a flexible working time model with its union for field technicians, as part of a joint effort to reduce costs in-house following benchmarking of 30% cost differences compared to subcontractors.

Second, the structure of collective bargaining in each country can influence how employers use these strategies – in particular, the presence of encompassing collective agreements and the magnitude of differences in labour costs between the incumbent and subcontractors and temporary agencies. As noted in the first section of this report, bargaining coverage in the telecommunications sector differs across countries, due to variation in mechanisms to extend agreements. There are similar differences in bargaining coverage and extension mechanisms for subcontractors and temporary agencies, as well as in minimum terms and conditions in these agreements. For example, in France almost all subcontractors and temporary agencies are covered by sectoral agreements – and although pay levels are lower in these sectors compared to telecommunications, the high minimum wage in France ensures smaller pay differences than are present in other countries. At the same time, cost savings can be substantial, and call centre work can be offshored to countries with much lower wage rates. Interviewees at France Telecom estimated 0-30% difference in the cost of using subcontractors for technician services,

depending on the region; while a union representative estimated that call centre subcontractors in France cost 50% less and offshore subcontractors cost 75% less than the FT workforce. In contrast, Germany does not have a national minimum wage, and many subcontractors are not covered by collective agreements, increasing the potential for cost differentiation within Germany. However, it is more difficult to offshore mobile work like call centre jobs due to language constraints.

This points to the importance of the international mobility of different categories of work. France Telecom, AT&T, and BT had greater access to offshored call centre services than the other incumbents, due to developed subcontractor sectors in, e.g., Morocco and India. Offshored centres often had substantially lower direct costs compared to in-house (interviewees provided estimates ranging from 30-75%). They also may be viewed negatively by customers, and so their use was limited to certain categories of work, such as technical support.

In all EU member states, there are legal requirements that temporary employees receive similar pay and conditions to permanent staff. However, there are different loopholes in these laws. For example, in Germany and Denmark, agency staff are covered by separate collective agreements, while Austria and Italy historically have had high use of freelancer contracts (particularly by subcontractors) allowing further differentiation in pay and conditions. UK law permitted different pay and conditions for agency employees in the past, which seems to have encouraged more extensive use of these contracts compared to our other cases: in the late 1990s, around 50% of BT's residential call centre workforce was employed on temporary agency contracts. An EU Directive requiring equal treatment of temporary agency workers across member states from the end of 2011 has reduced the potential for differentiating contracts in all of the incumbent firms in Europe. Interviews suggest this has encouraged management in several firms to negotiate agreements converting temporary to permanent positions in areas of high use.

Finally, there is a large degree of strategic choice involved in how employers use these measures. Management's view of what areas constitute 'core competencies' or primary sources of strategic advantage change over time, sometimes dramatically, and can have a significant impact on the nature and extent of externalization. Most interviewees pointed to a period of a few years in the 2000s, during which there was a concentrated effort within their organizations to identify core and non-core areas of work. This typically contributed to an increase in use of subcontractors or other forms of externalization, which was then often partially reversed as employers encountered problems with service quality, found they were able to reduce costs of the in-house workforce, or refined their view of what constituted core areas of the business.

The counterpart to these changing management strategies is the evolution in strategies pursued by unions and other employee representatives. Unions have agreed to outsourcing in exchange for certain protections for core employees. They have also actively campaigned against outsourcing, using a combination of public campaigns, demonstrations, or concessions and partnerships on productivity improvements in-house aimed at reducing or reversing externalization. This can affect the costs of externalizing work, as well as the cost of the in-house workforce relative to subcontractors.

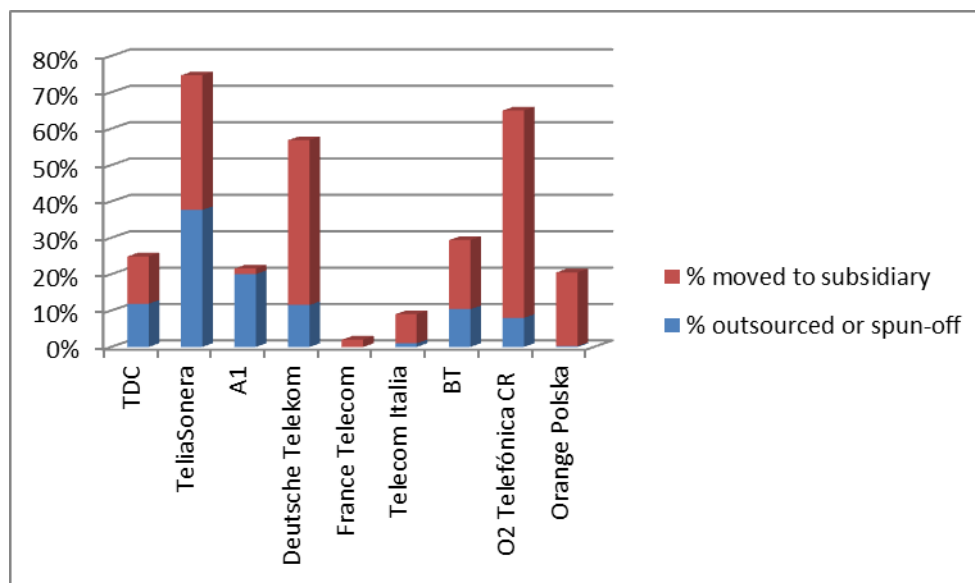
Comparison

The above discussion shows that all of the case study firms examined in this study have adopted different combinations of these four measures to accomplish broadly similar goals: reducing costs while

offering more differentiated products and services in an increasingly competitive market. A first question concerns why employers choose one set of measures over another. We began to answer this in the discussion of subcontracting and temporary agency strategies. Possibilities for internal differentiation of pay and conditions and constraints from national labour market institutions affect cost differences between (and relative advantages of) alternative strategies. Decisions concerning the form differentiation takes are also influenced by negotiations between employers and employee representatives. In all incumbent firms, unions have faced choices to either agree to internal changes in pay and terms and conditions or to accept some degree of externalization. In general, we can conclude that employers have pursued cost reduction and service differentiation within the constraints of different collective bargaining structures; while unions have sought to keep as much work as possible under their agreements. The degree to which those agreements are encompassing – covering, for example, different employee groups in subcontractors or temporary agencies – affects both employer incentives to externalize work as well as union incentives to oppose or cooperate with these measures.

A second question concerns what impact these measures have had on employees. One way to compare outcomes is to look at the proportion of the workforce affected by these measures. Figure 3.3 shows the percentage of employees at each company who were moved to a subsidiary and who were moved to a new employer through outsourcing or spin-offs between 1995 and 2010, using the benchmark of 1995 employment. The overall percentage ‘double counts’ employees who were affected by both sets of measures (i.e. moved to a subsidiary and then subsequently outsourced). The highest rates are at TeliaSonera and Deutsche Telekom; moderately high rates at TDC and Orange Polska; and low rates at the other companies. As noted above, Orange Polska did not directly transfer its technician workforce to new employers when it subcontracted this work – however, several thousand technicians were made redundant at the same time and subsequently went to work for third party firms that contract with their former employer.

Figure 3.3 Estimated % employees affected by subsidiary creation and outsourcing or spin-offs, 1995-2010

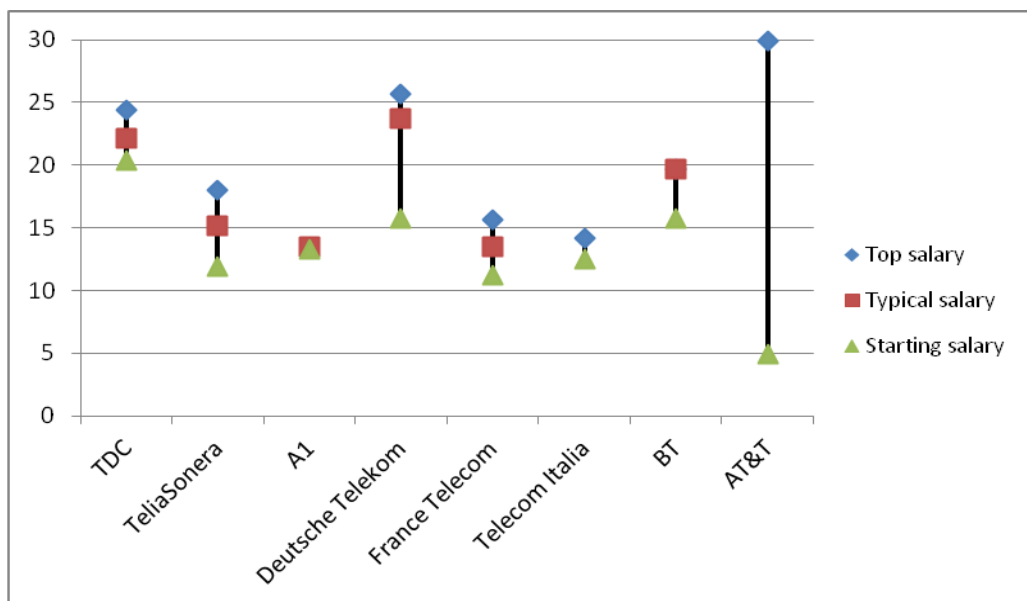


Source: news reports and union survey **Note:** % affected based on 1995 employment. AT&T figures not available.

A second question concerns what impact these measures have had on pay and working conditions across different employee groups – including employees who remain within the incumbent and its subsidiaries, and employees who are employed external to the incumbent through subcontractors or temporary agencies. In this analysis, we do not include O2 Telefónica Czech Republic and Orange Polska, as we were not able to access reliable pay figures for either case.

First, we compare pay levels for technician and call centre jobs – focusing on field technicians and call centre employees serving consumer customer segments. We calculate pay in US dollars (USD) based on purchasing power parity. Figure 3.4 shows considerable variation in hourly pay rates and pay spread for field technicians. This shows three patterns. First, TeliaSonera, A1, France Telecom, and Telecom Italia all have compressed pay structures and low to moderate pay levels. Second, Deutsche Telekom, BT and AT&T all have high pay spread. All three have typical salary levels that are higher than in the other countries (interviews at AT&T suggest most technicians are at the top end of the scale due to high tenure), but have a starting salary that is either close to the average or starting salary in the first group. Third, TDC is distinctive in having a high and compressed salary, with the highest level of starting pay across the case studies. We do not have figures for Orange Polska or O2 Telefónica Czech Republic, as they have subcontracted all or most of this work to third parties. TeliaSonera’s figures refer to pay at the incumbent’s subcontractors, as all of this work was externalized; however, interviewees reported that pay levels and structures are similar to those at TeliaSonera prior to spinning off these jobs.

Figure 3.4: Comparison of pay levels and spread, field technicians in US Dollars [PPP based]



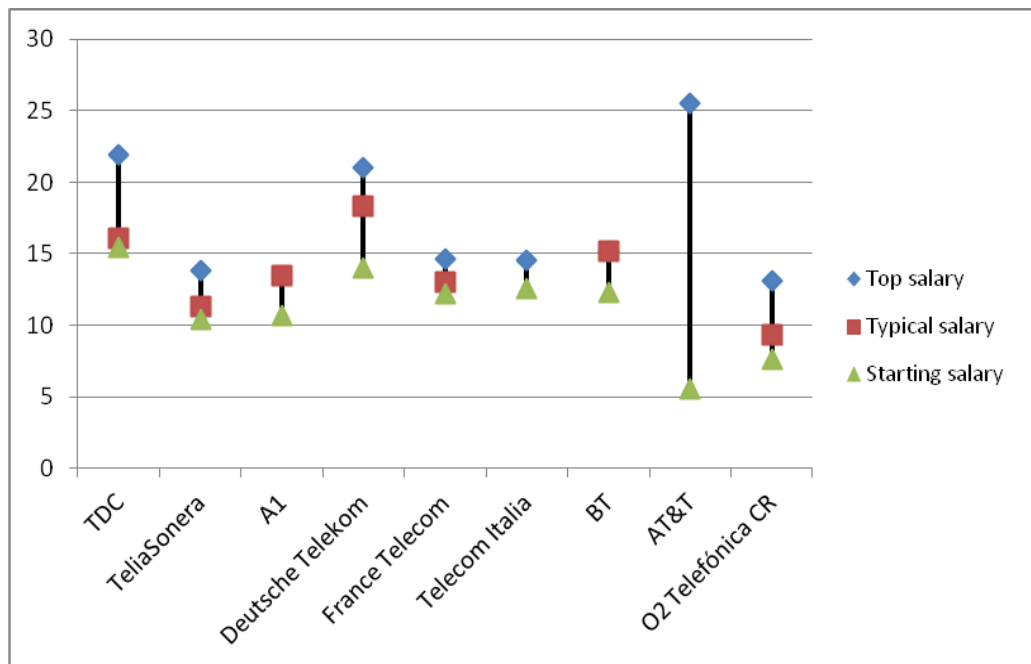
Source: Collective agreements and management/union surveys **Note:** New hires at AT&T start above minimum pay scale in collective agreements reported here.

Patterns for call centre employees follow broadly similar patterns, although with typically more compressed wages and less pronounced differences within Europe. Figure 3.5 illustrates compressed pay at very similar levels for TeliaSonera, A1, France Telecom, and Telecom Italia. Again, Deutsche Telekom, BT, and AT&T show higher spread, although with somewhat less differentiation compared to field technicians. A1 only has starting and typical salary figures – while BT’s figures do not include call centre employees hired under the new lower tier contract negotiated in 2011/2012. TDC again has the

highest starting pay, but at a level closer to that of other countries; and with most employees at the bottom end of the pay distribution.

It is interesting to observe that pay structure is similar between technicians and call centre employees – although here, too, we see some differences between the incumbents. France Telecom and Telecom Italia have almost identical pay levels between the two groups; while the companies with higher internal differentiation also have larger differences between employee groups. For example, the typical salary in BT call centres is a similar level to starting pay for field technicians; while the typical salary at TDC, TeliaSonera, and Deutsche Telekom averages the equivalent of \$5 USD less for call centre employees compared to field technicians.

Figure 3.5 Comparison of pay levels and spread, call centres (customer service and sales, consumer segment) – USD [PPP based]



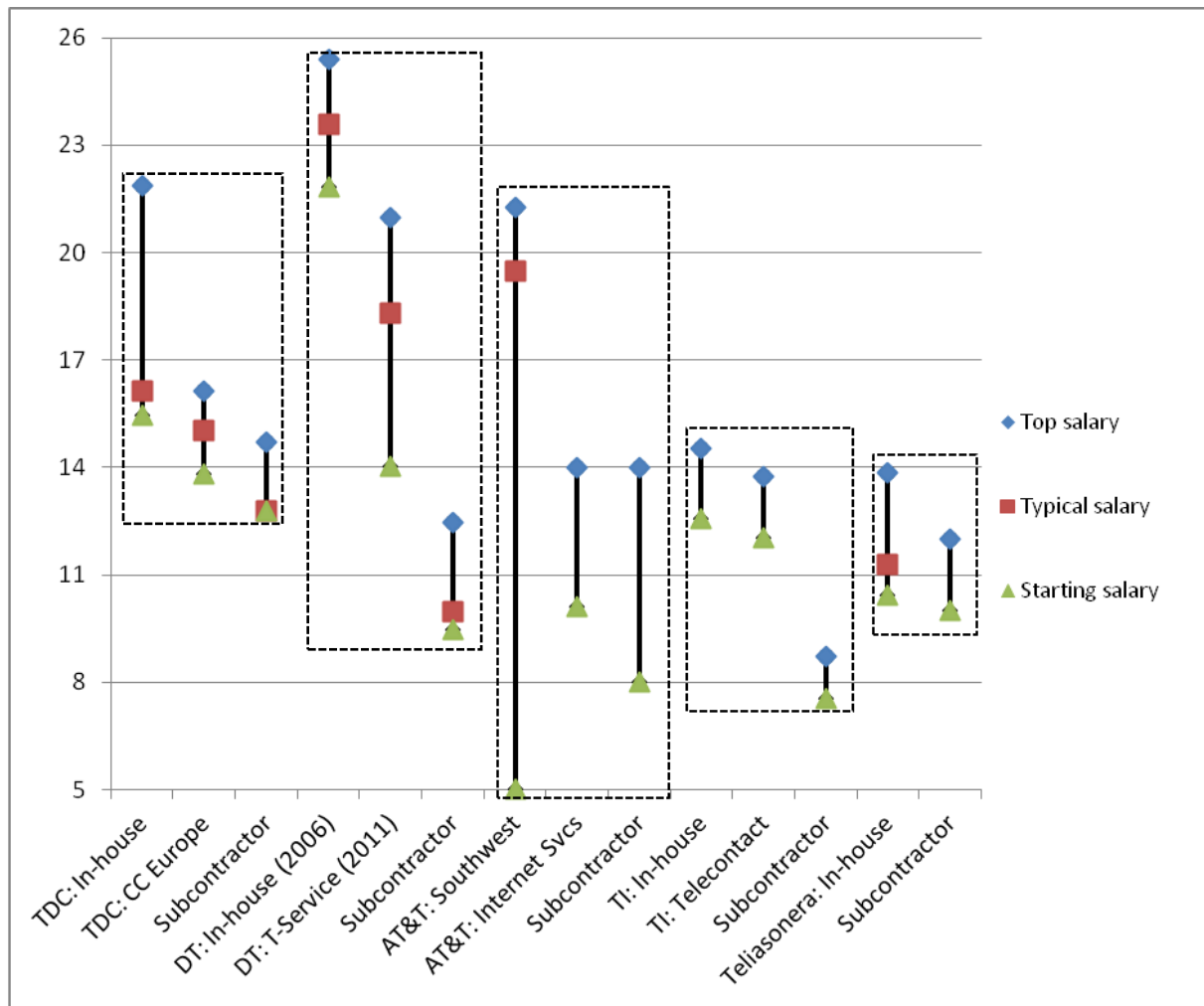
Source: Collective agreements and management/union surveys **Note:** New hires at AT&T start above minimum pay scale in collective agreements reported here.

Another way to compare pay is to look at differences between in-house employees, employees at subsidiaries or on ‘second tier’ contracts, and employees at subcontractors. Here, we have the best comparative data for consumer call centres. As discussed above, several incumbent firms either established new call centre subsidiaries and hired into them, purchased existing subcontractors, or moved jobs into new subsidiaries.

Figure 3.6 compares pay differences between these different groups of call centre employees at TDC, Deutsche Telekom, AT&T, Telecom Italia, and TeliaSonera. The figures for Deutsche Telekom compare former pay in the T-Com business unit in 2006 to 2011 pay at the call centre subsidiary DTKS to which employees were moved in 2007; as well as pay at a major subcontractor that has a collective agreement. This shows the largest pattern of inequality between all of our case studies. TDC shows some differences between the in-house employees, employees at its subsidiary Call Center Europe, and pay at a subcontractor – although, as shown above, TDC does not use subcontractors for call centre

work. The case of AT&T shows that the AT&T Southwest contract, with the largest number of call centre employees, has wide pay spread but high average pay. Pay is more compressed in new AT&T call centres covered by the Internet Services contract, which has similar levels to a major subcontractor. We see the highest degree of pay compression at Telecom Italia and TeliaSonera. Telecom Italia has the most similar pay between in-house call centre employees and those at its subsidiary, Telecontact; while subcontractors can pay substantially less (figures here are calculated based on estimates provided by employees at one major subcontractor). In contrast, pay at TeliaSonera is only marginally higher than at a major subcontractor.

Figure 3.6 Comparison of pay levels for call centre workers (customer service and sales, consumer segment) in US Dollars -- in-house, subsidiaries, and subcontractors [PPP based]



Source: Collective agreements and management/union surveys **Note:** New hires at AT&T Southwest start above minimum pay scale in collective agreements reported here.

The comparison of pay data presented in this section demonstrates clear differences in the degree of pay inequality between and within similar professions. This has occurred despite broad similarities in employer objectives, with increased differentiation in employment terms and conditions across case studies. We can identify four patterns of outcomes, based on the degree of inequality in pay and conditions internal to the incumbent’s corporate group and across its network of subcontractors (see Figure 3.7):

1. **Low inequality internal and external to incumbent:** TeliaSonera, A1
2. **Low inequality internal to incumbent; moderate to high inequality external to incumbent:** France Telecom, Telecom Italia
3. **High inequality internal and external to incumbent:** TDC, Deutsche Telekom, BT, AT&T

Figure 3.7 Comparison of degree of inequality in pay and conditions within incumbent firms and between the incumbent and its subcontractors

		Internal inequality (within incumbent)	
		High inequality	Low inequality
External inequality (between incumbent and subcontractors)	High inequality	TDC Deutsche Telekom BT AT&T	France Telecom Telecom Italia
	Low inequality		TeliaSonera A1

One explanation for these different patterns is the coverage and structure of collective bargaining at firm, industry, and national level. Both TeliaSonera and A1 have encompassing agreements for a range of contract types (including temporary agencies and subcontractors), with the strongest enforcement mechanisms for those agreements. France Telecom and Telecom Italia both have compressed wage structures internal to incumbents, due to collective agreements that are at a comparatively low level for all employee groups, and in the case of Telecom Italia, are similar across subsidiaries and internal employees. However, subcontractors can have substantially lower pay due to poor union organization rates and the broad use of atypical contracts, which are often not covered by collective agreements.

The remaining firms have both high internal and external inequality. These are all located in countries where bargaining coverage is low or non-existent among subcontractors, and where traditionally it has been possible to differentiate terms and conditions using temporary agency employees. It appears that they also have seen a large wage premium for the incumbent's workforce – even relative to pay for similar groups in other countries. This may help explain why unions have agreed to often large differentiation in pay and conditions in-house over the period following market liberalization.

The comparative findings presented thus far have established the important role that national institutions and firm-level collective bargaining structures have played in shaping restructuring

strategies in a range of areas, including redundancy and redeployment policies as well as approaches to diversifying employment contracts. In the following section we turn to internal policies aimed at adjusting to more competitive markets through work reorganization and human resource management.

Section 4

Work Organization and Human Resource Management

The above comparison shows that the case study firms have adopted different models for restructuring employment to adjust to changing skill demands, to increase flexibility and productivity, and to reduce costs. Another set of employer strategies to meet these objectives has focused on adjusting internal employment practices. Technicians and call centre employees have been the target of measures to implement new models of work organization, coaching and monitoring practices, variable pay and performance evaluation methods, and scheduling approaches. As with the restructuring measures discussed above, these internal changes in employment practices have been negotiated with employee representatives. Resulting differences can be traced in part to the outcome of these negotiations, as well as differences in constraints on strategic choices by past and current collective agreements.

In this section, we compare current approaches to work organization and human resource management across the case study companies, and analyse how changes in these practices have been negotiated with employee representatives. We focus on the five incumbent firms where we conducted in-depth research – TDC, Deutsche Telekom, France Telecom, BT, and Orange Polska. The discussion is organized around two areas of employment practice:

- **Work organization and skills**, including job specialization, training and development activities, and use of teams
- **Performance management**, including variable pay, performance evaluation, coaching, and monitoring

As discussed in the introduction, we compared work organization and HRM practices across two main employee groups: technicians (with a focus on field technicians) and call centre employees (with a focus on the consumer segment).

In our analysis below, we seek to identify broad differences in the HRM strategies incumbent firms have adopted in response to similar challenges, as well as to evaluate why they have adopted those practices. Researchers often describe two distinct models of work organization and HRM: a high-involvement model and more Taylorized or constrained model. High-involvement models emphasize direct forms of employee participation, through self-managed teams or offline problem solving, often complemented by consultation with employee representatives; as well as investments in training and development of broad skills. A Taylorized or constrained model involves centralization of decision-making, accompanied by low levels of direct employee control over their work, tight monitoring of effort and results, and a more narrow division of labour or de-skilling. A crucial difference is in the tools used to improve productivity or performance, with the high-involvement model relying more heavily on employee skills and commitment, while the constrained model relies on tight control of effort and results, often with targeted incentives attached to performance measures.

These two models represent ‘ideal types’ – with most employers adopting a combination of practices that fall between these extremes. However, we can broadly characterize approaches to work organization, training, and performance management as falling closer to one or the other of these ideal types. This has implications for job quality, as high-involvement models have been found in past

research to be associated with higher job satisfaction and lower stress. However, a large body of research has also established that these practices improve productivity and organizational performance, through enhancing commitment and investments in human capital. In the discussion below, we highlight cases where these mutual gains are most evident.

1. Work organization and skills

As incumbents have sought to respond to more differentiated markets, they have faced choices concerning how to organize technician and call centre jobs to best meet the needs of diverse customer segments; as well as the breadth and content of skills needed for different jobs.

Technicians are a diverse group, with the major division typically drawn between field technicians and network technicians. Field technicians are broadly responsible for installing lines or equipment and repairing faults at residential customer and business premises. Network technicians broadly are responsible for network construction, maintenance, and repair. However, there is considerable variation in how employers organize these different groups of employees, as well as the extent of interaction between them. One interviewee from BT explained the problem from management's perspective in this way:

'The question mark for the company is that you have a network out there which is fallible and you have an engineering workforce, but you also have products which are digital products which are going to be fixed within the home. So if you have an engineer, do you want an engineer who is down a hole one minute, up a pole the next, and then in a customer's premises the next, so, i.e., multi-skilled – so do you want to skill all your engineers to do all the tasks, which is the best way of doing work distribution? Or do you want to have your engineers so that one engineer can do an underground fault and one engineer can do an overhead fault and the third engineer can do a digital fault?' (Interview, BT union representative)

At TDC, technicians responsible for the fixed line consumer segment were divided into two major groups: 1) field and operations, responsible for installation; and 2) network and capacity, responsible for maintenance, construction, and repair. Among the companies, TDC appeared to have the broadest jobs in each area, which had been the result of a progressive merging of specializations:

'In the early days, we had a few kinds of technicians... and you had sub-levels doing each kind of equipment.... if you went to someone and asked, "please, would you pull a cable from here to there?" They would say: "oh no, no, cable pulling, that's not our job: that's the dirty work". But as time went along, they were merged, and now the technicians are supposed to do most kinds of work in very many different platforms... basically now we have two types of technicians: those who are driving out to the customers, and those who are working at the hubs in the stations.' (Interview, TDC shop steward)

BT had a similar structure, relying on multi-skilled technicians within the field and network areas. Technicians (called 'engineers') at BT were largely based in two units: Openreach, responsible for the 'last mile' after the exchange, and Operate, responsible for the network before the exchanges ('the core'). In Openreach, the technicians were split between service delivery, responsible for network maintenance and customer installation and service; and network delivery, responsible for network construction and maintenance. Employees within each broad group were allocated to jobs based on a

‘skill matrix’, a workforce management tool distinguishing different categories of skill and the level of competence for each employee.

At Deutsche Telekom (DT) and France Telecom (FT), technician jobs had become more specialized over time. At DT, employees were also divided into two main groups, the field technicians who were based in the DT Technischer Service (DTTS) subsidiary; and the network technicians (fixed line and mobile network) who were based in the DT Technik subsidiary. In 2007, the field technicians were divided into separate groups, one responsible for service and faults and the other for new orders. Employees were further specialized on different products in each group – with around 50 different skill areas. However, specializations were based on complexity and value-added of products rather than customer types. In 2009, technicians were further separated into dedicated teams serving residential and small business markets.

There had also been ongoing efforts to create more specialization. Most DT field technicians fell within three job categories: *Monteur* who handled simple connections and product assembly; and *Service Monteur* and *Service Techniker* who were responsible for more complex connections, maintenance, and repair. Around 2002, the *Monteur* were made responsible for laying and switching on the line, and then a *Service Techniker* installed the computer and attached the router. This provided potential cost savings, due to the salary differences between the two groups. However, many employees in the *Monteur* position remained at or were moved onto a higher pay grade, reducing these savings. Works councillors observed that there had been ongoing negotiations and at times conflict with management over the reclassification of these jobs, which had implications for employee pay and skill.

At FT, most technicians were located in two administrative units: the Network Control Units (UPR), responsible for fixed and mobile network construction and ‘performance optimization’; and the Response Units (UI), which included all activities related to customer intervention, network structure and local loop, and management of the existing network – in other words, both network and field technicians serving business and consumer markets. Response Unit technicians were divided into three main skill groups, based on responsibility for residential customers, business customers, or network construction and maintenance. Similar to DT, there had been a move toward increased specialization over time, which involved separation of tasks that were formerly handled by technicians with a broader skill set. However, as detailed in the case study box below, management had implemented a new model of multi-skilled teams in many regions, to encourage better coordination between specializations.

Case study: Multi-skilled teams and investment in training and development at France Telecom

In the late 2000s, France Telecom invested in multi-skilled teams in its Response Unit. In the past, there were separate teams for small business and retail as well as for field operations and dispatching activities. In a number of regions, these were brought together into departments and teams that included employees from all areas. This was intended to both encourage sharing of knowledge across specializations and to improve coordination where different skills were needed to solve a problem. These changes were also implemented as a form of job enrichment, as internal research suggested that employees were dissatisfied with a model of work organization focused on increasingly narrow specializations. One manager described the goals of this initiative:

‘we are in charge of all the customers and all the activities on a geographic area and we try to develop multi-skills so that we can answer the demands of all kinds of customers and operations on networks.

One of our big challenges is to develop these multi-skills aspects so that we can improve efficiency, and also it is also something that is asked by technical people. They prefer to work for different activities and different customers rather than to be specialized in one field of operation.' (Interview, FT manager)

The shift to multi-skilled teams also influenced training. New employees were recruited into apprenticeships that alternated between classroom and on-the-job training, with increased focus on developing a range of skills.

'You are not recruited into the job of technician so-and-so, but you are recruited into the profession of technician and to your first job in this type of activity, but you will have to necessarily evolve into broader activities in the long term.... the general rule which is now understood, it is of course versatility or adaptability....' (Interview, FT manager)

This was viewed as a successful initiative based on a number of different outcomes. Managers observed that the technicians initially resisted working on different activities or with different customers, but were increasingly willing to assist each other across specializations. Variation in productivity had declined, and 'global productivity' had increased. Union representatives and employees generally felt that the multi-skilled teams were a positive initiative that gave technicians more professional autonomy in their jobs. This was also part of an effort to improve the working environment within France Telecom:

'We are really in the process of changing the social contract, the business model. We were following a very prescriptive model, very top down; and then there is the model we are building now... where we want to improve things, develop versatility, etc. – and at the same time give a little more room for the human side, the room for manoeuvre and at the same time accountability.... The modes of operation we started to put in place with these team meetings... to share the difficulties in the field and give teams the means to deal with the difficulties they see or improve them, these are the means for us to reclaim the men and women [of the organization]. And restore their pride, responsibility, the ability to develop in their profession. So here we are, in the process of generalizing this everywhere and then bringing it to life. Because once we enter into this type of dynamic, we see that people will develop new modes of working.' (Interview, FT manager)

As the above case study illustrates, work organization and associated skill demands had implications for training investments. Traditionally, technicians in all of the incumbent firms completed internal apprenticeships, lasting from 2-4 years. There have been similar trends over time across the incumbents in a reduction in training investments, due to contraction in demand for technicians and the relatively high tenure of the workforce. However, the extent of this contraction varied. TDC stopped offering apprenticeships in 2009, and had not been recruiting new technicians in its consumer operations. In contrast, Deutsche Telekom, France Telecom, and BT all still offered apprenticeships. Almost all of DT's field technicians had completed apprenticeship training in the *Systemelektroniker/in* trade, and most received their training at DT. A collective agreement with the union committed management to offering a certain number of apprenticeship places; however, only a proportion of employees completing the apprenticeship did not transition to permanent jobs at DT. In DTTS, for example, one interviewee noted that in the past year 14 apprentices had been hired in a region with 1500 field technicians. At BT Openreach, in 2012, around 500 apprentices started out of a workforce of around 20,000 engineers, most of whom would go on to be offered jobs within BT. In addition, BT recruited a number of employees who had received formal graduate-level training outside of BT, including the army. These employees would then receive around 16 weeks of training, depending on their skill level.

The content of apprenticeships had changed over time. Employee representatives at the three firms that still offered apprenticeships expressed concern with increasing specialization in the content of training and job placements. For example, at DT, apprentices in the past had spent three years working in a wide range of different areas and jobs. By 2011, they were 'sent exclusively to those areas where they are needed':

'I think that when I was an apprentice... I learned a lot of technical skills as well as logical thinking. That has helped me throughout my life as a craftsman.... Today it depends on which colleague he [the apprentice] is sent to. Then he learns how to install wires, but that also happens under a certain amount of time pressure and performance pressure. He learns how to install and repair a connection. It is very practical.' (Interview, DTTS works councillor)

All of the companies also increasingly sought to integrate formal on-going training with on-the-job training, or 'learning by doing'. At TDC, one technician in a team was often sent to a course, and then was responsible for training his or her co-workers. At DT, each employee received a minimum of three qualification days a year, but interviewees observed that increasingly most training occurred in meetings. At the same time, DT offered a range of voluntary training sessions and workshops that employees could attend to upgrade or expand their skill set.

FT and BT appeared to have made the most extensive investments in formal on-going training. Interviewees estimated that BT spent around £100 million per year on training, which was typically targeted to the individual and offered in small modules at the workplace or at local training centres. FT offered 2-3 day courses on site for particular products; but also had a range of opportunities for employees to upgrade their skills to move to higher paid jobs. Employees could change their occupation or job within FT through an intense training course called 'pathways to professionalization'. Employees received a bonus during the training, and then could be promoted to a higher paying job, depending on the area. They could also receive a certificate called 'Validation of Experience Acquired' to recognize certain skills they had acquired on-the-job, which could be associated with more pay or responsibilities. An HR Director described these promotion and training opportunities as an important source of motivation for the technician workforce.

An additional change in skills we observed across the incumbents was the increased importance of a range of soft skills for field technicians, including sales, marketing, and customer service.

These different approaches to work organization and training had implications for promotion opportunities. As noted above, TDC had the fewest specializations, with technicians expected to handle a range of skills. This meant there were few promotion opportunities beyond management. At the other companies, there were possibilities to move up to a higher paid position through more extensive training courses. Table 4.1 summarizes differences in approaches to work organization, training, and promotion for field technicians across the cases.

Table 4.1 Work organization and training for field technicians

	Technician groups	Initial training	Further training	Promotion
TDC Field & Operations	- consumer only - all EEs in same skill group	No new apprentices	Most training on the job; formal training rare	Few opportunities other than management
Deutsche Telekom DT Technischer Service	- separate groups for consumer & small business - 2 main skill groups: connections & maintenance/repair	- Apprenticeship 3-3 ½ years - Minority hired after completing	3 training days/year; increased on the job training	Promotion through formal training
France Telecom Response Units	- multi-skilled teams by region bring together EEs working for consumer & business - 3 main skill groups: consumer, business, and network	- Apprenticeship 2-3 years - Majority hired after completing	2-3 day courses on products; more extensive courses offered to change jobs or receive formal certification in new skills	Promotion through formal training
BT Openreach	- consumer & business together - broadly multi-skilled; but EEs allocated to jobs based on individual skill set	- Apprenticeship 2-3 years - Majority hired after completing - But most recruitment via direct adult recruitment	Modular training courses on-site or at local training centres	Promotion across four titles based on seniority and qualification

In **call centres**, the incumbent firms faced similar challenges concerning skill content and specialization. Call centre employees can be ‘multi-skilled’, trained to handle a range of call types; or more narrowly focused on one kind of calls – for example, billing and collections, outbound sales, or customer service. In addition, employees may handle calls from all customers or be organized into separate teams serving groups of customers based on their ‘value added’ – for example, small business customers or residential customers purchasing a high value bundle of products and services with higher margins. All of the firms had separate call centres responsible for large business customers, typically based in a separate business unit. However, the extent of specialization based on residential and SME customer groups varied. Finally, most incumbents merged their mobile, fixed line, and internet lines of business in the 2000s (with the exception of BT, which sold its mobile subsidiary), and faced choices concerning the extent of integration between sales and service across the three market segments.

TDC is a unique case, as it has separately branded subsidiaries that sell discounted products and services (e.g. for mobile and internet), with their own call centres. In-house centres based in TDC’s ‘Consumer’ unit had four main groups of employees handling sales and service, technical support, billing, and outbound sales. Its subsidiary Call Center Europe was organized around these same areas, with the exception of outbound sales. BT’s in-house call centres were divided into similar groups: technical support and complaints, residential sales and service, SME sales and service, and billing and collections. Orange Polska had spun off all of its post-sale customer service activities to a subsidiary, Orange

Customer Service, where customer advisors handled a range of billing, technical support, and service-related calls. Orange Polska also had dedicated outbound centres.

Both TDC and Orange Polska were distinctive in not having specialized teams dedicated to higher 'value-added' customers, and having predominantly mixed teams responsible for mobile and fixed line products and services. At TDC, employees within each group built up skill sets over time – for example, in technical support they started with two skill sets; then every month or two got trained on additional skills until they developed a complete skill set. However, the assumption was that over time employees within each group would be able to handle all calls. BT had some segmentation by customer type (SME vs. residential). However, there had been a shift over time toward recruiting and training employees into multi-skilled positions, where they were expected to handle a range of call types within each segment.

Deutsche Telekom and France Telecom had more complex structures for organizing specializations in their call centres. At DT, employees were divided into seven segments: sales and customer retention (new or leaving customers), small business, residential service 'gold' (lower value), residential service 'platinum' (higher value), home list, technical service, and mobile service. There were also different teams of generalists and specialists. 'Generalists' were ranked according to their skills and abilities (as identified, e.g., by team leaders and sales statistics), and calls were routed to top ranked employees first. At FT, employees were organized in two 'levels', with multiple specializations within each. Level 1 received 80% of the calls, and included a matrix of three employee groups (sales and termination, customer service and account management, billings and collections) with a further three customer segments: gold (high value), standard (low value), and new customers. Level 2 received the remaining 20% of calls, and included five groups handling complicated collections, customer retention, technical assistance, after-sales service, and e-delivery tracking. These two levels were closely integrated, with distinct 'flows' for collections, sales, and service.

As discussed above, both firms had separate call centres for mobile and fixed-line markets in the early-to mid-2000s, with different pay and conditions. At DT, these employee groups had been moved to the DTKS subsidiary, with a similar structure of pay and conditions, and sales were increasingly integrated between the two segments. However, customer service for mobile customers continued to be handled by a separate team. FT continued to maintain separate call centres (or teams within call centres) for fixed line/ internet and mobile customers, which were organized into separate units. However, at headquarters level, they were under one manager, and work organization and HR policies had been harmonized across both groups of call centres. There was also an attempt to gradually bring these areas together, and at three of FT's call centres, employees could service all three segments. One manager noted that this required an 'extremely intense and extremely long' training course to enable employees to answer calls relating to a wide range of products and services.

Table 4.2 summarizes the different models the case study firms adopted concerning specialization. Similar to technicians, TDC and BT had the most 'multi-skilled' approach to work organization, joined by Orange Polska. The other companies had developed different strategies to differentiate between customer groups and call types, often adopting mixed models or experiments to merge different areas of work or cross-sell products across groups.

Table 4.2 Work organization and training for call centres (residential market)

	Call centre specializations	Initial training	Turnover and tenure	Absenteeism
TDC 1) Consumer 2) Call Center Europe (subsidiary)	- sales & service, technical support, billing, <i>outbound sales</i> (1 only) - mixed mobile & fixed line teams - no specialization by customer group	1) 5-6 weeks 2) 4-5 weeks	1) N/A 2) 6% quits; 74% > 3 yrs tenure	1) 3.5-4% 2) 6%
Deutsche Telekom DT Kundenservice	new sales & customer retention; small business; residential service 'gold' (low value); residential service 'platinum' (high value); home list; technical support; mobile service	Apprenticeship 2 years; 6 weeks initial training	15% quits; av. tenure > 20 yrs	8-10%
France Telecom AVSC unit (fixed & internet) and CCOR unit (mobile)	- Level 1 (80% calls): sales & termination, customer service & account management, billings & collections – 3 customer segments: gold (high value), standard (low value), and new customers. - Level 2 (20% calls): complicated collections, customer retention, technical assistance, after-sales service, e-delivery tracking - 20% employees 'multi-skilled' to handle 2+ call type - separate mobile & fixed line/ internet centres; 3 mixed centres handle both	- 6 weeks if customer service background - 12 weeks if changing jobs within France Telecom	2% retirement, marginal quits	6-10%
BT BT Retail	Technical support and complaints, residential sales and service, SME sales and service, billing and collections	4-6 weeks	10-50%; av. tenure 15-20 yrs	4-5%
Orange Polska Orange Customer Service	Limited specializations: multi-skilled agents handle in-bound billing, sales, service for mobile and fixed-line customers; dedicated outbound sales centres	2-3 months	Significant drop in recent years (from 60%); higher in sales	<10%

This comparison demonstrates that there is no clear 'best practice' concerning the degree of specialization or breadth of skills that was universally adopted across call centres. In interviews, managers and employee representatives at most companies described change over time both toward and away from a model of work organization relying on more broadly skilled employees. Customers typically preferred having agents who could answer a range of questions, without having to be routed across agents. In addition, broadly skilled employees who could handle multiple calls provided a high degree of internal flexibility, allowing management to route calls when demand peaked in different areas. However, this model required a relatively high level of skill and made it more difficult to compare performance at the individual level. Thus, as companies adopt more intensive monitoring and individualized targets, specialization is increasingly attractive.

2. Performance Management

Performance management can be broadly defined as the set of practices and policies an organization uses to motivate its employees, including goal-setting, coaching and feedback practices, performance monitoring, and rewards, such as variable pay. Here we start with a detailed comparison of performance management in call centres, followed by a summary of practices in technician workplaces.

Across the **call centres**, we observed a similar trend toward increased centralization and standardization of performance management practices. Employees were expected to meet targets in similar areas, including call handling time, 'compliance' with schedules, customer service, and sales; and performance was evaluated using a combination of individual- and team-based metrics, remote monitoring, and side-by-side listening with coaches.

At BT, 90% of calls were recorded, and each advisor was coached at least once a week (often through listening to these calls). At TDC, all calls were recorded, metrics were closely tracked, and team leaders conducted daily side-by-side coaching sessions. Employees also met with their team leader every three weeks to discuss overall performance and absenteeism. Orange Polska had one of the most 'light touch' approaches to monitoring: a proportion of calls were recorded, and supervisors listened to at least three calls from the same employee every month and decided on this basis whether she needed additional training.

France Telecom had the most developed coaching and training system. Team leaders or 'managers' were responsible for teams of 12-15 customer advisors. The team leader's role was to listen to calls, do a 'debriefing' and re-listen to calls after a call was completed to identify areas of improvement for a customer advisor. Each employee then also had a dedicated trainer, or 'professional support' person – with one trainer for each 18 customer advisors. The trainer was responsible for the 6-12 weeks initial training, and then organized individual training and support for each advisor. The team leader met with the trainer regularly to develop a work plan to help the customer advisor progress:

'So, there is a tacit agreement between the manager, the trainer, and the customer advisor, saying, in this area, you are not at the expected level, so we are going to put in place help or a personalized course, we'll put in place everything you can imagine, to be able to help you improve.' (Interview, FT CC manager)

'It's very important to say that the recording tools [remote call recording] should be mainly used to make the customer advisor progress, always in a dynamic of progress; otherwise, that doesn't work.... That is also a question of management maturity – that is to say to ensure that managers put themselves in a position where they are supporting customer advisors, that's difficult. It is easier for a manager to look at the spreadsheet with the results, to go to the customer advisor to ask him why he didn't have these results, which isn't what should be done – which is to do his real work consisting of making the advisor want to be better and to progress through giving him the tools to be able to get there.' (Interview, FT manager)

At Deutsche Telekom, there had been change over time in coaching and monitoring practices. In the past, a collective agreement with the works council prohibited remote electronic monitoring. However, by the late 2000s, a new monitoring system called 'Intelligent Routing & Reporting Platform' had been adopted that allowed calls to be recorded for the first time. Team leaders could look at a sample of calls

and 'screen shots', captured by a system that recorded both in certain intervals. Based on this information, they would develop training plans with employees.

The above comparison shows broad similarities in approaches to monitoring and coaching by the firms. The main differences we observed were in two areas: first, how performance information was used, particularly in the presence of a disciplinary procedure that could lead to dismissal; and second, the design of variable pay practices.

At BT, TDC, and Orange Polska, employees who failed to meet performance metrics could go through a disciplinary procedure that led to dismissal. This was possible because of weaker employment protections and the lack of civil servants with iron-clad job security. At BT, employees had targets with a weighting that changed monthly. These weightings factored into an overall performance indicator. A traffic light system then indicated whether an individual was green, amber, or red. If an employee was 'red' for three weeks, she was placed on an informal coaching plan. If she did not improve, a performance case was raised and she was put on a 'performance plan'. The whole process from initial formal warning to a final warning and decision took about ten weeks, and the employee could appeal at every stage (often with union support).

TDC's call centres also had procedures in place to dismiss employees, although these typically operated through voluntary redundancy plans. Managers and union representatives observed that employees with consistently poor performance or who were often absent were encouraged to take voluntary redundancy, as the terms were more generous compared to dismissal. At Orange Polska, supervisors would identify weaknesses and agree a plan with the employee to solve these by a certain date. Failure to improve could lead to a warning, reprimand, disciplinary action, and then dismissal. However, one supervisor at Orange Polska observed that their system of monitoring was 'light touch' and not typically used for disciplinary purposes. At all three companies, dismissal on performance grounds was rare, and significant resources were invested in improving performance through training and development. However, the presence of this potential threat of dismissal was an important tool used to motivate employees to improve in target areas.

At Deutsche Telekom and France Telecom, it was more difficult to dismiss employees for poor performance, due to collective agreements and works council oversight (DT) or employment protection rules and a high proportion of civil servants (FT). There were some ways around this. For example, one supervisor at DT observed that if an employee did not improve after going through training, then there would sometimes be a discussion with the employee concerning 'whether they really think that this is the right job for them.' However, generally this restriction encouraged management to develop alternative strategies for motivating employees. At FT, employees received regular performance evaluations, and the results were used to determine salary increases or promotions:

'There is nothing, there aren't any sanctions, we have to try to make them improve as much as possible anyway. Of course, we have annual meetings – and there we evaluate the level [of performance]. If that is insufficient, that could be an obstacle if someone wants to do another job or to get a promotion. So there are consequences [for poor performance].' (Interview, FT CC team manager)

Even where managers could dismiss employees, it was only one among a range of performance management tools. For example, several interviewees stressed the importance of small competitions

and prizes – particularly for younger employees. A team leader at TDC described these as central to her strategy:

'When I'm training them I'm talking a lot about motivation. I ask them, "what motivates you?" And they come with, "Oh I want to make my goals," they can see all their numbers, their own numbers. So they can promote a happiness... Every time they make a sale they are clinging on a clock, and then we'll all clap and there'll be a celebration. Today they are having a Competition [to win theatre tickets]. It's a happy hour today. So we're having small tools to give some more. Sometimes they get a diploma, sometimes it's only the clapping but green numbers and good words.' (Interview, TDC CC team leader)

Variable pay systems were present in different forms across the companies. The main differences concerned: a) whether incentives were primarily sales-based commissions, or attached to meeting targets in different areas (e.g. customer service, call length); b) the unit at which performance was measured (organization, team, or individual); c) whether variable incentives were added on top of base pay or integrated into base pay (i.e. it was necessary to meet targets in order to receive full base pay).

BT and France Telecom both had a model of variable pay that was primarily based on sales-based commissions on top of base pay. Thus, both only had variable pay for employees involved in sales. This was due in large part to long-standing union resistance at both companies to performance-related pay: sales commissions were viewed as more acceptable, as they were easy to measure and provided employees the possibility of earning substantially above their base pay.

At BT, sales bonuses were paid based on sales targets. If employees hit 85% or more of their targets, they were eligible to receive a monthly bonus. If they hit over 105%, they received an 'Accelerator' for the quarter. In one call centre taking inbound calls to sell to SMEs, for example, this would amount to £2,500-3,000 a quarter. If they hit over 116% in all areas, it would be £3,400 or £3,600. If they hit 126% or more in all areas, this would be £4,000 plus their standard commission on bonus as well. The standard commission on bonus was 35% on OTE, so over three months, this would be between £1,600 and £1,800 depending on the base wage. One manager described how this could affect the salaries of employees with the highest sales:

'our top guy here at the moment who consistently hits Accelerator... over a quarter, his base bonus would be something like £1,800 plus the Accelerator he's getting is £5,800 in total, and then plus his wages every month... he'll probably be looking about between £45,000-£50,000 a year.' (Interview, BT CC manager).

Conversely, employees who met 85% of targets or under would receive something closer to their base wage, in this case about £20,000 a year. Those who consistently did not achieve 85% would receive additional coaching under a performance plan, leading to improvement or dismissal.

At France Telecom, 40% of call centre employees were in sales jobs that were eligible for variable pay. However, unlike at BT, variable pay for this group was calculated based on a range of metrics: sales in relation to sales objectives in certain product areas; multiplied by a coefficient based on service quality; multiplied by a coefficient based on performance (e.g. number of calls handled per hour). Sales were divided into 10 families of products. In order to get variable pay, it was necessary to reach at least 70% of the objectives in each of the 10 families. However, if customer satisfaction was low, then sales would be multiplied by '0'. This complicated system was designed to avoid encouraging employees to prioritize

one area at the expense of the others – although managers admitted that it was difficult to design good measures for service quality:

'This variable system is sophisticated enough to try to avoid a situation where the customer advisors aren't focusing on one objective to the detriment of others. On the other hand, it's true that whatever isn't in the variable pay system can be a little forgotten, and often that which isn't in the variable pay system contributes to quality.' (Interview, FT manager)

Most of these coefficients were measured at the individual level, with the exception of the number of calls taken per hour, which was measured at the team level. A manager in headquarters estimated the average variable pay for a sales employee was between €200-300 per month – but could go up to €1,000 per month.

The other three firms had variable pay for all call centre employees, which was based on meeting different goals. At Orange Polska, employees received around a 10-15% bonus on top of base pay if they fulfilled all or most of their goals. This consisted of around 20% 'global targets' in areas like customer satisfaction; and 80% individual targets. At TDC's in-house centres, employees also typically received around 10% performance-based pay on top of their base salary. The largest component of variable pay for most groups in the call centres (particularly sales and service) was individual-based sales commission. The union had successfully argued for aggregating other performance metrics at the team level, which were tied to a team-based bonus. The resulting model based incentives on around 60% individual sales performance and 40% team performance on other metrics. At TDC's subsidiary Call Center Europe, bonuses varied across client accounts and products sold within those accounts. However, a typical structure had individual targets with similar weightings for sales, 'recall', and efficiency; and team targets based on customer satisfaction scores. The top 20% of every team then could receive an additional 'top bonus' – which was also dependent on reaching 90% schedule compliance. The maximum bonus was 15.5 Kroner per hour, if an employee met all of their parameters (around 12% of salary); and a typical bonus, based on meeting all basic individual and team targets, was 9.50 Kroner/hour, or around 7.5% of salary. In addition, management had recently introduced a new initiative called 'celebrate our successes', in which each team leader nominated the best employee in each team every quarter to receive an additional 2,000 Kroner bonus.

Deutsche Telekom's variable pay system was distinctive among the case study firms in several ways. First, it was the only case where fulfilment of targets was a requirement for receiving 100% base pay. Second, it was the only case where a proportion of targets were based on company performance. This model had been adopted in 2007, although elements of it had been adapted from DT's former T-Mobile call centres. Employee representatives had sought to build in various protections to this model over time, and the amount and terms of 'pay at risk' had been an important issue in collective bargaining. We describe the details of the variable pay system in the case study box below.

Case study: Negotiating protections into performance management at Deutsche Telekom

Deutsche Telekom's call centres went through a number of organizational changes, which were also associated with significant changes in performance management. In 2007, DT's call centres from its T-Com and T-Mobile business units were moved into a new subsidiary, Deutsche Telekom Kundenservice (DTKS).

The new collective agreement at DTKS introduced 20% variable pay for the majority of former T-Com employees, in which 80% of salary was fixed and 20% was dependent on meeting goals in different areas. By 2012, 13% of this was based on team performance and 7% on DT or DTKS performance. One segment - 'sales and customer retention' - had 30% variable pay, with all or almost all of this based on individual performance and no company goals. Many of these employees were new or had been transferred from T-Mobile.

This new model of variable pay was controversial, as employees could receive less than their base pay if they did not meet goals. However, the works council and union negotiated an agreement putting in place procedures to ensure employee participation in setting and revising the goals:

'When this [variable component of pay] was introduced in 2007, with the new service companies, certain protections were agreed. We were able to get protections in our negotiations, because we were able to say that this is new for employees. They have to understand this first and determine what they need to do and what this means for them. So in the first two years, very good protections were negotiated – so that regardless of how complicated the system was, employees could be sure that they would still get their fixed pay.' (Interview, DTKS works councillor, 28/9/10).

A system of local joint committees and a central joint committee were made responsible for ensuring the fairness of goals. Employees were given quarterly goals in their teams based on 5 areas with different weights, between 15-30% each. The team leader first discussed the goals with the team. If 2/3 of team members agreed they couldn't reach the goals, then they were able to make a formal appeal, and this would be brought to a local joint committee. If a majority of team members agreed with the goals, then they would get information every quarter on where they stood in relation to each goal. Employees were also able to contest the way the goals were calculated after the 2nd or 4th quarter – for example, to say they could not meet these goals because the IT-system broke down or products were not sellable. In addition, company goals were set by the advisory board, which included employee and management representatives.

Despite these protections, union and works council representatives were concerned that employees were coming under increased pressure, with the lowest paid groups often facing the largest risks due to their high representation in sales positions. In 2012 negotiations, the 70/30 variable pay split was eliminated, and so 80% of base pay was secured for all groups.

The system of setting goals was also modified for employees who were not involved in sales across DT. From 2013, this group would be evaluated based on the 'six most important goals' or the 'Big Six'. This was in response to concerns that employees were not able to influence all of the different goals they were given. The new model was overseen and approved by the advisory board at the beginning and end of the year. Employees in this group were also assured that they would get above 90-96% of their base pay, depending on the function of the teams. In 2012, one works councillor reported that all teams with the 'Big Six' goals got at least 108% of their base pay.

The case study above illustrates the role that unions and works councils have played in negotiating over the design and implementation of variable pay models. Orange Polska and TDC also had joint committees in place that allowed employee representatives to participate in setting and evaluating targets in these plans. At Orange Polska, if targets were regarded by the employee as impossible to fulfil,

then the employee could appeal with union support. At TDC’s in-house centres and at Call Center Europe, shop stewards and management discussed the variable pay system at monthly meetings. In the in-house centres, they had succeeded in arguing for a larger component of team-based variable pay, as well as increasing the level of commission attached to fixed line products; while at Call Center Europe they successfully argued for a change in the bonus system that provided additional compensation for employees who did coaching and training. A shop steward from Call Center Europe felt the union had helped to ensure that the bonus system was fair and transparent:

‘We have meetings every month, where we discuss any changes to the parameters, and if they have we discuss if they’re fair. We have an agreement where everything about our bonus, how if changes come along what do we do. We have all kinds of details written down in this agreement, how to handle all this. Also this agreement defines how this bonus should be managed. You cannot make any changes that you just like, it should be a fair and meaningful change to the employee and for the company here, and also to the customer.... We have had a lot of work defining this agreement with the bonus; and how it’s describing the parameters; and when the parameters change, how quickly can they change; and what’s important for the development of the bonus system.’ (Interview, Call Center Europe shop steward).

Table 4.3 summarizes the differences in variable pay systems described above.

Table 4.3 Variable pay in call centres

	% variable pay	Form	Performance-based pay structure	Union/ works council involvement
TDC 1) Consumer 2) Call Center Europe	1) 8-10% 2) 7.5-12%	Above base pay	1) Individual (60%); team (40%) 2) Individual (63-77%); team (23-37%)	Joint committees met monthly to discuss variable pay
Deutsche Telekom DT Kundenservice	20-30%	Included in base pay	Individual/team (2/3) + company goals (1/3) = 20% Sales: Individual/team = 30%	Collective agreements with protections; Joint committees reviewed appeals on targets
France Telecom 1) AVSC unit (fixed & internet) 2) CCOR unit (mobile)	10-15% sales only	Above base pay	Sales (individual) X service quality (individual) X number of calls/hour (team)	Union opposition meant variable pay allowed for sales only
BT BT Retail	35% sales only	Above base pay	Exclusively based on individual sales	Union opposition meant variable pay allowed for sales only
Orange Polska Orange Customer Service	10-15%	Above base pay	20% ‘global targets’; 80% individual targets	Union supported employee appeals on targets

The design of performance management practices for **technicians** faced similar challenges to call centres. Employers were seeking to improve global productivity and customer service. However, the nature of the work made it more difficult to monitor and benchmark performance. Skill levels are typically high, jobs can vary substantially between customers or assignments, and employees carry out

much of their work alone or in small teams. All of the case study firms had put in place more formal systems of performance evaluation for this group than existed in the past, and had attempted to improve productivity through defining targets (i.e. for increasing the number of customers served per day or reducing call-backs). As with call centres, differences concerned the extent to which individual performance results were connected to consequences or rewards. Another difference for this group concerned monitoring methods, particularly how and whether GPS tracking was applied.

Performance reviews were an increasingly important tool for comparing and motivating technicians. Again, a major difference was in how information from the reviews was used – or what consequences or rewards were attached to results. All TDC employees had an annual ‘development conversation’ with their supervisor or line manager, focused on identifying training needs and discussing strategies to improve performance. Employees also were all supposed to have an individual review once a month. If employees did not improve their performance within three to four months, they were placed in a ‘disciplinary process.’ If they did not show improvement, they would be a likely candidate for redundancy. As with call centre employees, low performers were typically encouraged to take voluntary redundancy, but could be dismissed if they refused. Management was also implementing a ‘lean’ model of continuous improvement that involved frequent meetings in the network operations area. There had also been an increase in targets for customers per day in the field technician area, which had increased from four to five and was due to go up to six in 2013.

At BT, performance management only began to be pushed in Openreach since the mid-2000s. Its introduction was a culture shock to many. According to one manager, the purpose of performance management could have been explained better because ‘...in parts of the business, and certainly in parts of Openreach, we have created a worry around performance management that people are about to get sacked.’ (Interview, BT Openreach manager).

Field technicians were assessed on four criteria: 1. the number of jobs they perform, 2. repeat faults, 3. health and safety, and 4. customer satisfaction. On the first, the system split the types of jobs into different categories, and calculated from historical two-year averages how long each job should take. If an engineer took much longer than the average allocated time, there needed to be an explanation included in their report at the end of the day. The engineers were monitored constantly, as their vehicles were equipped with a tracking device and their work was monitored via their laptop that fed into the work manager system, which tracked and downloaded everything they did. If an engineer had not finished a job on time, the system would send him an alert.

If an engineer consistently did not meet his targets, the first-line manager was sent a request to act. The first-line manager first tried to find out if the engineer had a personal problem. The data also permitted first-line managers to identify types of work at which their engineers struggled, and they could then allocate a coach who would go out with the engineers. Engineers had a six-week period to improve. If performance did not improve, the performance plan ended in dismissal. However, this happened very rarely. In 2010, dismissals through performance amounted to less than 0.1% of the Openreach workforce. Even if there were no particular problems, Operations Managers (OMs) were expected to draw up coaching plans for all of their teams to identify technical needs, training needs, support needs, and other forms of assistance such as job shadowing, a course, or mentoring.

At France Telecom, employees also met with their supervisors for regular performance reviews – but unlike TDC and BT, there were no direct consequences associated with the results of these reviews.

Instead, results would be used for determining promotions or salary increases, as with FT's call centres. Management observed that their strategy to improve performance was based on three sets of measures: 1) global efficiency improvements, through investing in new technologies, improving workstations, and eliminating unnecessary activities; 2) improving the skill and productivity of the technician workforce through training investments; and 3) setting increasingly ambitious goals centrally (e.g. for productivity, quality, and turnover) attached to incentives for local or regional managers – but also combined with organized knowledge sharing across regions. At the local or team level, management sought to motivate employees based on work redesign and encouraging learning within teams, based on regular meetings oriented around sharing best practices and knowledge. Team challenges or competitions also allowed the best performers or individual performers to receive an extra bonus. France Telecom had also recently put in place a global performance improvement programme called 'the learning company', focused on organizing support for employees who encountered problems in the course of performing their jobs. This was started in 2010 and was intensified in 2011 and 2012.

Two major targets for performance improvement were to identify and resolve the source of technical faults more quickly; and to improve customer satisfaction. Satisfaction was measured through surveys, and calculated as a '*net promoter score*' (NPS). One HR director observed that the field technicians were motivated to provide a good service to customers, rooted in a strong civil service culture, and so took the NPS very seriously. It was measured at the level of teams and the region: 'In fact, the teams know very well where they are vis-à-vis their customers, and whether customer satisfaction is improving. And that is a real motivation' (Interview, FT manager).

At Deutsche Telekom, performance evaluations were connected with variable incentives. DT was the only case study where variable pay was used for technicians. Variable pay was introduced in 2008, after the creation of the T-Service subsidiaries. From 2008, technicians at DTTS had 85% fixed salary and 15% variable pay, based on goals in different areas. This was broken down into 5% DT group-wide goals (that DT meets EBITDA), 5% DTTS goals, and 5% individual or team goals. To achieve an employee's full salary, it was thus necessary to hit goals in each area. This was a similar model to the call centres, although with a smaller proportion of individual or team goals.

Also similar to the call centres, collective agreements built in some protections for this model. Performance measures and individual goals had to be agreed at the local level. A works councillor observed that there was not much objection to the new system, as employees could earn more with variable pay. Individual goals could be changed to team goals, but this had to be decided at the local level. The decision to put in place more individual or team-based goals depended on the structure of jobs: for field technicians, almost all were team goals. Targets were defined at DTTS level and then cascaded down. If a team was consistently not hitting its targets, the reasons for this were investigated, and special circumstances were taken into account when calculating variable pay.

In 2011, a works councillor described how the system had developed. Team goals continued to be the focus of the 5% individual/team performance goals. Technicians usually got 3-5 goals worth 20-40% of the total goal, including, for example, 80-85% of appointments attended on time; generating a certain amount of sales; and % call-backs (typically a goal of 7-8%). Not all teams and employees had the same targets because these depended on the areas. For each target, a range was defined, from 0% to 100% target fulfilment, and the maximum was defined at 150%. Typically, team leaders would get a certain

goal, and then they would try to negotiate with their team how the team as a whole would meet these goals.

As in the call centre area, there was a parity commission with employee and management representatives providing oversight. If employees did not agree with goals, they first would try to negotiate this with the team leader; and if they couldn't resolve things at this level, they would bring this to the commission and explain the reasons why they could not reach the goals. However, this process was very rarely used.

As noted, Deutsche Telekom was the only case study with variable pay for the technician workforce. Both TDC and France Telecom had considered different variable pay models for this group, but had concluded they were too difficult to implement. A manager at TDC observed that it was difficult to identify the appropriate outcomes to measure and compensate:

'we tried to have a kind of results oriented payment we called it; I mean, if you make this result as a team, you can have this. But we didn't really succeed in it... In the technician area. No, it's much... somehow easier in the call centre area, because you have those very easy measurable KPIs. It's much more difficult: how long should it take to install a TV, how long should it take to do this and that, and when you go and correct a fault, you know. So it's been very difficult here.' (Interview, TDC manager)

A manager at France Telecom noted that they had not attempted to introduce variable pay both because of union opposition and because individual forms of pay were seen as at odds with the strong collective professional identity of the technician workforce:

'The unions are very resistant and very opposed to all this [discussions about introducing variable pay], because they fear an opening up of competition between people.... And it is true that in the profession of technicians, in the sociological sense of the term, there is a real community of technicians, this is a real common culture, and the fear of the unions is that they will lose some influence vis-à-vis technicians. And more crucially, it is also harming this profession, in the sense of losing this collective thing. So I am extremely attentive to that which keeps the professional side collective, mutual; and at the same time, we need to get to a point where we can individually encourage those who want to go faster, farther, etc.' (Interview, FT manager)

Another difference between the cases was in the use of GPS monitoring. At BT and FT, GPS information could be used to track individuals. At BT, union representatives had come to accept the use of GPS, which was primarily used to plan efficient routes and work allocation. However, it was still viewed critically, as information had been used for supporting disciplinary cases against individuals, though only on few occasions.

At TDC, GPS monitoring of technicians had been in place since 2007. Initially, it was used to track individuals in their cars; however, the technicians experienced this as a form of direct control over their work. The union succeeded in negotiating an agreement that management could gather GPS data and use it to analyze patterns and improve overall efficiency, but would not be able to track or discipline individuals. Deutsche Telekom also introduced GPS tracking systems in 2007, and began to discuss with its works councils the possibility of using this technology to monitor the movements of individual technicians, resulting in a limited pilot project. However, by 2010, DTTS still did not have individual GPS monitoring, which management attributed to union and works council resistance.

Table 4.4 summarises differences in performance management practices across field technicians in the incumbent firms. As described above, major differences concerned the consequences or incentives attached to performance evaluations, as well as monitoring practices – particularly the use of GPS data. TDC and BT both had progressive discipline policies that could lead to dismissal. France Telecom and Deutsche Telekom had in place other systems to motivate technicians. DT relied on variable incentives while FT used performance evaluations that were tied to promotion and pay increases.

Table 4.4 Performance management in field technician workplaces

	Consequences or incentives for performance	Variable pay	GPS monitoring
TDC Field & Operations	Dismissal	No variable pay	Yes, but data can't be used to track individuals
Deutsche Telekom DT Technischer Service	Reduction in variable pay	15% overall: 5% DT performance; 5% subsidiary performance; 5% individual/team performance	No
France Telecom Response Units	Reduced opportunities for promotion or pay increase	No variable pay	Yes
BT Openreach	Dismissal	No variable pay	Yes

Comparison

The above discussion shows that similar incumbent telecommunications firms adopted very different policies in the areas of work organization, training, and performance management. At the beginning of this section, we described two distinct employment ‘models’: a high involvement model and a Taylorized or control model. One question concerns how the different case studies compare to these ideal types. Broadly, we can say that France Telecom’s approach to work redesign and performance management in its technician units most closely approached a high involvement model. This model was adopted in the context of the conflict that occurred over restructuring between 2006 and 2008, and the commitment of management, together with some unions, to develop alternative management approaches that improved employee health and well-being while encouraging performance improvements through investments in employee skill and commitment.

Deutsche Telekom’s call centres had in place a high involvement model before the creation of its DT Kundenservice subsidiary in 2007 (see Doellgast 2012). Management practices at its call centres were coming to resemble those at the other incumbent firms, with increasing specialization, more intensive performance monitoring, and growing use of variable pay. However, works councils used their strong participation rights to place limits on how monitoring information was used and to ensure employee input into the design and evaluation of the variable pay system.

Across the incumbent firms, we find that unions and works councils played an important role in building safeguards for employees into practices in different areas, with a particularly large role in the area of

performance management. Union agreements ensured that variable pay practices, where they were in place, were broadly viewed as fair by employees – in some cases based on oversight by joint parity committees. Again, Deutsche Telekom, which had the most developed variable pay system, also had the most intricate system of employee oversight and negotiated protections.

One conclusion we can draw is that there is no one emergent 'best practice' for work organization and HRM models in these call centre and technician jobs. The models we observed at the incumbent firms were the result of negotiated compromises with employee representatives, or management strategies developed in areas where unions and works councils did not have a clear bargaining role or rights. There is evidence that a more 'high involvement' model associated with mutual gains for employees and employers is possible for highly skilled technician jobs and more transactional call centre jobs. In the organizational settings studied here, this appears to require high labour-management trust and long-term investments in employee skills and commitment.

Conclusions and policy implications

This study has analysed the restructuring strategies adopted by ten incumbent telecommunications firms based in countries with distinctive collective bargaining and labour market institutions. Incumbents continue to represent the largest share of telecommunications employment in most countries – particularly when including externalized employees working for subcontractors and temporary agencies. Findings from these firms thus give a good picture of how employment conditions in the industry are being re-shaped by recent trends in markets, regulation, and ownership. In this section, we summarize our main findings and discuss implications for public policy and management practice.

The research findings demonstrate similarities across the case study firms in a number of areas:

- In all countries, changes in markets and ownership were associated with pressures for reducing costs and responding to differentiated markets, while changing technologies led to shifting skill demands. These trends encouraged restructuring measures at all firms aimed at downsizing employment, concentrating jobs in fewer locations, redeploying employees to areas of growing demand, externalizing jobs, changing employment contracts for certain employee groups, and adopting new models of work organization and performance management.
- All firms have developed strategic responses that involved close cooperation with employee representatives in some areas or during certain time periods. However, there has been increased labour conflict at most of the case studies, typically associated with measures that seek cost savings on pay, terms and conditions of employment, or past redundancy packages.
- Diversification of contracts through two-tier agreements, subsidiary creation or purchase, employee transfer to new companies, and use of subcontracting and temporary agencies has increased inequality in pay and conditions within incumbent firms and between their internal and subcontracted or temporary agency workforce. These trends have been associated with declining job quality for some groups of service employees across incumbents' production chains.
- Employee representatives at most of the case studies have sought to partner with management to design and implement 'high involvement' management practices that invest in employee skills, provide some job and pay security, and focus on developing rather than disciplining employees. However, they have had uneven success in promoting these practices.

While there were broad similarities in pressures to restructure employment, the case study firms also adopted different policies and practices in a number of areas. We can identify 'best practices' from each area of management strategy covered in this study, which produced mutual gains for employers and employees through adjusting workforce skills and improving performance while preserving or enhancing job quality:

- **Downsizing and employment adjustment:** Mutual gains were strongest where downsizing policies involved labour-management cooperation over employment adjustment, investing in employee skills to transfer internally to areas of job growth while offering targeted incentives for voluntary redundancy. Examples of 'best practices' include retraining and redeployment policies at TeliaSonera and BT. In some cases, decisions on redundancy policies were made with little or superficial

consultation and investments in training or redundancy plans were reduced significantly in the context of strong economic performance. These strategies often resulted in a high degree of labour conflict, with associated costs to employers and the workforce.

- **Diversifying employment contracts:** Mutual gains were strongest where strategies to diversify contracts did not result in substantial reduction in pay and employment conditions for existing employees, and where inequality between pay and conditions for similar employee groups was either kept at a minimum or reduced over time. TeliaSonera and A1 had the lowest levels of inequality of the case studies, both within the incumbents and across their subcontractors. Telecom Italia and France Telecom harmonized collective agreements across subsidiaries and business units over time, reducing inequality between internal groups of employees. Policies to negotiate concessions, introduce lower-tier collective agreements, or outsource to firms with lower pay structures provided labour cost savings but generated often unexpected costs through administrative complexity, labour conflict, increased turnover, and uneven service quality.
- **Work organization and human resource management:** Mutual gains were strongest where employers adopted high involvement models of work organization and human resource management that invested in employee skills, placed limits on monitoring, focused on developing rather than disciplining employees, and involved some degree of employee control over work pace and content. We found evidence of 'best practices' in different areas across the case studies. France Telecom was investing in multi-skilled teams in technician workplaces; while Deutsche Telekom had negotiated creative agreements on performance management in call centres that preserved employee discretion. These practices can benefit employers by enhancing workforce acceptance of and cooperation with controversial practices like variable pay, as well as by reducing employee turnover and enhancing service quality.

A final question concerns what factors encouraged incumbent firms to adopt best practices that resulted in strong mutual gains, when they were faced with similar pressures from increasingly competitive markets. Findings suggest that ownership and finance patterns, collective bargaining structures and rights, and employment protections played an important role in shaping strategies and outcomes:

- Changing patterns of **ownership and finance** influenced the objectives associated with restructuring strategies pursued by incumbent firms. At all case study firms, privatization and increased pursuit of 'shareholder value' encouraged a shift from a longer-term to a shorter-term orientation in investment and management decisions. Where ownership and finance was most internationalized, where debt-to-equity ratios were highest, and where national governments did not retain ownership stakes, we broadly observed the greatest pressure on management to engage in more radical restructuring associated with diversification of contracts and a focus on reducing labour costs.
- **Collective bargaining structures** influenced differences in pay and conditions between telecommunications firms, across their subsidiaries, and between in-house and subcontracted or temporary agency employees. Countries with more encompassing agreements – which established similar pay structures for all or a majority of employees in similar jobs – experienced the least disruption in pay and conditions from restructuring measures, as well as the lowest resulting inequality between similar groups of employees.

- **Participation rights** held by employee representatives influenced their willingness and ability to partner with management over both restructuring strategies and work organization and HRM practices that produced mutual gains for employers and employees. Where employees enjoyed strong, legally protected participation or co-determination rights and where they had the ability to effectively use these rights, we observed the most innovative and cooperative approaches to managing employment adjustment, reorganizing work and skills, and implementing new performance management models.
- **Employment protections** through national laws, special employment rights held by civil servants, or collective agreements constrained the options available to employers in downsizing employment and designing performance management practices. Stronger protections gave employers additional incentives to partner with unions over voluntary redundancy policies. Transfer of undertakings rules in the European countries helped to preserve pay and conditions for transferred employees in the short-term. Where it was more difficult to dismiss employees on performance grounds, employers had additional incentives to implement practices that incentivized performance through skill development and professionalism.

The above factors did not fully determine the restructuring strategies of firms. Employers and employee representatives enjoy some degree of strategic choice in the goals that they pursue and the ways in which they engage with one another over these goals. This list is also not exhaustive. Government policies in a range of areas can provide incentives for cooperative approaches to restructuring – for example, support for reduced hours arrangements or subsidies for employee training and redeployment. However, we can conclude that national- and company-level differences in collective bargaining and labour market institutions were a central explanation for observed variation in management strategies in a number of areas. Institutions supporting employee voice in management decision-making helped to encourage alternative, partnership-based approaches to restructuring in the case studies examined here. Findings from this study suggest more broadly that ‘high road’ practices that preserve or enhance job quality are possible in settings in which employers are under strong pressure to reduce costs. These practices rely on longer-term investments in employee skill and commitment, and can complement efforts to improve productivity and service quality in increasingly competitive service markets.

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