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Employment Observatory
RESEARCH Network

The job creation potential of the service sector in Europe

Final report 2000

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Executive summary

Conclusions and policy recommendations

Dominique Anxo and Donald Storrie ⁽¹⁾

Objective and structure of the report

Exploiting the opportunities for job creation in the service sector appears as a major issue in the European economic and employment strategy. In the 2000 Employment Guidelines, the European Commission stressed the need to develop a policy framework in order to fully exploit the employment potential of the service sector. Focus is placed on identifying and removing those obstacles that continue to hamper the growth of enterprises and the creation of more and better jobs. The guidelines also emphasise the importance of exploiting the employment potential of the social economy and information society.

The main objective of this research project is to understand the theoretical basis of the dynamic of employment growth in services. Apart from the abovementioned policy perspective, it is clear from the long-term trends in employment structure that net job creation in advanced economies occurs almost exclusively in the service sector. A further motive for this study is the observed slow pace of total recent employment growth in the EU compared to the robust employment growth in the United States. Even though both the EU and United States have experienced significant growth in service producing jobs during this time, the share of service employment in the EU still lags behind that of the United States. Another concern is the growth potential of an economy that increasingly relies upon services.

The following report is structured around three main themes. Part One, ‘The job creation potential of the service sector: General considerations’, addresses some empirical, theoretical

⁽¹⁾ The executive summary is based on the various contributions. We thank all the authors for constructive comments.

and gender issues. Part Two, 'The industry and service nexus: Concepts and empirical evidence', focuses on the interaction between manufacturing industry and producer services in the dynamics of job creation. Finally, Part Three, 'New perspectives of the service economy', reflects upon the impact of the new information and communication technology for our conception of services and the potential for job creation resulting from advances of this technology. Furthermore, the job creation potential of services is examined in the light of the possible switch from product markets to utility markets and innovative possibilities in managing specific income risks related to modern services.

The executive summary follows the overall structure of the report.

Main findings

The job creation potential of the service sector: General considerations

In Chapter 1, 'Service employment, productivity and growth', D. Storrie, introduces the empirical rationale of the report. Discussion on the potential of job creation in the service sector in the EU often focuses on the higher growth of the aggregate employment rate and the larger size of the service sector in the United States. However, while one can also observe a higher growth of the United States' service employment rate, exactly half of the widening of the aggregate EU-US employment rate gap since the mid 1980s is due to a more rapid fall in European agricultural and industrial employment. Thus, in relative terms, the most striking difference in the change of employment structure in the United States and the EU during this period, has been the continuation of the long-term decline in agriculture in the EU, and particularly in the less developed EU economies.

Thus, compared with the United States, the poor EU employment record is across all three major economic sectors. Indeed, it is important to note that relatively speaking, European services have performed well. This is not to say that the basic premise of this report, that there is a potential for job creation in the service sector, is incorrect. Job creation will almost certainly continue to be largely in services. However, comparisons with other sectors of the economy, and in particular some consideration of the European experience of the simultaneous decline in industry and agriculture with an increase in services, should focus analysis and policy on the process of structural change.

While one should always be wary of predicting future developments by a simple extrapolation of current trends, many factors suggest that employment in agriculture (and to a lesser extent industry) will continue to decline and that it will tend to be re-allocated in the service sector. In the more developed nations the shedding of labour out of agriculture and industry to services is a very long-term trend and there is little reason to suppose that it will be reversed. In the less developed States (in both Europe and elsewhere), the long-term trend has been somewhat different in that the largest employment sector has shifted directly from agriculture to services without an intervening period of industrial dominance. There are reasons to suppose that shedding of agricultural labour from the less developed Member States will



accelerate in the future. The key issue here is, of course, the development of the common agricultural policy. Despite acute political difficulties, the pressure for reform, that is, a lowering of protection, and thus employment, is intense.

There has been a continuous process of EU catch-up to United States levels of service employment share. While the catch-up has generally been faster in the less developed Member States, it is still these economies that account for most of the EU's service share gap with the United States. This further underlines the relevance of viewing the potential for service job creation in Europe in terms of structural shifts from, primarily, agriculture to services.

Producer services are the source of the largest aggregate EU gap to the United States, particularly in the less developed Member States. This sector includes many of the jobs that are typically associated with the rise of new technology and work organisation. While, in this respect, the EU deficit in this sector may be viewed with concern, it is noteworthy that the EU catch-up with the United States in producer services is proceeding at a faster pace than in all service subsectors (both in terms of employment share and rate).

The second largest gap is to be found in personal services. This can mainly be ascribed to the larger hotel and restaurant sector in the United States. While the gap is present in every Member State except Spain, the gap is considerably smaller in the less developed Member States, that is, the opposite of the European distribution in producer services. A smaller gap, but with the same European distribution, is found in trade and retail. The European gap in these sectors should not be viewed with the same degree of concern as for producer services, as one would be less likely to find the type of productivity enhancing spillovers to other sectors that could be expected in many producer services.

In the largest service sector, social services, the EU average is at the same level as the United States figure. However, there is a great variation within the EU, particularly in health and social services. While job quality in this sector is rather heterogeneous, the European shortfall in health and education may be viewed as problematic, given that growth theory suggests that these sectors may be very conducive to economic growth, particularly among less developed economies.

The chapter proceeds with an introduction to an issue taken up in several of the following chapters, namely that of productivity in the services. The major, and somewhat worrying point made here is that the difficulties in obtaining empirical measurements of service productivity are very serious indeed. On the other hand, the possibility that service productivity has been seriously underestimated may serve to cast doubt upon the gloomy predictions of the Baumol model presented in Chapter 2. The possibility that service productivity is higher than has been reported, especially in the light of the new information and communication technology, is also pursued in both chapters of Part 3.

In Chapter 2, L. Tronti, R. Sestini and A. Toma, 'Unbalanced growth and employment in services', present the most common theoretical model used to analyse the long-term development of the service sector, namely, Baumol's model of 'unbalanced growth'. The key

assumption of the model is that the economy can be divided into two sectors: the progressive sector with high productivity growth and a non-progressive sector with lower productivity growth. Parts of the service sector are assumed to be in the non-progressive sector.

By successively relaxing the productivity and other assumptions of the model, the authors explore some theoretical and policy consequences. The first important result is that service employment growth should not in itself be an appropriate policy objective unless such growth takes place in industries that contribute, directly or indirectly, to aggregate productivity growth. Another implication of the Baumol model is that a major way to escape the ‘Baumol trap’, or at least to soften its constraints, could be provided by new technologies and organisation improvements that transfer technical progress into previously non-progressive service industries. These changes can expand the boundaries of the progressive sector and thus delay the asymptotic stagnation of aggregate productivity, even though this may leave the trade-off between productivity and employment growth unchanged.

Relaxing the Baumol assumption of a closed economy, the authors note that the exposure of international trade may spur productivity growth in the industries concerned and, second, that sheltered services may profoundly affect the performance of exposed industries if they provide them with domestically produced inputs. For this reason, a policy aiming at favouring international competition in the services and increasing domestic competition in the service industries whose output is complementary to exposed industries, should be promoted. Finally, the choice of favouring employment growth in the services by differentiating wages along with productivity growth may prove unsuccessful in terms of welfare, as it may accelerate productivity asymptotic stagnation even in the presence of some positive effects on aggregate output growth. Furthermore, in a context of unbalanced productivity growth, the possible benefits of wage differentiation are, according to the authors, only of a short-term nature.

As roughly 80 % of all female employment in the European Union is to be found in the service sector, it is obvious that any analysis of the service sector must focus on its gender dimension. In Chapter 3, ‘Service employment: A gender perspective’, D. Anxo and C. Fagan show that the increased feminisation of the labour force during the last decades has been closely associated with the development of the welfare state in general and the growth of services in particular. Despite the significant reduction of the gender employment gap, there are still large differences in the patterns of female integration in Europe. However, national differences in women’s employment rates cannot simply be ascribed to country variation in the magnitude of the service sector, and the diversity in employment structure appears not to be a good predictor of female integration in the labour market. On the other hand, the authors show that the nature of the welfare regime influences women’s employment prospects directly in the sense that a relatively large welfare state regime increases the demand for female labour and that countries with a relatively low employment rate tend to have relatively underdeveloped social welfare services and/or a low share of private service work.

The segregated division of labour within the household around the traditional ‘male breadwinner’ model of men as wage earners and women as homemakers is being replaced by specialisation and segregation within the labour market. Gender segregation in employment



remains persistently high despite the feminisation of employment. Women are over-represented in services connected with providing physical and emotional care and personal services. As the prevailing situation in most advanced economies is characterised by a high level of gender segregation and as one cannot expect this to change in the short run, then further reduction of the gender employment gap will be essentially related to the growth of female-dominated sectors. Future employment growth is predicted to be concentrated in service activities and many of these jobs will be connected with welfare services as well as personal and household related services. How this expansion in welfare services will be funded, and whether it will be organised through direct public sector provision or through combinations of public, private and voluntary sector partnership remains unclear. If the outcome is a reduction in public service provision driven by public expenditure constraints to meet the convergence criteria of monetary union, one cannot exclude that women will be affected not only through a potential deterioration in both quantity and quality of public sector employment, but also because if the public provision of child care and elderly care is cut back, this will constrain their labour supply.

It has been argued that one benefit of a policy aiming at favouring an expansion of household related market services may be to promote equal opportunities by allowing women to reduce their domestic workload by purchasing market substitutes thereby enabling them to compete with men on more equal terms in the labour market. Another related benefit is that the female employment rate could be expected to rise, as a large proportion of the workforce in these household related market services is likely to be women. However, the quality of the jobs that emerge will also have an impact on the situation of women in the labour market. If the jobs are low paid or precarious, this will contribute to the developing polarisation between highly qualified, well-paid women and those who are less qualified. Even if the expansion of market provision of household related services is organised around better quality jobs, the authors argue that it will do little to challenge the existing division of household labour between women and men, given the slow adaptation of men to involvement in domestic work. To promote equal opportunities, other complementary policies are needed alongside subsidised household related services, targeted at increasing men's involvement in domestic labour.

In Chapter 4, 'Labour costs, social habits and employment regimes', F. Benhamou and B. Gazier focus on the importance of employment regimes in explaining the employment gap in retail between France and the United States and the divergent patterns of employment adjustment in the French and British cultural sector. The most common and recurrent explanation for the higher US intensity of personal services is related to the greater dispersion of the wage structure. The authors contrast this common view with the role of social and cultural habits. After reviewing both explanations, the authors show that neither are fully convincing. For example, the labour cost argument fails to explain why a persisting cost-lowering policy in France did not bring any employment growth in the sector. On the other hand the 'societal habits' perspective cannot take into account the rapid employment response of the retail sector to wage subsidies to promote part-time employment. By introducing the concept of employment regimes, the competition structure and employment patterns of the retail sector, combined with the incidence of public employment policies, are shown to be useful elements in understanding the divergent experiences of the two countries.

The growth of cultural employment in France and the United Kingdom is also a good illustration of the importance of the institutional framework for explaining national divergences in the form of employment growth in service activities. During the last decade, employment growth in the British and French cultural sectors has been impressive. However, while employment increased at a similar rate, two different models of labour market adjustment were adopted. In the United Kingdom, there was a strong growth of self-employment, while in France employment growth took the form of a significant increase in intermittent employment. These divergent responses appear to be shaped by the specific national feature of labour market regulation and welfare state regimes. In the United Kingdom, the general legal and institutional environment, and in particular, the Enterprise Allowance Scheme, introduced in 1983, boosted self-employment; while in France, the specific unemployment benefit system for the performing arts and the film industry favoured the development of precarious work. According to the authors, one cannot conclude in favour of one model or the other in terms of labour market performance. However, the French model is probably threatened by the high cost of its unemployment system, while, in the United Kingdom, deregulation brings about risks borne exclusively by the self-employed.

The industry and service nexus: Concepts and empirical evidence

The second part of the report, 'The industry and service nexus: Concepts and Empirical Evidence', focuses on both the determinants of employment growth in services, in particular in business services, and on the interaction of service sector and the rest of the economy, in particular with manufacturing. The empirical basis of the first two chapters relies on regional data to analyse the manufacturing/service nexus.

The chapter of R. Eberts and G. Erickcek, 'The nature and determinants of service sector growth in the United States', addresses the following basic issues: the determinants of service sector employment, the relationship between services and manufacturing, the wage structure of service jobs, and the potential for the service sector to stimulate overall employment growth. The main focus of the analysis is on business services in the United States, as they have achieved remarkable employment growth during the past several decades. Business services are also considered because they are closely related to the restructuring in the manufacturing sector and provide intermediate inputs to manufacturers. Consequently, factors contributing to this tremendous employment gain include the outsourcing of non-core activities. Not only are United States manufacturers losing jobs in many service related occupations to the service sector, but also the business and professional sectors are gaining from manufacturers in several production-related occupations. These findings suggest that temporary and lease employment agencies are increasingly being called upon to meet the needs of manufacturers. Still, while evidence indicates that structural change in manufacturing is a contributing factor to the growth in service employment, its impact is small, relative to the growth in the demand for services by other services.

The lack of productivity growth in services accounts for a significant portion of the gap in employment growth between services and manufacturing. In fact, since growth in service output and manufacturing output are roughly the same, the difference in employment growth



between the two sectors is almost entirely due to the difference in productivity growth. This raises the issue of the ability of services to support innovative activities that are needed to sustain future productivity growth. It may be the case that while service sector productivity lags behind manufacturing productivity, innovations in manufacturing are increasingly dependent upon service activities, such as engineering and research and development. When these functions were performed internally by firms, the lag in productivity went unnoticed. However, as these services are outsourced and sold in the market, the tendency to measure productivity gains in these sectors, however crude and inaccurate, has raised concerns about lagging service sector productivity growth. However, researchers have suggested that service sector productivity should be measured by how effective the services are in increasing the productivity of those activities that use these services as inputs. This approach relates closely to the standards typically used when these services are provided internally.

Although the lack of productivity growth is a contributing factor to the employment growth in services, wages and wage growth in services are becoming more comparable to those in manufacturing. Less-educated workers still find better paying jobs in manufacturing. However, on average, service workers can expect the same wage growth over their work life as manufacturing workers.

Observing variations in service and manufacturing employment across metropolitan areas offers some insights into the factors that contribute to their growth. The United States' experience testifies that service employment is more volatile than manufacturing employment and remains concentrated in large metropolitan areas. Furthermore, the regional analysis suggests that employment in the services expands in regions that have a large and dynamic manufacturing base, low manufacturing wage rates and a relatively highly educated labour force.

Finally, the service sector is becoming an increasingly important component of the economic base of many regions in the United States. Moreover, their research shows that manufacturing and service activities are complementary. Services are no longer limited to a 'non-base' function that simply recirculates revenues brought into the region through the sale of manufacturing goods. The regional export of services, such as health, financial and professional services, can have an impact on the region's economic base, similar to that of filling a new order in manufacturing. Hence, regional economic development efforts may become more robust by creating a healthy economic environment for both its manufacturing and service sectors.

The contribution of D. Dathe and G. Schmid, 'The determinants of business and personal services, evidence from the German regions', identifies the factors explaining the contrasting employment growth in personal and producer services in Germany and, like the previous chapter, explores the relationship between employment in the manufacturing and the service sector by using regional data.

As far as business services are concerned, the empirical analysis supports the concept of the interactive nature of the knowledge-intensive sector within business services and knowledge-

intensive manufacturing industries. Whereas the overall nexus between industries and services declines, this nexus is the crucial determinant for a positive and sustainable employment growth. In line with the results of the previous chapter, the manufacturing industry remains crucial, but industrial products are increasingly more service intensive. A corollary feature is the strong correlation between the skill level of the regional labour force and regional employment growth, especially related to expert-oriented services and business services.

Regarding the regional dimension, that is, the spatial distribution of activities, the authors found that high skill, expert-oriented services and knowledge-intensive industries are still concentrated in metropolitan areas. Low skill services have a stronger propensity to locate either in the centre of agglomerated areas or at the rural periphery. On the other hand, large-scale internal labour markets in manufacturing, located so far mostly in metropolitan areas, are transformed into network labour markets. The employment complementarity between knowledge-intensive services and industries spills over into other domains. Increasing demand in service-intensive manufacturing goods leads to a parallel development of employment in industries and services; this creates higher income and thereby higher demand for personal services thus creating a virtuous circle. Interactive services may also reverse the conventional product cycle: originally intermediate services turn out to become (exportable) service goods such as software packages, management and expert systems. Exporting services still require personal interaction, that is, personal presence on the (foreign) markets, thereby requiring language and communication capabilities. The culture of mobility is vital for competitive advantages in high skill services. This is a further explanation for the strong correlation between skill level and expert-oriented services.

D. Dathe and G. Schmid also argue that one of the most important determinants of successful adjustment to globalisation are information and communication networks. They are the crucial levers to enhance productivity in business services and knowledge-intensive industries with likely spillover to personal services. The reason is that information networks increase their efficiency with rising numbers of participants, probably exponentially. The existence and public support of such networks explains regional differences. Overall, the results justify the extension of the ‘industrial district’ to the ‘service industry district’ hypothesis.

As far as personal services are concerned, D. Dathe and G. Schmid confirm the result found previously in Chapter 3, Part 1, namely, that the service society provides a path for women into the system of gainful labour market work. This changes the form in which the female labour potential is organised but hardly the content. Thus, regions with high shares of personal or social services have a higher female labour force participation and vice versa. They also find that demand for personal services rises with qualifications, especially with the skill level of women. Thus, we find higher service employment rates in regions with high skill levels, a pattern that correlates with agglomeration since the skill and income level in these regions is higher than in rural areas.

Previous empirical evidence suggests that manufacturers are outsourcing more and more of their ‘non-core’ functions. At the micro level the theoretical basis of the analysis of whether a



firm performs the service in-house or purchases it on the market is to be found in the theories concerning the boundaries and structure of the firm. The principle focus has been on transaction costs, economies of scale and scope and general problems of coordination in situations of uncertainty. The purpose of the chapter by B. Gazier and N. Thevenot, 'Analysing business services employment — some theoretical and methodological remarks', is to explore some dimensions and determinants of the growth of business services. The authors begin by analysing business services from a purely managerial point of view, using the service profit chain approach. They stress, in particular, the importance of trust and loyalty for business services, where the creation of long-term relationships between the employees and the customers is mirrored by a correspondingly long-term relationship between the employees and the employer. In order to secure an efficient service relation, the firm must provide a degree of work autonomy to secure and motivate employees. The employee's loyalty reinforces the client's trust and loyalty, and thus promotes profitability. However, it is shown that such a virtuous circle depends on a precise assignment of suitable employees to particular clients and the degree of service and or product differentiation.

Business services and outsourcing are further analysed within the transaction cost/risk management framework. At a theoretical level, the authors show that externalisation of business service activities is intimately related to the level of transaction costs and in particular the degree of risk related to the activities. The authors propose a classification of business service externalisation according to two criteria: the possible participation of the user firm during the conception process and the possible involvement of the user firm during the production process. These levels of participation depend on the features of services: the tangibility level of the service support, and the specificity level of the needs of the user firm. Finally, some hypotheses are developed for the job creation potential of business service externalisation. First, the job creation potential depends on the potential of obtaining productivity gains by externalisation. Second, the job creation potential depends on the way services are conceived and produced. The potential can be assumed higher in the business services corresponding to high quality jobs for at least two reasons. First, for these services, the externalisation process does not correspond to a simple transfer with a substitution of internal and external solutions. Because these business services are co-conceived or co-produced, the growth of the service sector goes with the growth of employment in the user sectors. Moreover, the relational dimension of these services implies little economies of scale potentialities. Second, there is a growth of the needs for these services, which influence the competitive advantage of the firms in a 'service economy' (2). Therefore, the job creation potential would stem as much from externalisation as from the growth of the needs.

New perspectives of the service economy

The final part of this report, 'New perspectives of the service economy', takes up some innovative perspectives of the service economy. As indicated in the 2000 Employment Guidelines, information technology plays a vital role in the growth of service employment.

(2) See also Philpott in this volume with the 'weightless economy'.

The new information and communication technology has already had dramatic effects on various service sectors. This technology could be seen as being the first major technological innovation that has directly addressed parts of the service sector, as many services often entail the processing of information. The last two chapters of the report explore the implications of the new 'informational paradigm' and the emergence of 'utility markets and service product chains' on consumer behaviour, work organisation, skill requirement, job creation potential and productivity growth.

In his chapter, 'Weightlessness and the political economy of services sector job creation', J. Philpott examines both the general conditions for job creation in the new economy and the criteria by which to judge the relative merits of job creation in the private, public and social economy sectors. The weightless economy is defined as an economy in which fewer workers are engaged in the production of tangible goods; those that remain are increasingly knowledge workers, needed to improve the intangible qualities of products rather than to do unskilled muscle work or routine skilled or unskilled manual operations. This leaves the service sector, which produces intangibles, as the major source of net employment growth. In contrast to the pessimistic accounts of deindustrialisation, predictions of the 'end of work' and the extreme cost disease model, Philpott offers a more optimistic scenario. Human creativity and skill is presented as being vital to making the most of knowledge-based technology, while the 'human touch' is essential for the provision of a wide variety of personalised services, both high-tech and low-tech.

J. Philpott ascribes much importance to new technology, and in particular information and communications, which includes the Internet and media technology. A key characteristic of the knowledge economy is that the marginal cost of production falls towards zero. As competition tends to press prices towards marginal costs, this implies that the securing of intellectual property rights is of utmost importance for the firm's decision to invest. It also leads to an increasing importance of advertising and the creation of brand names.

As regards the low reported level of productivity, the author notes both the measurement problems mentioned above, but appears to ascribe more importance to the slow diffusion of productivity enhancement due to cultural lags in both producer and consumer behaviour. Indeed much emphasis is placed on problems related to the diffusion of knowledge. While so far the high technology, new producer services have largely been outsourced, or rather have been incorporated into strategic and creative networks, J. Philpott questions whether this will emerge to be the dominant corporate form. The reason for this is that investors may come to place even greater weight on the value of companies' human capital and knowledge talent, and thus encourage firms to protect knowledge assets by developing them in-house. Likewise, companies will seek to secure a comparative advantage in product markets by developing tacit knowledge within corporate boundaries rather than networking on the basis of transfer of codified knowledge.

The negative side of the knowledge-based economy is not only limited to the job loss in manual work in manufacturing. The new technology has promoted the introduction of a new organisation of work with flatter organisational structures and job loss in middle management.



J. Philpott also suggests that a possible answer to the puzzle of greater self-reported concerns of increased job insecurity in the 1990s, despite lower unemployment levels, may be related to the ongoing process of structural and occupational change. There are also signs that trends towards greater wage inequality are, at least in part, driven by new technology premiums.

The main lesson from G. Schmid's chapter, 'Beyond conventional service economies — utility services, service product chain and job services', emanates from the decisive difference between manufacturing and services. Whereas services provide immediate utilities to known clients, manufactured products provide potential and standardised utilities sold on an anonymous market. If service utilities are standardised and quickly consumed like fast food, window cleaning or transporting beer, the valuing of these utilities can be also standardised and is most efficiently organised by the market. The majority of services, however, are utilities which are hard to measure. Their real value is uncertain, especially if they contain investment elements like health, childcare, education, information and research services. The utilities of such services often accumulate in the future, or they are realised only after some years or, in the worst case, never. Most importantly, many service utilities are often realised only if they are combined with other services or with non-monetary inputs from the consumer or client. So, the problem of these kinds of services is how to organise a proper valuing system which takes into account the value of the real outcome or performance which contains high risks and uncertainty, and which also takes into account the often required non-monetary work to tap the potential utility of high quality services. Risk management and risk sharing is the real economic problem of the new service economy. The main thesis of G. Schmid's essay, therefore, is that those societies that display successful employment performance are those which have established effective and efficient risk management systems.

Policy recommendations

The point of departure for policy recommendations is that this research confirms that job creation in Europe will indeed be in the service sector. Our policy recommendations will be made with reference to existing EU employment policy, and to the Employment Guidelines and Structural Funds in particular.

The realisation that the increase of service employment in the EU is still accompanied by a corresponding decline in agricultural and industrial employment, leads one to suggest policy for job creation in the service sector in the broad context of structural change. The ongoing shifts in employment structure, out of agriculture and manufacturing and into services, have been accompanied by far ranging changes in the service sector. The new information and communication technology could be seen as being the first major technological innovation that has directly addressed large parts of the service sector. This has radically altered the skill requirements of the labour force and has been a driving force behind the new organisation of work. It has also increased the possibility to separate the production and consumption of services, both as regards timing and geographical location.

In general terms, policy should serve to assist this ongoing transformation. Labour shed in one sector or region of the economy is not automatically absorbed in expanding sectors or regions. A logical policy prescription to facilitate labour market adjustment, is the promotion of labour mobility, both occupational and geographical. Education and training policy has always been used as a means of adapting labour to structural changes. This policy perspective is even more relevant when one places the creation of jobs in the service sector with the rise of knowledge-intensive work. Hence, one of the most basic requirements for job creation in the new economy is an increase in the supply of knowledge workers and flexible internal workplace structures that can make the best use of knowledge workers. In the new economy, workers benefit most from transferable skills that offer access to work, the ability to benefit from lifelong and work-based learning, and to switch between a range of work functions and careers. To achieve this, education and lifelong learning policies need to instil the ability to use and impart knowledge. This implies the teaching of information management, personal networking skills and problem-solving skills. In other words, education and initial training should focus primarily on the provision of generic skills rather than narrow specific academic or vocational qualifications. Several of the employment guidelines contained within the improving employability pillar are consistent with this requirement.

The guidelines do not, however, explicitly set labour market policy as part of a model of structural change. As agricultural (and some older traditional industrial) activities are intrinsically regionally concentrated, geographical mobility should be a particularly important priority. Legislation on freedom of movement has a long history and is a policy area that, for good reasons, the European Union has a strong mandate. The Treaty of Rome dealt with the right to mobility, the single market programme made some progress in enabling mobility (qualifications and social security) and recent initiatives have attempted to deal with information problems. Perhaps it is time to go a stage further with measures to actively promote labour mobility. Some Member States currently provide both cash mobility grants and moving cost assistance within their national borders.

The regional studies in Part Two, and in particular the United States experiences, underline the importance of the regional and industrial aspects of structural policy. The research showed that services cannot only generate net income and employment in their own region, through trade, but also generate jobs in other sectors in the region. Moreover, the German experience shows that, it is by no means exclusively business services that can play such a role. Social and communal services (for example, education, health and cultural events) and distributive services (Internet retail) can generate income from outside the region. The research also showed that the growth in service employment is sensitive to some of the same location factors as manufacturing and emphasises that service firms can choose their location. The Structural Funds have practically no stipulations that the funds should award higher priority to traditional industrial activities. Policy implementers at the local level often stress instead the importance of attracting businesses that have a market even outside the region. Given that services can increasingly constitute the economic base of the regional economy, this should serve to remove any remaining regional policy bias against service as opposed to industrial jobs.



There is thus a case for industrial and regional policy to play a key role in the creation of jobs in the service sector in Europe. Here it is important to underline the geographic, demographic and structural diversity of the Member States. The major part of the EU shortfall of service jobs is to be found in the southern, more agricultural countries, and should be a major focus for policy. Moreover, the previously mentioned policy prescription of labour mobility can hardly be a feasible, or indeed a desirable, means of fully shifting the geographical and structural distribution of jobs and workers in Europe. At least part of the required regional shifts will have to be made in the allocation of jobs and not workers. An important part of European regional policy, directed to the relatively underdeveloped parts of Europe, has been the financing of mainly transport infrastructure. As modern information and communication technology permits a widening of the geographical distance between production and consumption of services, there is a very strong argument for infrastructural investment in modern communication and information networks in the more peripheral (and low service intensive) regions. This would, of course, also require a complimentary investment in the regional human capital.

It is also important not to underestimate the potential of creating service jobs that exploit the comparative advantages of these regions — recreation, tourism, agri-environmental retail etc. The major shortfall of service jobs in these regions is, however, in social and communal services, and in health and education in particular. As the budget constraints that accompanied EMU may limit the public financing of these services, there is reason to suppose that the potential for service jobs organised around the social economy may be particularly appropriate in such regions.

The realisation that services are more intrinsically tradable than previously thought, partly as a result of the new technologies, should lead to renewed policy initiatives to further promote their tradability within the Union. Economies of scale and the division of labour are a prime motor for economic growth. To the extent that these jobs are driven by economies of scale, the lack of a fully developed single market for services is an obvious candidate for explaining the European shortfall in services. The policy prescriptions are largely along the lines of the 1985 White Paper on completing the internal market, namely, those concerning public procurement, the right of establishment and other matters of company law and occupational qualifications. Particular emphasis should be placed on facilitating marketing and internationalisation for small and medium-sized businesses. Moreover, the creation of a large internal market for services provides the basis for successful European services in the world market. It is only through a large single market that competitive pressure and technical optimal scale may develop and thus facilitate a globally competitive European service sector.

Improving the competitiveness of high quality and expert-oriented business services, and relieving the cost burden for personal or labour intensive services are two recurrent policy proposals for increasing employment in services. Whereas competitiveness of business services can be increased through innovations in information and communication technologies (innovative milieus or networks), it has been suggested that low skill personal services be stimulated by widening the wage spread combined with various types of wage subsidies or income policy.

Employment in business services can, as mentioned previously, be promoted through education and training. However, this is not sufficient to raise productivity, growth and employment without the adoption of flexible working arrangements and greater product and capital market flexibility, which is why the guidelines on developing entrepreneurship and encouraging adaptability are equally as important. At present entrepreneurs in the United States find it easier to obtain venture capital than their EU counterparts and face a regulatory environment which makes it relatively easy to set-up, and operate. It is thus appropriate that the developing entrepreneurship guidelines encourage Member States to improve the availability of venture capital, to reduce overhead costs and administrative burdens on business, and to reduce tax obstacles to small business formation.

One other promising policy orientation is the promotion of innovative milieus or networks at the regional level. However, as put forward by various authors of this report, the effective governance of networks is still not well understood. They stress the following points; Firstly, most effective regional networks are voluntary private enterprise networks in which policy-makers have a very limited role to play. The most important support of these networks is indirect through provision of 'hardware' infrastructure, such as excellent transport and communication networks and 'software' infrastructure such as skilled and competent labour force and information clearing. Secondly, some effective regional networks are public-private partnerships in which regional governments or municipalities enter as co-financiers and, therefore, as important bargaining partners. City contracts, regional pacts or target-specific associations (in which local or regional governments are members) are common elements in successful public-private partnerships. Thirdly, policy-makers can play an important role as 'gatekeepers' or moderators in the formation of regional networks. In playing the role of 'moderators', local or regional governments might take over an entrepreneurial role which may indirectly lead to new jobs in new service markets. Fourthly, networks are no panacea. Conventional strategies of economic policy, namely, setting proper market frameworks and compensating obvious market failures and social policy (setting proper frameworks of social security and equal opportunity policies), are still required.

Social networks play also a crucial role in adjusting to structural changes in the labour market, especially in finding a new job. The policy consequences of this insight have not yet been rigorously addressed. Although generous cash benefits can be regarded as financial precondition to maintain networks (membership in clubs, going to social events with friends etc.), a more proactive orientation towards establishing or supporting existing networks can be taken. Some of this 'experience knowledge', of which the local placement officers are often unaware, can be stimulated by arranging suitable context conditions, which usually involve professional services related to job search. The activating of cash benefits into job (search) services also makes sense from the knowledge that service jobs, especially in the new services related to the information sector, are often ill-defined and changing fast. Thus, the importance of experience knowledge is itself related to the service economy and its development. Concrete policy proposals are the implementation of targeted vouchers or earning credits, intensification of placement services, support of local community networks, buying professional placement, training or rehabilitation services, and the support of new risk



management services related to job creation — for instance business start-ups for the unemployed.

As far as the promotion of labour-intensive personal services is concerned, the general strategy is clear: a reduction of labour costs by means of wage subsidies, income policy or tax differentiation. The extension of basic income support to persons with low earning capacities, the professionalisation of household related services and the alleviating of cost for providing such services are possible routes to stimulate both the demand and the supply of personal services. However, the option to be selected should be left to the European Union's Member States, taking into consideration path dependency and slow learning capacities of institutional routines. Part of this objective is being pursued by the employability guidelines on activation, and by the developing entrepreneurship guidelines relating to the possibility of lower labour taxes for low-wage labour and reductions in VAT on labour-intensive services.

A large part of the discrepancies in employment rate between the EU and the United States can be ascribed to differences in female employment rates. The fact that women's commitment both in terms of employment rate and working time is, on average, higher in the United States, means that the needs of household related services is greater than in European countries where a large part of these activities are still performed within the household. In other words, part of the EU–US employment rate gap can be ascribed to shortage and availability of household related services, which constrain women's labour supply. Hence, a policy aiming at fostering an expansion of household related and social services may have a beneficial effect on female labour supply (both in terms of decision to work and working hours), gender equal opportunities and on female employment opportunities, as this kind of service activity is still predominately performed by women. Part of this objective, that is, an overall reduction of gender employment gap and the promotion of an adequate provision of good quality care for children and dependants, is pursued by the equal opportunity guidelines.

The large variation in the relative size of the public and market services in Europe as well as the large variation in women's employment rates have also several policy implications. First, this diversity means that there are differences in the potential for female employment growth in traditional female employment areas, thereby leaving scope for public intervention. Hence, public policies promoting the development of employment in social services (health, education) and the 'outsourcing' of female domestic tasks into the market (childcare in particular) may accelerate women's labour market integration by transferring some tasks from the domestic sphere to the labour market. This development would have a positive impact on the overall employment rate and reduce the prevailing gap between the European Union and the United States. In particular, the tight public expenditure restrictions of the EMU constrains the scope for countries with underdeveloped welfare systems to 'catch up' with other European countries. Consideration should be given to providing scope for public expenditure expansion for service provision in these countries. More generally, consideration should be given to ways of encouraging the restructuring of existing public expenditure away from transfers to 'breadwinners' to support their 'dependent' spouses and into spending on service provision, to improve the long-term employment and fiscal base.

The second policy implication is that any expansion of services that is heavily dependent on female labour will draw more women into employment but do little to reduce the sex-segregated structure of employment. A two-pronged policy to address segregation is therefore required. Firstly, anti-discrimination and affirmative action measures are required to enable women to move into the better quality areas of male-dominated employment. Secondly, the quality of the jobs which women currently do also needs to be improved. Positive action should therefore not simply involve measures to move women into male-dominated areas, it should also involve a reconsideration of the organisation of the job hierarchy to provide greater recognition of the skills involved in many female-dominated job areas, and to create links from these job areas into mainstream promotion lines.

The third issue is the under-representation of women among the self-employed. The share of women engaged as family workers is declining as their involvement in waged work rises, but there is less evidence of a trend towards equal representation in self-employment. On this basis, action is needed to boost women's involvement in entrepreneurship, particularly in the southern countries where such activities are a major part of economic life. Enabling women to set up businesses may mean that they develop businesses to deliver childcare and other household related services. This may contribute to the expansion of such market services as well as providing women with better opportunities for developing their own autonomous careers.

'In the end, the wealth producing forces of an economy are its immaterial resources — not oil or gas, copper or iron ore, but rather the intellectual and organisational skills that are the very core of the services' (Krommenacker, 1984, p. 9).



Introduction

Dominique Anxo and Donald Storrie

The European Union has established an integrated framework for economic and employment policies designed to improve its capacity to create jobs. Exploiting the opportunities for job creation in the service sector appears as a major issue in the European employment strategy. In the 2000 Employment Guidelines, the European Commission stressed the need to develop a policy framework in order to fully exploit the employment potential of the service sector, in particular by identifying and removing those obstacles which continue to hamper the growth of enterprises and the creation of more and better jobs, and by using the employment potential of the social economy and information society.

The issue of the job creation potential of the service sector in the European Union is empirically illustrated with reference to the lower rate of employment in the service sector in the EU compared with the United States. Despite a long period of increased service employment share relative to the United States, full convergence has yet to be reached and the EU share of total employment in services is still 8 % units lower than in the United States. In 1985, this gap was 12 %. The distribution of employment by economic sector is a fundamental measure of the state of economic development, with development being associated with the transition from the agrarian, to the industrial, to the service economy. Despite clear evidence of European catch-up to United States level of service employment share, the ranking of countries by service share is very much the same today as it was over at least 40 years ago.

Due to the recent higher growth of the aggregate employment rate in the United States compared to the EU, the recent growth of employment rate by economic sector gives a somewhat different impression of the relative growth of services in the EU and the United States. Between 1985 and 1997 the absolute increase in employment rate in services in the

United States was 7.8 %, while in the EU it increased by 4.7 %. However, while the total difference in the employment rates in the United States and the EU was 5.8 %, 1.7 % of this gap was attributable to the agricultural sector, 1.1 % to industry and 3.2 % to services. Thus, the smaller agricultural and industrial sectors accounted for roughly the same gap change as services. Recent EU and United States employment comparisons do not testify to a poor European job creation in services compared to the United States. Poor EU job creation is an across-the-board phenomenon.

However, even if one should temper impressions of poor EU service employment performance implicit in the guidelines to this report, it still must be considered correct that future employment growth in the EU economy will come from service jobs. The more developed Member States have followed the stylised development from an agrarian to an industrial and finally to a service-dominated employment structure. There would appear to be no reason to suppose these countries will not continue to exhibit an expanding service sector. The major part of the EU service employment gap, however, is not to be found in these countries, but rather in the less developed Member States. However, it is highly unlikely that these countries are following their more developed neighbours by first moving to a predominantly industrial employment share. Indeed, the stylised development of first shifting to industrial employment is unique to early western European development, and both the United States and Japan (and other more recently developed economies) shed labour out of agriculture mainly to the service sector. Thus, the basic premise of this report, that there is a large job creation potential in the service sector is almost certainly correct.

The main objective of this research project is to understand the theoretical basis of the dynamic of employment growth in services. The following report is structured around three main themes. Part One, 'The job creation potential of the service sector: General considerations', addresses the main empirical, theoretical, methodological and gender issues. Part Two, 'The industry and service nexus: Concepts and empirical evidence', focuses on the interaction between manufacturing industry and producer services in the dynamics of job creation. Finally, Part Three, 'New perspectives of the service economy', reflects upon the impact of the new information and communication technology for our conception of services and the potential for job creation resulting from advances of this technology. Furthermore, the job creation potential of services is examined in the light of the possible switch from product market to utility markets and innovative possibilities in managing specific income risks related to modern services.

In his contribution, 'Service employment, productivity and growth' (Chapter One, Part One), D. Storrie collects empirical evidence in the United States and EU Member States regarding the dynamic of structural changes and the job creation performance. First, it is necessary to reflect upon the specificity of service activities. Early economists focused on the transient nature of services which in the words of Adam Smith 'perish in the very instant of their performance.' Consequently, some classical economists viewed services as essentially unproductive labour. While this is hardly the modern view, it is just this perishable nature of services that make the measurement of the value of services, and consequently productivity, very difficult indeed. Later classical economists, most notably John Stuart Mill, however,



could make the distinction between material and immaterial ‘perishability.’ He observed that while some personal services, such as education and health, were materially perishable, this did not mean that the consumption of a service lacked lasting utility and indeed could have productivity enhancing effects in the production of goods. Moreover, the fact that services are often materially perishable has the consequence that production and consumption occur simultaneously and in the same geographical location. This chapter also introduces the conceptual difficulties in analysing the output of service activities both as regards their heterogeneity and intangibility. It is shown that these conceptual difficulties have concrete empirical implications and result in very severe measurement problems associated with the measurement of output and thus of productivity growth.

As far as the general conceptual level is concerned, the standard model of economic development identifies two fundamental transitions, namely from agriculture to industry and from industry to services. The terms primary, secondary and tertiary also indicate a chronological progression. A large service sector is thus in some meaning viewed as being a feature of an advanced or developed economy. The recurrent broad explanation of service growth is based on two hypotheses. First, that income elasticity for the demand for services is higher than for goods, i.e. that with increasing income an ever-larger share is devoted to the consumption of services. Second, that there is a higher productivity growth in the production of goods relative to services due to the more limited opportunity of embodying technical progress in the latter. This is the basic assumption of Baumol’s cost disease model.

In Chapter 2 Part One, L. Tronti, R. Sestini and A. Toma, ‘Unbalanced growth and employment in the services’, explore the reasons of employment expansion in the services, stemming from the theoretical framework, represented by the Baumol model of ‘unbalanced growth.’ The Baumol model is particularly interesting for studying the behaviour of employment in the service sector, since service industries are generally characterised by slow productivity growth, while agriculture and manufacturing show sustained long-term productivity increases. The theoretical analysis of the Baumol cost disease mode proceeds by successively relaxing the underlying assumptions of the model to explore the theoretical and policy consequences.

One of the most salient features and persistent trends in advanced economies is the increased feminisation of the labour force and the related shift from the male breadwinner household towards dual earner households. The overall increase of female employment rates over the last decades has been closely associated with the development of the welfare state in general and the growth of services in particular. As roughly 80 % of all female employment in the European Union is to be found in the service sector, it is obvious that any analysis of the service sector must focus on the gender dimension. Despite the significant reduction of the gender employment gap, there are still large differences in the patterns of female integration in Europe. It is highly likely that the further integration of women in the labour market will occur in the service sector. The focus of the contribution of D. Anxo and C. Fagan, ‘Service employment: A gender perspective’ (Chapter 3, Part One) is threefold. Firstly, to analyse the macro level relationship between the organisation of the welfare state, the employment structure and the position of men and women in the labour market. Secondly, to explore the

implication of sex-segregated employment and service sector restructuring for women's labour market integration. Finally, to discuss the theoretical implication of policy designed to shift or 'outsource' tasks which are largely carried out by domestic work and self-provisioning, mostly by women's labour, in the service sector of the economy. Such a development could be expected to have implications for the gender division of labour and female career opportunities, and for the level of employment growth and overall efficiency of the economy.

While mainstream economists have focused their analysis on labour market rigidities (wage rigidities and differentials) in explaining the employment deficit in the service sector between the EU and the United States, the explanation of the employment gap may also be ascribed to different social habits or norms and possibly reinforced by institutions and regulations. For instance, institutional restrictions on the start up companies, capital market imperfections, product market regulation or restrictive store opening hours may hinder job creation in many countries. Identifying cross-country differences in the product market environment for the service sector could be one route to assess national disparities in the dynamic of job creation in the service sector.

The contribution of F. Benhamou and B. Gazier, 'Labour costs, social habits and employment regimes', (Chapter 4, Part 1) addresses these issues by comparing the retail trade in France and the United States and the cultural sector in France and the United Kingdom. Special focus is placed on the societal, organisational and institutional context surrounding the work relationships and the risk management arrangements in explaining the country relative employment performance of these sectors.

The second part of the report, 'The industry and service nexus: Concepts and empirical evidence', focuses on the job creation potential of services in relation to other sectors of the economy, in particular with manufacturing. In empirical terms, producer services are highly significant as the largest EU-US employment gap is to be found in this sector. It is also the fastest growing of all services and is the major current source of European catch-up.

The dynamics of the service sector and the relative importance of the various factors in explaining service sector growth may also benefit from an analysis performed at the regional level. Regional analysis is particularly useful, as it is at this level that the relationship between the manufacturing and service sectors can best be explored. For instance, regions in the Member States or the United States are characterised by concentrations of various industries. Therefore, exploring the relationship between manufacturing and services in various regions allows the identification of the reasons why some service sectors are growing faster than others. A further heuristic advantage with the regional approach is that it makes it possible to identify whether service employment growth is limited to particular regions or sectors, or is ubiquitous across all services and regions. Previous research suggests that service growth in the EU and the United States is centred in high growth areas and in specific business sectors such as communication and information services. The empirical basis of the first two chapters of Part II rely on regional data to analyse the manufacturing/service nexus.



The chapter of R. Exerts and G. Erickcek (Chapter 1, Part II), ‘The nature and determinants of service sector growth in the United States’, concentrates on the following main areas: After a brief look at employment trends and a short review of some of the relevant literature, the authors explore the shift in composition of occupations within and between services and manufacturing. This analysis provides insight into the changing nature of the two industries in terms of the functions that workers perform and also the extent to which manufacturing has outsourced service-related functions. One of the primary issues related to outsourcing is the use of temporary help and other flexible workforce arrangements. The authors discuss the relationship between the growth in business services and this change in working relations, and examine the sources of demand for services as revealed through the interaction of manufacturing and service firms, as well as the final demand of non-business consumers.

The contribution of D. Dathe and G. Schmid, ‘The determinants of business and personal services, evidence from the German regions’, theoretically identifies the factors explaining the contrasting employment growth in personal and producer services in Germany, and also explores the relationship between employment in the manufacturing and the service sector. Whereas mainstream economics and comparative sociology rely almost completely on national regimes to explain differences in the performance of service employment, the authors assume a relative autonomy of regional actors from framework conditions at the national level. This is not to deny the determination power of national institutional frameworks, but the regional approach exploits a neglected source of variation which gains increasing plausibility considering the globalisation process. Using this regional variation, the authors test the empirical validity of the manufacturing/service nexus.

Previous empirical evidence suggests that manufacturers are outsourcing more and more of their ‘non-core’ functions. At the micro level the theoretical basis of the analysis of whether a firm performs the service in-house or purchases it on the market is to be found in the theories concerning the boundaries and structure of the firm. The principle focus has been on transaction costs, economies of scale and scope and general problems of coordination in situations of uncertainty. An issue here is the degree to which outsourcing will result in employment growth in the service sector net of the job loss in the industrial sector as defined in national accounts. One could speculate that the same type of work that becomes outsourced will require less labour than before due to, for example, economies of scale. Rather paradoxically perhaps, the job creation potential of business service outsourcing may be expected to be in the industrial sector, as it presumably now becomes more competitive with obvious job creation effects. The purpose of the chapter by B. Gazier and N. Thevenot, ‘Analysing business services employment — some theoretical and methodological remarks’, is to explore some important dimensions and determinants of the growth of business services. The authors begin by analysing business services from a purely managerial point of view using the service profit chain approach. They stress, in particular, the importance of trust and loyalty for business services, where the creation of long-term relationship between the employees and the customers may be mirrored by a correspondingly long-term relationship between the employees and the employer. Business services and outsourcing are further analysed within the transaction cost framework and also by combining a labour, industrial and organisation economics perspective. Finally, the chapter addresses some methodological

issues, in particular the measurement difficulties and the lack of reliable data for estimating the outsourcing process.

The final part of this report, 'New perspectives of the service economy', takes up some more innovative perspectives of the service economy. As indicated in the 2000 Employment Guidelines, information technology plays a vital role in the growth of service employment. The new information and communication technology has already had dramatic effects on various service sectors. This technology could be seen as being the first major technological innovation that has directly addressed parts of the service sector, as many services often entail the processing of information. References to the 'new economy' are nowadays commonplace and the underlying theme is that developed economies are increasingly knowledge dependent, founded on information and communications technology, and ever more geared to the production of services rather than primary and manufactured goods. In addition, technological improvements have altered the physical attributes of manufactured goods, thereby making them lighter (miniaturisation being the most obvious example). Moreover, far more of the value of goods and services resides in the higher quality that richer and more sophisticated consumers demand of them, notably in the form of design and specification. This has led to the new concept of the 'weightless economy.' The labour market corollary is that the new economy is only capable of creating weightless work. Fewer workers are employed in the production of tangible goods and those that remain are increasingly knowledge workers — needed to improve the intangible qualities of products — rather than either unskilled muscle workers or routine skilled or unskilled manual operatives. This in turn leaves the service sector — which produces intangibles — as the sole source of net employment growth. Chapter 1 in Part III by J. Philpott, 'Weightlessness and the political economy of services sector job creation', discusses the causes and consequences of weightless growth and assesses what this means for employment and the labour market. The author then considers the related broad policy implications and sets out criteria that policy-makers might wish to take into account when deciding upon the relative merits of policies designed to create service jobs in the private, public and social economy sectors. Two pathways to increase service employment are usually suggested: improving competitiveness of high quality and expert-oriented business services, and relieving the cost burden for (low skill) personal services. Whereas competitiveness of business services can be increased through innovations in information and communication technologies (innovative milieus or networks), it is suggested that low skill personal services be stimulated by widening the wage spread combined with various forms of wage subsidies or income policy. There are still untapped possibilities to improve these strategies by policy reforms or further research. However, both pathways are rather conventional and do not exhaust the range of innovative approaches towards the modern service society.

In the last chapter of Part III, 'Beyond conventional service economics — utility services, service product chains and job services', G. Schmid explores three complementary ways to foster job creation in services: First, the switch from product markets to utility markets would induce more and new types of user services. Such a switch would not only be more employment friendly but also foster a sustainable economic development compatible with ecological principles. The reorientation from products to utilities provides strong arguments



for an emphasis on the framework conditions of services, for instance for lowering VAT in favour of labour intensive services, for forward regulation through (usually service enhancing) high quality standards, for deregulating market entry barriers, and for subsidising networks instead of individual products or services. Second, Baumol's cost disease has to be reconsidered in view of productivity enhancing possibilities by new technologies, and in view of innovative possibilities in managing specific income risks related to modern services. Service product chains are the main ingredient for increasing productivity in services, and demonstrate this in the field of art services, Baumol's prototype and the inspiring area for the theory of cost disease. The evolution of social insurance in this field offers also inspiring ideas for risk management beyond the traditional welfare state.

Part I

The job creation potential of the service sector: General considerations



Chapter 1

Service employment, productivity and growth

Donald Storrie

1.1. Introduction

The issue of the job creation potential of the service sector in the European Union has been empirically illustrated with reference to the United States. Despite a long period of increased service employment share relative to the United States, full convergence has yet to be reached and the EU share of total employment in services is still 8 % units lower than in the United States. In 1985, this gap was 12 %. The distribution of employment by economic sector is a fundamental measure of the state of economic development, with development being associated with the transition from the agrarian, to the industrial, to the service economy. These are very long-term trends, and despite considerable convergence of service employment share among the advanced economies, the ranking of countries by service share is much the same today as it was over at least forty years ago.

Due to the recent higher growth of the aggregate employment rate in the United States, the recent growth of employment rate by economic sector gives a somewhat different impression of the growth of services in the EU relative to the United States. Between 1985 and 1997 the absolute increase in employment rate in services in the United States was 7.8 % and 4.9 % in the EU. However, while the total difference in the employment rates in the United States and the EU was 5.8 %, 1.8 % of this gap was attributable to agricultural sector, 1.1 % to industry and 2.9 % to services. Thus, the smaller agricultural and industrial sectors accounted for roughly the same widening of the gap as did services. Recent EU and United States employment comparisons do not testify to a particularly poor European job creation in services compared to the United States. Poor EU job creation is an across-the-board phenomenon.

However, even if one should temper impressions of poor EU service employment performance, implicit in the guidelines to this report, it still must be considered correct that future employment growth in the EU economy will be in services. The more developed Member States have followed the stylised development from an agrarian to an industrial and finally to a service dominated employment structure. There would appear to be no reason to suppose that these countries will not continue to exhibit an expanding service sector. The major part of the EU service employment gap, however, is found in the less developed Member States. It is highly unlikely that these countries are following their more developed neighbours by first moving to a predominantly industrial employment share. Indeed, the stylised development of first shifting to industrial employment is unique to early western European development, and both the United States and Japan (and other more recently developed economies) shed labour out of agriculture mainly to the service sector. Thus, the basic premise of this report, that there is a large job creation potential in the service sector is almost certainly correct.

Section 1.2 presents a brief discussion of the concept of services. Services are a very heterogeneous set of economic activities. Compared with the production of goods, the product of services is difficult to define. While earlier definitions focused on this intangibility, more modern definitions focus on the importance of the interaction between the provider and the user. The matter of intangibility is, however, of great practical importance and is the key to understanding the severe problems encountered in the measurement of service output and productivity discussed in section 1.4.2.

Section 1.3 describes the long-run development of the growth of services as outlined above. For more recent years, and for a more detailed breakdown of service employment, data from the European labour force survey (ELFS) is used. Throughout this section reference is made to the US–EU gap in service employment. The subcategories of the service sector used in this chapter are producer, personal, distributive and social. The largest current EU–US service employment gap is found in producer services (and in all its subcategories), and personal services (mostly attributable to a larger hotels and restaurants sector in the United States). A smaller gap can be found in distributive services. The gap that does exist is entirely due to higher United States employment in trade and repair. While on average, social and communal services are roughly the same in the United States and the EU, the European figures are held up by a higher level of employment in public administration. The United States has, however, a higher share of employment in health and social services than the EU average. Recent trends in service employment by service subsector show an appreciably higher growth of producer services in Europe both in terms of employment share and rate.

The EU has of course by no means a unified employment structure. The personal services and trade and retail gap is much lower in the less developed economies of Europe. The producer service gap is much lower in the more developed countries. There is most EU variation in the level of social services, in particular in health services.

Section 1.4 outlines the very long-term development of the employment structure in agriculture, industry and services. As these shifts are often seen as being driven by



productivity differentials, the discussion of service productivity is also taken up here. It is shown that the measurement problems, particularly of service output, are so severe that one has reason to question the empirical validity of economy-wide productivity statistics. This problem, serious as it is, is becoming continually more acute as service employment continues to constitute an ever increasing share of total employment. The assumption of low service productivity, which is the cornerstone of the Baumol model, cannot be taken as being empirically valid. The final sub-section concludes with a brief examination of the new growth literature for evidence of the growth enhancing effects of services. Research and development activities, education and health are the obvious candidates for growth enhancing services. Some research also finds positive effects for producer services.

1.2. The concept of services

While in everyday conversation one refers to services without too much reflection on their meaning, other than as a function performed by someone for someone else, a precise and useful definition is surprisingly difficult. While one should not over-emphasise conceptual issues in this context, some reflection on the matter can serve to highlight some of the theoretical and practical difficulties when analysing services.

An examination of the different services reveals a very heterogeneous range of economic activities. Moreover, one finds that services are an exceedingly elusive concept. The main source of difficulty is to identify what exactly it is that is being produced. This basic conceptual issue leads to serious empirical problems in measuring output and productivity. As service jobs account for between 60 and 70 % of total employment in modern advanced economies, this has serious consequences for the quality of modern national accounts (Griliches, 1994).

The perishable nature of services, economic activities that in the words of Adam Smith ‘perish in the very instant of their performance,’ was that which occupied the thoughts of early economists. While perishability or intangibility is a characteristic of some services, the tendency of classical economists to thus view service jobs as unproductive labour is not the modern view and is hardly correct. This early theoretical disdain, fuelled perhaps by the identification of the economic growth of recent centuries to a narrow definition of ‘industry,’ still in some quarters sustains a view of services as somehow of less importance. For example, much more effort is still devoted to the collection of statistics on agriculture and industry than on services (1). Later economists, most notably John Stuart Mill, could distinguish between material and immaterial perishability. He observed that while some services are materially perishable, like education and health, this did not mean that they lacked lasting utility. Indeed, modern growth theory ascribes great importance to the benefits of intangibles, such as education and health (and maybe even finance).

(1) Griliches (1992) points out that in the United States, the compilation of health and education statistics receives less than half of the funds spent on agricultural statistics. One would expect that the situation is hardly better in the European Union.

However, many services are undoubtedly in some sense perishable or intangible. This intangibility means that the definition and measurement of service output is very difficult. It also means that unlike most goods they can seldom be stored. Neither can they be easily transported and thus are less traded. The necessity for a direct interaction between the provider (producer) and the user (consumer) has consequences for the structure of the market and may lead to spatial monopoly.

While some services lack tangibility or material substance a definition of services in terms of material perishability raises numerous exceptions. Even a haircut makes material changes and lasts for a while. A better definition focuses on the interaction of the provider and the user. While even the distinctiveness of this definition is eroding with the new information and communication technology ^(?), it still is the most accepted definition of services. It was defined, as in Hill (1977), 'A service may be defined as a change in the condition of a person, or of a good belonging to a person belonging to some economic unit, which is brought about as the result of the activity of some other economic unit, with the prior agreement of the former person or economic unit.'

In terms of classifying services as an economic sector in, for example, the national accounts, definitions may vary slightly from country to country but in most cases services fall within the economic sectors not classified as agriculture or industry.

1.3. Employment in services

1.3.1. Introduction

This section traces the growth of the service sector share of employment for as many countries and for as long a time period as the data will allow. This is an essential measure for describing the shifting structure of employment with economic growth. A number of sources are used. Long run aggregate data is based on the organisation for economic cooperation and development (OECD) compilations. The long-term growth of a disaggregation of services is presented using previous research (Elfring, 1988) and the European labour force survey (ELFS) is used for a detailed description of the development during the 1990s.

As this report is to address the job creation potential of the service sector in light of the superior United States development, the presentation of data for the EU countries will often be expressed in terms of the gap with the United States. The first sections express the growth of services as a share of total employment. The process of the shift from agriculture and industry is a useful way to study the process of job creation in the service sector. In the latter sections we present data on employment in the sector as a percentage of the working age population, that is, the employment rate. This latter measure jointly captures the total job creation of the economy and the structural shift.

^(?) For example, Internet retail and possibly virtual reality advice services.



1.3.2. The long-run growth of aggregate service employment share

In 1960, the United States of America, together with Canada and Australia, had by far the largest share of employment in the service sector. In that year the United States of America figure was 56 % while the EU average was 39 %, see Table 1.1. Considerable variation was found within Europe, with Denmark, the Netherlands, Sweden and the United Kingdom all over 44 %. Greece, Spain and Portugal lay all around, or below, 30 %. We note that in 1960, the service share in developed Germany was rather low and that it was high in the relatively underdeveloped Ireland, both 39 %.

Since 1960 there has been a continual convergence towards the high United States levels. The convergence rate has been higher in the EU than in OECD in general. Table 1.2 presents the same figures as in Table 1.1 but focuses on the narrowing of the share gap between the United States and the EU countries, Japan and Canada. The countries are sorted by size of service share in 1960.

We observe the greatest absolute convergence in the four countries that had the lowest service share in 1960, that is, Greece, Spain, Portugal and Finland. However, considerable convergence is also found for France and Sweden. A striking feature of the data in Table 1.2 is that the highly successful Japanese and German economies, which were in the middle of the ranking in 1960, have converged very slowly towards the United States service share. The pattern of convergence is thus rather mixed. On the one hand, there is an across-the-board convergence towards the high United States service sector share. On the other hand, by the end of the period, it was still Canada, Belgium, Denmark, the Netherlands, Sweden and the United Kingdom which had the highest service share, that is, the same six as in 1960. It appears that, at least to a certain extent, the reasons for the current service share gap are to be found in features of these economies 40 years ago.

Table 1.1. *Service employment share in OECD countries 1960–95*

	1960	1968	1974	1985	1990	1995
Belgium	46.4	51.2	55.2	66.7	68.9	71.4
Denmark	44.8	49.9	58.0	65.2	66.9	68.1
Germany	39.1	43.0	46.3	54.4	56.7	59.3
Greece	25.5	32.6	36.2	43.7	48.4	56.4
Spain	31.0	36.5	39.6	49.9	54.8	60.8
France	39.9	45.8	49.9	60.4	64.6	68.9
Ireland	39.0	41.7	44.6	55.2	56.4	60.7
Italy	33.5	39.3	43.2	55.2	58.8	60.3
Netherlands	49.7	54.1	58.4	67.0	69.1	73.7
Austria	37.1	43.1	43.4	52.9	55.2	60.0
Portugal	24.8	34.1	31.3	42.2	47.6	56.4
Finland	32.2	41.1	47.6	56.5	60.6	64.6
Sweden	44.0	49.8	56.4	65.3	67.3	71.0
United Kingdom	47.6	51.3	55.1	63.0	66.0	70.5
Canada	54.1	59.7	63.1	69.5	71.1	73.0
Japan	41.3	45.7	50.1	56.4	58.7	60.7
US	56.2	59.4	63.4	68.8	70.9	73.1
EU-15	39.0	44.3	47.9	57.4	60.7	64.3
OECD (EUR)	36.9	42.0	45.5	54.4	57.6	60.6
OECD	43.1	48.0	52.1	60.1	62.8	64.6

Source: OECD (1996).

Table 1.2. *Service employment share gap with the United States of America 1960–95*

	1960	1968	1974	1985	1990	1995	Narrowing of the gap
Belgium	9.8	8.2	8.2	2.1	2.0	1.7	8.1
Denmark	11.4	9.5	5.4	3.6	4.0	5.0	6.4
Germany	17.1	16.4	17.1	14.4	14.2	14.0	3.1
Greece	30.7	26.8	27.2	25.1	22.5	16.7	14.0
Spain	25.2	22.9	23.8	18.9	16.1	12.3	12.9
France	16.3	13.6	13.5	8.4	6.3	4.2	12.1
Ireland	17.2	17.7	18.8	13.6	14.5	12.4	4.8
Italy	22.7	20.1	20.2	13.6	12.1	12.8	9.9
Netherlands	6.5	5.3	5.0	1.8	1.8	-0.6	7.1
Austria	19.1	16.3	20.0	45.9	15.7	13.1	6.0
Portugal	31.4	25.3	32.1	26.6	23.3	16.7	14.7
Finland	24.0	18.3	15.8	12.3	10.3	8.5	15.5
Sweden	12.2	9.6	7.0	3.5	3.6	2.1	10.1
United Kingdom	8.6	8.1	8.3	5.8	4.9	2.6	6.0
Canada	2.1	-0.3	0.3	-0.7	-0.2	0.1	2.0
Japan	14.9	13.7	13.3	12.4	12.2	12.4	2.5
United States	56.2	59.4	63.4	68.8	70.9	73.1	16.9

Source: OECD (1996).



We conclude this section with some remarks on the quality of this long-run aggregate data. Generally speaking, adherence to the International Labour Organisation (ILO) definitions is better for the more advanced economies and improves over time. The different treatment of multiple job holders, the self-employed and unpaid family workers are the main problems. Moreover, one has reason to believe that these problems will be most severe for services (due to the large number of small and family firms in services). As the broad aggregate services is generally classified as not being in primary or secondary sectors, the sector definition problem (adherence to ISIC) should not be too serious.

A more serious problem is that of equating service work with the service sector. For example, according to Tschetter (1994), in 1992, one third of all workers employed in United States manufacturing were actually doing service type jobs, for example, in finance, purchasing, marketing and administration. Moreover 14 % of the workers in United States service industries had production type jobs, for example, construction workers and mechanics. However, the relatively stable distribution of occupations by economic sector appears to exclude such examples as statistical illusion to explain the increase in service employment (United States Bureau of Commerce).

1.3.3. The long-term growth of service employment share by subsector

As was pointed out earlier, services are a heterogeneous set of economic activities and for most analysis one requires a more detailed aggregation. Due, above all, to the different classification of employment by economic sector, there exists no acceptably consistent set of statistics published by international bodies. This is particularly the case as regards older data. Thus, at this level of aggregation, the presentation of the long-term trends must rely on previous research. The sector classification (distributive, personal, producer and social) is that proposed by Hill and utilised by, for example, Singelmann (1978), Elfring (1988) and Castells (1996). The period 1960 to 1984 is well covered by Elfring (1988), who standardised definitions using national sources. Elfring presents statistics for the United States of America, Germany, France, the Netherlands, Sweden and the United Kingdom. In some respects this is an interesting choice as they can be seen as an appropriate sample of the world's most advanced economies. The choice was also based on the availability of statistics of sufficient quality. It would probably not have been feasible to present statistics of sufficient quality before the advent of the European labour force survey, for example, for Greece, Spain, Ireland, and Portugal.

For the European countries, the figures from 1995 onwards are based on the European labour force survey. For the United States we use data from the current population survey. The sector distribution (producer, personal, distributive and social services) in this data is as close as we could attain in accordance with the definitions used by Elfring (1988). We cannot document the degree of compatibility of our recent figures with Elfring's standardisation as regards the treatment of other issues. However, a glance at the data shows no obvious inconsistencies.

Table 1.3 shows the level of the service sector share of total employment for all services and by the four major subcategories for six countries from 1960 to 1997 ⁽³⁾. In 1960, the United

⁽³⁾ The definition of these subsectors is apparent from Table 4.

States of America had the largest service sector share in each of the four categories, with the largest absolute gap in social services. However, by 1997 the US–Europe gap had been reversed with none of these European countries having a lower social service share of total employment than the United States. The case of Sweden is the most remarkable, with a very large increase between 1973 and 1984. For other European countries there has been a more gradual but continuous catch-up and subsequent take-over during the whole time period.

Table 1.3. *Service employment share by subsector in six countries*

	All services							
Year	1960	1973	1984	1997				
Germany	38.6	46.1	53.1	62.0				
France	44.2	51.3	60.6	68.5				
Netherlands	47.8	57.7	67.3	73.1				
Sweden	47.6	57.7	66.4	70.9				
United Kingdom	48.8	55.3	64.9	70.9				
United States	61.1	66.4	71.8	73.6				
	Distributive				Personal			
Year	1960	1973	1984	1997	1960	1973	1984	1997
Germany	18	18	18	20	7.4	6.5	7.4	7.1
France	17	19	20	20	7.9	7.5	7.7	8.2
Netherlands	20	21	22	23	8.5	7.6	7.8	6.8
Sweden	19	20	19	19	8.4	6.6	5.9	5.7
United Kingdom	21	20	21	22	8	7.9	9.7	9.2
United States	22	22	21	22	11	11	12	12
	Producer				Social			
Year	1960	1973	1984	1997	1960	1973	1984	1997
Germany	3.4	5.2	6.7	11	10	16	21	25
France	3.5	6	7.9	12	16	19	25	29
Netherlands	4.2	6.8	9.9	14	15	23	28	30
Sweden	3.5	5.1	6.4	12	16	16	35	34
United Kingdom	4.4	6.5	9.2	14	16	21	25	25
United States	6.4	8.7	12	15	21	25	26	25

Source: For 1997, EU countries — ELFS, 1997, United States — from *Employment in Europe*, 1998. For earlier years Elfring, 1988.

The other large service sector, distribution, has also exhibited convergence towards the United States of America employment share and by 1997 lay between 19 and 22 % of all employment in all countries. However, the small relative differences in the distribution services employment share are important in absolute terms and warrant further examination later in the next section.



In 1960, the number employed in personal services was greater than in producer services. Up to 1973 the personal service share of all countries declined. This is possibly due to a substitution of personal for social services. The fact that Swedish personal service share declined even up to 1997, a period during which social service share more than doubled, is an indication of such a substitution. For the other countries, there has been a small increase since 1973. The level of social services has remained remarkably stable over the entire period with little convergence towards the stable United States level.

In several respects, producer services are the most interesting of all the service sectors. This is the sector with the highest growth rates for all countries and despite being a smaller sector than both the social and distributive sectors accounts for most of the US–Europe gap. However, the growth of this sector in the European countries between 1984 and 1997 has been very rapid (see in particular the Netherlands, Sweden and the United Kingdom) and an extrapolation of the recent trend would soon eradicate this gap.

Since the mid-1990s, the general industrial classification of economic activities within the European Communities (NACE) classification of sectors was fully implemented in the ELFS. This enables a detailed classification of employment by economic sector of high quality for all current Member States from 1995 onwards. The structure of employment in 1997 is presented in Table 1.4 together with United States data based on the current population survey. The 1998 data, for the EU only, are presented in Table 1.5.

Table 1.4 shows that the total EU service sector share is 8 percentage units lower than the United States with both a larger agricultural and industrial share. Employment structure within the EU varies greatly. Structure in the Netherlands is almost identical to that of the United States. In terms of service share, the European countries sort into two groups. Belgium, Denmark, France, Luxembourg, the Netherlands, Sweden and the United Kingdom have less than around a 5 % gap to the United States. Much larger gaps are found in Germany, Greece, Spain, Ireland, Italy, Austria, Portugal and Finland. A major part of the gap for this latter group is accounted for by an appreciably higher agricultural sector. The major exception is Germany, which has the largest industrial share of all countries.

Nearly all of the aggregate EU gap to the United States is attributable to the lower average European share in producer and personal services. For the low service sector share of European countries, the gap is largely accountable to the low level of social and producer services. The three lowest service intensive nations in the EU have share of personal service very similar to the United States. On the other hand, the more service intense European countries, have an appreciably higher share of social services. The producer services gap is much lower and the personal services gap is much higher.

Table 1.4. *EU employment share gap to the United States, 1997*

	Level	European gap from the US level															
	US	EU	B	DK	D	EL	E	F	L	NL	IRL	I	A	P	FIN	S	UK
Agriculture	2.57	-2.40	-0.09	-1.17	-0.37	-17.27	-5.73	-2.08	0.23	-1.14	-8.34	-3.96	-4.32	-10.72	-5.21	-0.68	0.71
Industry	23.92	-5.88	-3.90	-2.51	-11.14	1.08	-6.24	-2.92	0.29	0.75	-4.81	-8.28	-6.12	-7.52	-3.82	-1.89	-3.36
Services	73.85	8.42	4.12	3.81	11.65	16.33	12.11	5.13	-0.39	0.52	13.29	12.38	10.58	18.38	9.16	2.70	2.79
<i>Distributive services</i>	22.16	1.19	0.42	1.61	2.43	-0.91	-0.36	2.34	1.47	-0.42	3.31	-0.01	0.11	3.90	2.99	3.26	0.16
— Communications	1.62	-0.12	-0.69	-0.65	-0.01	0.46	0.41	-0.46	-0.13	0.01	0.32	0.02	-0.04	0.68	-0.31	-0.42	-0.45
— Transport	3.92	-0.28	-1.21	-0.96	0.14	-1.32	-0.73	-0.34	-1.32	-0.52	0.48	0.05	-0.75	0.94	-1.70	-0.59	-0.44
— Trade and repair	16.62	1.59	2.32	3.22	2.30	-0.05	-0.03	3.14	2.93	0.09	2.51	-0.09	0.90	2.28	5.00	4.27	1.05
<i>Personal services</i>	11.62	3.24	5.05	5.42	4.55	2.01	-0.12	3.41	2.74	4.83	1.36	3.04	2.63	0.83	5.11	5.88	2.45
— Hotels and restaurants	6.89	2.80	3.51	3.96	3.59	0.93	0.71	3.61	1.72	3.64	1.33	2.49	1.20	2.06	4.03	4.24	2.26
— Recreation and culture	2.43	0.68	0.81	0.24	0.97	0.86	0.58	0.76	1.24	0.36	0.11	1.65	0.94	1.18	-0.05	0.12	-0.30
— Other personal	2.30	-0.24	0.73	1.22	-0.01	0.23	-1.41	-0.96	-0.22	0.84	-0.08	-1.10	0.50	-2.42	1.13	1.52	0.49
<i>Producer services</i>	15.14	4.06	4.58	3.79	4.61	8.47	6.30	3.37	-1.37	1.06	5.30	6.22	4.62	7.51	4.46	2.86	0.80
— Banking	2.84	0.14	-0.08	0.35	0.23	0.97	0.89	0.43	-6.58	0.15	0.13	0.35	0.19	0.76	1.04	1.14	-1.15
— Insurance	1.89	1.10	0.73	1.02	0.90	1.24	1.16	1.17	1.01	1.05	0.93	0.97	0.64	1.25	1.02	1.31	1.44
— Real estate	2.03	1.21	1.64	1.11	1.37	1.99	1.68	0.75	1.78	1.32	1.68	1.66	1.03	1.74	0.76	0.32	0.69
— Computer	1.22	0.41	0.40	-0.10	0.56	1.05	0.84	0.38	0.84	0.04	0.39	0.38	0.79	0.86	0.19	-0.23	0.07
— Other producer	7.16	1.21	1.90	1.41	1.55	3.21	1.73	0.66	1.57	-1.50	2.17	2.85	1.98	2.91	1.43	0.30	-0.26
<i>Social services</i>	24.73	-0.07	-5.93	-7.01	0.06	6.77	6.29	-4.00	-3.23	-4.95	3.32	3.13	3.21	6.13	-3.39	-9.30	-0.61
— Public administration	4.46	-3.19	-5.32	-1.71	-4.43	-2.79	-2.03	-4.81	-5.21	-3.50	-0.79	-3.17	-2.23	-2.18	-0.79	-1.02	-1.51
— Education	7.70	0.96	-1.30	0.18	2.38	1.73	1.78	0.19	1.28	1.18	1.05	0.10	1.80	0.84	0.72	0.37	0.22
— Health and social	11.49	2.07	0.66	-5.24	2.20	7.07	5.92	0.99	4.22	-2.82	2.90	5.73	3.66	6.91	-3.09	-8.15	0.54
— Other social	1.08	0.09	0.03	-0.24	-0.09	0.75	0.63	-0.37	-3.51	0.19	0.16	0.48	-0.01	0.57	-0.23	-0.51	0.13

Source: EU — author's compilation of ELFS; US — the current population survey, from Employment in Europe, 1998,

Table 1.5. *Employment share by economic sector, 1998*

	EU	B	DK	D	EL	E	F	L	NL	IRL	I	A	P	FIN	S	UK
Agriculture	4.77	2.24	3.71	2.78	17.75	7.91	4.42	2.92	3.49	10.91	6.44	6.48	13.74	7.11	3.06	1.73
Industry	29.88	27.49	26.67	34.80	23.41	30.75	26.61	21.97	23.15	28.73	32.11	29.94	36.43	28.49	26.19	27.11
— Mining	0.38	0.26	0.15	0.53	0.46	0.43	0.21	0.16	0.18	0.47	0.47	0.30	0.34	0.23	0.24	0.37
— Manufacturing	20.59	19.41	18.84	24.12	14.57	19.50	18.88	12.40	15.81	19.13	22.62	20.46	24.27	20.66	19.49	18.59
— Construction	7.72	6.60	6.74	8.83	7.12	9.85	6.43	8.51	6.12	8.06	7.62	7.78	10.77	6.08	5.31	7.07
— Electricity, gas, water	1.19	1.21	0.95	1.32	1.27	0.97	1.09	0.90	1.03	1.07	1.40	1.41	1.05	1.52	1.16	1.08
Services	65.35	70.28	69.62	62.42	58.84	61.34	68.96	75.11	73.36	60.36	61.45	63.58	49.83	64.40	70.75	71.17
<i>Distributive services</i>	<i>20.94</i>	<i>21.58</i>	<i>21.08</i>	<i>19.74</i>	<i>23.00</i>	<i>22.43</i>	<i>19.89</i>	<i>19.70</i>	<i>23.00</i>	<i>18.86</i>	<i>21.98</i>	<i>22.34</i>	<i>17.55</i>	<i>18.72</i>	<i>19.39</i>	<i>21.85</i>
— Communication	1.71	2.24	2.29	1.54	1.18	1.21	2.07	1.72	1.58	1.31	1.56	1.65	0.93	2.86	2.18	1.96
— Transport	4.24	4.72	4.77	3.86	4.99	4.65	4.35	5.08	4.70	3.44	3.76	4.74	2.75	5.45	4.40	4.58
— Trade and repair	14.99	14.62	14.03	14.34	16.83	16.57	13.47	12.90	16.71	14.11	16.66	15.95	13.86	10.41	12.81	15.31
Personal services	8.40	6.75	5.79	7.02	10.30	11.75	8.26	8.39	6.45	10.27	8.59	9.15	10.61	6.13	5.86	9.25
— Hotels and restaurants	4.05	3.46	2.76	3.16	6.28	6.05	3.23	4.44	3.40	5.56	4.32	5.72	5.29	2.77	2.67	4.58
— Recreation and culture	1.77	1.69	2.10	1.48	1.68	1.82	1.73	1.05	1.79	2.32	0.78	1.62	1.02	2.23	2.47	2.89
— Other personal	2.57	1.60	0.94	2.39	2.34	3.88	3.29	2.89	1.27	2.38	3.48	1.82	4.30	1.12	0.72	1.78
Producer services	11.28	11.62	11.38	10.80	7.32	9.00	11.90	17.85	14.97	9.84	9.07	10.48	5.44	11.26	12.12	14.73
— Finance	2.62	3.13	2.37	2.55	1.81	1.79	2.38	9.51	2.62	2.71	2.46	2.62	1.34	1.48	1.69	3.92
— Insurance	0.81	1.30	0.66	1.01	0.62	0.71	0.79	1.14	1.06	0.96	0.89	1.26	0.47	0.71	0.50	0.49
— Real estate	0.84	0.41	1.02	0.74	0.06	0.37	1.26	0.37	0.80	0.35	0.38	0.95	0.25	1.34	1.54	1.33
— Computer	0.92	1.02	1.58	0.74	0.19	0.53	0.88	0.46	1.46	0.82	0.85	0.67	0.30	1.20	1.56	1.37
— Other producer	6.09	5.76	5.76	5.76	4.64	5.61	6.58	6.38	9.02	4.99	4.49	4.98	3.09	6.53	6.83	7.62
Social services	24.74	30.32	31.36	24.85	18.21	18.16	28.92	29.17	28.95	21.40	21.81	21.61	16.24	28.30	33.38	25.34
— Public administration	7.46	9.55	5.95	8.55	7.02	6.25	9.33	10.25	7.20	5.25	7.76	6.49	5.81	5.28	5.30	5.83
— Education	6.81	8.89	7.13	5.54	6.07	6.02	7.73	6.14	6.72	6.65	7.49	5.99	5.84	7.23	7.41	7.61
— Health and social	9.46	10.80	17.08	9.54	4.67	5.44	10.48	7.28	13.99	8.58	5.97	8.03	4.08	14.05	19.19	10.96
— Other social	1.01	1.09	1.20	1.23	0.45	0.45	1.37	5.51	1.04	0.92	0.60	1.10	0.51	1.74	1.48	0.94

Source: Author's compilation of ELFS data.

From Table 1.4 we see that the EU-15–US gap in distributive services is 1.2 percentage units. Given the absolute size of this sector this corresponds to a rather small relative gap. Moreover, a breakdown to the subsectors shows that it is only in the large trade and repair sector that employment is greater in the United States. The trade and repair gap is, however, small for the five least service intensive EU Member States.

The aggregate EU-15–US gap in social and communal services is negligible. Every EU nation State has more employees in public administration. This should hardly be surprising as we compare one national administration with 15 national administrations. The United States has a larger share of its employed persons in health and education than the EU average. However, considerable variation can be found within the European Union. The Nordic countries and the Netherlands employ more in the health and social service sector than the United States. A more unified picture is apparent as regards employment in education with the United States employing more in education than 14 of the EU countries.

The United States employs more in personal services than all EU countries with the exception of Spain. The average gap is three percentage units and given the relatively small size of the sector this should be considered an appreciable gap. A breakdown into subsectors reveals that the gap is due to larger United States employment in hotels and restaurants. This gap is much less apparent in the least service intensive EU countries

The largest absolute gap is found in producer services. The gap is quite evenly distributed among the various subsectors with no single subsector accounting for the EU-15–US gap. It is, however, notable that the relatively small real estate sector exhibits quite a large gap. This gap is appreciably higher in the less-service-intensive EU countries. Indeed, the variation of producer services among these nations is closely correlated to GDP per capita and is the only service subsector to exhibit such a correlation.

1.3.4. Recent growth of service employment rates

In this section we focus on the growth of employment rates in services, that is, the number employed in a sector as a percentage of the working age population.

The ELFS data presented in Tables 1.4 and 1.5 above should be deemed as being of very high quality as it is based on a common source. This data is, however, only available for the EU from 1995 to 1998. Nonetheless, the 1998 employment rates report presents data between 1985 and 1997. Using this data we calculate the change in employment rates by service subsector. Unfortunately, the service classification is not as useful as the one used by Elfring and others. Due to all of the above matter of sector aggregation, this data is probably not of the highest quality. For example, the very rapid increase in the Greek figures appears somewhat strange. However, it is of interest to present the broad development both in terms of employment structure, as in previous sections, and in rates, which is the focus of this section.

Table 1.6 shows the recent shifts in aggregate employment structure and rates in the EU countries compared to the United States between 1985 and 1997. Looking first at structure,

we see that the EU, compared to the United States, was still shedding agricultural labour and in relative terms this is the major difference between the two. The industrial structure gap remained the same during this period, with EU industrial sector share six percentage units higher than the United States. Consequently, the EU has increased its share in services relative to the United States (this is the employment share convergence trend shown for a longer period in Table 1.2). Thus, in terms of the European gross flows, relative to the United States, labour lost in agriculture moved to services.

The rates data in the top part of the table give quite a different impression as regards the service gap. In 1985 the absolute gap was 12 percentage units and by 1997 it had widened to 15 %. The difference between the two figures, the rates and the share is of course attributable to the greater increase in the aggregate employment population ratio in the United States.

Table 1.6. *Employment share and rates by broad economic sector in the United States and EU-15, 1985 and 1997*

		EU	United States	Gap	
				Absolute	Relative (%)
Employment rate					
Agriculture	1985	5	2	-3	-58
	1997	3	2	-1	-35
Industry	1985	21	19	-2	-8.0
	1997	18	18	-1	-3.0
Services	1985	34	46	12	35
	1997	39	54	15	38
Total	1985	60	68	8	13
	1997	61	74	14	22
Employment structure					
Agriculture	1985	8	3	-5	-63
	1997	5	3	-2	-40
Industry	1985	34	28	-6	-18
	1997	30	24	-6	-20
Services	1985	57	69	12	21
	1997	65	73	8	12

Source: Compilation of data from the employment rates report, 1998.

Table 1.7 presents the growth of employment rates between 1985 and 1997. We see that the absolute increase in the employment rate of services was 7.8 % in the United States and 4.9 % in the EU. However, in Greece, the Netherlands, Austria and Portugal ⁽⁴⁾, service employment rates exhibited a larger increase than the United States.

⁽⁴⁾ As noted earlier, I suspect that the data are not of the highest quality and am particularly sceptical about the Greek data.

Table 1.7. *Absolute change in employment rates by broad economic sector and service subsector, 1985–97*

	Agriculture	Industry	Services	Distribution	Transport	Producer	Communal
Belgium	– 0.4	– 0.9	5.4	0.6	0.3	1.8	2.6
Denmark	– 2.1	– 0.7	4.0	0.9	0.1	3.1	– 0.1
Germany	– 0.8	– 3.1	2.5	– 0.8	0.0	1.2	2.2
Greece	– 6.7	– 4.2	10.3	8.2	– 0.8	1.4	1.6
Spain	– 4.0	0.7	7.8	2.1	0.3	1.6	3.7
France	– 2.0	– 3.5	3.4	– 0.2	– 0.3	1.2	2.7
Ireland	– 2.3	1.4	6.8	2.0	0.4	1.2	3.3
Italy	– 2.5	– 1.7	2.3	– 0.6	0.0	2.6	0.2
Netherlands	– 0.2	– 1.1	10.4	3.8	0.2	3.6	2.8
Austria	– 1.3	– 5.1	8.7	2.8	– 0.1	3.6	2.1
Portugal	– 4.8	– 0.5	9.8	3.4	0.1	3.3	3.1
Finland	– 4.1	– 5.8	– 0.3	– 1.5	– 0.5	1.6	0.1
Sweden	– 1.9	– 6.3	– 3.4	– 0.5	– 1.3	2.7	– 4.4
United Kingdom	– 0.3	– 4.0	8.8	1.0	0.6	4.0	3.2
EU-15	– 1.9	– 2.3	4.7	0.6	0.1	2.2	2.0
United States	– 0.1	– 1.2	7.8	1.1	0.4	1.5	4.7
Japan	– 2.1	0.6	5.8	0.8	0.5	1.7	2.8

Source: Compilation of data from the employment rates report, 1998.

We also note that, in the important sector of producer services, even when expressed in terms of employment rate, that growth is higher in the EU. Job losses in European agriculture and industry were much larger than in the United States. Indeed, one could claim that the European performance in relation to the United States was worse in these sectors than in services.

Table 1.8 presents the rates data in 1998 by broad economic sector and according to the producer, distributive, personal and social service classification. Table 1.9 presents the change in employment rates by disaggregated economic sector according to the same sector classification. The change figures are expressed as both an absolute change and relative change between 1995 and 1998. The most striking feature of this table is that producer services have, by far, the highest growth rates. This is also the case in nearly every Member State.

Table 1.8. *Employment rates in the EU by economic sector, 1998*

	US(1997)	EU	B	DK	D	EL	E	F	L	NL	IRL	I	A	P	FIN	S	UK
Agriculture	1.90	2.91	1.29	2.94	1.71	10.15	3.97	2.69	1.77	2.38	6.60	3.33	4.55	9.46	4.63	2.15	1.23
Industry	17.70	18.26	15.82	21.13	21.41	13.39	15.44	16.18	13.29	15.80	17.37	16.62	20.99	25.09	18.54	18.41	19.34
Services	54.50	39.94	40.44	55.16	38.40	33.66	30.80	41.94	45.44	50.08	36.51	31.81	44.57	34.31	41.91	49.73	50.79
Not working	26.00	38.89	42.45	20.77	38.48	42.80	49.79	39.19	39.50	31.74	39.52	48.24	29.89	31.14	34.92	29.71	28.64
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Distributive services	16.40	12.80	12.42	16.71	12.14	13.16	11.26	12.10	11.92	15.70	11.40	11.38	15.66	12.08	12.18	13.63	15.59
— Communication	1.20	1.04	1.29	1.81	0.95	0.67	0.61	1.26	1.04	1.08	0.79	0.81	1.16	0.64	1.86	1.53	1.40
— Transport	2.90	2.59	2.72	3.78	2.37	2.85	2.33	2.64	3.07	3.21	2.08	1.95	3.32	1.90	3.54	3.09	3.27
— Trade and repair	12.30	9.16	8.41	11.11	8.82	9.63	8.32	8.19	7.81	11.41	8.53	8.62	11.18	9.54	6.77	9.01	10.92
Personal services	8.60	5.13	3.88	4.59	4.32	5.89	5.90	5.02	5.07	4.40	6.21	4.44	6.42	7.30	3.99	4.12	6.60
— Hotels and restaurants	5.10	2.48	1.99	2.18	1.95	3.59	3.04	1.97	2.69	2.32	3.36	2.24	4.01	3.64	1.80	1.88	3.27
— Recreation and culture	1.80	1.08	0.97	1.66	0.91	0.96	0.92	1.05	0.64	1.22	1.40	0.40	1.13	0.70	1.45	1.73	2.06
— Other personal	1.70	1.57	0.92	0.75	1.47	1.34	1.95	2.00	1.75	0.86	1.44	1.80	1.27	2.96	0.73	0.50	1.27
Producer services	11.20	6.89	6.69	9.02	6.65	4.19	4.52	7.23	10.80	10.21	5.95	4.70	7.35	3.75	7.33	8.52	10.51
— Finance	2.10	1.60	1.80	1.88	1.57	1.04	0.90	1.45	5.75	1.79	1.64	1.28	1.84	0.92	0.97	1.19	2.80
— Insurance	1.40	0.50	0.75	0.52	0.62	0.35	0.36	0.48	0.69	0.73	0.58	0.46	0.88	0.32	0.46	0.35	0.35
— Real estate	1.50	0.51	0.23	0.81	0.45	0.04	0.18	0.77	0.22	0.54	0.21	0.20	0.67	0.17	0.87	1.08	0.95
— Computer	0.90	0.56	0.59	1.25	0.45	0.11	0.26	0.53	0.28	1.00	0.50	0.44	0.47	0.21	0.78	1.10	0.97
— Other producer	5.30	3.72	3.32	4.57	3.54	2.66	2.82	4.00	3.86	6.16	3.02	2.32	3.49	2.12	4.25	4.80	5.44
Social services	18.30	15.12	17.45	24.85	15.29	10.42	9.12	17.58	17.65	19.76	12.95	11.29	15.15	11.18	18.42	23.46	18.08
— Public administration	3.30	4.56	5.49	4.72	5.26	4.02	3.14	5.68	6.20	4.91	3.17	4.02	4.55	4.00	3.44	3.72	4.16
— Education	5.70	4.16	5.11	5.65	3.41	3.47	3.02	4.70	3.71	4.59	4.02	3.88	4.20	4.02	4.70	5.21	5.43
— Health and social	8.50	5.78	6.21	13.53	5.87	2.67	2.73	6.38	4.40	9.55	5.19	3.09	5.63	2.81	9.14	13.49	7.82
— Other social	0.80	0.61	0.63	0.95	0.76	0.26	0.22	0.83	3.33	0.71	0.56	0.31	0.77	0.35	1.13	1.04	0.67

Source: EU — author's compilation of ELFS; United States — the current population survey (from Employment in Europe, 1998).

Table 1.9. *Absolute and relative change in employment rates by economic sector, 1995–98*

	EU	B	DK	D	EL	E	F	L	NL	IRL	I	A	P	FIN	S	UK
	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC	AC RC
All services	1.24 0.03	1.46 0.04	3.94 0.08	-0.08 0.00	2.09 0.07	2.89 0.10	0.86 0.02	3.03 0.07	3.80 0.08	3.17 0.10	1.10 0.04	1.89 0.04	-2.34 -0.06	1.77 0.04	-1.17 -0.02	2.24 0.05
Distributive services	0.03 0.00	-0.42 -0.03	0.60 0.04	-0.70 -0.05	0.28 0.02	-0.84 0.08	0.06 0.00	-0.66 -0.05	1.05 0.07	1.16 0.11	0.06 0.00	-0.04 0.00	-0.48 -0.04	0.48 0.04	-0.09 -0.01	0.23 0.02
— Communications	-0.03 -0.03	0.04 0.03	0.20 0.12	-0.16 -0.14	0.06 0.09	0.00 0.00	-0.04 -0.03	0.11 0.12	0.03 0.03	0.08 0.11	-0.01 -0.02	-0.09 -0.08	-0.14 -0.18	0.40 0.27	-0.07 -0.04	0.05 0.03
— Transport	0.03 0.01	-0.25 -0.09	-0.06 -0.02	-0.18 -0.07	-0.19 -0.06	0.17 0.08	0.11 0.04	-0.07 -0.02	0.37 0.13	0.28 0.15	0.03 0.02	-0.09 -0.03	-0.19 -0.09	0.40 0.13	-0.09 -0.03	0.18 0.06
— Trade and repair	0.03 0.00	-0.21 -0.02	0.47 0.04	-0.37 -0.04	0.42 0.05	0.66 0.09	-0.01 0.00	-0.70 -0.08	0.65 0.06	0.81 0.10	0.04 0.00	0.14 0.01	-0.16 -0.02	-0.32 -0.05	0.07 0.01	0.01 0.00
Personal services	0.24 0.05	0.28 0.08	0.38 0.09	0.09 0.02	0.61 0.12	0.19 0.03	0.19 0.04	-0.23 -0.04	0.14 0.03	0.63 0.11	0.22 0.05	0.46 0.08	0.86 0.13	0.45 0.13	-0.04 -0.01	0.34 0.05
— Hotels and restaurants	0.10 0.04	0.13 0.07	0.34 0.19	0.07 0.04	0.29 0.09	0.06 0.02	-0.05 -0.03	-0.31 -0.10	0.01 0.01	0.33 0.11	0.08 0.04	0.40 0.11	0.62 0.20	0.24 0.16	0.11 0.06	0.15 0.05
— Recreation and culture	0.10 0.10	0.14 0.16	0.18 0.12	0.14 0.18	0.05 0.06	0.11 0.14	0.07 0.07	-0.11 -0.15	0.02 0.02	0.11 0.08	0.04 0.10	0.15 0.15	0.12 0.21	0.20 0.16	-0.13 -0.07	0.16 0.09
— Other personal	0.04 0.02	0.01 0.01	-0.14 -0.16	-0.12 -0.07	0.27 0.25	0.02 0.01	0.18 0.10	0.19 0.12	0.10 0.14	0.20 0.16	0.10 0.06	-0.09 -0.06	0.13 0.04	0.01 0.02	-0.02 -0.04	0.02 -0.02
Producer services	0.57 0.09	1.04 0.18	1.47 0.19	0.34 0.05	0.63 0.18	0.83 0.23	0.20 0.03	2.04 0.23	1.75 0.21	0.35 0.06	0.54 0.13	0.88 0.14	-1.07 -0.22	0.83 0.13	0.31 0.04	0.91 0.10
— Banking	-0.03 -0.02	0.20 0.12	0.11 0.06	-0.12 -0.07	0.06 0.06	0.01 0.01	-0.01 -0.01	0.68 0.13	0.22 0.14	0.06 0.04	-0.01 -0.01	-0.06 -0.03	-0.52 -0.36	-0.25 -0.21	0.06 0.05	0.00 0.00
— Insurance	0.01 0.02	0.05 0.08	0.06 0.14	-0.06 -0.08	-0.03 -0.07	0.03 0.10	-0.02 -0.04	0.11 0.18	0.19 0.35	0.03 0.06	0.02 0.03	0.14 0.18	-0.12 -0.28	0.16 0.51	-0.02 -0.07	0.04 0.14
— Real estate	0.03 0.07	-0.04 -0.16	0.19 0.31	0.07 0.18	0.01 0.30	0.02 0.15	0.04 0.05	0.02 0.10	0.06 0.13	0.05 0.32	-0.03 -0.13	-0.02 -0.03	0.02 0.13	0.09 0.12	-0.12 -0.10	0.08 0.10
— Computer	0.15 0.36	0.28 0.90	0.42 0.51	0.11 0.31	0.04 0.67	0.09 0.53	0.02 0.04	0.15 1.21	0.44 0.78	0.02 0.04	0.10 0.31	0.16 0.50	-0.02 -0.09	0.19 0.31	0.38 0.52	0.32 0.48
— Other producer	0.41 0.12	0.55 0.20	0.68 0.17	0.34 0.11	0.55 0.26	0.67 0.31	0.18 0.05	1.08 0.39	0.84 0.16	0.19 0.07	0.46 0.25	0.67 0.24	-0.43 -0.17	0.64 0.18	0.01 0.00	0.47 0.09
Social services	0.40 0.03	0.56 0.03	1.49 0.06	0.19 0.01	0.56 0.06	1.03 0.13	0.41 0.02	1.87 0.12	0.86 0.05	1.03 0.09	0.28 0.03	0.59 0.04	-1.65 -0.13	0.02 0.00	-1.35 -0.05	0.75 0.04
— Public administration	-0.09 -0.02	-0.25 -0.04	0.19 0.04	-0.34 -0.06	0.00 0.00	0.18 0.06	-0.01 0.00	0.34 0.06	-0.36 -0.07	0.07 0.02	0.06 0.02	-0.03 -0.01	-0.85 -0.17	-0.26 -0.07	-0.2 -0.01	0.00 0.00
— Education	0.15 0.04	0.21 0.04	0.31 0.06	0.17 0.05	0.23 0.07	0.42 0.16	0.14 0.03	0.50 0.16	0.43 0.10	0.24 0.06	-0.03 -0.01	0.10 0.03	-0.73 -0.15	0.14 0.03	-0.07 -0.01	0.25 0.05
— Health and social	0.33 0.06	0.53 0.09	1.02 0.08	0.41 0.07	0.26 0.11	0.39 0.17	0.24 0.04	0.42 0.11	0.66 0.07	0.72 0.16	0.21 0.07	0.43 0.08	-0.09 -0.03	0.13 0.01	-1.22 -0.08	0.50 0.07
— Other social	0.01 0.02	0.06 0.11	-0.02 -0.02	-0.05 -0.07	0.07 0.23	0.04 0.24	0.03 0.04	0.60 0.22	0.13 0.23	-0.01 -0.02	0.04 0.13	0.08 0.12	0.02 0.07	0.01 0.01	-0.04 -0.03	0.00 -0.01

Source: Author's tabulations of ELFS. Note that there are no ELFS data for Ireland in 1998.



1.3.5. Concluding remarks on the EU–US service gap by share and rate

Shifts in the distribution of employment by economic sector are the basic facts used to describe the long-term development of the economy. Since 1985 the most striking relative change in the sector distribution of employment in the United States and Europe is to be found in the agricultural sector. In the United States, structural shift out of agriculture appears to have fully run its course and agricultural employment has remained constant at 3 % between 1985 and 1997. In Europe, or rather in the less developed parts of Europe, this is still an ongoing process and the agricultural share of total employment fell during this period from 8 to 5 %. While in the EU as a whole, agricultural employment amounts to only under 5 % of all employment, it is still a very important source of employment in several Member States. These are: Greece (18 %), Spain (8 %), Ireland (11 %), Italy (6 %), Portugal (14 %) and Finland (7 %). Despite its size, the reduction of agricultural employment in Europe accounts for 2 percentage units of the change employment rate differential in Europe and the United States between 1985 and 1997. Presumably, the shedding of labour out of agriculture will continue in the less developed European countries. The pace of this job loss will depend upon the course of the common agricultural policy. Between 1985 and 1997, the shift out of industry has proceeded at roughly the same rate in both the EU and the United States. Thus, in terms of shares, there has been a narrowing of the service share gap to the United States in services, from 12 percentage units in 1985 to 8 percentage units in 1997.

A key statistic behind the rationale of this report is that between 1985 and 1997, the employment rate gap between the United States and the EU widened by 5.8 percentage units. The sector components of the gaps were 1.9 % in agriculture, 1.1 % in industry and 2.9 % in services. The gap growth in services is thus roughly of the same size as the sum of the other two sectors. Thus, in relative terms, it is primarily the greater losses in the primary and secondary sectors that have contributed to the poorer EU performance.

Despite convergence in European service employment structure towards the United States, a gap of 8.5 percentage units still remains. In terms of the four major service sectors, the gaps to the United States are:

Producer services	4.1 %
Personal services	3.2 %
Distributive services	1.2 %
Social services	0.1 %

At the finer level of aggregation the largest aggregate EU–US gaps are in the following sectors:

Trade and repair	1.6 %
Hotels and restaurants	2.8 %
Real estate	1.2 %
Other producer services	1.2 %
Health and social services	2.1 %

Nearly all of the gap in personal services is due to the higher United States share in hotels and restaurants. It is not at all obvious why this should be a matter of major EU policy concern in terms of the overall productive capacity of the economy. While one should not make sweeping statements about job quality in such a large sector, it is here that one finds the vilified hamburger flipping ‘Mac-jobs.’ Indeed the European countries with the smallest gap in this sector are the relatively underdeveloped Greece and Spain. Similar comments could be made about the gap in distributive services. This gap is more than accounted for by the trade and repair sector. The countries in Europe with the largest trade and repair sector are Greece, Spain and Italy.

The European gap in other services is perhaps of more policy concern. While social services constitute roughly the same employment share in Europe and the United States, it is the high European employment in public administration that holds up the European figures. There is a large European shortfall in health and social services. These are particularly low in Greece, Spain, Ireland and Portugal. Moreover, even if the gap is small, it is notable that employment share in education is lower than the United States in every European country, with the exception of Belgium. As the new growth theories ascribe great importance to health and education, the European shortfall should be seen as being worth further study.

The largest gap is found in producer services. While some may argue that this may be only a statistical illusion, I do not believe this to be a pertinent response. R. Eberts and G. Erickcek (Chapter 1 of Part 2 in this volume) show that while there is some evidence of a simple shift of the same jobs from manufacturing to producer services, this by no means explains all the empirical evidence and that net jobs are created. Moreover, even if it was the case that the same jobs are now outsourced this outsourcing is presumably a more efficient division of labour. The European gap in producer services is over 3 percentage units in all Member States bar Luxembourg, the Netherlands and the United Kingdom and is apparent in all producer subcategories. Producer service share of the employment varies directly with per capita income (the only service subcategory with such a strong correlation). While one can certainly find ‘bad’ jobs in this sector (cleaning and simple clerical work), it contains many high productivity jobs associated with the rise of the information and communication technology. Between 1985 and 1997 this was the fastest growing sector. It was shown in Table 1.3 that the producer services gap between the United States and EU countries was previously rather stable. Since 1985, however, there is a considerable European catch-up. This fact holds both for employment structure (share) and rates. Within the EU, the ELFS data shows that between 1995 and 1998, producer services was by far the fastest growing sector. Presumably this trend will continue and the EU–US gap will continue to diminish.

1.4. Services and economic development

1.4.1. Long-term shifts in employment structure

Changes in the economic structure as outlined in the previous section are the basic facts used to describe the development from the agrarian, to the industrial and then to the service

economy. The terms primary, secondary and tertiary indicate a chronological progression and have been viewed as synonymous with broad economic development and with income per capita in particular.

‘Studying economic progress in relation to the economic structure of different countries we find a very firmly established generalisation that a higher average level of real income per head is always associated with a high proportion of the working population engaged in tertiary industries. ... When we examine the trend over time (within countries) we find a similar result. In every case we find the proportion engaged in primary industry declining and tertiary increasing’ (Clark, 1940 pp. 6-7). This is also clearly demonstrated in Fuchs (1980).

While in all of the advanced economies, services is now the largest sector in terms of employment, the path in terms of size relative to agriculture and industry has been quite different. Table 1.5 presents data on the long-term development of employment shares. The table shows that it is only the western European countries that have followed the stylised movement from agriculture as the largest source of employment (pre-1870 for the United Kingdom), to industry and finally to services as the largest employer. All countries have, however, experienced the major change during the last 130 years, namely a dramatic fall in agricultural employment. This has been extensively documented by economic historians, and there is little doubt that this was due to a massive increase in agricultural productivity and the low income elasticity of agricultural products. (Kuznets, 1966 and Chernery, 1979.)

The other common trend is the monotonic increase of the service sector. One can note that the two European countries with the highest current service share, the Netherlands and the United Kingdom, held the same ranking in 1870. All countries see first an increase and then a decrease in industrial employment. However, in some countries, like the United States and Japan, industrial employment was never larger than service employment, while in others, like Germany and the United Kingdom, there was a period when the economy was an industrial economy in terms of employment share. Industrial employment (as a share of the total) peaked in the early 1960s in the United States of America (34 %). In the mid-1960s came the peak for the Netherlands (40 %) and Sweden (38 %). Japan (37 %), Germany (50 %), France (39 %) and Italy (39 %) peaked in the early 1970s. After these peaks there was a steady decline.

Table 1.10. *Employment share in advanced economies share by broad economic sector*

	1870			1960			1984		
	A	I	S	A	I	S	A	I	S
Germany	50	29	22	14	48	38	5	42	53
France	49	28	23	21	36	43	8	32	60
Netherlands	37	29	34	11	41	48	5	28	67
Sweden	54	n.a.	n.a.	15	42	43	5	29	66
United Kingdom	23	42	35	5	46	49	3	32	65
Japan	73	n.a.	n.a.	33	30	37	9	34	57
United States	50	24	26	8	31	61	3	25	72

Source: For 1870, Maddison (1980); others from OECD (1996).

As early developers, the countries presented in Table 1.10 have been the object of most previous research. Greece, Spain, Ireland and Portugal are much later developers. As seen in Table 1.11 their agricultural share in 1960 was of roughly the same size as the more developed countries in 1870.

Table 1.11. *Employment share in the less advanced EU economies by broad economic sector*

	1960			1974			1985			1995		
	A	I	S	A	I	S	A	I	S	A	I	S
Greece	57.1	17.4	25.5	36.0	27.8	36.2	28.9	27.4	43.7	20.5	23.2	56.4
Spain	38.7	30.3	31.0	23.2	37.2	39.6	18.3	31.7	49.9	9.2	30.1	60.8
Ireland	37.3	23.7	39.0	22.8	32.6	44.6	15.9	28.9	55.2	11.7	27.7	60.7
Portugal	43.9	31.3	24.8	34.9	33.8	31.3	23.9	33.9	42.2	11.3	32.3	56.4

Source: OECD (1996).

Industrialisation came much later in these countries. The 1960s were a period of rapid industrialisation and industrial share increased up to 1985, only then starting to decline. For the early developers in Table 1.10, industrial share decline occurred much earlier. The later developed countries never attained the same level of industrial employment share attained by the early developers. Here, the structural transformation of employment has occurred even more markedly from agriculture to services.

The future development of these countries is of great importance in this context as they account for an appreciable part of the current gap between the EU and the United States. It is highly unlikely that these countries will follow the pattern of Germany or the United Kingdom. The United States development of the shift from agriculture to services is the most probable development. It should be noted, however, that the very positive recent Irish development has seen some increase in industrial employment. Between 1995 and 1998 industrial share rose in Ireland from 28 to 28.7 %, the corresponding change of service share was from 60 to 60.4 %. While the differences are hardly sizeable, both the absolute and relative increase has been greater in industry. The importance of industrial employment also appears in the Greek structure. In Greece, industrialisation comes later than in the other countries and is perhaps the least developed of the EU Member States. Industrial share has declined since 1984 and has never reached 30 % of all employment (as it did in all other countries).

1.4.2. Productivity in services

Productivity in services is a very important empirical, theoretical and policy issue.

- The fact that measured productivity in services has been relatively low, together with the secular increase in service employment, is one of the major candidates for explaining the slowdown of economic growth since the 1960s.



- Perception of low productivity growth in services is the crucial hypothesis in the dominant theoretical explanation (The Baumol model) of the rise in service employment.
- If the EU is to promote the expansion of the service sector it is important to ascertain the productivity of such jobs.

1.4.3.1. The measurement of productivity in services

Despite the importance of this issue, the serious problems in the measurement of, above all, service output have yet to be satisfactorily resolved. Prominent economists have expressed grave doubts as to the state of our empirical knowledge of service productivity. Paul Romer, perhaps the principle architect of modern growth theory, claims ‘We do not know what happened with the productivity slowdown in two senses. First, I don’t believe we know for sure what the basic facts are. The quality of the data is such that we cannot speak with authority and answer the question about what happened over time to the rate of growth of productivity. Second, even if there was a slowdown we do not know the reasons with any confidence’ (Snowdon and Vane, 1999).

Zvi Griliches is probably the world’s leading expert on the measurement of productivity. He chose measurement problems in the service sector as the topic of his 1994 presidential address to the American Economic Association. He concluded that by 1990 ‘... the fraction of the economy for which productivity numbers are half reasonable had fallen to below one third... Our ability to interpret changes in aggregate total factor productivity has declined and major portions of actual technical change have eluded our measurement entirely.’ In other words, the problem is bad and it is getting worse. The reason for Griliches’ perception of the increase in the state of our ignorance is due to the continuing transformation of our economies out of agriculture and industry and into services, where measurement problems are particularly acute. Scepticism on the quality of recent United States productivity figures is also shared by important United States economic policy-makers. In a recent speech on technology, Alan Greenspan described much of the data on productivity as ‘non-credible’ and Treasury Secretary Larry Summers thinks that statistical unreliability explains the lack of the measured impact of the new technologies on productivity ⁽⁵⁾.

The source of the service measurement problems has already been mentioned and is due to the material intangibility of service output as outlined in Section 1.1.2. When measuring the output of goods over time, the usual procedure in the national accounts is to first ascertain the money value of the output (value of shipments). This entails no conceptual or empirical problems for services (revenues of services). The next stage in determining output for goods is to divide this money value with a price index of the industry’s products. This requires a specification of what exactly is being bought. For goods this is termed the basic transaction unit and is a material entity. As there is seldom a clear-cut transaction unit for services, this is the start of the empirical problems in measuring service output. The next stage in the measurement of output for goods is to devise a means of measuring changes in the quality of

⁽⁵⁾ *Financial Times*, 13 December 1999.

output. This is done by specifying the characteristics that determine the price of the good. If this is done satisfactorily then one can distinguish price movements due to changes in quality and quantity (output) may be adjusted accordingly ⁽⁶⁾.

What then is the unit of output for services? National account statisticians appear to embark from Hill's previously quoted definition of services as a change in the condition of a person, or of a good, belonging to some economic entity, with the approval of the first person or economic entity. As the result of the activity 'a change in a condition' there is often no tangible unit that may be observed and counted. The degree of tangibility varies, however, between different types of service. Advice services (legal, financial or medical) could be viewed as fully intangible. Indeed the financial sector is very difficult to set in the framework of not only outputs but also inputs where, for example, the treatment of customer deposits is very problematic. In economic terms the output of educational services may be measured by the number of students who pass exams. This is rather a crude measure of efficiency within universities. The economic result of education will depend, among other things, on the type of education. It will yield a stream of productivity for a long time into the future and will almost certainly generate positive externalities. For these services the measurement of quality changes will be even more difficult. In national accounts, many of these services are measured in terms of the inputs. Obviously this gives very unsatisfactory measures of productivity.

Other measurement problems are associated with the availability of services. The word 'service' suggests the importance of the frequency or availability of services for its quality. For consumers of, for example, health care, the availability of treatment should be an important characteristic of its quality, given that the demand for health care is not fully predictable. The eradication of queues will generally entail some overcapacity at non-peak periods, which without a measure of availability will appear in statistics as low productivity.

One should, however, not generalise on the basis of these examples. Some service activities generate more tangible outputs. For example, in transportation services, the material definitional clarity of the service gives a relatively clear and quite easily measured output, that is, the number of freight tonnes or number of passengers by the distance travelled and possibly with some adjustment for the frequency or the time of the service.

When making international comparisons of productivity, further problems arise. While comparisons of the levels of labour productivity between countries are of course of great interest, one very seldom finds such data publicly published by the usual international authorities (for example, organisation for economic cooperation and development (OECD), international labour organisation, (ILO), and the United Nations, (UN)). Presumably the reason for this is that the data is not of sufficient quality and is only published in terms of productivity changes. When comparing aggregate output between countries, purchasing

⁽⁶⁾ For example, it is quite feasible to capture the quality of the automobile in terms of, for example, horsepower, petrol consumption, size and other concrete material measures. Of course there are measurement problems even for goods. In the automobile example, it will probably be impossible to measure the 'feel' of different models. Another often observed practical problem is that of time lags in the collection and compilation of this data by statistical authorities in times of rapid technological change.



power parities (PPP) are used in an attempt to account for price differences. As prices vary considerably from sector to sector, it is hardly appropriate to use the aggregate PPPs to deflate, in this case, the service sectors. Moreover, casual observation leads one to believe that the international price variation is greater for services than for goods. This is partly due to the relative tradability of goods. Moreover, given that large sections of the service sector are not priced at all, namely, public services, the problem is compounded further. Again the problem varies from sector to sector and in the next section, comparisons for some sectors that more easily lend themselves to international comparisons are presented.

It should also be noted that there are problems with measures of labour productivity (for example, output per hour) for any subsector of the economy. Productivity improvements in one sector may have considerable productivity benefits on other sectors. For example, the major part of the productivity enhancing effects of technological progress in the transport sector may spill over to the industrial or agricultural sector. Health, education and finance are other obvious examples.

In general, there are few conceptual problems entailed in the measurement of inputs to services (an exception is the banking industry where the role of customer deposits is problematic). However, in practice there are greater problems in services than for goods, as the statistical coverage of service establishments is considerably less than the coverage in other sectors of the economy ⁽⁷⁾. This may be attributed to the historical lack of priority awarded to the service sector mentioned earlier. Moreover, the relatively high incidence of self-employed, part-time and unpaid family workers and the large number of small firms makes data collection more difficult and costly.

1.4.3.2. Empirical evidence on service productivity levels and convergence

With the secular rise of service sector employment, the overall level of productivity in modern economies is to an ever larger extent determined by productivity in the service sectors. This fact, coupled with the measured low productivity of services is often viewed to lie behind the economy-wide productivity slowdown since the 1960s.

With regard to this claim one should first set the slowdown in a long-term perspective. Two of the major empirical studies of productivity growth in the last hundred years are Kendrick (1973) and Maddison (1982 and 1987). Kendrick's data on total factor productivity growth show a highly pro-cyclical pattern, but no long-term trend. There is an indication of lower levels since the 1960s but this is not at all remarkable in the long-term perspective. Similarly, Maddison's long-term data on labour productivity show that the major deviation from an otherwise stationary series is the high level of labour productivity growth between 1945 and 1960. The subsequent fall of labour productivity growth relative to the preceding period, is

(7) For example, in the United States, despite the fact that the bureau of labour statistics has recently extended the coverage of its productivity by sector index, only 47 % of employment in the services producing sector is covered while the coverage rate in manufacturing is 100 %. Within services, the coverage also varies considerably — 100 % in retail, 19 % in finance and 2 % in wholesale (Duke and Usher, 1998).

indisputable, but again this is not the case in the longer perspective. The basic pattern in the United States is that of average productivity growth of just under 3 % during the Golden Age which fell to around 1 % in the early 1970s and remained roughly at that level until the mid 1990s when it began to increase again.

Moreover, as was pointed out by Griliches (1994) (see introduction to this section), a possible candidate for explaining the productivity slowdown relative to the period before 1960 may be attributable to the increased measurement problems due to the rise of the service sector. Indeed, in November 1999, the United States released new statistics that have adjusted the empirical history of United States productivity growth. The new figures mean an average annual increase in productivity since 1959 of 0.2 percentage units. The post-1995 figures are revised upwards by an average of 0.4 %. This means that the current United States productivity figures are close to 90 % of the Golden Age average. The adjustment is due to the use of new data previously not available, the reclassification of computer software (from business expense to investment) and improvements in the methodology for estimating inflation and productivity (a consistent geometric mean technique). These revisions have had major impact on services. For example, a new index of output attempts to incorporate the productivity gains from the introduction of new technology in the banking sector. Despite the fact that the new classification of computer software has received most publicity, the major source of the upward revision is due to the other measurement improvements.

A major issue in the new growth and productivity literature is the issue of whether the advanced economies are converging or not. The empirical evidence is mixed, see Temple (1999). While there is evidence of convergence among OECD countries, this is of course a somewhat biased sample as a degree of economic development is required for membership. Of particular interest in this context is the issue of whether changes in aggregate productivity growth are due to changes in sector composition or within sector growth. Also of interest is the role of these two factors for the convergence towards the United States level. Bernard and Jones (1996) perform such a study for 14 OECD countries between 1970 and 1987 using the OECD STAN database. They find strong evidence of aggregate convergence in total factor productivity (TFP) but that convergence varied greatly between sectors. Manufacturing TFP is both higher and has increased more rapidly than services but shows little convergence over the period. Thus the observed aggregate convergence is due to the development of other sectors, and in particular utilities. Table 1.12 presents the contribution of within-sector TFP growth (growth effect) and changing sector composition (share effect) to aggregate TFP growth.

Table 1.12. *Sources of aggregate growth in total factor productivity*

	Growth %	Share %	Total %
Agriculture	8	- 8	- 1
Mining	0	- 1	- 1
Manufacturing	47	- 23	25
Services	38	40	78
Utilities	6	1	6
Construction	- 3	- 4	- 7
Total effect	96	4	100

Source: Bernard and Jones (1996).

The decomposition shows that aggregate TFP is dominated by within sector productivity growth and that due to its size, the service sector is by far the most important contributor to productivity growth.

We are also interested in the role of sector contribution in the catch-up to the United States. As apparent from Table 1.13, the single most important factor in aggregate convergence is the growth in within-service-sector productivity, which contributes more than one third of aggregate convergence.

Table 1.13. *Sources of convergence of total factor productivity*

	Growth %	Share %	Total %
Agriculture	6	- 5	1
Mining	12	4	16
Manufacturing	17	4	20
Services	34	16	49
Utilities	5	2	7
Construction	8	- 3	5
Total effect	82	17	100

Source: Bernard and Jones (1996).

We conclude this section on productivity in services by presenting results of research that have studied productivity or efficiency in service sectors that can provide a reasonable degree of international compatibility.

Table 1.14. *Productivity and efficiency in selected service industries*

	(1)	(2a)	(2b)	(3)	(4)	(5a)	(5b)	(6)	(7)
Belgium	3.2	105.0	94.1	90.1	1.04	58.6	43	0.60	0.63
Denmark	3.3	86.6	68.6	65.8	1.00	53.4	58	0.73	0.52
Germany	2.2	78.5	100.7	75.5	0.71	63.1	44	0.48	0.62
Greece	2.5	37.1	62.2	n.a.	0.47	36.9	44	0.38	0.56
Spain	3.3	77.6	45.7	86.8	0.66	74.2	40	n.a.	0.65
France	3.8	96.6	94.8	83.3	0.88	68.3	52	0.72	0.73
Ireland	n.a.	68.7	60.3	n.a.	1.46	52.7	31	0.36	0.73
Italy	1.6	95.3	72.3	84.2	0.72	89.3	41	0.72	0.64
Luxembourg	n.a.	101.3	130.1	61.6	n.a.	132.7	61	0.79	0.56
Netherlands	3.1	95.2	54.8	69.9	0.48	88.0	49	0.92	0.79
Austria	1.8	86.8	73.4	99.4	1.08	77.9	44	n.a.	0.59
Portugal	1.2	45.4	52.8	38.5	0.83	58.9	31	n.a.	0.69
Finland	3.1	56.4	85.9	94.4	0.44	48.0	54	0.19	0.65
United Kingdom	2.2	59.5	77.6	62.0	0.43	68.9	45	0.85	0.75
Japan	6.3	60.3	70.7	79.7	0.84	80.6	46	0.80	n.a.
United States	8.2	100	100	100	0.45	100	56	n.a.	n.a.

- (1) Electricity: Gigawatt hour per person engaged, 1993.
 (2a) Distribution: Distribution GDP per person engaged, 1990.
 (2b) Distribution: Retail sales per employee, 1990.
 (3) Construction: GDP per person engaged, 1990.
 (4) Airlines: Operating expense per available tonne-kilometre, 1993.
 (5a) Telecom.: Revenue per employee, 1992.
 (5b) Telecom.: Mainlines per 100 inhabitants, 1992.
 (6) Postal services: Average technical efficiency, 1975–88.
 (7) Railways: Average technical efficiency, 1986–88.

Sources: All from OECD, except (6) Perelman and Pestieau (1994) and (7) Pestieau (1993).

The most striking feature of the results presented in Tables 1.14 and 1.15 is the generally higher productivity figures in the United States.

Table 1.15. *Case studies of service productivity*

	Productivity index		
	Banking 1992	Retail 1990	Construction 1990
Germany	55	89	91
Spain	n.a.	73	84
France	50	87	93
Italy	25	n.a.	91
Sweden	66	84	77
Japan	n.a.	44	66
United States	100	100	100

Source: Banking 1992 McKinsey (1995); Retail 1990 McKinsey (1995); Construction 1990 McKinsey (1994).



1.4.4. Services as a source of economic growth

In the literature of the 1940s and 1950s, the progression from an agrarian, to an industrial and finally to a service economy was largely viewed as being the result of economic growth. The shedding of first agricultural and then industrial labour was driven by productivity growth and the progressively higher income elasticities in the primary, secondary and tertiary sectors. In particular, the association of the structural shifts with increasing per capita income seemed to point to the view that it was growth that caused the structural transformation towards the tertiary or service sector. It is obvious that one should also consider the influence of sector size on economic growth.

The influential growth model of Solow (1957) based on neoclassical production function found that a most observed gross domestic product (GDP) growth could not be accounted for by the growth of capital and labour inputs. The unexplained residual was attributed to technological progress. Papers by Romer (1986 and 1990) and Lucas (1988) led to a reawakening of interest in the determinants of economic growth. The new growth theory attempted to endogenise the sources of the growth residual. Technological progress and human capital accumulation were the two most obvious candidates. The empirical literature spawned from this research is summarised in Temple (1999).

It is not possible to clearly summarise which broad sectors of services are conducive to economic growth. There are numerous studies that find positive or no effects of say, education, finance or health services on economic growth. The observed effects will obviously vary from case to case and from time to time. I briefly and somewhat precariously outline my impression of the empirical literature.

Empirical research shows that the private returns to research and development are high. As there are presumably considerable externalities in research and development, one should expect the social returns to be even higher. While research on the contribution of finance is controversial and less conclusive, the balance of evidence seems to suggest that it does appear to have significant positive effects on economic growth (Levine, 1997). There is strong evidence of the growth-promoting effects of health services in less-developed countries, but less evidence in more-developed countries. This research claims to be able to account for the reverse causality. There are also strong theoretical grounds for supposing that educational services should be conducive to economic growth. The empirical evidence is rather mixed, however, see, for example, Aston and Green (1996). Research in the importance of government infrastructure investment in telephone and electricity capacity, has mainly been conducted in the developing countries. I am not aware of any research on the impact of personal or retail service on growth, and indeed it is far from obvious why there should be an impact.

Finally, as was shown earlier in this chapter, it is now social or community services that constitute the largest share of service employment. In most countries the majority of these services are in the public sector. There is great variation in the size of the public sector. Government employment as a percentage of total employment ranges from 14 % in the United

States, to 30 % in Sweden. The main sources of this employment are in education, and health and social services. A question posed in the economic literature is whether the size of the public sector has any effect on the rate of growth. The empirical results are, as usual, somewhat mixed. Reviews of this literature, Atkinson (1985), Slemrod (1995), Agell et al. (1997) show, however, that there appears to be no statistically significant effect. Agell et al. term their conclusions 'agnostic.' Indeed one wonders whether one could ever expect to find any effect using cross-country regressions, given that both the financing of the public sector and the allocation of its expenditure are probably of more importance than its size.

1.5. Conclusions

Discussion on the potential of job creation in the service sector in the EU often focuses on the higher growth of the aggregate employment rate and the larger size of the service sector in the United States. However, while one can also observe a higher growth of the United States service employment rate, exactly half of the widening of the aggregate EU–US employment rate gap since the mid 1980s is due to a more rapid fall in European agricultural and industrial employment. Indeed, in relative terms, the most striking difference in the changes of employment structure in the United States and the EU during this period, has been the continuation of the long-term decline in agriculture in the EU, and particularly in the less developed EU economies. In the United States, the shedding of agricultural labour appears to have run its course.

Thus, compared with the United States, the poor EU employment record is across all three major economic sectors. Indeed, it is important to note that relatively speaking European services have performed well. This observation should perhaps lead one to look for non-service sector specific factors in order to explain some of the poor relative EU performance. This is not to say that the basic premise of this report, that there is a potential for job creation in the service sector, is incorrect. Job creation will almost certainly continue to be largely in services. However, comparisons with other sectors of the economy, and in particular some consideration of the European experience of the simultaneous decline in industry and agriculture with an increase in services, should focus analysis and policy on the process of structural change.

While one should always be wary of predicting future developments by a simple extrapolation of current trends, many factors suggest that employment in agriculture (and to a lesser extent industry) will continue to decline and that it will tend to be re-allocated in the service sector. In the more developed nation States the shedding of labour out of agriculture and industry to services is a very long-term trend and there is little reason to suppose that it will be reversed. In the less developed States (in both Europe and elsewhere), the long-term trend has been somewhat different in that the largest employment sector has shifted directly from agriculture to services without an intervening period of industrial dominance. Indeed, one could argue that one may expect the shedding of agricultural labour from the less developed Member States to accelerate in the future. The key issue here is, of course, the development of the



common agricultural policy. Despite acute political difficulties, the pressure for reform, namely, a lowering of protection and thus employment, is intense.

This chapter has shown that there has been a continuous process of EU catch-up to United States levels of service employment share. While the catch-up has generally been faster in the less developed Member States, it is still these economies that account for most of the EU's service share gap with the United States. This further underlines the relevance of viewing the potential for service job creation in Europe in terms of structural shifts from, primarily, agriculture to services.

Producer services are perhaps the most interesting of all the major service sector subcategories. It is the source of the largest aggregate EU gap to the United States and, although the gap is largest in the less developed Member States, it can be found in all Member States except Luxembourg. This sector includes many of the jobs that are typically associated with the rise of new technology and work organisation. While the EU deficit in this sector may be viewed with concern, it is noteworthy that the EU catch-up with the United States in producer services is proceeding at a faster pace than in all service subsectors (both in terms of employment share and rate).

The second largest gap is to be found in personal services. This can mainly be ascribed to the larger hotel and restaurant sector in the United States. While the gap is present in every Member State except Spain, the gap is considerably smaller in the less developed Member States, namely, the opposite of the European distribution in producer services. The European gap in this sector should not be viewed with the same degree of concern as for producer services as one would be less likely to find the type of productivity enhancing spillover to other sectors that could be expected in many producer services.

The distributive services gap is appreciably smaller than that in producer and personal services. The major subsector accounting for this gap is trade and repair. This sector exhibits a similar distribution among the Member States as hotel and restaurants, and indeed Italy, Spain and Greece have a larger trade and repair sector than the United States. Again the productivity and growth effects of these services is not likely to be very significant.

In the largest service sector, social services, the EU average is at the same level as the United States figure. However, there is a great variation within the EU, particularly in health and social services. Also, the education sector is smaller in every Member State except Belgium. While job quality in this sector is rather heterogeneous, the European shortfall in health and education may be viewed as problematic, given that growth theory suggests that these sectors may be very conducive to economic growth, particularly among less developed economies. On the other hand, the United States health service is notoriously inefficient.

The realisation that European agricultural and industrial employment is declining as service employment is increasing leads one to place policy for job creation in the service sector in the context of structural change. The classic policy prescriptions for the promotion of structural change focus on labour mobility, both occupational and locational. Thus, active labour market

policy along the lines of the measures considered in the employment guidelines are appropriate. The guidelines do not, however, explicitly set labour market policy as part of a model of structural change. As agricultural (and some older traditional industrial) activities are intrinsically regionally concentrated, geographical mobility should be a particularly important priority. Moreover, the case for focus on geographical mobility policy is further strengthened by the advent of the single currency. According to economic theory of monetary unions, the possibility of asymmetric macroeconomic shocks, together with the loss of the devaluation prerogative, makes the primary labour market policy implication of the single currency the promotion of geographical mobility.

Legislation on freedom of movement has a long history and is a policy area that, for good reasons, the European Union has a strong mandate. The Treaty of Rome dealt with the right to mobility, the single market programme made some progress in enabling mobility (qualifications and social security) and recent initiatives have attempted to deal with information problems. Perhaps it is time to go a step further with measures to actively promote labour mobility. Some Member States currently provide both cash mobility grants and moving cost assistance within their national borders. Other policy options such as dwelling quotas may also be feasible. It is certainly a policy perspective that should be explored further.

Another broad policy perspective is related to the size of the market. Economies of scale and the division of labour are a prime motor for economic growth. In particular, recent literature in industrial economics places much emphasis on the role of economies of scale and scope in generating producer services. To the extent that these jobs are driven by economies of scale, the lack of a fully developed single market for services is an obvious candidate for explaining the European shortfall in services. The policy prescriptions are largely along the lines of the 1985 White Paper on completing the internal market, that is, those concerning the right of establishment and other matters of company law and occupational qualifications.



Chapter 2

Unbalanced growth and employment in services

Leonello Tronti, Roberta Sestini and Andrea Toma

2.1. Introduction: The Baumol model

Cross-country research on employment trends shows undoubtedly that employment growth during the last two decades has been slower in European countries than in the United States. Moreover, it is unanimously accepted that the development process of industrialised countries has moved from the ‘industrial model,’ characterised by a positive correlation between productivity growth and employment growth, to a ‘post-industrial model’, where the correlation is negative (Appelbaum and Schettkat, 1995). Nowadays, in fact, employment seems to grow for the most part in industries where productivity increases at quite slow rates, like most services. This pattern of employment growth is able to explain at least part of the better performance of the United States. As Europe is lacking a substantial proportion of employment in services, EU policy-makers face the problem of devising measures for fully exploiting the job creation potential of this sector.

Having in mind this policy purpose, our analysis intends to explore the reasons for employment expansion in services, stemming from a fundamental theoretical framework, represented by the Baumol model of ‘unbalanced growth’. In his seminal article (1967), Baumol proceeds on the hypothesis that economic activities can be grouped into two main sectors: technologically progressive industries (P), with productivity growing at a constant rate r , and non-progressive ones (NP) where, for the sake of simplicity, labour productivity is assumed to be constant. The model is particularly interesting for studying the behaviour of employment in the service sector as service industries are generally characterised by slow productivity growth, while agriculture and manufacturing show sustained long-term productivity increases.

Assuming that labour is the only factor of production, and denoting with Y_{NP} and with Y_P the values of outputs respectively in the NP and in the P sectors, the production functions for the two sectors may be written as follows:

$$Y_{NPt} = a L_{NPt} \quad (1)$$

$$Y_{Pt} = b L_{Pt} e^{rt} \quad (2)$$

where L_{NPt} and L_{Pt} are the amounts of labour employed in the two sectors, and a and b are constants.

Baumol calculates that due to some degree of mobility between the two sectors, in the long run, wages in the NP sector cannot lag behind those in the P sector. In order to simplify the model, wages are taken to be equal and to grow at the same rate, although the results stemming from the analysis do not vary if one allows for some divergence in the wage levels and in their movements. Therefore, the wage level in both sectors is fixed at W_t and grows at the same rate as productivity in the progressive sector:

$$W_t = W e^{rt} \quad (3)$$

where W is a constant.

This simple model shows that, in a closed economy, if wages grow at the same rate in both sectors of the economy (in particular at the rate of growth of productivity in the progressive sector, assumed to be constant), there will be relevant, though asymmetrical effects on prices. In particular, costs and prices in the slow productivity sector will tend to rise without limit relative to those in the progressive sector. In fact, denoting with C_t the cost per unit of output in each sector, we obtain:

$$C_{NP} = W_t L_{NPt} / Y_{NPt} = W e^{rt} / a \quad (4)$$

$$C_P = W_t L_{Pt} / Y_{Pt} = W / b \quad (5)$$

It should be pointed out that the relative costs would exhibit this pattern quite independently of the hypothesis about the behaviour of wages in (3). It is in fact easy to show, by simply looking at (4) and (5), that

$$C_{NP} / C_P = (W_{NP} / W_P) * (b e^{rt} / a) \quad (6)$$

tends to infinity, irrespective of any actual value that the ratio of NP to P wages can reach.

As a consequence, in a model of unbalanced productivity growth, the survival of the NP sector relies upon the price elasticity of demand for its output: if demand is not highly inelastic, that is if it reacts to the continuing ‘cost disease’ of the NP sector, increases in relative prices would lead to slow employment growth and even to the dying out of non-progressive activities ⁽¹⁾. However, this is hardly the general case with the whole service sector; as a matter of fact, employment in the NP sector may expand, despite rising relative costs, if the demand for

(1) More generally, if the prices of non-progressive services increase with respect to the prices of progressive manufactured goods, consumers should tend to substitute services with durable goods and/or self-provided activities. This is what has happened with many personal and family services, like barbers, tailors and clothing repair services, shoeshine services, umbrella repair, etc.



services is highly price-inelastic or is income-elastic (if goods and services produced by the NP sector are Engel-superior), if the sector is subsidised or, furthermore, if NP services are provided by the public sector.

If, on the contrary, the output shares of the two sectors in real terms remain constant over time ⁽²⁾, not only will the non-progressive sector survive, but an ever increasing proportion of the labour force will shift to it. In fact, under the hypothesis that:

$$\frac{Y_{NP}}{Y_P} = \frac{aL_{NPt}}{bL_{Pt}e^{rt}} = K \quad (7)$$

and assuming that the total supply of labour $L = L_{NP} + L_P$ is fixed, we have:

$$L_{NP} = (L - L_{NP}) K e^{rt} = L K e^{rt} / (1 + K e^{rt}) \quad (8)$$

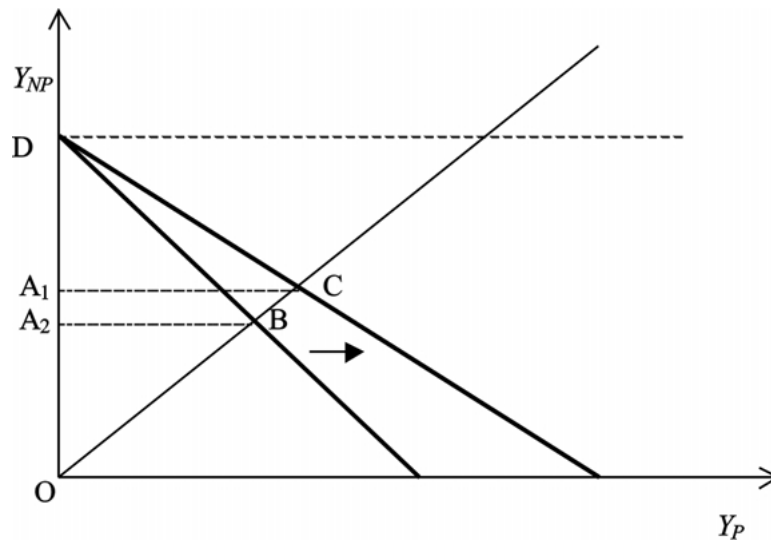
and

$$L_P = L - L_{NP} = L / (1 + K e^{rt}) \quad (9)$$

It is clear that, when t tends to infinity, the whole amount of the labour force will be transferred to the NP sector, while the amount of labour in the P sector will approach zero.

It may be useful to illustrate this result by means of a figure.

Figure 2.1. *The expansion path of the economy and sectoral shares in the labour force*



⁽²⁾ Baumol indicates that this will happen as a consequence of government subsidies or when the demand for the NP sector's services is sufficiently price-inelastic or income-elastic. The typical case is the one of local government services, but similar behaviours are shown by Engel-superior services like education, performing arts, shows and travels, information services, etc.

Figure 2.1 shows two transformation curves (the thick lines), which describe all the possible combinations of outputs in the two sectors that can be produced with a constant supply of labour. The slope of a transformation curve (dY_{NP}/dY_P) expresses the opportunity cost of producing an additional unit of Y_{NP} in terms of Y_P . The transformation curve exhibits a movement in the direction of the arrow, as the cost of producing Y_{NP} increases with time, if expressed in terms of the number of units of Y_P that must be sacrificed. Furthermore, the NP share of the labour force can be read as the ratio of the distances OA_i/OD . Under the hypothesis that the sector shares in real output remain constant, the ray OBC represents the expansion path of the economy. As time tends to infinity, the transformation curve tends to become parallel to the abscissa, and the whole labour force enters the NP sector. This result implies a long-term shift of employment toward the NP service industries, under the assumption of a fixed supply of labour.

Finally, the model makes a prediction about the overall rate of growth of output. In particular, as the relative prices of the NP sector grow ⁽¹²⁾, its real output constant share will continually increase in money terms, so that the relative output of the progressive sector will conversely shrink, bringing about a decline in the economy's aggregate productivity growth rate and eventually leading the economy to asymptotic stagnation. This result is easily shown, taking as an index of aggregate ratio a weighted average of outputs in the two sectors:

$$I = B_{NP} Y_{NP} + B_P Y_P = B_{NP} a L_{NP} + B_P b L_P e^{rt} \quad (10)$$

Substituting for Y_{NP} , Y_P from (8) and (9), it comes out that:

$$I = L (K B_{NP} a + B_P b) e^{rt} / (1 + K e^{rt}) = R e^{rt} / (1 + K e^{rt}) \quad (11)$$

where $R = L (K B_{NP} a + B_P b)$. Hence, the percentage rate of growth of output is given by:

$$(dI/dt)/I = r / (1 + K e^{rt}) \quad (12)$$

confirming the intuition above, according to which the model foresees a rate of growth for the whole economy which tends asymptotically to zero as t increases.

2.2. The predictions of the model

To summarise the results of the Baumol model presented above, there are three fundamental, explicit predictions:

- (1) Endogenous inflation or 'cost disease': The relative cost per unit of output in NP industries will tend to infinity. This outcome, that may not show in aggregate price change estimates, is the result of sector prices balancing each other: the non-progressive services' inflationary bias can be more or less compensated for by progressive manufacturing and agricultural deflationary behaviours.
- (2) Relative long-term decline of the (agricultural and industrial) progressive sectors: The decline should occur both in terms of employment share and output money share. Such



long-term trends can be looked at through the lenses of ‘tertiarisation’ or ‘deindustrialisation’ processes.

- (3) Asymptotic stagnation: This third event is the result of a long-term slowdown both in aggregate productivity growth (in money but also in real terms), and in output growth, that copes with the structural shift of money and men from the progressive to the non-progressive sector. Quite obviously, the fall in output can be compensated for by a significant increase in the level of employment.

Moreover, even if the model does not allow for any explicit prediction on employment growth, it is further characterised by two additional, implicit predictions concerning the labour market:

- (4) If the assumption of a constant labour supply is relaxed, employment growth will vary through time, according to the size of sectoral shares in employment. As the non-progressive share grows, the average productivity will slow down, but the employment content of economic growth, as expressed by the output elasticity of employment, will probably increase. At each stage of growth, then, the overall employment outcome will depend on the composition of the two opposite effects.

However, by definition, employment growth equals the difference between the rates of growth of output and productivity. Consequently, the size of employment growth depends on the fact that the long-term slowing down of productivity does not reflect on real output — a condition that is simply impossible in a context of fixed labour supply. In other words, in the case of constant labour supply, the prediction of asymptotic stagnation will affect both output and productivity while, if we assume a growing workforce, it will apply to productivity only, output growth being increasingly correlated to employment growth (see also prediction 3). This prediction suggests that, in an unbalanced productivity growth economy, the only way for aggregate output growth to overcome aggregate productivity growth is the development of employment in the NP sector; a conclusion that supports the policy efforts made in the direction of fostering the service sector growth.

- (5) The generation of an intersectoral job flow out of the progressive sector and into the non-progressive: This flow causes an employment reallocation that usually takes place through intergenerational job redistribution, but sometimes requires some kind of more problematic, individual retraining. The need for retraining could affect the average duration of unemployment spells, as low-skilled workers displaced at older ages are expected to require longer periods and more intensive employment services in order to perfect job transitions. Another possible outcome can be an increase in early retirement and early withdrawals from the labour force. All these processes obviously require the development of accompanying policies (counselling, training and retraining, etc.) as well.

2.3. Relaxing the assumptions and discussing the model

Although there is some empirical evidence about the main stylised facts set forth in the Baumol model (see, among others, Baumol, Blackman and Wolf 1992; for Italy, Tronti and

Cucchiarelli 1992), fortunately its uncomfortable predictions cannot be considered to be prevalently true, at least up to now. It is certainly true that productivity (and also output) growth slowed down in all industrialised countries after 1973; and it is also true that after 1960 employment growth was mainly concentrated in the slow productivity service sector. However, if one looks to the different performances of individual economies, the partial validity of the Baumol model predictions reveals itself as marked by high cross-country differences.

The model, though, is very simple and robust in its functioning, so that if real economies behave differently than predicted it is possible that its assumptions are not as necessary and robust as its logical structure. We can also reconsider this last statement and reformulate it in a different, policy-oriented perspective: it can be of great interest to identify which countries better succeeded in escaping what we can call the ‘Baumol trap’ and how they did it, or what assumptions of the model they succeeded in relaxing. In the following pages we concentrate upon four major assumptions, the relaxation of which can prevent the uneasy perspective of asymptotic stagnation and help foster employment growth:

- Fixed labour supply.
- Long period invariance of the progressive and non-progressive sector shares in total output at constant prices.
- The absence or irrelevance of international trade (the assumption of a closed economy).
- A uniform rate of growth of money wages in both sectors, irrespective of productivity differentials.

The relevance of wage differentiation for employment and output growth is probably the point that up to now has raised the widest consideration ⁽³⁾, but the relaxation of these assumptions can bring interesting changes in the predictions of the model. We have already briefly treated the effects of changes in labour supply. Furthermore, if the employment share of the P sector should expand (or at least not shrink through time, for endogenous reasons), this could suffice to offset the long-term tendency to aggregate stagnation (even though it would lower the employment content of growth). On the other hand, the introduction of foreign trade into the model could itself influence the composition of output, thus changing the P sector share. Finally, a closer correlation between sectoral productivity and wage growth can (at least partially and temporarily) defer the cost disease as well as aggregate productivity slowdown, in money terms.

The following section presents a synthetic discussion of the four key elements of the ‘Baumol trap’. We will try to derive some policy conclusions regarding the issue of the job creation potential of the service sector.

⁽³⁾ However, it should be stressed that, through the lenses of the Baumol model, the real issue is whether wages differentiate along with productivity growth, not if they differentiate as such. Furthermore, as we observed earlier (see eq. 6 above), the positive effects of wage differentiation along productivity growth will have only short-term positive effects on the economy and will most likely be at the expense of very high social costs (on this last point with reference to the American case, see Phelps 1997).



2.3.1. Constant labour pool

The question of the effects of population and employment growth on economic development is traditionally widely discussed; its theoretical implications are quite straightforward. From the point of view of production, an increase in aggregate output can always be traced to the contributions of a change in labour productivity on the one side and in the size of employment on the other. This simple identity relationship, though, says very little about how the change affects people's welfare. We need at least to know if output growth results in an increased quality of average living conditions — an outcome that, in turn, is generally correlated with per capita income growth and/or a higher employment rate, rather than with absolute increases in output and employment.

The Baumol model that combines the assumption of a fixed labour supply with the prediction of long-term output asymptotic stagnation, implies a parallel stagnation in per capita income ⁽⁴⁾. If the constant labour pool assumption is relaxed, the prediction of output stagnation falls, but that of stagnating per capita income remains, though it may be temporarily delayed by a growing employment rate.

Table 2.1. *Real GDP, employment and labour productivity growth in the EU, the United States of America and Japan, 1960–98*

	EU-15			United States			Japan		
	GDP	Total employment	Labour productivity	GDP	Total employment	Labour productivity	GDP	Total employment	Labour productivity
A. Average yearly rates of change									
1960-72	4.7	0.3	4.4	4.2	1.7	2.5	9.5	1.3	8.2
1973-81	2.5	0.2	2.2	2.8	2.2	0.6	3.9	0.8	3.1
1982-91	2.5	0.6	1.9	2.6	1.6	0.9	4.1	1.0	3.0
1992-97	1.7	-0.2	2.0	3.0	1.9	1.2	1.6	0.6	1.1
1960-97	3.1	0.3	2.8	3.2	1.8	1.4	5.3	1.0	4.3
B. Percentage contributions to gdp growth*									
1960-72	—	5.5	95.0	—	40.8	58.6	—	13.4	85.7
1973-81	—	9.7	88.7	—	77.0	22.7	—	20.6	78.8
1982-91	—	24.7	76.1	—	63.0	35.3	—	25.8	73.7
1992-97	—	-13.8	114.7	—	62.2	38.7	—	34.9	67.0
1960-97	—	8.8	91.4	—	56.4	43.0	—	18.4	81.1

Source: Based on Eurostat data.

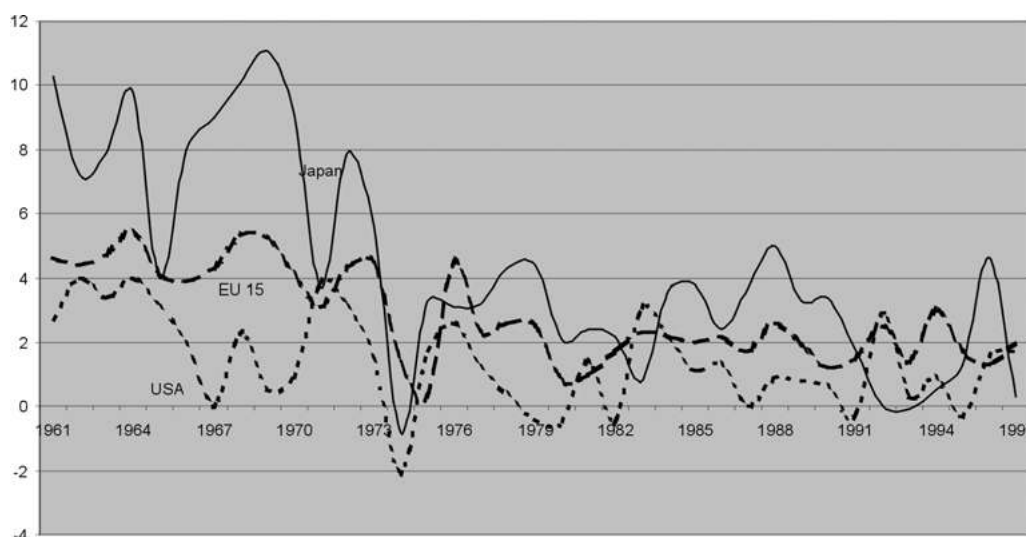
* The two contributions may not add up to 100 % as the decomposition excludes the third interaction term, which is almost always negligible.

⁽⁴⁾ The assumption of a fixed labour supply can be easily converted into a fixed employment rate for a given population size.

If we look at what happened to GDP, employment and productivity growth in the aggregate of the countries that today belong to the European Union, and we compare this with what happened in the United States and in Japan (Table 2.1), we immediately see that in the long period from 1960 to 1998 GDP grew at approximately the same average yearly rate in Europe and in the United States (3.1 % in the EU *vis-à-vis* 3.2 % in the United States), while in Japan growth was much stronger (5.3 %). However, if we consider these aggregate results in terms of the different contributions provided by productivity and employment, the picture is totally different. In the European case, the contribution of employment growth was very modest (less than 9 %), so that GDP was almost totally driven by labour productivity, that moved at an average speed double that in the United States (2.8 % per year against 1.4 %). Also in Japan, the strong long-term growth of productivity (4.3 % per year) accounted for more than 80 % of GDP growth, while in the United States, economic development was fundamentally based on a dramatic increase in the size of employment (1.8 % per year), that accounted for more than 56 % of GDP growth.

If we look at the very different achievements obtained by the United States economy on one side and Europe and Japan on the other through the perspective of the Baumol model, we first notice that the United States succeeded in relaxing the fixed labour pool assumption far better than Japan and, above all, Europe. Nonetheless, the ‘Baumol trap’ appears to have affected the Japanese and American economies more profoundly than the European economies, by slowing down productivity growth.

Figure 2.2. *Labour productivity growth rates in EU-15, the United States and Japan, 1961–97*



We can, in fact, first consider the rates of labour productivity increase as the figures of GDP growth, once we clear it from the effect of increased employment. In this case, we see that the long-term record of the United States was quite modest, as it reached only one half of the European growth and less than one third of the Japanese. Then, if we look at the changes of

labour productivity through time (Fig. 2.2), we notice that only Japan went through a continuing decline in the rate of productivity growth (from more than 8 % per year in 1960–73 to 1.1 % in 1992–97). The 15 members of the EU after 1982 stabilised at around 2 % per year and the United States, though falling during the oil crisis to a very modest 0.6 % per year, succeeded in accelerating productivity growth thereafter, reaching 1.2 % per year after 1992.

Table 2.2. *GDP, employment and labour productivity growth in six European countries, 1960–98*

	Germany			France			Italy		
	GDP	Total employment	Labour productivity	GDP	Total employment	Labour productivity	GDP	Total employment	Labour productivity
A. Average yearly rates of change									
1960-72	4.3	0.2	4.1	5.4	0.6	4.8	5.1	-0.4	5.6
1973-81	2.2	0.1	2.1	2.8	0.4	2.4	3.5	1.2	2.3
1982-91	2.7	0.8	1.9	2.3	0.3	2.0	2.3	0.7	1.7
1992-97	1.4	-0.7	2.1	1.7	0.1	1.6	1.2	-0.5	1.8
1960-97	2.9	0.2	2.7	3.3	0.4	2.9	3.3	0.2	3.1
B. Percentage contributions to tgdg growth									
1960-72	—	5.2	94.1	—	11.8	88.0	—	-8.5	108.9
1973-81	—	3.6	96.8	—	13.6	86.6	—	33.8	65.2
1982-91	—	29.7	70.0	—	12.8	86.8	—	28.7	71.3
1992-97	—	-47.4	150.3	—	5.7	92.7	—	-43.3	144.0
1960-97	—	6.2	93.7	—	11.8	88.0	—	6.6	93.2
United Kingdom									
Sweden									
Spain									
	GDP	Total employment	Labour productivity	GDP	Total employment	Labour productivity	GDP	Total employment	Labour productivity
A. Average yearly rates of change									
1960-72	2.9	0.2	2.7	4.1	0.6	3.5	7.2	0.6	6.6
1973-81	1.4	0.0	1.4	1.8	0.9	1.0	2.5	-1.1	3.6
1982-91	2.7	0.6	2.0	1.9	0.5	1.3	3.3	1.2	2.1
1992-97	2.5	0.5	2.0	1.4	-1.4	2.8	2.0	0.6	1.4
1960-97	2.4	0.3	2.1	2.5	0.3	2.2	4.1	0.3	3.7
B. Percentage contributions to tgdg growth									
1960-72	—	5.6	94.2	—	13.9	85.5	—	8.1	91.4
1973-81	—	0.7	98.5	—	47.2	52.9	—	-43.9	147.1
1982-91	—	23.0	76.7	—	28.7	70.3	—	36.4	63.2
1992-97	—	21.0	77.6	—	-98.7	201.0	—	30.1	70.7
1960-97	—	13.0	86.5	—	11.1	88.5	—	8.5	91.6

Source: Based on Eurostat data.

Within Europe, the long-run relationships among GDP, labour productivity and employment growth are much more homogeneous. In particular, if we look at Germany, Spain, France, Italy, Sweden and the United Kingdom (Table 2.2), we can see that the long-run GDP performance ranged between around 2.5 % per year (Sweden and Britain), and 4 % per year (Spain). The employment record was even more homogeneous, ranging from 0.2 % per year (Germany and Italy) to 0.4 % per year (France). Consequently, the contribution of productivity to GDP growth was always very high (from 86 to 94 %), and the average productivity gains were considerable (from 2.1 % per year for the United Kingdom to 3.7 % per year for Spain). On the other hand, the productivity slowdown was felt particularly heavily by Spain and Italy, and that in the pre-oil-crisis period could benefit from catching-up effects, while Sweden alone appears to have entered a path of accelerating productivity since 1982.

The simple empirical evidence presented in this section shows that, in line with Baumol's perspective, there could be a trade-off between employment and productivity growth; not only because of the constraint that productivity imposes on employment once the demand is given, but also because employment could be substantially fostered only in slow-productivity industries, at the expense of a slowdown in aggregate productivity, even greater than the one resulting from unbalanced growth in a fixed labour-pool context. Bearing this in mind, the gains coming from employment growth should be weighted against the long-term effects on per capita income.

2.3.2. Long-term invariance of sector shares

In the Baumol model, as assumed in the original paper (Baumol 1967) and later discussed and empirically tested with reference to the United States (Baumol, Blackman and Wolf 1992), the real output shares for the two sectors remain constant over time. The reason for such invariance, though, is left unexplained. In order to clarify this crucial assumption, it should first be necessary to ascertain whether this aspect has in effect the character of a 'statistical regularity' taking place through time and space. The question may look simple, but it is not, as measuring the value in real terms of service output is often a complex task ⁽⁵⁾.

If it were possible to provide reliable empirical evidence of the invariance, it would still be necessary to formulate some (possibly testable) hypotheses for such an odd regularity that seems to stand against continuing cases of NP; traditional products, services and occupations being crowded out by P products, services and occupations. One possible explanation could be traced to NP goods and services being perfect complements of P goods and services, in production and/or in consumption.

Further insights in the direction of complementarity could come by breaking down the NP sector looking, for instance, at who buys NP goods or services (individuals and families, firms, the government, the rest of the world). Any one of these alternatives brings with it different

⁽⁵⁾ The problems posed by the measurement of output and productivity in the service industries are addressed, in this volume by the paper by Donald Storrie.



patterns for the NP sector to grow more or less proportionally to the P one. If the demand for NP services comes from individuals and families (as in domestic work, hotels and restaurants, tourism etc.), its growth will crucially depend upon wage differentials among P and NP sector workers, and the complementarity will be based upon the evolution of wage differentials. If it comes from the government (for example, schooling and research, public health services, mail services, transportation etc.), the size of employment will depend upon the tax burden that is tolerable for the economy, and complementarity will obviously be related to the intensity of the ‘cost disease’. If it comes from firms (like counselling, accounting, marketing, training, research and development services etc.), the size of demand will depend upon the capacity of NP services to positively affect the firms’ competitiveness, both in the domestic and the international markets ⁽⁶⁾. Finally, NP demand could come from the rest of the world (as in the case of tourism, cultural and art services, superior education etc.), which implies that these services are tradable. In this case, NP employment growth will depend upon the international competitiveness of the NP sector. If we look at all these alternatives and see how single economies have succeeded in making up their specific mix and pattern of NP sector growth, we may reach the conclusion that long-term invariance is an unlikely, if not impossible result.

A second set of issues concerning the long-term invariance of real output shares relates to the effective growth path of technical progress. Here the main question to answer is: how much are production processes at the sectoral level structurally rigid in terms of the possibility of technical progress application? In other words, is an industry whose production process is NP today, NP forever? This question can be considered in a different, empirical perspective, by analysing whether productivity growth at the industry level only depends upon structural causes (the kind of output produced), or it can also be linked to other aspects, like the evolution of technologies, market structures, the role of international trade, etc.

In order to offset this basic rigidity of the Baumol framework, it is necessary to more carefully develop the role of demand, which is totally disregarded in the original model. According to Inman (1985), employment growth in the service sector relies on three different factors, namely:

- the difference between the productivity growth rates in the two sectors (weighted by a factor representing labour intensity),
- the income and price elasticities of the demand for services,
- and, finally, eventual shifts in consumers’ preferences and in the demand for NP inputs by firms.

The author, using United States data for the period 1929–65, shows that the increase in the employment share in the NP sector was predominantly due to slower technical progress, or to greater labour intensity (55 %), as predicted by the Baumol model. More recent analyses, however, question the magnitude of the contribution stemming from technical progress. In

⁽⁶⁾ In this case, it may be possible to observe more clearly complementarity in production.

addition, by introducing the hypothesis of imperfectly competitive inputs and goods markets, it can be shown that the magnitude of the employment growth rate in the NP sector may crucially depend on the degree of monopoly power of producers (Brunello and Scaramozzino 1992).

More recently, some studies ⁽⁷⁾ have attempted to reformulate Baumol's model taking into account not only the role of demand, but also the complex interactions between demand on one side and prices and per capita income on the other. These analyses have succeeded in throwing some light on the implications of the model for aggregate employment ⁽⁸⁾. In fact, introducing explicit sectoral demand functions, it is not only possible to clarify the results reached by Baumol in his seminal contribution, but also to find new ones.

In particular, the models study the role of aggregate demand in determining the size of aggregate output and employment. At a first stage (Notarangelo 1999a), it is assumed that demand does not influence prices, while considering the effect of prices on demand. The production technology, as well as the behaviour of wages and of prices are consistent with those stated by Baumol (1967) and described in Section 2.1. In addition, per capita demand (c_i) is hypothesised to determine total output according to the Keynesian principle of effective demand:

$$Y_{it} = c_{it} N_t \quad i = NP, P \quad (13)$$

where $N_t = N_0 e^{gt}$ is total population, assumed to grow at a constant rate g , and per capita demand is assumed to grow at the constant rate ρ . It is clear that in an economy always at full employment the rate of growth of sectoral demand would be equal to $g + r$, that is the sum of the rates of growth of population and of productivity. However, this statement does not hold true in an economy experiencing both unbalanced growth paths and unemployment. In order to focus on situations where the labour market is not necessarily clear, the model distinguishes population from total employment:

$$L_t = \mu_t N_t \quad (14)$$

where μ , representing the ratio of employment to total population, is determined by technology and by the demand for consumption goods. Using equations (1), (2) and (13), it comes out that:

$$\mu = (1/a) c_{NP} + (1/b) c_P \quad (15)$$

or

$$\mu = (L_{ONP} / Y_{ONP}) c_{ONP} e^{\rho NP t} + (L_{OP} / Y_{OP}) c_{OP} e^{(\rho P - r)t} \quad (16)$$

⁽⁷⁾ Notarangelo 1999a, 1999b.

⁽⁸⁾ A reminder: Baumol's model gives an insight into the possible explanations of the changes across time in the composition of production, but it focuses exclusively on the relative allocation of labour and output.



Then, the time path for μ will depend upon the values of the parameters r and ρ . In particular, it is possible to show that under the hypothesis of constant relative outlays in the two sectors, the growth rate of μ is equal to ρ_{NP} or, equivalently, to $\rho_p - r$. This result is rather intuitive if we reckon that aggregate employment is subject to two opposite forces: on the one side it is determined by the rate of growth in the demand for goods, while, on the other, the rate of growth of productivity may reduce the need for labour, thereby depressing overall employment. Furthermore, depending on the relative values of r and ρ_p , the rate of growth of employment may even be negative, when the growth of demand in both sectors is not able to offset the rise of productivity in the P sector.

Further examining the behaviour of nominal output, the model reaches the conclusion that in the short run the influence of technological progress may determine some slowdown, due to unbalanced growth in the two sectors. However, in the long run, the rate of growth of nominal output is simply determined by the rates of growth of both demand in the progressive sector and population (⁹).

Even in the case of constant relative outputs (as stated in (7)), the results are quite different from those obtained in Baumol (1967). In fact, if the growth rate of demand in both sectors is smaller than the growth rate of productivity, the economy may face a period of increasing unemployment. This will not be frictional (that is, due to the time necessary for the relocation of labour from one sector to the other), but rather a mix of technological and involuntary unemployment. Whilst in this model (Notarangelo 1999a), the demand for labour decreases for a certain period of time before finally approaching the growth rate of demand, allowing for demand to be influenced by per capita income and by income distribution bringing about non-transitory effects. The reason behind this result is that a persistent rate of unemployment may undermine the capacity of the economy to adjust to a positive rate of growth because of the negative influence of unemployment on per capita demand and, finally, on the aggregate employment rate of growth.

These results differ markedly from those reached by Baumol's model, since in the latter the growth of output, and hence of employment, reaches a ceiling because the economy is supply-constrained (see Section 3.1), whilst in the above analysis it is demand-constrained so that unemployment may result.

Even more diverging results are obtained in Notarangelo (1999b), where demand in both sectors is made dependent on prices and on per capita income. In this case not only demand affects employment, but the employment level influences demand as well. These complex mutual interactions bring about relevant changes in the dynamics of the system. First of all, a demand fall (even in only one sector) may cause a decrease in the level of aggregate employment, such that the economy is no longer able to recover. Secondly, a positive rate of employment growth is feasible only when demand is increasing in both sectors. A noteworthy

(⁹) One should note that it is also possible to have a positive rate of growth of per capita real output in the presence of a decreasing employment rate.

policy implication is that fluctuations in the level of aggregate employment cannot be neglected as frictional, and call for an appropriate intervention.

These results should not be considered by themselves, but they can provide insight into the complex issue of complementarity between goods and services in actual economies, which can help clarify the mechanisms of job creation in the service sector.

2.3.3. The hypothesis of a small open economy

A third limitation in the Baumol model refers to the assumption of a closed economy. This assumption is evidently at odds with the prevailing situation of industrial economies being increasingly open to international trade, could be justified only if international trade had no effect on the results of the model ⁽¹⁰⁾. However, the direct and indirect effects of international trade on the creation of employment in the service sector may be relevant, so that it is necessary to explore the changes induced by the relaxation of the closed economy assumption on the basic model.

Among the various attempts to include the hypothesis of an open economy into the picture, the more widely known is probably the so-called Scandinavian or ‘small open economy’ model ⁽¹¹⁾, formulated in its simplest version by B. Balassa (1964), and later by O. Aukrust (1977) and G. Edgren, K.-O. Faxén and C.E. Odhner (1973). According to this, it is possible to distinguish two sectors, an ‘exposed’ sector (E) and a ‘sheltered’ sector (S), producing respectively tradable and non-tradable goods. All goods and services subject to international competition are included in the E sector, whilst goods and services protected from international competition (the construction industry, government activity, housing and, to a great extent, service industries) belong to the S sector. The assumption of a small open economy implies that a country cannot influence world market prices, neither through its supply of export goods nor through its demand for import goods.

In analogy with Baumol’s model (1967), in the Scandinavian model the E and S sectors differ in that in the first sector technical progress is more pervasive, with the role of spurring on international competition; thus labour productivity grows at a higher rate than in the S sector. In this way, sector E tends to coincide with that of P and sector S with that of NP. Furthermore, due to the higher degree of competition in the tradable sector, firms in sector E behave as price takers, while prices in sector S are jointly determined by unit labour costs and a mark-up. Again, similarly to Baumol’s model, the rate of growth of money wages in the two sectors is the same, being determined in the E sector by the world rate of inflation along with the productivity growth rate. Due to ‘spillover effects’ from the exposed to the sheltered sector, in sector S wages exhibit the same rate of growth as in E, whilst the rate of growth of prices is also influenced by the sectoral growth of productivity.

⁽¹⁰⁾ Baumol explores the non-trivial relationships between productivity growth and international trade in a paper subsequent to the one presenting the original model (Baumol 1986).

⁽¹¹⁾ The description of the Scandinavian model is based on the treatment by Frisch, 1983.



By solving the model for the inflation rate, one sees that price dynamics in a small open economy depend on the world inflation rate as well as on the spread between the productivity growth rates in the two sectors, weighted by the S sector's share in total expenditure (Aukrust — Edgren, Faxén and Odhner, or AEFO equation).

Consequently, if income elasticity of demand for the output of the S sector is large (a quite realistic hypothesis in the case of demand for services), the economy will bear an increasing cost for the production of services in the S sector. To summarise, if S/NP services are complementary to E/P output, it is likely that the pattern of wages and prices in the former sector affects overall growth and prices through international trade. Considering that a large proportion of services belong to sector S, their cost and quality become extremely important for the country performance on the whole, in that they can influence the exposed sector's productivity and output growth. For this reason, a larger share of S/NP services (in terms of both output and demand) can be desirable and necessary to recoup a country's competitiveness.

It should be pointed out that the Scandinavian model relies heavily on structural forces and aims at explaining long-run tendencies⁽¹²⁾, irrespective of shorter term modifications. However, the model has been extended in order to take into account better the role of demand. Once demand in each sector is introduced⁽¹³⁾, new insights arise. In particular two opposite forces influence the rate of growth of demand for the S sector: on the one side the (negative) inflation effect, given by the difference between the rates of inflation in the two sectors, and on the other the (positive) income effect, weighted by the income elasticity of demand. Among the main results of the Scandinavian model, and due to the assumption of constant income shares in the two sectors, 'the income elasticity of demand for non-traded goods must exceed that for traded goods',⁽¹⁴⁾ as is the case with NP goods in the original Baumol model. The intuition behind this result is clear: the potential decline in demand for non-traded goods and services, caused by the continuous increase in the relative price of the S sector's output, has to be countervailed by a higher income elasticity of demand. Employment in the S sector should grow where the services produced are Engel-superior.

A further interesting extension of the Scandinavian model, due to Branson and Myhrman (1976), stems from the criticism of the hypothesis of invariant shares of the S and E sectors in real output. Let us assume that the policy-maker is able to set a target for the unemployment rate through demand management, causing an increase in both the inflation rate and the employment rate. The adjustment mechanism involves a pressure towards an increase in the

⁽¹²⁾ As Frisch (1983) notes, 'the Scandinavian model is a long-run supply model with implicit demand conditions. Real growth in both sectors is exogenously explained by the rate of growth of productivity and employment'.

⁽¹³⁾ The S sector produces only non-traded goods, demanded by residents, while demand for goods and services in the E sector is made up of three components: (i) the demand of domestic and, (ii), foreign residents for domestically produced tradable goods, and, (iii), the demand of domestic residents for foreign-produced tradable goods. Furthermore, the model assumes that the current account is always in balance, that is imports are always equal to the difference between domestically produced tradable goods and the demand for them by domestic residents.

⁽¹⁴⁾ Frisch, 1983.

growth rate of wages, which is not troublesome in the S sector, where prices are fixed according to a mark-up rule, whereas it is such in the E sector where, on the contrary, prices are exogenously determined in the rest of the world, so that higher money wages lead to a decline in profitability. In addition, the growth in income, along with the higher income elasticity of S services, induces a further increase in the demand for S output. Therefore, real growth accelerates in the S sector and decelerates in the E sector, thereby leading to a process of accelerated shifting in output and employment shares. The results achieved within this framework prove to be in accordance with a stylised fact of many European labour markets in the 1980s when, in a context of moderate but persistent inflation, service employment grew and industrial employment simultaneously declined ⁽¹⁵⁾.

It may be useful to mention also the stream of research that focuses on foreign trade as a relevant factor in determining both growing wage inequality in the United States (or the rising unemployment rate in the EU countries) and the displacement of workers from manufacturing jobs, with adverse consequences for income distribution. As Wood (1994) suggests, the trade of industrialised countries with less developed countries (North-South trade) consists mainly of the exchange of more skill-intensive goods for less skill-intensive ones. It is then possible that trade raises labour productivity, as more industrialised countries move into activities that make more use of skilled labour, and react to competitive pressures from the South by devising 'defensive' innovations that reduce the demand for unskilled labour.

The so-called 'deindustrialisation argument', then, blames trade as a major cause of stagnating or declining incomes among low-skilled American workers. The argument claims that low-skilled workers face a wage differential between manufacturing (where high wage jobs are concentrated) and other sectors: growing international competition would lead to a loss of many of these jobs. In principle, an increase in manufacturing imports should lead to a reduction in the country's welfare, as some workers are pushed out of the high wage sector into the low wage sector. However, the measured welfare loss from deindustrialisation shows that a more interesting effect does not lie in the amount of workers displaced from the high wage sector, but in the wage compression suffered by those who remain in that sector in the face of a reduction in the demand for low-skilled labour. It is well known that since the 1970s there has been a dramatic widening of wage differentials in the United States. To give an example, real wages of workers at the 90th percentile have risen about 15 %, while those of workers at the 10th percentile have fallen about 25 %. The widening of wage differentials has been less dramatic in other advanced countries, where there has been a secular rise in unemployment that is widely regarded as the result of an attempt to suppress the global pressures for growing inequality. Over the same period, international trade (especially the exports of manufactures from low wage countries), has increased substantially.

In principle, the growth of North-South trade could explain the rise in wage inequality in the United States: if imports of labour-intensive goods have led to a fall in the relative prices of

⁽¹⁵⁾ The case has been particularly evident in Italy, where such a structural shift has been reinforced by public expenditures financed by rapidly growing public debt.



these goods, it can happen that the real wages of low-skilled workers have indeed been lowered. This argument, however, is subject to severe criticism. As Krugman (1996) suggests, the deindustrialisation hypothesis is of little practical relevance. As a matter of fact, trade flows are too small to explain the large change in factor prices that occurred during the last decades in the United States, in particular, the substantial rise in the wage premium associated with a college education (about 30 % since the beginning of the 1970s, see also Section 3.4 below). In particular, Krugman found that ‘North-South trade has lowered the relative price of labour-intensive products by less than 1 %, and the relative wage of unskilled workers by less than 3 %. That is, trade has caused a significant, but fairly small fraction of the massive increase in wage inequality in advanced economies’, (Krugman, 1995). Within Krugman’s analytical framework (that includes the fact that the American E sector is not a price taker), some goods and services previously non-tradable become tradable as a result of globalisation.

It is then possible to draw some preliminary conclusions from the analysis of the role of international trade on employment in services. A first observation is that market deregulation and new technologies can both influence the exposure to international competition of previously sheltered services. Phenomena of this kind, in turn, can spur productivity growth in these industries, thus widening the boundaries of the P sector and consequently, delaying asymptotic stagnation as well as potentially improving the competitiveness of the E sector with positive effects on employment in both P and NP sectors.

A second consideration concerns the different behaviours of the United States and European economies in the face of globalisation. If globalisation and deindustrialisation processes put a downward pressure on the demand for low-skilled workers in the E sector, flexible wage arrangements in the United States accommodated the change and together with increased wage dispersion, led to a relative stability of low-skill employment in the E sector, as well as to employment growth in the S sector. On the other hand, in the EU, where wages are more rigid, the same pressure caused a rapid increase in the unemployment rate. This happened because, on the opposite side of labour demand, globalisation increases the demand for skilled labour in the E sector and in the industries that provide services to it; but here again there are two stories; one on each side of the Atlantic. While in the United States, employment and wages of highly-skilled workers are rising, in Europe wages are rigid, and unemployment affects highly-skilled workers significantly.

2.3.4. Productivity, wages and technical progress

Further examining the empirical evidence relating to the Baumol model, it is fair to say that the fourth assumption, concerning the movement of wages and productivity, has probably proved to be the most controversial. First, it does not seem realistic that, as Baumol argues, the wages in the two sectors of the economy go up and down together, unless this occurs over a long period of time ⁽¹⁶⁾.

⁽¹⁶⁾ Baumol (1967) claims that ‘in the long run there is some degree of mobility in all labour markets, and consequently, while wages in one activity can lag behind those in another (...) we cannot expect the disparity to continue indefinitely’.

Second, the assumption of homogeneous wage growth across industries is at variance with the evidence of growing inter-industry wage differentials, particularly wide in the United States, at least from 1975 to 1993. The normative implication of this evidence is fairly clear: as long as wages move along with productivity differentials (as is supposed to be true in the United States case), they can offset the perverse effects of slow productivity in terms of price increases ⁽¹⁷⁾, and guarantee employment growth at the same time (though not hampering, but accelerating the labour force shift towards the NP sector).

Substantial research has focused on the United States wage structure of male workers in the period between 1963 and 1989, to ascertain the role of labour demand and supply in its dramatic change (see, among others, Murphy and Welch, 1992; Juhn, Murphy and Pierce, 1993). These studies show that, although the basic pattern of average wages has not changed over the three decades under analysis (namely, higher earnings are correlated with higher schooling and age-wage profiles are concave), the size of wage differentials has increased from peak to trough by a factor of two-to-one. Thus, the pattern has not been monotonic across time, exhibiting instead a marked trend towards increased skill premiums. In addition, the data document that wage inequality among men with the same education and experience has increased by 30 % since 1970.

In order to explain these changes in wage profiles, first the possible role of exogenous shifts in the age and education attainments of the labour force have been investigated, along with a stable factor demand. The empirical analysis worked out by Murphy and Welch (1992) strongly rejects this hypothesis for the 1980s, suggesting that demand shifts must have played a relevant role ⁽¹⁸⁾. In particular, due to high levels of business-cycle unemployment experienced by the United States during the 1980s, wages declined for younger and less educated workers. Similarly, in Juhn, Murphy and Pierce (1993), the trend towards increased inequality is not viewed in terms of an increased dispersion in (unobserved) abilities, but rather as an increasing market return to skill, due in turn to changes in demand.

In summary, the explanation for this general rise in the return to skill seems to lie in significant shifts in labour demand, both across and within industries, that favour the most skilled. In other words, employment has shifted towards industries and occupations that demand more skilled labour, even in the face of rising skill premia or wages. The reduction in relative wages for the less skilled, though, did not translate into a higher employment of this segment of the labour force: on the contrary, the raise in the American employment rate since the mid-1970s, is to be traced to a growth of the market for skilled labour, characterised by higher

⁽¹⁷⁾ It should be noted, however, that the moderating effect of wage differentials on the 'coast disease' may be only temporary (see eq. 6 above).

⁽¹⁸⁾ A more detailed analysis shows that a simple supply side explanation might work for the comparison of the wage structure in the 1970s and in the 1980s. In fact, the percentage of workers with a college degree expanded rapidly during the 1970s, while wage differentials declined. Afterwards, during the 1980s, supply growth slowed, while wage differentials widened. Therefore, changes in the age and education composition of the labour force may have resulted in some of the wage changes, but they cannot be the only explanation. In fact, co-movements of prices and quantities indicate that during this period there were substantial shifts in relative labour demand across education and age classes, something that is particularly evident after 1980.



participation and employment rates, that countered increasing unemployment and discouragement rates for the unskilled (Phelps, 1997).

As we have already said, if increasing wage inequality represents a well-known stylised fact for the United States, it did not appear in European countries. In fact, with the exception of the United Kingdom where wage differentials widened over the 1980s, during the last three decades European countries experienced a quite stable (if not declining) level of wage dispersion, despite a remarkable rise in unemployment rates. Thus, the key factor differentiating European countries from the United States as to job creation performance might be represented by a higher mismatch between productivity and wage differentials. If this is true, if the United States had presented a wage behaviour more in line with the Baumolian assumption of homogeneous intersectoral growth, a slower pace in the creation of jobs in the service sector and, consequently, higher unemployment rates also among skilled labour would have been experienced. On the other hand, allowing for job creation in the slow productivity sector through wage differentiation could provide temporary relief from the 'Baumol trap', as this kind of employment may not be able to generate enough resources to increase the living standards of unskilled workers' families.

The different employment outcomes on the two shores of the Atlantic Ocean could be seen as two sides of the same coin, depending on the institutional settings of the labour markets. If in flexible labour markets the pressure towards increasing inequality transforms itself into widening wage differentials, in highly regulated labour markets it should translate into higher unemployment, in particular at the lower end of the wage scale. Nevertheless, even if it may be true that European countries' labour markets are lacking wage flexibility and exhibit higher adjustment costs, higher non-wage labour costs and more generous benefit systems, this explanation would not tell the whole story. Beyond the empirical evidence, it may be worthwhile to look more closely at the causes of this pressure towards increasing wage dispersion. In particular, skill-biased technical progress, along with different wage setting mechanisms, might explain the observed difference between the United States and Europe in labour market trends.

A useful starting point for analysing the impact of technology on factor prices was first introduced by Hicks (1932), which showed, in an extremely simplified model of one good economy, how the effect of technical progress depends on its factor bias.

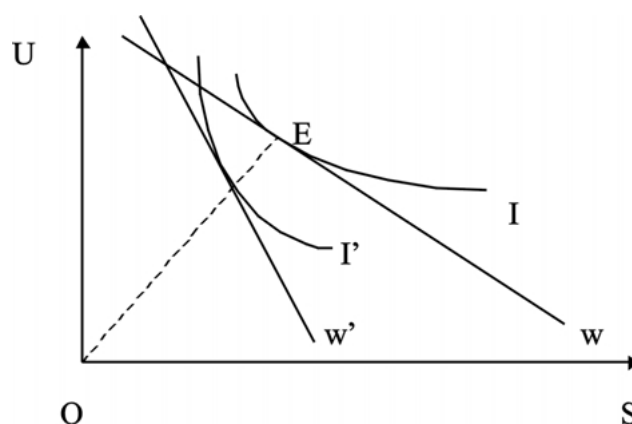
Figure 2.3. *The effect of technical progress on factor prices*

Figure 2.3 above illustrates a competitive economy producing a single aggregate good and employing two inputs, skilled (S) and unskilled labour (U). The curve I represents the initial isoquant, while the ray OE is the ratio of unskilled to skilled labour, and the slope of the w line is the ratio of skilled to unskilled wages. The effect of technical progress can be seen in the figure as an inward shift of the isoquant I to I' . If the relative supply of labour remains unchanged, the resulting relative wage will be determined by the slope of I' at the point where it crosses OE. Depending on the bias of technical progress, there will be a different effect on wages. In other words, if technical progress is Hicks-neutral (and the isoquant simply shifts inwards), the relative wage will not vary. If, on the contrary, technical progress is skill-biased, in other words the ratio of skilled to unskilled labour rises for any relative wage level, then its effect will be to raise the skill premium, for example, to the level represented in Figure 2.3 by the slope of the line w' .

In order to investigate more deeply the role of technical progress as the main explanation for the rise in skill premium, other analyses (for example, Krugman, 1995) consider an economy that produces two goods, a skill-intensive good X and a labour intensive good Y, using as inputs both skilled and unskilled labour. The hypothesis of having two goods (or, equivalently, two sectors) allows us to endogenise prices of goods. In addition, to simplify analysis, it is assumed that there are fixed proportions in each sector; that is, the allocation of resources between X and Y is determined independently of the prices for factors and goods. It follows that Hicks-neutral technical change in a chosen sector does not affect the factor ratio in the P sector, nor the allocation of resources and factor prices. If, on the other hand, technical progress investing either sector is skill-biased, the outcome is a rise in the return to skill; biased technological change raises the price of that factor toward which it is biased. Moreover, relaxing the fixed proportion assumption does not modify the basic results ⁽¹⁹⁾.

Roeger and Wijkander (1999a, 1999b) introduce a quite similar analysis. The authors consider skill-biased technical progress in a two-sector economy that employs both skilled and

⁽¹⁹⁾ On the other hand, the sectoral bias of technical change has an ambiguous effect if it is there at all.



unskilled labour, where the two sectors are represented by manufacturing and services. In their view, adopting an explicit sectoral perspective may help to explain the fall in real wage of the unskilled, which is still puzzling in the light of the previous analysis ⁽²⁰⁾. In fact, in such a framework, a decrease in real wages for the low-skilled may come not only from decreased productivity, but also from increased prices for goods and services. Two types of equilibria are examined within this model: in the first, wages and prices are allowed to adjust, whereas in the second, relative wages are not fully flexible and the equilibrium may not be market clearing.

As expected, in the case of rigid wages, skill-biased technical progress in manufacturing triggers a quantity adjustment with a rise in unemployment, a decreased production of manufactured goods and an increased production of services. If, moreover, manufacturing is the more skill-intensive sector, the expansion of services could be limited by the availability of unskilled workers, bringing about a higher unemployment rate. On the other hand, in the case of flexible wages, technical progress would lead to increased wage dispersion, provided that the elasticity of substitution between the two types of labour input is larger in manufacturing than in services ⁽²¹⁾.

The intuition behind the last result is simple; with a large elasticity of substitution in manufacturing, a productivity shock generates a large excess demand for skilled labour, which will be eliminated through an increase in the relative wages. Similarly, a low elasticity in the service sector implies that demand for skilled labour there is quite insensitive to wage changes, making a large wage increase necessary once again. Moreover, with high elasticity of substitution in manufacturing, the wages of the skilled increase substantially, as well as the price of manufacturing; through this causal link the utility of the unskilled is obviously lowered. Therefore, an interesting point resulting from the study and one not fully investigated within empirical analyses is that skill-biased technical progress may be highly non-linear with respect to changes in both sector shares and elasticities of substitution, as different outcomes (not only quantitatively but also qualitatively) may emerge ⁽²²⁾.

⁽²⁰⁾ 'Within a macroeconomic context where workers are remunerated according to marginal productivity, falling real wages among the low skilled would imply that skill-biased technical progress does not only increase the productivity of the skilled but also decreases marginal productivity of the low-skilled. (...) One explanation for this phenomenon would be that skill-biased technical progress makes low-skilled workers redundant in their current jobs and forces them to perform tasks with lower skill requirements. This argument does, however, need a fall in the average efficiency of low-skilled workers'. (Roeger and Wijkander, 1999b). It should be pointed out that the model assumes that wages for the skilled always adjust so as to bring the market for skilled labour in equilibrium. When the relative wage is rigid, unskilled workers can become unemployed.

⁽²¹⁾ Many studies claim that the elasticity of substitution between skilled and unskilled workers is indeed quite large in manufacturing, which is the sector with the highest productivity growth. Hamermesh (1993), for instance, suggests a value above 3 for the United States.

⁽²²⁾ Finally, a policy simulation exercise was formulated using data for France since the beginning of the 1970s. The exercise, certainly not politically feasible but still useful as a benchmark, consisted of removing relative wage rigidity and developing a welfare analysis. As a result, 'such a change would lead to efficiency gains but at the cost of a welfare loss for the unskilled workers'. (Roeger and Wijkander, 1999b). In addition, the production of both goods would increase, but more for services than for manufacturing.

Summing up the results of our analysis on the effects of wage dispersion, we notice that in the United States case the long-term increase in wage dispersion since 1975 correlated with a very high rate of job creation, particularly for skilled labour, but did not result in any marked acceleration in labour productivity growth. According to our analysis, the European unemployment problem could be a ‘mirror image’ of the increased wage dispersion in the United States. Needless to say, the superior performance of the United States labour market supports the view that institutional features play an important role in sustaining wage inequality. However, as Freeman (1995) points out, though undoubtedly successful, labour market flexibility has not been without cost for the United States. On the one hand it has implied a sharp rise in inequality and growing poverty, while on the other the wage reduction suffered by the less skilled has not increased their employment or worked time. Moreover, even if we neglect the shortcomings of an employment strategy based on wage dispersion, allowing for wages moving with slow labour productivity in many services requires some labour market prerequisites. Some of these would include: educational attainments of the unemployed should be low, unions’ pressure on wages weak, and women ready to hold a relevant share of the jobs that would be created.

In other words, the dispersion of wages by industry may involve a strong subsidiary role for institutional settings. After all, the United States experience seems to call (at least to some extent) for poor quality services, with little effect on tradable goods’ competitiveness, and heavy social costs associated with employment growth. This side of the model, even if counterbalanced by a probable wider increase in highly-skilled jobs, does not seem desirable for European countries, as it is not compatible with the so-called ‘European social model’. Moreover, as unemployment in these countries is characterised by a higher proportion of highly-skilled labour, the United States model may simply appear unlikely.

2.4. Looking for alternatives

The analysis of the Baumol model presented in the preceding pages has led us to some conclusion about job creation in services.

1. The first important result is that service employment growth could not be in itself a good policy objective (at least if we take per capita income growth as a proxy for the increase in average welfare and living conditions), unless such a growth takes place in industries that contribute, directly or indirectly, to aggregate productivity growth. In other words, the Baumol model proves to be a very useful analytical tool in that it clarifies the terms of the trade-off between employment and productivity growth in every economic system ⁽²³⁾.
2. A major way to escape the ‘Baumol trap’, or else to soften its constraints, could be provided by new technologies and organisation improvements that transfer technical progress into previously non-progressive service industries. These changes can expand the boundaries

⁽²³⁾ It may be important to note that this trade-off is typically determined by demand constraints, so that its optimal solution may require some kind of effective demand management.



- of the progressive sector and thus delay the asymptotic stagnation of aggregate productivity, even if this may leave the terms of the trade-off untouched (or even worse) between productivity and employment growth.
3. If we take into consideration the role of international trade, we first note that exposure to it may spur productivity growth in the industries concerned and second, that sheltered services may profoundly affect the performance of exposed industries as long as they provide them with domestically produced inputs. For this reason, a particular effort should be made by policy-makers to favour international competition in services as well as increasing domestic competition in the service industries whose output is complementary to that of the exposed industries.
 4. The choice of favouring employment growth in services by differentiating wages along with productivity growth may prove unsuccessful in terms of welfare, as it may accelerate the perspective of productivity asymptotic stagnation even in the presence of some positive effects on aggregate output growth. Furthermore, in a context of unbalanced productivity growth, the possible benefits of wage differentiation are only of a short-term nature.

Our discussion leads us to devise some alternatives to the idea of escaping the ‘Baumol trap’ through wage differentiation — an idea that, as well as being short-sighted as to its beneficial effects, has many negative social implications. As Appelbaum and Schettkat (1995) suggest, market forces have proved unable to deliver both high productivity growth and employment growth. Policy-makers then have a difficult decision to make: on one hand, they may expand less efficient activities by allowing for lower wages. On the other, they may opt for enhanced efficiency and high-quality services by supporting investment in human capital and physical infrastructure, knowing that productivity gains may reduce employment growth for any given rate of labour demand. Even though it is probably not viable to choose one of the two options exclusively, it is certainly possible to make the first alternative a socially limited and temporary step, while pursuing the second one as the European strategy for regaining competitiveness, for modernising and expanding employment in the service sector.

Consequently, though we cannot disregard the benefits that could come to EU labour markets from more flexible institutional arrangements (like the one called for by the Luxembourg strategy under the pillars of employability, entrepreneurship and adaptability), fundamental advantages may come to Europe from the development of high-quality services for the progressive sector, which could be able to positively influence its international competitiveness as well as its size. In the area of high-quality business services, where it is likely that market forces alone may not succeed in generating enough demand, the European governments and the EU institutions should favour job creation through training, incentives and financial facilities. In this same direction, the initiatives are crucial to modernise public administrations as well as social and State-provided or State-financed services that affect the competitiveness of the tradable industries.

Secondly (and in strict connection with the first point), in the face of the diffusion of information technologies and the potential globalisation of the service markets, the assumption of long-term invariance in the output shares of the progressive and the non-

progressive sectors could prove unrealistic. Here an alternative strategy seems available to the policy-maker, based on the objective of expanding the progressive sector by transforming non-progressive into progressive activities, by means of new technologies and improved skills and competencies. This result could be achieved by means of measures aimed at modernising and reorganising traditional services (like information, arts and culture, research and education, counselling and design, finance and banking, etc.) in the direction of helping them to become (at least partially) tradable and progressive themselves. This could relax the demand constraint of the Baumol model and create room for employment growth in both the progressive and the non-progressive sectors. In fact, it would be possible to achieve productivity gains in a wide range of business, consumer and household services, which may be considered as Engel-superior, since they are highly price-inelastic and income-elastic. In particular, information and communication technologies may be expected to bring about employment expansion while raising real income at the same time.

A further choice would be to support massive investment in innovation, in order to recoup technological gaps, devise new products and open up new markets for the progressive sector, thus increasing through this channel the effective demand for high-quality services.

In sum, the critical challenge that confronts the opportunities for employment and growth in the European Union is based on the modernisation of the whole European service sector, in order to make it more friendly and useful not only to social, technological and economic innovation, but also to the rest of the economic system as well as to the rest of the world. We have seen here that the European choice in facing the 'Baumol trap' has been to keep to productivity and income growth, while reducing employment. A wise strategy for developing high-quality services along the lines of modernisation and internationalisation could maintain the productivity record while supporting the employment potential of the European economies.



Chapter 3

Service employment: A gender perspective

Dominique Anxo and Colette Fagan

3.1. Introduction

One of the most salient features and persistent trends in advanced economies is the increased feminisation of the labour force and the related shift from the single male breadwinner household towards dual earner households. The overall increase of female employment rates over the last decades has been closely associated with the development of the welfare state in general and the growth of social services in particular. Despite the significant reduction of the gender employment gap, there are still large differences in the patterns of female labour market integration in Europe. The extent to which these differences are related to country disparities in the industrial structure and variations in the pace and patterns of employment growth in the service sector is examined in the first section of this chapter (Section 3.2). Obviously, disparities in the female employment rate among EU countries and the United States cannot be ascribed to country differences in the magnitude of service activities alone. Other societal aspects are also important, such as differences in social norms affecting the household gender division of labour and also diversities in the organisation of the welfare state and employment regimes. A typology of European countries according to the nature of welfare states and the provision of social services can serve as a useful heuristic device to understand the disparities in the position of men and women in the European labour market. The extent to which these regimes have had a differentiated impact on the female employment rate and how the development of these welfare state regimes are linked to the development of the service sector is also addressed in the first section.

Another central issue is the relationship between the country related employment growth in the service sector and women's integration versus segregation by sector and occupation. High feminisation of the labour force and high welfare public service activities have also led to a

high and persistent sectoral and occupational segmentation by gender. In most European countries, the outsourcing of traditional female household activities (childcare and elderly care) to the labour market has clearly eased women's transition from the domestic sphere into the labour market, but on the other hand this outsourcing has, de facto, implied a high gender labour market segmentation and occupational segregation. The European and United States labour markets are still characterised by a high degree of gender segregation. The implication of sex-segregated employment and service sector restructuring for women's labour market integration is addressed in Section 3.3.

Information technology plays a vital role in the growth of service employment (see J. Philpott, this volume). The new information and communication technology has already had dramatic effects on various service sectors. Recent developments in insurance, banking and financial services are probably the most illustrative example. An analysis of the transformation of work and the gender consequences of the change in the employment structure connected to the emergence of the new 'informational paradigm' are also addressed. One central question in this context is the extent to which the prevailing economic and employment restructuring trends are favourable to women's future employment prospects and how this transformation will affect the pattern of occupational segregation/integration. It has been argued that the rapid diffusion of new information and communication technology may have a detrimental impact on employment in many service areas where women are over-represented. How the trends towards a flatter hierarchical work organisation and greater functional flexibility may influence the gender employment structure is also examined in Section 3.3.

In recent years, great attention has been paid to the incentive structure on the labour market in explaining the relative deficit of employment growth between Europe and the United States. Social transfers, taxes and non-labour costs may, either separately or jointly, raise barriers and disincentives affecting the growth of service activities, in particular personal services. It has been argued that a high tax wedge restricts consumer demand for household related services limiting job creation in service activities and leading to inefficiency in resource allocation within the household and in the whole economy. These wedges may affect household decisions both in terms of gender allocation of time and labour supply (hours worked) and give rise to economic inefficiency. The last section of the chapter explores the theoretical implications of policy designed to shift or outsource tasks that are largely carried out by domestic work or through self-provisioning, mostly by women's labour, into the service sector of the economy. Such a development could be expected to have implications for the gender division of labour and allocation of time within the household, for women's labour supply and their career opportunities, and also for the level of employment growth and overall efficiency of the economy. Lastly, the concluding section offers some policy recommendations.

3.2. The macro societal perspective

The main focus of this section is to analyse the macro level relationship between the organisation of welfare provision, the employment structure and the position of men and women in the labour market. As mentioned above, the increase in women's employment rates

since the 1950s has been closely associated with the growth of the service economy, including the expansion of public sector employment produced by the development of welfare states. The gap between women and men's employment rates has been reduced as a result. The common trends of increased employment in the service sector and the rising female activity rates are obviously interrelated but the causal relationship runs in both directions. The growth of the service sector has favoured women's integration in the labour market and the increase of female labour supply has rendered possible the growth of the service sector.

However, as Table 3.1 shows, there are still large differences between countries in the level and form of women's labour market integration (as well as within countries, for example, by education, ethnic status or region) (Rubery et al., 1998, 1999).

Table 3.1. *Employment rates for women and men of working age in the EU, by full-time and part-time status, 1996*

	Men			Women		
	Full-time	Part-time	Total	Full-time	Part-time	Total
Belgium	65	2	67	32	14	46
Denmark	72	8	81	44	23	67
Former West Germany	71	3	73	36	20	55
Former East Germany	68	1	69	44	12	56
Greece	71	2	73	35	3	39
Spain	60	2	62	27	5	32
France	64	3	67	37	15	52
Ireland	64	3	67	33	9	43
Italy	63	2	65	32	5	36
Luxembourg	63	1	64	29	7	35
Netherlands	63	12	76	17	37	55
Austria	73	3	76	42	17	59
Portugal	69	2	71	48	6	54
Finland	58	5	62	49	9	58
Sweden	65	6	71	40	28	68
United Kingdom	70	5	75	35	28	62
EU-15	66	4	70	34	16	50

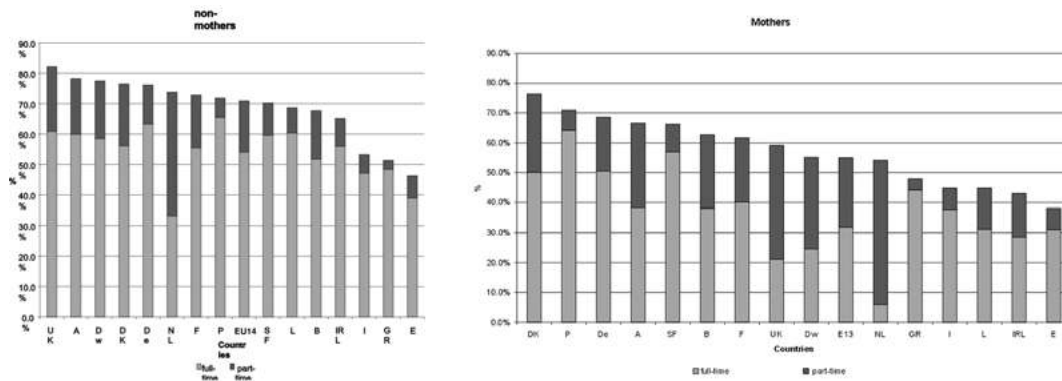
NB: Total may vary slightly from the sum of full-time plus part-time due to rounding of decimal places.

Source: European labour force survey, 1996.

To be more precise, most of these national differences are due to variation in the form of labour market integration of mothers. This is illustrated in Figure 3.1, which shows that overall employment rates for women aged 20–49 and without dependent children exceed 70 %

in eight of the 14 countries shown ⁽¹⁾, and only fall below 60 % in Greece, Spain and Italy. Most of this employment is full-time, except in the Netherlands. In contrast, motherhood is associated with a marked reduction in employment in many, but not all, countries.

Figure 3.1. Full- and part-time employment rates of mothers and non-mothers aged 20–49 in the EU, 1996

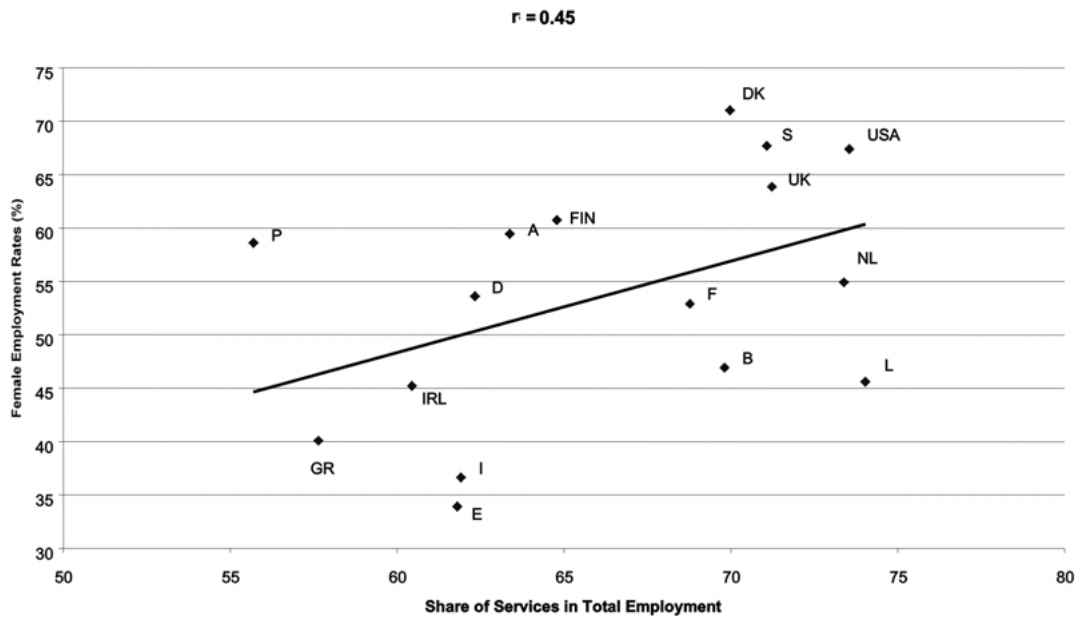


To what extent are these differences related to the relative size of the service sector and the pace and pattern of employment growth in this part of the economy?

Figure 3.2 suggests there is no deterministic relationship between the size of the service sector, measured here by the employment share of services in total employment and the employment rates. Even though there is a positive correlation between the degree of women’s commitment in the labour market and the employment structure, a simple regression analysis shows that less than 20 % of the country variation in female employment rates could be ‘explained by’ variation in the magnitude of the service sector.

⁽¹⁾ West and East Germany are shown separately because prior to unification they had distinctly different State policies towards the employment of mothers, the legacy of which remains today in the sharply different patterns of maternal employment for women in these two parts of Germany. Harmonised labour force survey (LFS) data by motherhood is unavailable for Sweden. In Sweden, mothers have a high employment rate, for example, in 1993 three quarters of Swedish mothers with a child aged 6 years or under were employed, 35 % in full-time employment and 40 % in part-time employment (Deven et al., 1997).

Figure 3.2. Female employment rates and employment share in services, EU-15 and the United States, 1997



Source: Eurostat (1999) and own calculations.

Hence, national differences in women's employment rates are not simply due to the magnitude of the service sector and the diversity in employment structure appears not to be a good predictor of female integration in the labour market. The decision to participate in the labour market and the types of jobs available to women and men are shaped by a number of societal features, particularly labour market and welfare state institutions, as well as more broadly by social norms as to the conditions under which it is appropriate or expected that women (and men) will participate in market work. Nevertheless, service sector expansion is an important part of the jigsaw.

The concentration of employment in service sectors is shown in Table 3.2. Overall, 55 % of male and 80 % of female employment is concentrated in the service sector, and part-time employment is even more concentrated in this part of the economy.

Table 3.2. *The concentration of employment in services in the EU Member States, 1996*

	% of men's employment			% of women's employment		
	Full-time	Part-time	All	Full-time	Part-time	All
Belgium	59	84	60	81	92	85
Denmark	56	81	59	79	89	83
Former West Germany	50	74	51	75	82	78
Former East Germany	44	77	45	78	87	80
Spain	52	67	52	79	85	80
France	57	75	58	80	88	82
Ireland	49	70	50	77	89	80
Italy	55	58	55	72	73	72
Luxembourg	64	79	65	92	92	92
Netherlands	61	74	63	84	90	88
Austria	52	61	52	74	80	76
Portugal	51	37	50	66	58	65
Finland	50	62	51	79	91	80
Sweden	55	73	57	84	89	86
United Kingdom	57	86	59	80	91	85
EU-15	54	74	55	77	86	80

Source: European labour force survey, 1996.

Between 1980 and 1996 service sector employment in the EU increased by around 19 million, compensating for the loss of 13 million jobs in agriculture and industry. The largest area of growth has been in the 'care' services (health, social services, education), various business services and environmental activities. There has also been a significant expansion in the number of jobs in hotels, catering, leisure and recreational services associated with the growth in tourism and business travel. Only a small part of the growing concentration of employment in services is attributed to the greater prevalence of part-time employment in this part of the economy. In most countries the share of employment which is concentrated in services is only reduced by around 2 % if measured in terms of the volume of hours worked rather than the number of employed persons (CEC 1997c:85–97). Nevertheless, part-time work remains heavily concentrated in services, particularly in sales and distribution and miscellaneous other services. These service activities accounted for 70 % of the growth in part-time work between 1983–92 in the EU (Smith et al., 1998, Walwei 1998).

Public sector service employment has played a particularly important role in the development of women's employment, especially in the Nordic countries. Public administration and other public services account for at least half of women's employment in the Nordic Member States and Belgium (Table 3.3). Overall, the public sector accounts for nearly 44 % of female employment in the EU-15 compared with just under 22 % of men's employment.

Table 3.3. *The concentration of employees in the public sector in the EU Member States, 1996*

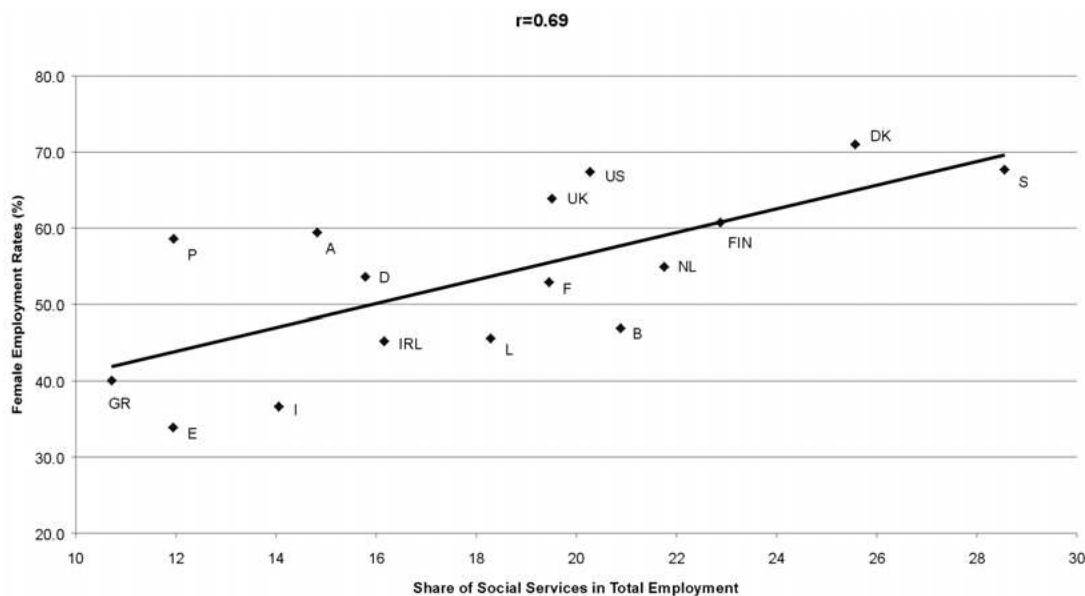
	% of men's employment			% of women's employment		
	Full-time	Part-time	All	Full-time	Part-time	All
Belgium	25	37	25	51	57	53
Denmark	23	33	24	51	60	54
Former East Germany	19	44	20	45	41	44
Former West Germany	21	35	21	40	40	40
Spain	20	36	20	41	25	39
France	22	45	24	45	48	46
Ireland	22	35	22	41	49	43
Italy	24	26	24	45	26	43
Luxembourg	23	26	23	35	44	37
Netherlands	23	24	23	40	48	45
Austria	19	34	19	37	35	36
Portugal	20	24	21	40	31	40
Finland	21	24	21	51	41	50
Sweden	21	37	22	57	63	60
United Kingdom	20	26	20	43	46	44
EU-15	21	32	22	44	44	44

NB: Public sector employees are defined as those working in the following sectors: public administration, defence and compulsory social security; education, health and social work; social and personal service activities (NACE Rev. 1 categories L, M, N and O).

Source: Rubery and Fagan 1998, Table 2.7, based on the European labour force survey, 1996.

Although the expansion of services employment (in particular the female dominated social services) is a feature of all advanced societies, the pace of such expansion seems to be related both to the type of welfare state, and to the stage of development of the economy. The nature of the welfare state regime might influence women's employment prospects directly in the sense that a relatively large welfare state increases the demand for female labour. The reason is closely related to the gender segregation of employment and occupational structure. Overall, countries with a relatively low female employment rate tend to have relatively underdeveloped social welfare services or low shares of private service work. The country variation in the employment share in social services can serve as a first rough approximation of the diversity of welfare state regimes. Hence, we may expect that the higher the share of social services in the whole economy, the higher the female employment rates. As shown by Figure 3.3 below, the correlation between female employment rate and the share of social services (health, education and other social services) is high.

Figure 3.3. *Female employment rates and employment share in social services (health, education and other social services), EU-15 and the United States, 1997*



Source: Eurostat (1999) and own calculations

Esping Andersen (1990, 1996) has suggested a country typology based on the extent to which the market and or public sector provision has substituted for women's unwaged domestic labour in the provision of household-related services. The United States and the United Kingdom are examples of economies in which the market delivers many services such as ready-made meals and fast food outlets, laundry and home cleaning services, as well as some childcare services and residential care for the elderly. Retail hours are relatively long, making it possible to shop at the end of the working day. These private sector services are mainly provided by women in low-wage jobs. In contrast, in the Nordic countries — and to a lesser extent in France — many care activities have been collectivised and are carried out by women employed in the public sector. Here, the public funding of care work has enabled women to increase their labour supply, and it is precisely in the public sector delivery of this work where large proportions of women have found employment. This has meant that the high female employment rates in the Nordic countries coexist with high levels of gender segregation, particularly between the private and public sector. Nevertheless, these public sector jobs are generally better rewarded than the private sector equivalents found in the low-wage service sector economies of the United Kingdom and the United States.

In the rest of continental western Europe, both public and private services are underdeveloped by comparison. These include the Member States, such as Germany, with highly developed welfare states, but where resources are distributed via transfer payments to 'breadwinners' combined with relatively generous derived rights for 'dependent' spouses, and the southern European countries where welfare systems are relatively underdeveloped. In these countries even more of the activities needed to run a home and look after family members are delivered

through women's unwaged domestic labour than in either the Nordic or the Anglo-Saxon economies. The impact on women's employment rates can be illustrated by the example of Germany, where the relatively low proportion of employment in the service sector is often used to indicate that this sector is relatively underdeveloped. If Germany had the same sectoral distribution as the EU average, the relative expansion of the service sector would mean that female participation rates would increase on the basis of current female employment shares in each sector (CERC 1994:95) ⁽²⁾.

Table 3.4 presents the female employment rates alongside the service sector employment concentration rates for the Member States, grouped by typology.

Table 3.4. *The female employment rate and the concentration of women's employment in service sector employment, 1996*

	% concentration of:			
	Women's employment rate	Women's employment in services	Women employees in the public sector	Women's employment in market services
Public sector service model				
Denmark	67	83	54	29
Finland	58	80	50	30
Sweden	68	86	60	26
Market service model				
United Kingdom	62	85	44	41
Household service model				
Belgium	46	85	53	32
Former East Germany	56	80	44	36
Former West Germany	55	78	40	38
Greece	39	62	43	19
Spain	32	80	39	41
France	52	82	46	36
Ireland	43	80	43	37
Italy	36	72	43	29
Luxembourg	35	92	37	55
Netherlands	55	88	45	43
Austria	59	76	36	40
Portugal	54	65	40	25
EU-15	50	80	44	36

NB: Total may vary slightly from the sum of full-time plus part-time due to rounding of decimal places. See note to Table 3.2 for definition of the public sector services.

Source: European labour force survey, 1996.

⁽²⁾ The counter argument is that the low proportion of employment concentrated in the service sector in Germany simply reflects the fact that fewer activities have been outsourced from manufacturing. However, if we take the proportion of men's employment which is concentrated in service and sales occupations as an indicator of service tasks rather than the sector they are employed in then we find that it is roughly three percentage points lower than the EU average (Rubery and Fagan, 1998, Appendix Table 2.3a).

It is notable that the Nordic countries have high employment rates associated with a high concentration of women's employment in the public sector — what we have termed the public sector service model — and the United Kingdom has a high female employment rate associated with a high concentration of women in market services, what we have termed the market service model. Female employment rates are generally lower in the other Member States, but there is no simple linear correlation between female employment rates and the relative size of either the public sector or market services.

While the market service model can provide a route to high female employment, the expansion of public sector services has probably made a more positive contribution to women's labour market integration for two reasons. Firstly, the public sector has historically been a relatively good employer compared to many parts of the private sector in terms of job quality (security, pay, etc.), equal opportunities policies and the provision of more progressive family friendly policies (such as parental leave, assistance with childcare services and flexitime policies) (Rubery and Fagan, 1993, OECD 1994). Secondly, the public sector has provided better quality services relative to those which most people can afford to purchase in the market. Hence, women have an interest both as employees and as consumers in the existence of regulated public standards.

However, common to both the market service model and the private sector model is the fact that the segregated division of labour within the household around the traditional 'male breadwinner' model of men as wage earners and women as homemakers is being replaced by specialisation and segregation within the labour market. Women are over-represented in services connected with providing physical and emotional care and personal services (health, education, child and elder care, catering, cleaning, secretarial support, etc.). Gender segregation in employment remains persistently high despite the feminisation of employment, and women continue to do most of the domestic work within the home. From this perspective the fundamental gender division of tasks within society have changed little despite the substitution of state or market provision for some forms of domestic self-provisioning.

3.3. The implications of sex-segregated employment, service sector restructuring and new work organisations for women's labour market integration

Women's position in the labour market is dependent on the overall employment performance of the economy, the employment structure and also the degree of sectoral and occupational gender segregation. *Ceteris paribus*, the higher the level of gender segregation the higher the gender impact of structural and sectoral change ⁽³⁾. Since the prevailing situation in most advanced economies is characterised by a high level of gender segregation and that we cannot expect large major changes in this respect in the short run, then further reduction of the gender

⁽³⁾ For instance, the employment crisis in the early 1990s has been concentrated on manufacturing industry and construction, both sectors where the gender distribution of employment is very uneven (male-dominated sector).



employment gap will be essentially related to the growth of female-dominated sectors. In other words, the further integration of females in the labour market, given the level of segregation, is highly dependent on the employment growth in female-dominated activities.

As stressed by Fagan & Rubery (1993), the patterns of occupational and sectoral segregation have in recent years tended to provide some protection for women's employment, both because women have been concentrated in areas with significant job growth and because these sectors have been less prone to cyclical variation. At the same time, occupational segregation is a key factor in the persistence of gender inequality within the labour market. Segregation facilitates the maintenance of a gendered labour market in which female-dominated and male-dominated jobs are organised according to different principles including pay, working time, and integration into career ladders and organisational structure (Rubery et al., 1999).

Past trends in service sector expansion suggest that further expansion of public and or market services would help to raise the female employment rate in countries where it is currently low. This is because European employment growth in recent decades has been concentrated in those service activities where women already had a reasonable presence, and this has played an important role in contributing to women holding a growing proportion of jobs in Europe. Indeed shift-share analysis shows that the feminisation of employment in the period covering the 1980s and early 1990s was due in roughly equal parts to the expansion of employment in female-dominated sectors (mainly services) on one hand and an increased female share of employment in male-dominated sectors on the other. While the latter process indicates some reduction in gender segregation, the increased female share in female-dominated sectors means that there has not been any overall dismantling of gender segregation (Rubery et al., 1998, 1999).

The gender segregated basis of women's gains in employment is also evident in occupational trends associated with economic restructuring. Women have benefited from the expansion of professional employment in recent decades, much of which is in the service sector, and hold a higher and growing proportion of these high-status and high-paid occupations in the economy. Some of these professional jobs were previously male-dominated, such as accountancy or law, while others were already mixed or female-dominated, such as teaching and nursing. This feminisation of the professional tier of the labour market can be considered as a process of desegregation, even if other sex divisions persist or are emerging to maintain vertical segregation within the senior grades and managerial positions. However, segregation has increased at the intermediate and lower levels of the occupational hierarchy. Female-dominated occupations such as clerical work or personal services have been further feminised as women have increased their share of employment in these parts of the economy. Few women have entered male-dominated manual jobs, not least because job loss has been concentrated on this part of the economy since the 1970s so that there have been few openings or incentives for women to compete in this area. Summary index measures present a picture of persistently high overall levels of segregation in each Member State, with women in part-time jobs even more segregated from men than women in full-time jobs (Rubery and Fagan, 1993, Rubery et al., 1999).

While service sector expansion has enabled women to increase their share of employment on a gender segregated basis in the past, current labour market developments suggest that the gains women have made may be stalled or reversed. These labour market developments can be summarised as follows, although the extent and form of these general trends varies by sector and society:

- the deregulation of employment protection and increased flexibility in contractual and working time arrangements;
- the decentralisation of collective bargaining, a decline in union representation and increased individualisation of the employment relationship;
- organisational restructuring to take advantage of new forms of technology and work practices is producing organisations that are characterised by flatter hierarchies, greater functional flexibility, a ‘hollowing out’ of intermediate-level jobs, and the collapse of internal labour markets with rigid promotion ladders in favour of career progression based on qualifications and lifelong training;
- persistent unemployment among those with few qualifications.

To start with, a potential development is that of more direct competition with men for jobs than in the past. While professional employment is still expanding overall in most countries, organisational downsizing and delayering is producing job loss and reduced promotion opportunities in the middle management levels at the workplace (Capelli et al., 1997, Pryor and Schaffer, 1999). This may reduce a number of routes which women have used to move into management in the past. In addition, the link between qualification levels and career progression may be becoming less certain in the new flexible workplaces of constant innovation to survive in changing product markets. This may have negative implications for women, because so far they have made more progress into the higher status and better paid job areas where qualifications and examinations have played a large role in selection, such as in the professions and the public sector in many countries. Where selection criteria are less transparent, notably in private sector managerial jobs, women have made less progress (Rubery et al., 1999). Furthermore, as labour markets restructure and entry qualifications become more rapidly out of date, access to workplace training and lifelong learning will take on more importance in some labour markets. Yet women’s ability to access workplace training and lifelong learning may be constrained by segregated employment patterns and career interruptions connected with child raising, for lifelong learning opportunities tend to be offered primarily to those in full-time, continuous employment (Tuijnman and Schömann, 1996).

More intense competition might occur among those with few qualifications because the shrinkage of manufacturing has reduced the traditional job opportunities for men. In the long-term, women can expect more men to try and enter their traditional enclaves in clerical and service work, particularly where reform in unemployment benefits and active labour market policies are putting more pressure on men to accept jobs in these areas. The experience of East Germany following unification provides a clear, albeit, extreme warning. Here, the combination of high unemployment and the rising status of clerical work under the new



regime led men to take refuge in what were traditionally women's areas of work (Maier et al., 1996:35). Furthermore, low-qualified women may find themselves increasingly in competition with other pools of labour for part-time work in retail, hotels and catering. For example, university education in the United Kingdom has expanded in the context of the removal of student maintenance grants, so that now approximately one fifth of students hold part-time jobs. Another substitute labour pool may be among those who have retired from full-time work but seek part-time employment to supplement their income or for the non-financial rewards of work.

Employment prospects will continue to be affected by developments in information and communications technology (ICT) which play a vital role in the growth and organisation of service employment. This technology could be seen as the first major technological innovation that has directly addressed parts of the service sector, given that many service activities have essentially to do with the processing of information. This new 'informational paradigm' (Castells, 1996) is transforming the organisation of work and producing new services. Technological change and organisational restructuring appears to be reducing employment opportunities in clerical work, which until now has provided an important source of middle-level jobs for women. Over the 1990s some countries recorded downturns in the rate of growth of this occupational group or even actual declines (Rubery et al., 1999). Part of the reason is that clerical functions are increasingly being carried out by workers in other occupations using personal computers and other information technology, thus enhancing their functional flexibility. Another important reason is that large proportions of clerical workers are employed in financial services, where jobs are being cut back in a number of countries as a result of organisational rationalisation and mergers, and the introduction of new forms of service delivery such as telephone and Internet banking.

At the same time that information and communications technologies are producing job loss in some areas, new services and areas of employment are emerging. Women can be expected to gain employment in these new service jobs where there are low or intermediate level jobs, such as in telephone 'call' centres, but their prospects in the more highly skilled areas are less clear. For example, the emergence of computer professionals as a new and expanding occupational category in recent decades has gone hand in hand with this becoming a male-dominated area of work, although women are making some small inroads in some countries (Rubery et al., 1999). The potential for expanding telework is also double-edged. On one hand it offers the scope for more flexible and possibly more family-friendly ways of organising working life, as well as spreading employment into economically depressed or isolated geographical areas. On the other hand, it carries the risk of placing an increasing number of women at home working in isolation and with inferior terms and conditions of employment if this form of work is used to drive down labour costs (Huws, 1995).

The quality of women's jobs in public and private services may also deteriorate in the context of current labour market developments. Where public sector employment has provided women with reasonable employment conditions in the past this may be undermined through restructuring processes in the context of expenditure constraints driven by fiscal convergence criteria. These budget limits are constraining public sector employment growth and also

fuelling the restructuring of service delivery. In some circumstances the direction of change is to try and 'roll back' the welfare state with the aim that the market will expand to provide substitute provision, for example, in elder care services and private pension schemes. In other circumstances new accounting systems have been introduced to encourage increased competition between service providers within the public sector and between the public and private sectors through processes of privatisation and competitive tendering. The subcontracting of services from the public to the private sector in the United Kingdom, for example, was accompanied by deterioration in employment conditions for employees in these services, most of whom are women. The application of the transfer of undertakings' protection of employment directive to public sector workers has provided some protection by requiring the subcontractors to respect minimum terms and conditions of employment (Escott and Whitfield, 1995). However, in the long run the real value of these minimum guarantees may fall, not least because public sector conditions have themselves been pegged to limit the growth of the wage bill. Women's dependence on future employment trends in the public sector may be particularly marked in labour markets where there is little mobility between the private and public sectors. This has been predicted in the case of Denmark, for example (Boje, 1995:33).

Developments in the organisation of private services may also have negative implications for the quality of women's employment. Women's private service sector employment is concentrated in the least regulated parts of the economy, such as in small firms. Many of them are found in the lowest paid, highly feminised areas of private service activity, and patterns of gender segregation are even more pronounced when viewed from the establishment or workplace level than from the aggregate sector or occupational level (Burchell, 1996, Millward and Woodland, 1995, Scott, 1994). This makes women vulnerable to deterioration in wage and other employment conditions in the context of current trends towards deregulation and decentralised bargaining.

Finally, the expansion of part-time and other flexible employment contracts in services has been associated with the mobilisation of mothers into employment in some Member States. However, the creation of such jobs is not necessarily a requirement for raising the female employment rate. This is shown by the fact that in some Member States large proportions of mothers are employed on a full-time basis (see Figure 3.1 above). The quality of part-time work varies markedly between countries and sectors in terms of job type, employment conditions and promotion opportunities. Where part-time work has developed into major employment within a strongly regulated labour market there are fewer penalties associated with working part-time in terms of pay, access to benefits and job opportunities further up the occupational ladder. Examples of these relatively positive findings include the Nordic countries and the Netherlands (Fagan et al., 1995, O'Reilly and Fagan, 1998). Nevertheless, large proportions of part-time jobs are concentrated in private sector services which generally have inferior pay and employment conditions, often organised around very short or marginal hours contracts. Further expansion of this form of employment will increase the polarisation between women in full-time and part-time jobs, particularly where there are few mobility channels to move between part-time and full-time jobs in either the external or internal labour market.



To conclude this section, future employment growth is predicted to be concentrated in service activities. Many of these jobs will be connected with welfare services (health, social services and education) as well as personal and household related services. How this expansion in welfare services will be funded, and whether it will be organised through direct public sector provision or through combinations of public, private and voluntary sector partnerships is not clear. If the outcome is a reduction in public service provision driven by public expenditure constraints to meet the convergence criteria of monetary union, then women will be affected not only through a potential deterioration in both quantity and quality of public sector employment but also because if the public provision of childcare and elder care is cut back, this will constrain their labour supply. The quality of many private sector service jobs are also under threat due to deregulation and organisational restructuring. In addition, competition is likely to increase between women and men in many parts of the labour market. Those with few qualifications will continue to bear the brunt of unemployment and may face even more limited job opportunities if competition within the labour market produces a ‘bumping down’ process of workers being forced to compete for jobs below their qualification levels (Pryor and Schaffer, 1999). While the expansion of part-time and low wage service jobs has been posited in policy debates as one means of job creation to relieve unemployment, what is often missing is the recognition that only people with access to other household resources can afford to take such jobs. Typically, these are women with employed partners, young people, or retired persons with a pension. Such forms of work are unlikely to be voluntarily entered by unemployed men with family responsibilities, undermining the efficacy of promoting part-time work as a means of tackling unemployment (Walwei, 1998). To the extent that women fill these jobs the effect will be to maintain the sex-segregated character of the labour market in which employed women are disproportionately concentrated in the low paid parts of the economy.

3.4. The gender division of labour, the service economy and equal opportunities: A micro perspective

A growing proportion of women are remaining in the labour market throughout their working lives and combining waged work with raising children. From the perspective of household time allocation, this means that women are devoting more of their time to the activity of employment, leaving less time for domestic production and leisure. Yet in the gender division of household labour women still do most of the day-to-day housework and childcare. This domestic responsibility constrains women’s labour supply, and the type of jobs women take are at least partly influenced by the working time requirements. As discussed in the previous section, the substitution of market and public household related services, particularly that of childcare provision, has facilitated the increase in women’s employment in recent decades. In this section we consider the relative efficiency and the gender implications of market subsidies to stimulate expansion of household related services. The main objective is to explore, at a theoretical level, to what extent such a policy may improve gender equal opportunity, overall economic efficiency, employment prospects and economic growth.

3.4.1. Gender and time allocation in the household

In the household economics approach to time allocation (Becker, 1965), the household is viewed as a 'small factory' in which the labour of household members is combined with the purchase of market goods and services in order to nurture and sustain the household. Time is used in consumption to varying degrees of intensity. Some forms of consumption are time intensive, in that they require a substantial input of domestic labour to transform the purchased inputs into the final goods and services (for example, shopping for and cooking a meal, looking after children, home decorating, making clothes). Other 'labour saving' forms of consumption require less time to be allocated to domestic labour (for example, ready-cooked meals, childcare services, hiring a painter), in other words market purchases are substituted for domestic production. The pattern of market consumption which results is therefore subject to the constraint of income for market purchases and available time for domestic labour and consumption.

The implications of this model of time allocation are that if earnings rise then the financial rewards from allocating time to employment increase and conversely allocating time to domestic work and leisure becomes more expensive in terms of foregone earnings. As a result, labour supply will tend to increase, *ceteris paribus*. Conversely, if the prices of certain market goods and services fall then there will be a tendency for these to be substituted for domestic production, thus freeing time which may either be reallocated to other preferred forms of domestic activity (leisure instead of housework) or may feed into an increased labour supply. Given the household budget constraints of time and money it is assumed that the gender division of labour found in couple-households reflects an efficient specialisation to capitalise on comparative advantages in waged and domestic work. The assumption is that it is more efficient for the lower earning member (typically the woman) to specialise in domestic production and for her higher paid partner to devote more time to waged work.

The value of the household economics approach is that it emphasises the trade-off of time allocation between waged work, domestic production and leisure. However, the claim that a gender-based division of labour within households is efficient is erroneous. A number of market failures are exposed when the returns to the household are viewed from a lifetime instead of cross-sectional perspective, and when the aggregate macroeconomic gains of increased female integration into the economy are taken into account (Fagan and Rubery, 1996). In brief, policy intervention to enable women to increase their labour supply would enable women's skills to be more fully developed and used in the economy, thus increasing economic efficiency. This enhanced integration of women into the economy would also provide income security in periods of male unemployment and household dissolution due to divorce or widowhood, thus reducing the demands on public expenditure for unemployment and poverty assistance. This suggests that if market subsidies of household related services promote a shift towards a 'dual-earner' model of household behaviour then such policy intervention may enhance equal opportunities and economic efficiency. This idea is explored further in the rest of this section of the chapter.



3.4.2. The gender division of domestic labour, market substitutes and equal opportunities

Women still do most of the unwaged work in the household despite their rising labour market involvement. Some research has revealed a lagged adaptation whereby men are gradually increasing the amount of unwaged work they do in circumstances where the woman works full-time, with the evidence being more pronounced in households where the women and men possess high qualification levels (Gershuny et al., 1994, Vogler, 1994, Rubery et al., 1998, Fagan, 1997). Adaptation follows rather than precedes women's integration into waged work, very slowly and often lagging across generations (Gershuny et al., 1994).

How then might subsidised market services affect the gender division of domestic labour? If the price of household related market services fell as a result of introducing subsidies then this could be expected to produce a substitution of market consumption of services for domestic production. This would enable women to allocate more of their time to other activities. This might take the form of increased leisure or family time in some societal contexts, and in others women might devote more time to employment. The largest impact of market subsidies on increases in women's labour supply could be expected in countries where the female employment rate is low, or largely associated with part-time work.

However, even where subsidised services did not lead to a direct increase in the volume of women's labour supply it may have three positive outcomes by reducing the time pressures that women are under when undertaking employment in a gender divided society. Firstly, it may make it easier for women to combine employment with domestic responsibilities, thereby enabling them to hold onto their occupational position and to advance up career ladders. This would produce a higher utilisation of women's skills in the economy. Secondly, reduced time pressures will reduce stress and other negative health effects associated with having too much work to do, and will enhance the quality of family life, producing gains for children, enhancing marital relationships and so forth. Thirdly, consumption of time-intensive leisure activities may increase if households had more time, contributing to job creation in certain parts of the service economy. Some research does show that when people have more time (and energy) they have more active leisure activities (Olsson, 1999). For example, they are more likely to take up evening classes and other forms of lifelong learning, sport and attending cultural events.

Thus one benefit of an expansion of household-related market services may be to promote equal opportunities by allowing women to reduce their domestic workload by purchasing market substitutes and so enable them to compete with men on more equal terms in the labour market. Another related benefit is that the female employment rate could be expected to rise, for a large proportion of the workforce in these household-related market services is likely to be women on the basis of existing gender segregation in the labour market. However, the quality of the jobs which emerge will also have an impact on the situation of women in the labour market. If the jobs which result are low paid or precarious in other ways then this will contribute to the developing polarisation between highly qualified, well-paid women and those who are less qualified (Rubery et al., 1999). In effect, the result will be to create

subsidised, low-waged work for women with few qualifications, who will provide services to households containing well-paid women.

Even if the expansion of market provision of household-related services is organised around better quality jobs, such as emerged within the public sector model of service provision, this will do little to challenge the existing division of household labour between women and men, given the slow adaptation of men to involvement in domestic work. To promote equal opportunities, other complementary policies are needed alongside subsidised household related services, targeted at increasing men's involvement in domestic labour. Policies which encourage men to become more involved in domestic work include working time reductions, parental leave entitlements which are targeted at fathers, and more general educational campaigns to shift social norms (Fagan and Rubery, 1996).

3.4.3. The structure of wages, taxes and benefits and the effect on the consumption of market services

The size and organisation of market services in an economy is partly dependent on the wage structure and earnings distribution in the society. For example, countries with a narrow wage dispersion and high average income can be expected to produce a rather different form of consumption of market services than one with high wage inequality (Esping Andersen, 1996). In the Nordic countries, for example, the labour market is characterised by a high female participation rate, a large proportion of which is in the public sector, some employment in household-related private sector services, a low wage dispersion and a relatively high average income. It has been argued that the combination of high average income, a low earnings dispersion, and high taxes precludes the development of private household-related services. According to this view, the high tax wedge constitutes a clear hindrance to the development of such market services in the formal economy, and encourages the expansion of the informal economy.

In contrast, the wide dispersion of wage levels found in the United Kingdom and the United States means that the relatively high disposable incomes of the professional classes makes the market purchase of household-related services more affordable for this section of society. In effect, it means that the low-waged work of women with few qualifications provides the means for professional couples to 'buy-out' of renegotiating the gender division of household labour between themselves and to substitute the labour of women from other households.

The gender division of time allocation is also affected by the prevailing tax and benefit system. An important issue related to the relative deficit of employment growth between Europe and the United States has been the greater attention paid to the functioning and the incentive structure of the labour market. Social transfers, taxes and non-labour costs may, either separately or jointly, raise barriers and disincentives affecting the growth of service activities. In particular, a high tax wedge has been found to restrict consumer demand for household-related services, which limits job creation in service activities and leads to inefficiency in resource allocation within the household and the aggregate economy (Henrekson, 1998,



Pålsson, 1997). These wedges may affect household decisions in terms of the gender allocation of time and labour supply (hours worked), giving rise to economic inefficiency.

Econometric studies show that reform of income taxation could contribute to increasing the labour supply of some groups of women, as labour supply is relatively more responsive for married women at the point of entry to the labour market and for those in short part-time jobs (OECD 1994). Yet national differences in married women's participation patterns are only loosely correlated with effective tax rates (Vermeulen et al., 1994, CERC, 1994). This suggests that the impact of joint taxation on women's labour supply decisions is likely to be weaker than the constraints of childcare or the high effective marginal tax rates which arise as means-tested benefits are withdrawn.

3.4.4. Women's employment and the consumption of market services

The increased involvement of women in waged work may itself generate job creation through higher levels of consumption to substitute for women's unwaged labour (ready-prepared food, laundry services, childcare services) and more generally due to the high living standards that dual-earner households have compared to most sole-earner households. The extent to which this market substitution occurs will be influenced by relative income and price levels, as well as social conventions concerning appropriate consumption patterns.

Once total household income is controlled, the expenditure patterns of dual-earner and sole-earner households are broadly similar in the United Kingdom, suggesting that there is no simple process of market substitution for self-provisioning (Horrell, 1991). Dual-earner households do purchase more prepared food (Horrell, 1991), and they are also more likely to purchase certain services, notably childcare and to a lesser extent home cleaning and maintenance (Gregson and Lowe, 1994, Warde, 1990). Similarly in Germany there is a slight increase in the amount of household services purchased in two-earner or high-income one-earner households, accompanied by a rapid increase in the number of marginal part-timers employed in such services, particularly in private households. In Germany this consumption is likely to be in addition to self-servicing, rather than as a substitute, for the volume of unpaid work in households has remained stable (Maier and Rapp, 1995:89). However, even if there is no direct difference in consumption patterns between dual earner and other households, it is likely that over time women's participation has affected consumption patterns generally, so that changing societal norms, rather than simply whether the woman is employed or not, influence household expenditure patterns on household appliances, convenience foods, etc.

3.4.5. The job creation possibilities of expanded market provision of household-related services

Even if public welfare and the consumption of market services have substituted for some part of domestic production within the household, unpaid domestic work continues to make a substantial contribution to economic production. It is, for example, in Germany, estimated to amount to 38 % of gross national product (GNP) (Maier and Rapp, 1995:86) and to use a larger volume of labour than that used in the formal market economy of the Netherlands (Plantenga

and Sloep, 1995:71). The evidence from time budget studies suggests that there is only limited scope for reductions in domestic labour when time allocated to employment is increased, particularly when there are children to look after. There is some reduction in time spent on housework, probably due to fewer meals being eaten at home (Horrell, 1994) as well as a drop in self-imposed standards (Oakley, 1974). Overall, the main difference is that women have less time for leisure, sleep and to spend with their children (Horrell, 1994:212); in other words they take on the 'second shift' (Hochschild, 1990).

Given the vast amount of productive work that is done in the domestic sphere, what are the job creation possibilities of expanded market provision of household related services? A 1990 Dutch study explored the unfulfilled service needs of dual-earner households compared to sole earners, on the basis that the first category has more income but less time (study cited in Plantenga and Sloep, 1995:72-3). The study found that the main concern of dual-earner households was for more convenient store opening hours, although few were prepared to pay more for extended services. Another main demand was for domestic help, but people were generally unwilling to pay more than the usual informal rate. A quarter of those with children had unsatisfied childcare demands, mainly due to long waiting lists for existing centres. Even on cautious estimates the study showed that there was a demand in principle for some domestic activities to be outsourced, but the problem was that the prices households were willing to pay were lower than market rates within the formal economy. The authors conclude that either the quality of formal services have to be raised so that consumers are willing to pay more, or prices have to be reduced through subsidies or reductions in labour-related costs. One suggestion was that a portion of social security benefits could be retained as an in-work benefit to subsidise certain activities — such as childcare and home cleaning — which are not in direct competition with existing formal services.

This study of informal work in the Netherlands suggests that the inability or unwillingness of many households to pay full market rates for some services is a constraint on the development of these activities in the formal economy. Trading of these activities may increase in some countries in the informal sector or in the formal economy where private services can be delivered relatively cheaply. The latter is likely to occur in a United States and/or the United Kingdom type scenario of highly dispersed income levels, where private services are delivered by low-paid employees and consumed by the high-income professional households.

A growing number of initiatives to expand the market for domestic services have been launched or proposed in the Member States. These policies are designed to enhance employment growth in household-related services, and can be classified into two broad categories:

- supply-oriented policies aiming to encourage the creation of enterprises in the service sector (start-up schemes etc.),
- demand-oriented policies aimed at increased household demand for service activities (price and fiscal subsidies etc.).



To illustrate, a 10-year policy experience exists in France consisting of a tax exemption (*chèque service*) for the purchase of domestic services. Evaluations of initiatives to expand the market for domestic services (mainly from Belgium, Denmark and France) show that the net macroeconomic impact on employment and unemployment is low. The main effect is to 'formalise' services through shifting informal economic activity into the formal economy (Anxo & Tanemar, 1996, Cette et. al., 1998). However, such evaluations generally fail to address the impact of such services on the gender allocation of time in households. It is important that gender issues are mainstreamed into future evaluations of such initiatives.

Furthermore, from a longer term gender perspective, it may be necessary for policy initiatives to stimulate market provision to substitute for a decline in family and informal service provision. There are already indications that some areas of informal and voluntary care work currently carried out by women may decline due to their changing employment patterns. More generally, the processes of urbanisation, individualisation and geographical mobility in modern societies (Beck, 1992) are changing the types of responsibilities and expectations that family members and neighbours have for each other.

3.5. Policy implications

National differences in the structure of employment, in particular the relatively large country variation in the relative size of the public and market services and the large variation in women's employment rates have several policy implications. First, this diversity means that there are differences in the potential for female employment growth in traditional female employment areas between Member States. To illustrate, the high concentration of women's employment in social services in the northern countries seems to be reaching saturation point, while in some southern countries, this share is still largely below the European average and thereby leaves scope for public intervention. Hence, public policies promoting the development of employment in social services (health, education) and the outsourcing of female domestic tasks into the market (childcare in particular) may accelerate women's labour market integration by transferring some tasks from the domestic sphere to the labour market. This development would have a positive impact on the overall employment rate and reduce the prevailing gap between the European Union and the United States. In particular, the tight public expenditure constraints as part of the economic and monetary union (EMU) is constraining the scope for countries with underdeveloped welfare systems to 'catch-up' with other European countries. Consideration should be given to providing scope for public expenditure expansion on service provision in these countries. Generally, consideration should be given to ways of encouraging the restructuring of existing public expenditure away from transfers to 'breadwinners' to support their 'dependent' spouses and into spending on service provision, to improve the long-term employment and fiscal base.

The second policy implication is that any expansion of services that are heavily dependent on female labour will draw more women into employment but do little to reduce the sex-segregated structure of employment. As Rubery et al. (1999) argue:

‘This dual role of occupational segregation in promoting the demand for female employment but at the same time maintaining and reinforcing gender differences, presents a major dilemma for policy toward equality’.

A two-pronged policy to address segregation is required. Firstly, anti-discrimination and positive action measures are required to enable women to move into the better quality areas of male-dominated employment from which they have been excluded. Secondly, the quality of the jobs which women currently do also needs to be improved. It is also important to recognise that the lower status of women within the occupational hierarchy is partly a reflection of the undervaluation of women’s work, as well as the failure to create job ladders and career structures within female-dominated areas. One aspect of this is regulation to protect basic employment conditions (job security, minimum wage etc.) to prevent a deterioration in employment conditions for women (and men), thus creating a safety net for those in the most vulnerable labour market positions. The other aspect is that positive action should not simply involve measures to move women into male-dominated areas. It should also involve a reconsideration of the organisation of the job hierarchy to provide greater recognition of the skills involved in many female-dominated job areas, and to create links from these job areas into mainstream promotion lines. The current context of trends towards flatter hierarchies and more functional flexibility in many organisations may provide more scope for such tactics of re-evaluation than in the past. Indeed, on a more negative note, these organisational trends may make such tactics critically important, for otherwise women’s jobs may be enlarged to encompass more responsibilities but without the enhanced pay, status or access to promotion channels commensurate with the changes to job content.

The third policy implication is that the quality of part-time work in the service sector needs to be enhanced, both to improve conditions for women employed in such jobs and to make these jobs more attractive to unemployed men. As well as ensuring compliance with the principle of equal treatment, fiscal policy and labour law should be reformed to remove exemptions for jobs with low earnings or few hours. These exemptions provide subsidies and incentives for employers to create short-hour part-time jobs rather than longer part-time jobs, which are more at risk of being marginalised forms of employment. It is when part-time jobs are organised around longer hours that they are more likely to be integrated on an equal basis alongside full-time jobs at the workplace and in the social protection systems (O’Reilly and Fagan, 1998).

The fourth issue is the under-representation of women among the self-employed. The share of women engaged as family workers is declining as their involvement in waged work rises, but there is less evidence of a trend towards equal representation in self-employment. On this basis, action is needed to boost women’s involvement in entrepreneurship, particularly in the southern countries where such activities are a major part of economic life. Furthermore, women’s self-employment may be preferable to low-wage service jobs for large companies such as retail conglomerates or other large firms, which provide household-related services such as contract cleaning. Enabling women to set up businesses may mean that they develop businesses to deliver childcare and other household related services. This may contribute to the expansion of such market services as well as providing women with better opportunities for developing their own autonomous careers.



The fifth issue is that the quality of services provided, whether by the public sector or by the market, must be guaranteed, particularly in relation to child and elder care. If the services are perceived to be of low or deteriorating quality then households will be reluctant to use them, particularly where there are strong cultural norms that such activities should be done by women within their homes rather than outsourced. Where high quality public sector provision exists it is important that any expansion of market services does not lead to a reduction in public sector provision or a deterioration in public sector standards.



Chapter 4

Labour costs, social habits and employment regimes. Two comparisons of national employment performances and some lessons

Françoise Benhamou and Bernard Gazier

4.1. Introduction

The available literature on the comparative analysis of national employment performance can be roughly organised along two dimensions. The first is the starting point: one may start from a sizeable gap in employment performance and try to explain it; or one may start from more or less equivalent employment performances at a given time and deepen the underlying dynamics. The second is the kind of causality put into the forefront. An ongoing debate persists between the economists who insist on labour costs (either in crude, or sophisticated and indirect ways) and those who put the emphasis on non-cost determinants such as societal habits.

The main orientation of this contribution is to start with such divisions and to show that other determinants and a causality network can usefully be introduced in order to better the understanding of different employment performances and of policy perspectives.

The organisational and institutional context surrounding the work relationships and the risk management arrangements which are behind them appear to be important elements to consider ⁽¹⁾. They may help to interpret the facts as well as to assess policy orientations. In particular, we aim to show the relevancy of the hypothesis of different national flexibility regimes (namely, employment arrangements and behaviour securing flexibility) which rely on different tools and institutions.

⁽¹⁾ Cf. Gazier and Thévenot in this volume.

We selected two comparisons:

- retail trade between France and the United States, which exhibits a considerable employment gap,
- cultural employment between France and the United Kingdom, where the quantitative differences are not important but where the underlying dynamics are.

The choice of these countries and activities is of course partly dependent on the availability of data. However, if one chooses to focus on employment regimes, it is interesting to examine countries with strong societal differences as regards the treatment of the work force and social protection. In our cases, one may oppose the French welfare state regime, which has been termed corporatist-continental, and the United States and/or the United Kingdom welfare state regimes, which have been termed liberal welfare states. Our comparisons allow us to consider national situations and labour markets characterised by very different institutional settings, and to examine some possible employment implications.

In the first case (France/United States, retail trade), a well-developed controversy exists regarding the enormous French gap (or lag) compared to the United States employment level. Intensive efforts have been made to explain the situation, and it is useful to take a closer look at the arguments presented by each side in order to introduce the risk management and institutional context perspectives (Section 1). As regards cultural employment, the starting point is the reverse; the employment levels do not seem that different in France and the United Kingdom. However, important qualitative differences are to be taken into account to obtain some understanding of the situation and the prospects. It will be shown more extensively by gathering and interpreting various data, and assessing a number of different hypotheses on the determinants of job growth in this sector (Section 2).

4.2. Employment in the retail trade sector in France and the United States: An appraisal of the Gadrey/Piketty controversy

4.2.1. Setting the problem: Evaluating the potential job creation of France in the retail trade sector

In 1996, there were 127 million jobs in the United States of America, and 22 million in France. The United States population was 4.5 times greater than the French population. The employment rate (number of jobs per person) was 25 % higher in the United States. It corresponds, for France, to a gap of 5 million jobs (such a comparison is not fully valid of course, but gives a kind of maximum benchmark). T. Piketty (Piketty, 1998, p. 81) projects the United States job structure and employment rate on the French case. The figures are: Retail trade, actual French employment 1996: 2 million; according to the United States structure: 3.7 million. The same gap holds for the hotel and restaurant sector: actual French employment 1996: 0.77 million; according to the United States structure: 1.7 million.

These differences account for more than half of the 'job gap' between France and the United States. Of course, numerous complicated processes must be introduced in such a 'catch-up' process, as, for example, the rise in activity rates induced by rapid job creation. One job created is not equivalent to the transformation of an unemployed person into an employed person. Nonetheless, the comparison is striking. Even if there is room for discussion on the job yardstick, it is clear that these two sectors are more developed in the United States than in France, and there is scope for job development.

According to these evaluations, in the retail trade, the employment level per person is actually 80 % higher in the United States than in France.

J. Gadrey and J. Jany-Catrice agree, and present a slightly different evaluation of the same job gap for retail trade (Gadrey and Jany-Catrice, 1998 p.102). They remove the automobile retail trade, and compute the employment rate by introducing the total number of persons in each country. Then the gap is 68 %, which was finally accepted by T. Piketty.

There is another important agreement; a significant part of the gap stems from differences in the consumption levels. The American people consume more products, and the volume of purchases is 30 % higher in the United States. So, following Gadrey and Jany-Catrice, the gap which remains to explain is 29 % (1.68/1.30). The United States retail trade firms use 29 % more work than in France, for selling the same product volumes. T. Piketty agrees (although he presents some critical remarks) with this evaluation.

A last field of quasi-agreement is the differences of wage costs between France and the United States in the retail trade. Thomas Piketty 1997 set an evaluation of 40 % more in France, while Gadrey and Jany-Catrice proposed 20 % more. In his last article of 1998, Thomas Piketty agreed more or less with this second evaluation, and introduced it together with the previous one while suggesting that more detailed investigations would be necessary for reaching a definitive agreement.

4.2.2. The divergences

Thomas Piketty identifies a major candidate for explaining the 29 % difference; the wage costs in a sector particularly intensive in low-skilled work. He argues that a 20– 40 % difference in wage costs is enough to explain most of the differences of job performance between the two countries.

In the absence of a formal demonstration, he presents two series of arguments in favour of his thesis. The first are rooted in a very long-term perspective. He observes that most of the relative employment level in trade services was obtained in the USA before the 1960s (share of jobs in the trade sector among all jobs — 17.7 % in 1960, and 17.5 % in 1996), while the French evolution, catching up since the beginning of the century, lagged since the 1970s (10.3 % in 1954, 13.2 % in 1973 and 13.6 % in 1996). He suggests that the lag was created since the 1970s for reasons of rising labour costs. Second, he presents case study evidence that the costs of labour are considered by employers to be an obstacle to more employment in the

sector. The consequence, in his view, is that a policy of cutting social security taxes for low-wage workers could massively improve the job performance in this sector, without harmful social side effects.

In contrast, J. Gadrey and F. Jany-Catrice consider that the wage cost explanation is not valid. They begin by introducing working time. The working time per person in the retail trade is different between the two countries, with more part-time jobs and fewer full-time workers in the United States. They estimate that the effect of this factor accounts for 6 % of the extra work volume in the United States. So, the problem becomes explaining a 22 % difference (1.29/1.06). The United States retail trade uses 22 % more work than retail trade in France for the same product basket.

They reject the premise that part of the explanation could be sought in productivity levels; taking into account the numerous difficulties for evaluating service quality, the United States level could be even slightly higher (5 %) than the French level. The difference corresponds to additional labour-intensive selling services given to the United States consumers; home delivery, packing assistants, doorkeepers, more opening hours, counselling and information, etc.

These additional services are not financed by the consumers, who pay more or less the same price for the same product basket in both countries, but by the workers themselves. Here, we find the labour costs put in quite a different perspective. The United States retail trade workers are twice as inexpensive for their employers. Compared with the French situation, in purchasing power parity the United States workers' mean annual gross wage is 14 % lower, and the lower employer national insurance contribution level corresponds to an additional lowering of total labour cost by 11 %. So, the United States employees receive lower wages, and also pay individually, those expenditures (illness, retirement) that are collectively financed and part of the wage bill in France. They finance twice the production and the sales of extra services in retail trade. The point is that such a cost structure depends on a collective, organisational and cultural agreement — at the expense of the United States workers.

As a result, Gadrey and Jany-Catrice argue that a tax cutting policy cannot have a big impact on the job volume content of retail trade activities in France. First, they observe that during the 1990s, important tax cutting was already realised in France. This centred on low wages, which mainly benefited the trade sector being the most important low-skilled labour user, and having no apparent effect on the job volume performance. The main reason for this is that the competition structure of the sector as well as the consumption habits in France lead to competition by lowering prices more than competition by increasing quality and providing additional services.

Looking at possible future intervention in labour costs, Cadrey and Jany-Catrice estimate that four channels must be considered before arriving at a 'pure' increase in work expenditures. The first is the increase in trade activity (volume of products sold), the second is work sharing by the extension of part-time (constrained, involuntary part-time, they fear), the third is the substitution of employed workers for self-employed workers (because big firms can eliminate

some small shops by using the increased margins to lower prices), the fourth is a sectoral shift; some retail trade firms could internalise warehouse functions to gain better control of the supply and reap economies of scale. Lastly, they consider the increase of work used; they see this effect as negligible in the French case.

Finally, Gadrey and Jany-Catrice enlarge the debate by introducing the case of Japan, Germany and the United Kingdom. They insist on the interaction of four ‘socioeconomic spaces,’ namely the market competition structure, the labour law and industrial relations space, the firm’s organisational choices, and the domestic division of labour. Within such a framework, the wage costs should be considered to interact with service quality but also with the distribution of family and outside working time as well as the productivity choices. Then the ‘social habits’ appear as a global path-dependent process, opening the way to persisting ‘societal’ differences.

4.2.3. Assessing the controversy

Some methodological remarks are in order here. First, neither Piketty nor Gadrey and Jany-Catrice present a complete set of arguments about the underlying causality, checked by econometric testing. It must be acknowledged that such a task would be delicate, notably because one needs to test numerous relationships.

Second, their time perspective is different. Piketty insists on very long-term (secular) tendencies, and this allows him to suggest that the consumption structures and levels should converge if the price and cost levels are flexible enough. Interestingly, he states that the French consumers should be glad to benefit from the additional selling services offered to the United States consumers for the same price, and is sceptical about supposed ‘social habits’. The question of the competition structure in the sector is not considered, because in the very long-term the consumer would win and impose quality improvements. It is a view that directly combines cost distortions and consumer pressures, and ignores more or less intermediary causalities.

Gadrey and Jany-Catrice present a mid-term perspective. They argue that it is not realistic to speculate on a quick convergence of consumption levels, and that the same applies to the consumption structure: some additional services could be welcomed by the French consumers, but not all ⁽²⁾. Cutting the social security taxes, in their view, would simply lead to a lowering of the share of personnel costs in the total costs, not to new employment.

The debate is then concentrated on a possible threshold effect; for Gadrey and Jany-Catrice the absence of real response by the French retail trade sector to social security cuts (centred on low wages) implemented during the 1990s, shows that there is a perverse windfall effect unless there are other painful and complicated changes, at least in competition and family

⁽²⁾ They admit that more information and help could be welcome, but feel that ‘open 24 hours’ does not correspond to any demand in the French case.

structures. For Piketty there is mainly a question of intensity and persistence of wage cost cuts; he observes that the adaptation of firms requires stabilised long-term expectations, and states that the social security cuts in France during the 1990s remained limited and were not perceived as durable.

He presents the case of French domestic home services as a confirmation of this. After a few years of heavy subsidisation (during the first half of the 1990s), favourable to high-level households allowed to deduce part of their expenditures from their tax bill together with social security tax cuts, the results were impressive and led to a considerable increase in domestic employment (of course, partly due to the official appearance of hidden employment). The maximum subsidy could amount to 50 to 80 % of the total wage cost. According to two different evaluations, the number of employees doubled between 1990 and 1996 or witnessed more than a 50 % increase (Piketty p. 87) ⁽³⁾. Here, the threshold was seemingly overcome by the mere size of a subsidy much bigger than in the general case of low wages.

There was no resistance, however, and Piketty admits a French preference for domestic employment when compared with the United States. Gadrey and Jany-Catrice argue that in fact the real cost cut in the case of retail trade was bigger than that stated by Piketty, because it combined a general cut on the low wages' social security contribution with another cut on part-time work. So they contend, for the 1993–98 period, that the social security contributions paid for a part-time cashier were at the same level in France and the United States ⁽⁴⁾.

Nonetheless, a complementary fact not fully discussed by the three authors can be taken into account here. It is the quick response of the French firms (and French workers, either voluntarily or involuntarily) to the heavy subsidisation of part-time work during the second half of the 1990s. The share of part-time work in retail trade jumped from 16.4 % in 1992 to 21.3 % in 1997. It reflects a more general (nation-wide) trend.

The price response here seems very clear, and it appears to have easily overcome, maybe with important drawbacks, what Gadrey and Jany-Catrice call, surprisingly, the French 'resistance to part-time work' (ibid., p. 115). They observed that the retail trade sector lost jobs during the 1992–97 period (ibid., Table 1 p. 106).

However, the essential point is that labour costs cuts lead to highly differentiated responses, that cannot be reduced to 'social resistances', either arbitrary and exogenous (Piketty), or homogeneous, closely intricated and stabilised (Gadrey and Jany-Catrice). Other thresholds must be introduced in the debate, regarding for example, the modalities of work and work sharing. It is especially the case in the retail trade, where low-skill female employment is of paramount importance. Work composition and work volume responses seem to be partly independent, but also connected in an overall cost and organisational structure. We find here,

⁽³⁾ The principle of giving such advantages to rich taxpayers was publicly criticized and at the end of the 1990s the French Government decided to decrease the subsidies.

⁽⁴⁾ Here again the advantages given were felt excessive by the government responsible, and since 1998 there has been no particular advantage in developing part-time work.

at a sector's level, the whole classical span of firms' and workers' responses to a wage subsidy, including windfall and substitution effects.

How then shall we identify the range of possible increases and substitutions, and their determinants? Two elements seem useful in order to develop international comparisons without falling into general 'societal' considerations.

- First, introducing the idea of 'functional equivalents', that is, different sets of production and arrangements corresponding to a given set of services or consumption. These 'functional equivalents' do not need to be perfect equivalents. Indeed, it is quite the contrary; from one country to another, from one social group or one income level group to another, the needs can be (more or less) satisfied in different manners. For example, child rearing could be organised on a family basis, on an external service basis, or on an intermediary basis. The point here is to take into account the possible spillover effects stemming from a given arrangement and to introduce them in the comparison.
- Second, there is a need to limit oneself to an intermediary level between pure cost levels and societal interlocked global causal networks.

The following section will discuss previous developments in the risk management and organisational choices underlying work relations ⁽⁵⁾.

The labour law regime of jobs (in a broad sense, including social security arrangements and public employment policy), seems to be of prominent importance for the employers as well as for the employees. It involves the distribution of rights and risks together with costs and incomes. It combines the effects of the social protection regime and the professional choices of the firms and the individuals. It can be modified, when taking into account the connection with other arrangements. Path dependency effects, which obviously exist, can be differentiated.

Some of the choices seem to rely on the interplay of precise institutional sets and organisational choices.

We saw that the retail trade sector in France is dominated by a small number of highly concentrated capital-intensive firms, which mainly use a low-skilled female workforce and have the permanent goal of lowering all costs. In such a context, the switch to labour-intensive behaviour would be equivalent to a change in the competition behaviour model because it implies the production of additional services, namely, introducing more client-oriented attitudes and more quality in the distribution process.

This may indirectly and paradoxically correspond to important changes in actual employment patterns: we saw in the 'service profit chain' ⁽⁶⁾ that the client-oriented attitude is fostered by

⁽⁵⁾ Cf. the contribution on business services employment and externalisation by Gazier and Thévenot, in this volume.

⁽⁶⁾ Cf. Gazier and Thévenot, *op. cit.* One important example given in the book by Heskett, Sasser and Schlesinger is the case of Wal-Mart, the big United States department store.

a stabilised and rather well-paid, autonomous workforce. The risk sharing choices may strongly differ between the employment and compensation of a low-paid minimal sales force, and that of a client-minded sales force, which must be more autonomous and somehow associated with the gains. Developing additional services leads, at least, to diversifying the workforce and securing some skilled careers, instead of massively using the actual labour cost-lowering policy schemes (social security tax cuts, part-time incentives). Such an evolution, while possible and desirable, would take an extremely long time. Thus, the employment regime may be an intermediary level between labour costs and social habits, an interesting level of inquiry, explanation, and intervention.

4.3. Employment in the performing arts and audio-visual activities in France and the United Kingdom

The growth of cultural employment in France and in the United Kingdom during the period 1981–92 is impressive. Nevertheless, it reflects a twofold trend; an increase in the volume of employment as well as structural changes, thanks to the policy carried out in the two countries. After a brief summary of the context of the research, we analyse the convergences and divergences between the trends of employment in France and the United Kingdom. The interpretation of the issues leads to hypotheses concerning the determinants of the respective evolution of the volume of employment in France and in the United Kingdom.

4.3.1. Employment in cultural activities and Baumol's cost disease

Characterising all economic activity as either stagnant or progressive, Baumol and Bowen developed a model of unbalanced growth in 1965 which predicts the increasing relative costs of providing certain service industries. The idea has its origin in the empirical study of performing arts which faced a deep crisis on Broadway in the 1960s (⁷).

This model gave birth to a huge body of economic literature which tested its empirical conclusions by measuring the differential growth rate of prices in the performing arts and in the general economy. Few studies discuss the hypothesis concerning employment:

- the productivity improvements in the arts lag behind those of the entire economy;
- wage increases in the arts have to keep up with those in the general economy.

Cultural employment then shares the general characteristics of service employment, especially the weak distinction between the product of the work and the work itself. However, some specificities of cultural employment may justify a focus on the way regulations intervene in order to organise job relations.

⁽⁷⁾ For details concerning Baumol's work in the cultural field, cf. Towse (ed.), 1997.

We will not discuss the limits of the productivity lag argument, especially if we consider the performing arts as a stage in the production process of audio-visual services. A large part of the performing arts activities is used as a central means for the promotion of cultural industries (records, videos, etc.). According to Schmid (this volume), Baumol's cost disease can be overcome through service product chains including broadcasting, recording and merchandising.

The question of wages has been studied in a different framework than Baumol's. Many contributions discuss the rationale of entering artistic careers (Menger, 1989) by testing the average earnings of artists compared with earnings of non-artists with an equivalent level of qualification, and also by modelling the choice between artistic and non-artistic careers (Singer, 1981). They conclude that there is a low wage differential between them and point to the 'myth of the starving artist' (Filer, 1986). From this point of view the results do not refute Baumol's conclusions.

While researchers discuss the determinants of the choice between artistic and non-artistic careers, many studies describe cultural employment markets as atypical and characterised by a strong and unavoidable flexibility (Towse, 1992 and 1993).

In this section we focus on the respective forms of this flexibility in France and in the United Kingdom and on the factors that have favoured their development.

4.3.2. The growth in cultural employment: Some convergence between France and the United Kingdom ⁽⁸⁾

4.3.2.1. *Convergences*

➤ Illusional job markets?

The growth of cultural employment is apparently strong, compared with the increase in the general workforce.

— The growth of cultural employment is 16 % between 1981 and 1991 in the United Kingdom, while the growth of the active workforce is negligible, and 42 % in France between 1981 and 1992, while the growth of general employment is 3.7 % (O'Brien and Feist, 1995: 97, Observatoire de l'emploi culturel, 1993). During the same period the growth of employment is stronger for the United Kingdom if only artistic or cultural professions are evaluated; 34 %, including cultural occupations outside the cultural sector. In France, individuals with artistic and cultural professions increased as well by 37 % between 1982 and 1992, without taking into account the growth of cultural occupations outside the cultural sector (id.).

⁽⁸⁾ A different version of this paper is forthcoming in the journal of cultural economics.

- Among the cultural industries, the most impressive growth rates concern audio-visual and performing arts in both countries. In France, they reached 90.2 % for the performing arts, and 67.5 % for the radio and television activities. The only sector which faced a decrease in employment (about 30 %) is film distribution and movie theatre management, resulting from a growing concentration of these activities, while the increase in the production was high, 122.4 % (Observatoire de l'emploi culturel, 1993). In the United Kingdom, the growth rates of employment in film, radio and television activities vary from 19 to 25 %, and are much higher when taking into account the self-employed artists (O'Brien and Feist, 1995).
- Non-artistic jobs (such as ticket sellers) are complementary jobs linked to the growth in artistic production (Cabinet Ithaque, Cabinet Themis 1997). If we take into account only the individuals with cultural occupations, instead of the total number of employees working in the performing arts and audio-visual activities in France, the growth rates vary; between 1982 and 1990, from 37 % (musicians and singers) to 123 % (pop music artists), with an average rate of 47.6 % (Observatoire de l'emploi culturel, 1993). In the United Kingdom, among cultural professions, stronger growth (47 %) is among artists, actors, entertainers, singers, and stage managers (O'Brien and Feist, 1997).
- However, the volume of employment increased more slowly than the number of individuals in both countries. For example, in France the number of technicians in the performing arts increased by 91 % between 1986 and 1991, while the number of wage earning contracts grew almost 300 % (Ministère de la Culture, 1995). Between 1986 and 1994, the number of actors increased from 6 000 to 12 000 while the work hours decreased 25 % (Menger, 1997). Thus job opportunities seem high, resulting from the increase in the volume of employment as well as from the illusion which results from the shortening of contracts, through a process of work sharing.

Moreover, many new entrants overestimate their chances, then gain information and eventually leave the career. Only half of those with cultural occupations in 1981 were in cultural occupations ten years later in the United Kingdom (O'Brien and Feist 1997).

Cultural markets can be viewed as illusional markets, thanks to the shortening length of contracts and to the number of entries compared with the duration of careers. The high level of rewards for those who succeed is an incentive for entering the market. Large dispersion of rewards, extreme concentration at the top of the heap, and a low probability of obtaining high remuneration make cultural markets a kind of lottery (Rosen, 1986).

➤ A high degree of flexibility

As project by project employment tends to predominate, reflecting an increasing rhythm of obsolescence and the need for constant innovation (Stinchcombe, 1968, Benhamou, 1997) a high degree of flexibility developed much earlier than in other service industries.

- The development of adhocracies, defined as project by project organisations (Mintzberg, 1979), is obvious in the performing arts. In France about 50 % of the 585 festivals existing in 1995 were created between 1980 and 1995 (Benito 1995).

- Even in the public cultural administration one can observe a decrease in the number of permanent employees. The Centre Georges Pompidou in Paris employs 1 500 workers and among them only 832 have permanent job contracts; 120 are hired from time to time, without any regular part-time contract. At the Bibliothèque de France, 540 non-permanent workers are employed versus 2 500 permanent salaried workers (*Le Monde*, 4 February 1999).
- The number of freelance workers has grown in film production (Christopherson and Storper, 1989, Nicolas, 1995), while the length of wage earning workers' contracts was drastically reduced.
- In the television industries, permanent wage earning employment has fallen while flexible employment increased, thanks to changes in regulations and in the structure of the production (Dex, 1998). Between 1988, 1992, and 1996, permanent employment in the public television sector decreased from 23 206 to 21 981 and 16 681 units in the United Kingdom. It decreased from 4 750 to 4 650 and again 4 750 in France (Conseil de l'Europe, 1996), while the production rose with the multiplication of networks.
- In the United Kingdom, incentives and regulations encouraged the rise in self-employment such as:
 - The BBC 'producer's choice' initiative encouraged the trend in the media sector by contracting out in small independent companies (Woolf and Holly, 1994, O'Brien and Feist 1997).
 - Following a proposal of the committee on the finance of broadcasting ⁽⁹⁾ (1985–86) the government in the late 1980s decreed that 25 % of TV programming should be bought from 'independent' producers.

The BBC encouraged its own producers to become independent. More generally, different structural changes (competition with private sector broadcasters, the creation of Channel 4, the reorganisation of the company from vertically divided directorates into horizontally divided sections ⁽¹⁰⁾) led to an increase in the proportion of freelance workers (Benhamou, forthcoming).

In such an organisational context, internal job markets (Doeringer and Piore, 1971) ⁽¹¹⁾ are rare. The discontinuity of relations between workers and employers concerns the whole job market. Even in the primary job market ⁽¹²⁾ high qualifications ⁽¹³⁾ go hand in hand with a high

⁽⁹⁾ The committee made the proposal that 40 % of TV programming should be bought from 'independent' producers.

⁽¹⁰⁾ For more details, see Dex et al., 1998.

⁽¹¹⁾ We could make an analogy with the level of wages in sport competition as Bouvet suggests (1996).

⁽¹²⁾ Economists often distinguish two partially unified labour markets (Doeringer and Piore 1971). Some professions do not fit this model, like blue-collar craftsmen, who are highly mobile and highly skilled (Okun, 1981).

⁽¹³⁾ In France, 55 % of the individuals with cultural occupations have a higher education level than the 'bac'; 32 % have a high degree diploma; 25 % no 'bac' (Observatoire de l'emploi culturel 1993). In 1991, in the United Kingdom, 76 % of the individuals in the total work force had educational or training qualifications compared with 93 % of those in the cultural activities (O'Brien and Feist, 1997).

turnover rate and a weak job security. Though it is a factor of rising wages, hiring well-known artists or highly skilled technicians over a short period cuts down the risk associated with competition and sends quality signals to the consumer (Rosen 1981).

The quasi-absence of internal job markets means that the constitution of a solid reputation is central for job candidates, who develop multi-activity in order to face periods without any cultural occupation. Many workers have several part-time jobs in and outside the arts sector (Towse, 1992, Greffe, 1996). In France, in 1995, 10 % of the individuals who had a cultural profession declared that they had another activity during the same period, but 3 % for the whole economically active population, and 18 % among artists (Observatoire de l'emploi culturel, 1996). In the United Kingdom, Peacock and Weir (1975) notice that musicians combine different job contracts to face the discontinuity of their activity. In 1991, 5 % of the general workforce had a second job compared with an average of 9 % of those working at cultural occupations and 14 % of those working as musicians (O'Brien and Feist, 1997). For this they are aided by relatively high qualifications and reconversion capacity. Thus employability, which consists of an accumulation of human capital (skills, reputation, networks) which can be invested in new job opportunities (Moss Kanter, 1995), becomes a substitute for job security.

As mobility reigns, the worker builds a reputation by moving from one project to another. Workers who rotate through different workplaces and jobs have a greater network of connections with people who have jobs to offer (Ferber and Waldfogel, 1996). This phenomenon is a characteristic of software industry workers, who need to make sure that their knowledge is transferable. They link their careers to the whole industry and do not identify their job with a unique project or firm: 'Changing employers is so common that professionals may identify their interests more with the project and the industry than with the particular firm where they happen to be.' (Moss Kanter, 1995).

4.3.2.2. Divergences

Though detailed employment data are to be interpreted with much caution ⁽¹⁴⁾ (see appendix), a comparison between France and the United Kingdom leads to the following issues.

➤ An inverse trend in the share of part-time jobs

In the United Kingdom, the proportion of part-time jobs ⁽¹⁵⁾ increased in the economy as a whole, while it decreased for wage-earning female workers though the number of job creations went up. For men, the percentage of full-time workers remained stable or decreased slightly in the radio, television and theatre sectors (from 91 to 83 % between 1981 and 1991, see O'Brien and Feist, 1995), but at a very high level compared with the situation in France.

⁽¹⁴⁾ See O'Reilly, 1996.

⁽¹⁵⁾ Part-time includes shorter working time than the full-time volume of hours, and also temporary jobs which may be analysed as part-time jobs on a yearly basis (Rogowski and Schöman, 1996).

There the number of actors grew by 10 to 20 % from 1986 to 1991, while the annual number of working days decreased at an average rate of 5 % (and 14 % between 1989 and 1990, see Menger, 1997).

In France, intermittent employment (wage-earners with fixed-term contracts) is more and more frequent in the performing arts and audio-visual sectors. Among technicians, 30 000 jobs were granted by 6 700 companies in 1991. The length of job contracts shortened starting in 1985. Their average length diminished from 32.5 to 13.5 days between 1985 and 1991, in spite of the growth in demand for employment from the companies. The growth rate of the number of working days was 62 % during the same period while the number of contracts increased at a rate of 300 % (Ministère de la Culture, 1995). Between 1986 and 1991 the average number of working hours for actors decreased ⁽¹⁶⁾ while their total number grew, leading to a rise in part-time employment.

➤ Self-employment: an increase much greater in the United Kingdom than in France

In the United Kingdom, 34 % of individuals with cultural occupations were self-employed ⁽¹⁷⁾ in 1994, compared with 13 % for the total economically active population ⁽¹⁸⁾ (*Cultural Trends*, 1995). Between 1981 and 1991 there was a 72 % increase in the number of self-employed individuals in the cultural industries — while the number of employees (full and part-time) increased by 7 %. (O'Brien and Feist, 1995) ⁽¹⁹⁾. Moreover, there is evidence of a significant shift from employed to self-employed status. Nearly two out of five musicians who were employees in 1981 were self-employed in 1991, as were 23 % of actors, entertainers, etc. Overall, some 15 % of those who were employees in 1981 were self-employed in 1991 (O'Brien and Feist, 1997). These tendencies have recently been reinforced; 28 % of individuals in films and 67 % in the performing arts were self-employed in 1994, while the figure was 13 % for the total economically active population (Casey et al., 1995). Entrants in those sectors in 1991 were, respectively, 40 % full-time employed, 6 % part-time, 33 % self-employed, 10 % waiting to take jobs or unemployed, and 11 % with diverse statuses (O'Brien and Feist, 1997).

⁽¹⁶⁾ Number of actors and annual number of working days, annual variation, France, 1986–91 (%).

Annual growth rate of:	1987/86	1988/87	1989/88	1990/89	1991/90
Number of actors	15	13	9	18	10
Annual number of working days	- 4	- 6	1	- 14	- 5

Source: Menger 1997.

⁽¹⁷⁾ The self-employed are those who work for their own benefit rather than for an employer in a conventional (dependent) employment relationship (Menger 1994: 184).

⁽¹⁸⁾ However, 28 % in the film industry, 67 % in the visual, literature and performing arts in 1994 (*Cultural Trends*, 1995, 25).

⁽¹⁹⁾ In the United Kingdom, between 1981 and 1991, the number of self-employed grew 96 % in film production, distribution and exhibition (vs 13 % for all employees), 123 % in radio, TV services, and theatres (vs 14 % for all employees), and 64 % among authors, music composers and other artists not elsewhere specified (vs 60 % for all employees) (O'Brien and Feist, 1995).

In France, on the contrary, for individuals in 1995 with a cultural occupation, the self-employment rate was lower than for the total economic workforce (17 %) in the film industries, in the radio and television services (11.5 and 7.7 %), and higher in the performing arts (32 %) ⁽²⁰⁾, but much lower than in the United Kingdom. Moreover, these figures are diminished when taking into account only the cultural professionals; 15.5 % for the audio-visual and performing arts activities in 1995 (Observatoire de l'Emploi culturel, 1996).

4.3.3. Toward an interpretation of the divergences between France and the United Kingdom: A specific way of managing risk

4.3.3.1. Two models of market arrangement

Cultural economics focuses on the search for innovation and on the growing propensity of firms to produce ephemeral goods and services. For this, firms need to hire specific qualifications and the constitution of ad hoc teams. The rhythm of obsolescence of the production implies the management of specific risks. Working on temporary projects implies the creation of non-standard jobs at the expense of regular workers, even when production is rising.

Williamson (1975) shows that the need for specific assets should lead to hierarchical solutions. However, in the case of cultural production this need is temporary and linked to short-term projects. Thus, it is a case of internal spot markets, and we can make the hypothesis that this permanent search for specific short-term commitments implies a market solution instead of a hierarchical one. Two different models of labour market adjustments may be adopted in order to apply such a solution.

- In France, temporary employment is a way of avoiding a permanent hierarchical solution, without a total market arrangement. This hybrid solution has a cost, which is borne by workers inside and outside the cultural sector (see note, *infra*).
- In contrast, according to an apparent improvement of the cultural job market, part-time employment, which is most vulnerable, decreased in the United Kingdom. Self-employment led firms to lower labour costs, especially the costs resulting from the discontinuity of production activity (irregular earnings, costs of contract seeking).

In both cases, the strategy of firms consisted of externalising costs through the creation of unemployment. The final effect was to create a pool of applicants by giving the illusion of a strong increased rhythm of job creation and of low entry barriers. The illusion is stronger with the 'overwhelming conceit' with which entrants were said to assess their chances of success ⁽²¹⁾.

⁽²⁰⁾ France exhibited a slight increase in self-employment in the economy as a whole during the 1980s (Meager, 1994).

⁽²¹⁾ Smith (1947) quoted in Rosen (1986: 681).

4.3.3.2. *The contribution of policies for the development of part-time and/or self-employment jobs*

Legal labour regulations have shaped job relations in both countries. The regulatory context has contributed to the growth in self-employment in one case and to the growth in fixed-term job contracts in the other ⁽²²⁾. The degree of flexibility introduced by legal reforms and the extent of recourse to non-standard employment appears to be closely linked, even if not easy to evaluate.

➤ In the United Kingdom

Firstly, the general legal and institutional environment is favourable to the flexibility of work; job market regulations are weaker than in France. Cultural employment has benefited from the flexibility of the employment market of the whole economy since the 1970s (O'Reilly, 1996). The practice of 'lean production' was adopted earlier than in France, and the growth of self-employment was particularly marked for the whole economy from the early 1980s on (Meager and Bates, 1997). Between 1979 and 1989 it almost doubled (Campbell and Daly, 1992). Business start-up is easier and capital market rather less strict than in other members of the European Union (Meager, 1994). In the same way, the small increase in temporary job contracts could have resulted from weak regulations of the labour market and easy dismissal procedures (Mosley, 1994).

Secondly, though the EAS programme (Enterprise Allowance Scheme) ⁽²³⁾ introduced in 1983 does not concern the cultural sector specifically, it helped the unemployed to switch to self-employment. Assistance was in the form of a weekly allowance offered in the first year of set-up. Between 1985 and 1986 and 1989 and 1990, the total number of individuals participating in EAS with a cultural sector business or occupation was 35 177 (Feist and Eckstein, 1991, in O'Brien and Feist, 1995).

Part of the newly self-employed were previously employees working inside the companies, whose jobs, through new contractual arrangements, were externalised by companies in order to lower costs ⁽²⁴⁾ (see also Gazier and Thevenot, this volume). Apart from this process of

⁽²²⁾ The contrasted development of part-time in the two countries is surely related to the different incidence of part-time; nevertheless there was no catching-up in the United Kingdom, and it remained relatively low during the period.

⁽²³⁾ Which does not only concern the cultural sphere. However, there has been an over-representation of service sector activities among EAS participants because of the weakness in the eligibility conditions and the low entry barriers (Meager, 1994).

⁽²⁴⁾ The EAS programme was also a factor in the improvement of employability: '... even if the enterprises started under the scheme are unsuccessful, and even if the participants leave self-employment after (or during) the subsidy period, the skills and experience gained through business start-up will stand them in good stead in the labour market, improving their attractiveness to potential employers' (Meager, 1996: 496). An evaluation of the employability effect would require longitudinal data that are not available. United States pilot studies have tried to evaluate it (Benus, Wood and Grover 1994) and conclude that there is an improvement of employability through support for self-employment.

exogenous flexibility, a kind of 'natural', endogenous flexibility is a permanent characteristic of cultural markets, which found a source of public funds in the EAS programme.

➤ In France

Cultural labour markets developed within a specific regulatory context, in contrast with the relatively weak degree of deregulation of the labour market in general between 1980 and 1991. Financial incentives have encouraged part-time and temporary work through the social security system.

Since 1969, a specific scheme for the performing arts and the film industry has compensated unemployment periods in the performing and audio-visual activities for artists and technicians, under certain conditions (see box 1). This system has been deeply criticised:

- Firstly, because it works as an insurance system and does not compensate for inequalities.
- Secondly, because of its cost.
- Thirdly, because the cost is not borne by firms and workers in the sector but by the whole unemployment insurance fund for salaried workers which absorbs the increasing deficits of the particular performing arts unemployment insurance scheme.
- Fourthly, the system is supposed to generate adaptive behaviours. On one hand, firms treat unemployment benefits as an indirect means of subsidising production by lowering labour costs. They create unemployment when a project is over. The worker bears the risk but transfers it to the whole social security system. On the other hand, workers build networks by moving from one job to another.

Intermittency ⁽²⁵⁾ increases as a result. For example, in 1990 there were 150 000 wage earning workers in the audio-visual and performing arts field. Among them were 96 000 intermittent workers in 17 000 firms, with job contracts of shorter duration. In addition 20 000 firms had declared less than six job contracts during the year (Observatoire de l'emploi culturel, 1994).

In 1990, in the audio-visual and the performing arts sectors:

- 52 000 artists signed 423 500 job contracts, which represented 3 383 000 working days, with an average length of one job contract each of eight days.
- 44 000 technicians signed 178 000 job contracts, which represented 4 000 000 working days, with an average length of one job contract each of 22 days (GRISS and Observatoire de l'emploi culturel, 1994).

Intermittent workers earn more during short time periods than regular employees on average, therefore a private compensation is added to the social compensation for the risk linked to

⁽²⁵⁾ In the case of intermittency, teams are assembled for particular ventures, and job security is based on reputation and networks.

fixed-term contracts. Job insecurity costs are internalised by the market through higher earnings ⁽²⁶⁾. '... if prospects for success in some fields are uncertain, the mean earnings among practitioners must adjust to attract risk-averse applicants. Hence, occupations in which there is greater uncertainty about possible income must exhibit larger mean earnings than those in which a modicum is virtually guaranteed' (Rosen, 1986: 681).

Box 1: The performing arts unemployment insurance scheme

Workers who have been working for 507 hours in the last 12 months can benefit from the unemployment insurance scheme to compensate for the absence of any earnings during the periods of inactivity. The amount of money paid during this period is a percentage of the earnings of the artist. For more details, see Paradeise, 1998.

About 80 000 intermittent workers have paid a contribution of EUR 91.5 million in 1997 and they have receive EUR 550 million during the same period. The deficit is absorbed by full-time salaried workers.

France is re-examining this protection system, because of its cost and of the decreasing specificity of cultural markets. Hyperflexibility becomes a rising model for the whole employment market.

4.4. Job creation and flexibility in cultural activities: Some hypotheses

One cannot conclude in favour of one model over the other for job creation. However, a few hypotheses and issues emerge from this research:

1. The increase in the volume of employment is much higher in France, especially within cultural activities. The growth rates were 42 % in France, and 16 % in the United Kingdom, much higher than in the general economy. This difference disappears when we take into account the growth of cultural professions outside the cultural activities. How can we interpret these figures?

Firstly, in both cases, facilitating flexibility has been a condition for the growth of employment. Secondly, probable disparities in the output volume have contributed to the differential in the growth rates of employment in the two countries; though cultural activities are heterogeneous, further research could lead to an evaluation of the respective growth of this volume in France and in the United Kingdom during the period. Thirdly, cultural employment takes place very often in non-profit institutions, whose funds depend on private and public spending. The fluctuations of public cultural funding bring about fluctuations in the production of cultural goods and services by these institutions (Greffé, 1996). However, the changes of the public commitment to the arts and culture does not necessarily imply identical

⁽²⁶⁾ For more details, see Gurgand and Menger, 1996.

fluctuations of the growth of cultural employment. Employment cannot be mechanically linked to the production level of cultural goods and services.

Nevertheless, public spending for the arts has been relatively weak in the United Kingdom during the period, compared with the commitment of central and local authorities in France. We can hypothesise that this commitment has favoured employment growth in France. This hypothesis is reinforced by the large proportion of non-profit public institutions in this country. Further research should test this hypothesis, and combine case studies and macroeconomic data analysis.

2. The French policy based on social security benefits is most likely exhausting its resources ⁽²⁷⁾. A decrease in these indirect subsidies would probably lead to a decrease in the growth rate of cultural employment. If government wishes to promote cultural employment, an analysis of a stronger support policy towards the demand for culture, and of its short- and long-term results should be considered.
3. Some researchers have tested the hypothesis that the specific insurance system would have given workers the incentive of multiplying short-term assignments in France (Gurgand and Menger, 1996). By only comparing the United Kingdom and France, this hypothesis cannot be evaluated. Nevertheless, the high growth in part-time employment could be a symptom of the effects of social security on the behaviour of both workers and firms, through a learning process which would have led them to the use of social benefits as indirect subsidies for their own cultural occupations and activities.
4. Moreover, the comparison of the individual and social costs of the ‘hyperflexibility’ inherent in cultural activity should be made in both countries. Such research could help governments adjust regulations and social security systems to their employment objectives (namely, growth in the volume of employment versus decrease in part-time employment).

In order to answer the need for ‘hyperflexibility’ in cultural activities, especially in the performing arts and audio-visual activities, different models of market adjustment can be adopted. The flexibility regimes analysed in this chapter are linked to the institutional and societal specificities of the welfare state regimes. On one hand, in the United Kingdom, the liberal regime means that cultural activities benefit from general employment policy and assume a deregulated context for job relations, leading to growth in self-employment. On the other hand, the increase in employment in France is partially due to a corporatist continental welfare state regime.

⁽²⁷⁾ See Paradeise, 1998.



4.5. Conclusions and policy recommendations

The focus of this chapter is the importance of considering ‘employment regimes’ and the structuring of markets in sectoral international comparisons of employment performances. The point is made twice; once for retail trade and once for cultural employment.

For retail trade, we showed in our assessment of the France/United States gap that explanations based on simple labour costs or ‘societal habits’ are not fully convincing, and that the competition structure and employment patterns of the sector, combined with the incidence of public employment policies, are useful elements to introduce in the discussion. Cultural activities on the other hand are characterised in our comparison field (France/United Kingdom) by a strong increase in employment, accompanied by a high degree of work flexibility. Nevertheless, the comparison shows that different models of flexibility can be adopted according to the national specificities of the welfare state regimes. These specificities influence the growth in the volume of employment and lead to a process of work sharing. A survey of the case of a rather liberal system (the United Kingdom) and a more interventionist regime (France) leads to a twofold issue. Firstly, the increase in the volume of employment is relatively indifferent to the regime, secondly, in both cases, the costs of the flexibility are not borne by the same economic agents, and they may threaten the future of the national regimes.

Recommendations

Four main policy consequences stem from the comparisons made which stress the importance and idea of ‘employment regimes’.

The first is that lowering labour costs as a policy cannot be considered in isolation, and should be related to the interplay of labour market institutions and family constraints and or opportunities. The policy choices concern a wider set of arrangements as well as subsidies or other cost-lowering devices.

The second is that activity volume, though a key parameter, is virtually unknown. In the case of retail trade, the difference between France and the United States is mainly explained by a difference in volumes sold, and by the presence and or absence of some additional selling services. In the cases of retail trade and cultural activities, it is useful to estimate more closely the trend in the volume of outputs in a long-term perspective in order to better understand and estimate the link between the increase in this volume and the increase in employment.

The third consequence, which is actually common sense, is the need to consider both sides of the market as well as the competition structure when trying to develop employment in a given sector; a unilateral ‘supply’ or ‘demand’ approach may lead to inefficient results. The case of retail trade is a good illustration of the importance of firms’ sizes and strategies. The perspective of increasing the quality of the workforce, through training and quality-promoting institutions, makes some sense. In the case of cultural employment, it seems advisable to extend the different means for increasing the flexibility of employment and the diversity of firms (which are a condition for the growth in employment in the cultural activities) through

loans for set-up, tax and social contribution deductions and time extensions for paying taxes. One may also strengthen the roll of non-profit institutions in these activities, by promoting incentives for these organisations to encourage both job creation and product diversity.

Finally, risk-management in and around work relations may lead to different solutions. These may seem to be equivalent in the short run but may reveal functional differences in the long run, when compensating arrangements, dependent on other institutions, exhibit limits or adaptability. The real social cost and feasibility of a given solution may only appear on an enlarged basis, as is clear in the debate about cultural employment, which includes the choice of subsidising cultural activities.

Appendix

Data on cultural employment: Sources and interpretation

1. Sources include public administration, professional organisations, the social security administration, and the censuses. The most reliable source is the census of the population because of its size, coverage and response rate (completion of the forms is compulsory). Censuses of the population were conducted in France in 1982 and 1990 (and 1999), and in the United Kingdom in 1981 and 1991. They provide quantitative and qualitative elements (demographic characteristics, economic status, regional distribution) that allow a comparison of the evolution of employment in both countries. They may be completed with issues of longitudinal studies covering cultural employment ⁽²⁸⁾ over the same period which provide useful qualitative information.
2. Changes in the methods and the nomenclature may occur, which prevent comparisons through time. For example, in France, the growth between 1990 and 1995 should be studied with caution because of the change of the nomenclature which occurred in 1993. Among different changes, most art-teaching activities and different leisure activities are excluded.
3. Moreover:
 - Some cultural activities cannot be isolated because of their narrow scope.
 - Cultural workers often accumulate several activities inside or outside the cultural sphere. In both countries, the main activity is taken into account, though the interpretation of the main activity may vary from one individual to another. A large part of the uncertainty remains because of the subjectivity of workers concerning the definition of their main activity ⁽²⁹⁾.

⁽²⁸⁾ This study covers five standard occupational classifications: authors, writers, journalists (SOC 380), artists, commercial artists, graphic designers (SOC 381), actors, entertainers, stage managers, producers and directors (SOC 384), musicians (SOC 385), photographers, camera, sound, video equipment operators (SOC 386).

⁽²⁹⁾ The growth in the number of art teachers reflects different complementary phenomena; teaching is either a second job, a main job, or a job for unsuccessful artists. Data do not provide strong qualitative elements in order to evaluate the proportion of each case.

4. The two countries have adopted two different options in order to evaluate the growth of employment. In this study we analyse both methods.

The activity of the economic unit where the job takes place — artistic and non-artistic employment are both evaluated each time they take place inside the cultural sectors.

The profession (the nature of the job), which takes into account only artistic and cultural jobs.

The institutional framework of cultural activities is rather different in the two countries. The French tradition of isolating cultural activities can be opposed to the British propensity for considering cultural activities in their economic dimension as other economic activities, with their own specificities. Thus, France provides detailed statistics on the cultural labour market structure, while in the United Kingdom, cultural statistics include cultural professionals outside the cultural sphere. Statistics reflect both institutional and organisational structures.

Part II:

The industry and service nexus:
Concepts and empirical evidence



Chapter 1

The nature and determinants of service sector growth in the United States

Randall Eberts and George Erickcek

1.1. Introduction

Most developed economies have experienced significant structural change during the last several decades, as service jobs have supplanted manufacturing jobs. In the United States, the creation of service jobs has fuelled most of its historically high employment growth, while growth in manufacturing jobs has remained flat. The European Union (EU) has also experienced significant growth in service jobs, but its pace remains slightly behind that of the United States. What concerns European policy-makers is that service sector jobs have not grown fast enough to close the gap in the employment share of services between the EU and the United States. Although the service sector's share of total EU employment has increased from 48 % in 1974 to 65 % in 1997, its share still falls short of the United States share of 73 %. Of equal concern is the relatively slow growth in total employment in the EU. Unlike the experience in the United States over the last two decades, total employment in the EU has grown at only half the rate of that in the United States. Based on the United States experience, policy-makers have increasingly looked to the service sector as the catalyst for greater growth in total employment. Yet, while the employment growth potential of services is desirable, there are concerns that service jobs are inferior to manufacturing jobs with respect to compensation and future advancement. These developments have prompted policy-makers to further explore the nature of these jobs, determinants of service sector growth, and their potential to generate overall employment growth.

The research literature suggests several aspects of the service industry that should be examined in order to gain a better understanding of the factors underlying past growth in services and the potential for future growth. This chapter concentrates on six areas. After a brief look at employment trends and a short review of some of the relevant literature, we first

explore the shift in composition of occupations within and between services and manufacturing (Section 1.4). This analysis provides insight into the changing nature of the two industries in terms of the functions that workers perform and also the extent to which manufacturing has outsourced service related functions. One of the primary issues related to outsourcing is the use of temporary help and other flexible workforce arrangements. We discuss the relationship between the growth in business services and this change in working relations. Secondly, (in Section 1.5) we examine the sources of demand for services as revealed through the interaction of manufacturing and service firms, as well as the final demand of non-business consumers. In addition, we explore the determinants of service growth by looking at productivity and employment dynamics. Thirdly, we examine (in Section 1.6) service sector expansion by considering the variation in the size and growth of the service sector across United States metropolitan areas. Fourthly, we examine (in Section 1.7) the structure of wages within and between services and manufacturing. Fifthly, we briefly explore (in Section 1.8) the growth potential of services for the economy. The concluding section summarises our findings and offers policy recommendations.

1.2. Employment growth trends in the service sector in the European Union and the United States

1.2.1. Comparison analysis

Service sector employment has grown rapidly in both the EU and the United States during the last decade or so. In both regions, it has outpaced goods-producing employment by a considerable margin. Between 1985 and 1997, service sector growth in the United States increased 28 %, while industry employment, which includes manufacturing, construction, and mining, increased only 3.3 % (Table 1).

Table 1. *Employment change, 1985–87*

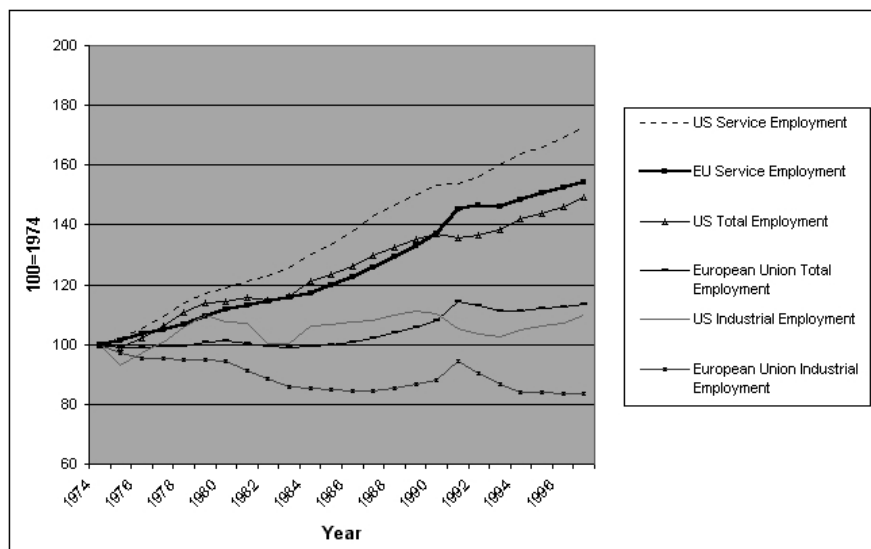
	European Community			United States		
	1985	1997	%	1985	1997	%
Total employment	133 890	148 820	11.2	107 197	129 405	20.7
Agriculture	11 195	7 626	- 31.9	3 335	3 502	5.0
Industry	45 899	44 769	- 2.5	30 015	30 994	3.3
Mining	1 119	738	- 34.1	953	700	- 26.5
Manufacturing	33 361	31 486	- 5.6	20 804	20 838	0.2
Energy	1 343	1 230	- 8.4	1 270	1 226	- 3.5
Construction	10 075	11 315	12.3	6 988	8 230	17.8
Total services employment	76 797	96 426	25.6	73 847	94 909	28.5
Distribution and hotels	23 733	27 550	16.1	23 822	28 192	18.3
Transportation	8 060	9 101	12.9	5 876	7 179	22.2
Finance and business services	9 180	15 497	68.8	10 958	14 709	34.2
Communal services	35 824	44 277	23.6	33 191	44 828	35.1

Source: Calculations by authors *Employment rates report 1998*. Employment performance in the Member States' European Commission (COM (1998) 572 final).

From 1985 to 1997, employment growth in the EU lagged behind the United States. Total employment in the 15 member countries of the EU (EU-15) increased by only 11.2 % during the 12-year period, while United States employment rose by 20.7 %. Goods-producing (industry) employment in the EU-15 declined during the period by 2.5 % while it increased 3.3 % in the United States. The growth trends for service-producing employment in the two regions are similar. Service-producing employment in the EU-15 increased by 25.6 % during the 12-year period, compared with an increase of 28.5 % in the United States.

Although much of our analysis will focus on the period from 1985 to 1997, it is useful to gain a longer-term perspective on employment growth in services and manufacturing in the EU and United States. Statistics from the OECD go back to at least 1974. The OECD defines services as the major divisions 6,7,8,9, and 0 of the international standard industrial classification (ISIC), which include wholesale and retail trade, financial services, transportation, real estate, public administration, education, health and social work, other community, social and personal service activities, and private household employment. The industrial (or goods-producing) sector is defined as ISIC major divisions 2, 3, 4, and 5, which include mining, manufacturing, construction, electricity, gas and water supply.

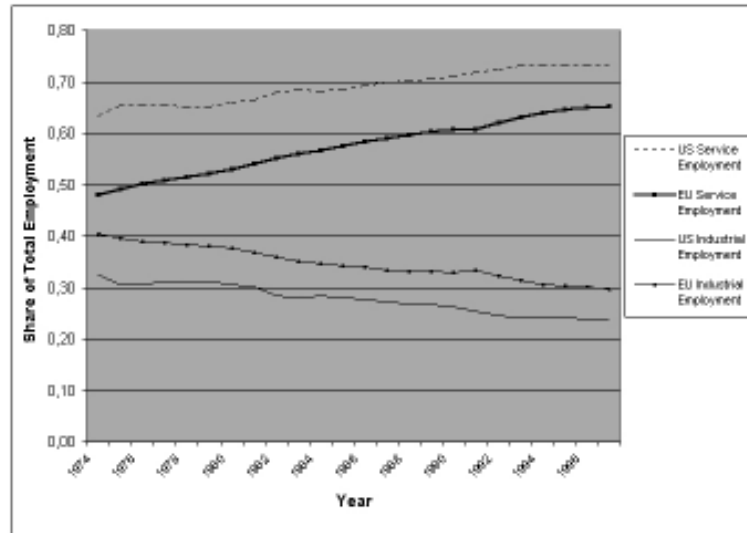
Figure 1. *Employment trends in the United States and the EU*



Employment trends over the longer time period are consistent with the more recent history of service employment in the two regions. As can be seen from Figure 1, United States service employment outpaced EU service employment during this time period, increasing 73 % versus 54 %. The United States total employment grew 46 % while EU total employment grew only 11 %. Obviously, the slower job growth in services accounts for some of this decline, but it is not the only reason. Industrial employment in the EU lost jobs during this period, declining 16 %. Industrial employment in the United States, on the other hand, grew 10 %. Compounding the problem is the EU's large industrial base. As shown in Figure 2, industrial

employment in the EU comprised 30 % of total employment in 1997, whereas industrial employment in the United States accounted for only 24 % of the total.

Figure 2: *Employment shares of services and industrial sectors in the EU and United States*



During this period, the share of service employment between the two regions converged. The EU started in 1974 with services comprising 48 % of total employment, compared with a 68 % ratio for the United States. By 1997, the shares for the EU and United States were 65 % and 73 %, respectively. Thus, during this time, the ratio of EU shares to United States shares increased from 0.75 to 0.88, clearly marking a narrowing of the gap in service share between the two regions. On the other hand, the gap between the EU and the United States in manufacturing employment shares has remained unchanged throughout this period, although both shares have declined somewhat. In short, differences in employment composition and not in the variation in growth rates among sectors explains much of the disparity between the two regions' total employment growth rates.

1.2.2. Employment in the United States service-producing sectors

The service-producing sectors in the United States, as defined by the standard industrial classification (SIC), include a broad mix of products and activities. Nearly 80 % of all payroll employees are engaged in the following six broad service-producing divisions: (1) transportation and public utilities, (2) wholesale trade, (3) retail trade, (4) finance, insurance, and real estate, (5) services, and (6) government (Table 2). Much attention has been given to the category classified as services due to its phenomenal employment growth over the past several decades. Since 1958, service employment has grown 480 %. By 1998, services accounted for 30 % of total United States employment. In contrast, manufacturing accounted for only 15 % of total employment. The increase in service jobs during the last three decades dwarfs the growth in the next fastest-growing service-producing sector, retail trade. During the same period, retail trade employment increased 190 %, which only slightly outpaced the

145 percent growth in total employment. Manufacturing employment, on the other hand, grew by only 17 %.

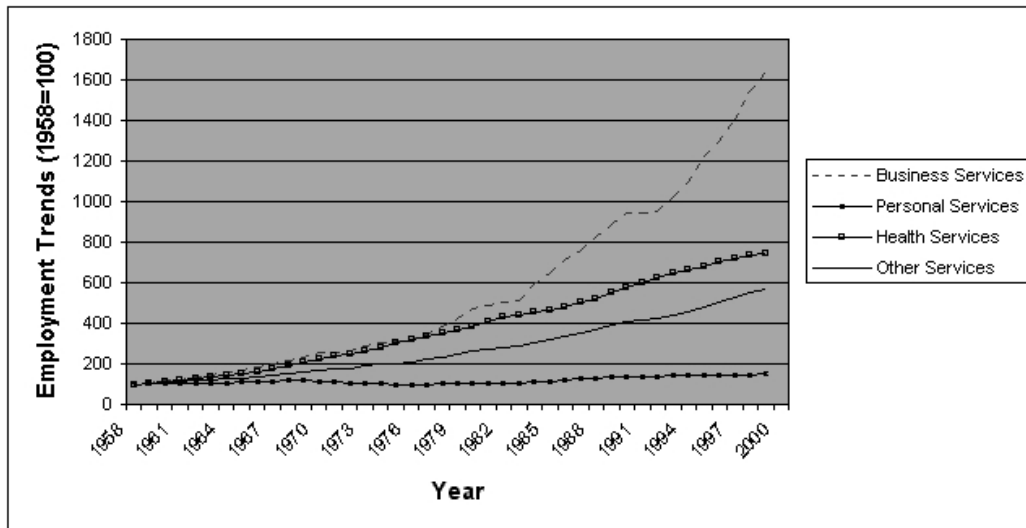
Table 2: *Definitions of service-producing categories under the standard industrial classification (SIC) system*

SIC	Service-producing industries	% of United States workforce
40 to 49	Transportation and public utilities	5.3
50 to 51	Wholesale trade	5.4
52 to 59	Retail trade	17.7
60 to 65	Finance, insurance and real estate	5.9
60 to 62	Finance	2.9
63 to 64	Insurance	1.9
65	Real estate	1.2
70 to 89	Services	30.0
72	1.1.1.1.1.1.1.1. Personal services Laundry, cleaning Beauty shops Photo studios	0.9
73	1.1.1.1.1.1.1.2. Business services Advertising Credit reporting Janitorial Employment services Computer services Security services	6.9
80	1.1.1.1.1.1.1.3. Health services	7.8
N.A.	Government	15.7

Among the major two-digit industries within the service sector, the fastest growing by far is business services (SIC 73) ⁽¹⁾. As shown in Figure 3, business service employment has grown nearly 1 600 % since 1958. It has increased from 542 000 workers in 1958 to 9.1 million in 1998.

⁽¹⁾ Business services include advertising, mailing, reproduction and commercial art, services to dwellings and buildings, equipment rental and leasing, personnel supply services, computer programming, data processing and other computer-related services, to name the larger components.

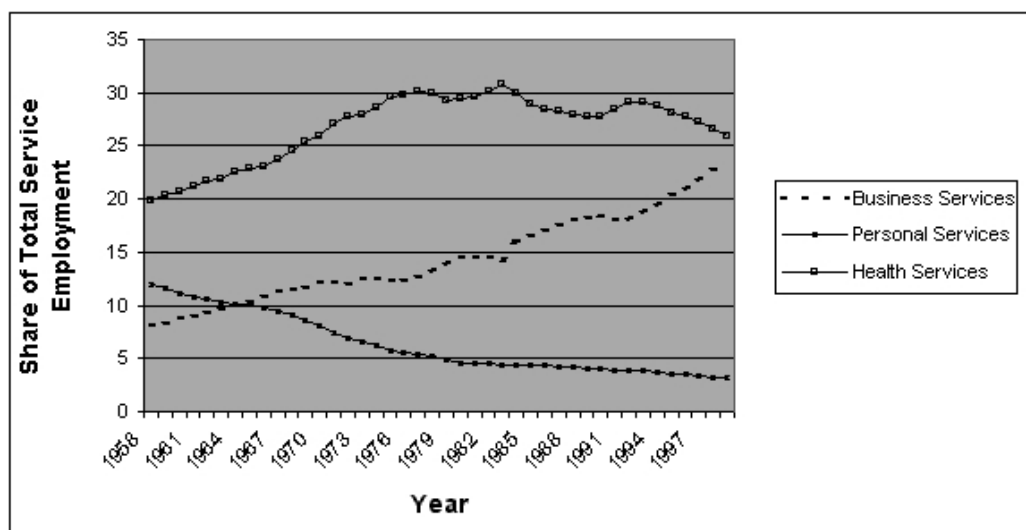
Figure 3. *Service employment trends, the United States 1958–98*



This meteoric growth has raised its share of service employment from 8 % in 1958 to nearly 25 % in 1998, as displayed in Figure 4. As a result, business services have played a major role in total job creation. From 1958 to the present, business services have generated 12 % of all net new jobs in the economy, while comprising only 1 % of total employment at the start. In the more recent years between 1985 to 1998, business services accounted for 17 % of total employment growth. Once again, its contribution to total net job creation far exceeded its share of total employment.

In contrast, health services (SIC 80) and personal services (SIC 72), the other two major service industries as measured by employment share, have not come close to matching the growth of business services. The health service industry comes the closest, growing 650 %. The personal service sector, on the other hand, has been relatively lacklustre with a growth of only 50 % during the last four decades. As a result, health services' share of total service employment has edged up slightly from 20 to 25 %, but personal services' share of total service employment has declined from 12 to 3 %.

Figure 4. Components' shares of service employment



1.3. The nature of services and its implications for growth

This section surveys the literature on services in order to provide a framework for analysing the growth of services within the United States and to compare this growth to that in the EU. We offer several hypotheses of the determinants of growth in the services, and then in subsequent sections we explore how these factors relate to the United States service industry. Because of the growth and size of the business service sector in the United States, as described in the previous section, much of our discussion and analysis will focus on business services ⁽²⁾.

In order to provide a framework for understanding the differences in growth between service-producing and goods-producing sectors, it is first necessary to delineate the key features that differentiate these two broad sectors. Martinelli (1991) summarises much of the thinking about the nature of services by identifying three interrelated characteristics that distinguish services from goods ⁽³⁾.

- (1) Services possess an immaterial nature. Service activities primarily entail a labour input or performance, which does not yield any immediate material transformation.

⁽²⁾ Strictly speaking, business services are defined as SIC 73. It includes the activities listed in footnote 66. In using this definition of services, we attempt to capture those services that are used by businesses, primarily as intermediate inputs. Of course other services are purchased and provided internally by businesses. Some researchers (for example, Drennan, 1991) extend the list to include communications (SIC 48), banking (SIC 60), insurance carriers and agents (SIC 63 and SIC 64), legal services (SIC 81) and other related services. This expanded list of services purchased by businesses is generally referred to as producer services. It is difficult to obtain data on all these components of producer services for metropolitan areas and for extended time series, which form the basis of some of our analysis in this paper. Therefore, in most cases we use the definition of business services (SIC 73), but we lapse at times into using the term producer services when referring to services as intermediate inputs by businesses.

⁽³⁾ Sapir (1991) describes services in a similar way when constructing a theoretical framework for understanding the role of services in the current economy.

- (2) Service transactions generally involve simultaneous production and consumption of services, which requires a direct interaction between the producer and the consumer. In many cases, the temporal simultaneity of consumption also requires close proximity of services to their market.
- (3) Consequently, services cannot be stored or shipped on their own but are embodied either in suppliers (in a potential form) or in consumers, or in goods to which services are inputs.

Although most services share these characteristics, Martinelli's characterisation may be somewhat extreme for some services. Services, such as banking and other business-related services as well as legal and health services, are exportable. As we have observed, employment in these services has expanded considerably in recent years. Services differ in other dimensions, as well. The different classifications used by various countries and organisations group service activities by function and by the end purchaser of services. Most classifications distinguish between consumer services and producer services. In addition, some classifications, such as the general industrial classification of economic activities within the European Communities (NACE), combine all services necessary to ensure the general functioning of the socioeconomic system, such as police service, into a separate category labelled infrastructure services. These services are consumed by both consumers and producers. Within producer services, the NACE also distinguishes between services that are clearly directed to other firms and services that ensure the circulation of capital (financial sector), goods (wholesale intermediation and distribution), information (telecommunications), and people (transportation) ⁽⁴⁾.

Business services include activities that are clearly directed to other firms, whether they are in agriculture, manufacturing, or even services. These activities include many functions that a firm could provide internally. However, there are sufficient economies of scale and scope to warrant the establishment of separate firms to provide these services to the broader market, not just within their own organisations. The financial services industry and the telecommunications industry also provide services to businesses. Some classifications, such as the NACE, aggregate these services into a sector referred to as distributive services. However, the SIC, which was used by the United States throughout the period studied, does not classify them under business services. One feature that distinguishes distributive services from other business services is the typically large investment in fixed capital by distributive service firms compared with business service firms. Recent consolidations in the financial and telecommunications field in the United States suggest that there are strong economies of scale in these industries. Large capital requirements result in economies of scale and consequently many industries included in this category are regulated. Business services, such as computer

⁽⁴⁾ We do not attempt to reconcile the differences in the various classifications used by different countries. To compare trends, we use the numbers prepared by the OECD, as shown previously in section II. Since we concentrate on the historical growth of services in the United States, we follow the SIC for most of the other analysis presented in this study (Figure 1). Although the United States has changed to the NAICS, only historical data based upon the SIC are available. The SIC lists three major categories of services: personal, medical, and business. As mentioned in the first section, we will focus on the business services sector, because of its phenomenal growth.



services and professional services, remain fairly small due to their comparative advantage in conducting unique, specialised activities. There are exceptions, however. Software development, classified as a business service, can achieve a large scale of operation, as evidenced by Microsoft Corporation.

Based upon this classification, it is apparent that growth in producer services is closely tied to the development of the production sector and its demand for non-material inputs. Growth may also depend upon the industrial structure of the service industry itself. The NACE classification highlights differences in scale between various service industries, which in turn affect the ability of firms to enter these industries. Entering an industry, such as telecommunications, which traditionally requires large fixed costs will be more difficult than entering an industry with relatively small initial investments, such as a cleaning service. In addition, growth may also be influenced by political factors in service industries like telecommunications and transportation that are characterised by economies of scale due to large fixed costs. These industries are typically subject to government regulation. Excessive regulation may impede the growth of these service industries. For instance, the telecommunications industry in the United States grew considerably after the break-up of AT and T in 1984. Although the industry has recently moved toward greater consolidation, many experts believe that many advances in telecommunications, including cellular phones and even the Internet, would not have been as successful if the industry had not been deregulated. The same can be said of transportation, particularly airlines and trucking.

Therefore, in order to understand the forces driving the fastest growing service sector industry, it is important to recognise the changes in the industrial organisation of the productive sector. Martinelli (1991) posits four major developments in industrial structure that have led to the growth in producer services: (1) the progressive concentration of capital, (2) the rise of the modern large multi-product, multinational corporation, (3) the growing internationalisation of markets and competition, and (4) the development of information technology. These developments have impacted the growth in producer services primarily by accelerating the trend toward greater division and specialisation of labour. Stigler's (1951) well-known theorem on division of labour predicts a transition from performing speciality functions within an organisation to supplying them in the market. As the market for a given internal phase of the production process reaches a sufficient size, independent suppliers will find it profitable to enter the market to provide these services. Consequently, a rise in the service sector may be the result of services that were once internal to the firm now being provided by independent suppliers.

The need for large corporations to control, coordinate and monitor their internal operations has brought about an increase in the demand for managerial, professional, and clerical workers. In addition, large corporations require information systems that can tie together their far-flung operations. Thus there is an increasing demand for information systems personnel who can manage the flow of information. The internationalisation of business has increased the demand for telecommunications and information processing. International competition has also increased the need for research and development to improve productivity and for marketing to promote brand recognition and loyalty.

Martinelli rightfully points out that growth in these activities has occurred both inside and outside the firm. Therefore, in an attempt to better understand the forces driving the increase in service activities, it is important to examine the change in the structure of occupations within the traditional production sectors of manufacturing and within the business service sectors. We will examine in Section IV the shift in occupational composition within and across the manufacturing and service sectors to see the extent to which functions performed within manufacturing firms are now being provided by service industries. We will also examine United States national input-output tables to determine the sectors that are purchasing and selling services.

As independent suppliers increasingly find market opportunities for providing service functions, the next question is where do these firms locate and what factors drive location decisions. The characteristics of services, discussed so far, suggest that services should be locally produced and that they should be located close to the centres of production. As summarised by Martinelli, services are perishable in the sense that they cannot be stored nor shipped. Furthermore, production and consumption of services are simultaneous. Therefore, based on the characterisation of services as perishable activities, services would most likely be produced in close proximity to their customer base. If the primary engine of growth of business services is demand from industrial sectors, then business services will locate close to production centres. While business services may have evolved from their close association with production, the extent to which business services rely on the manufacturing sector remains to be seen. As the organisational structure of the service sector alone becomes more complex and intertwined with the rest of the economy, the demand for business services may come from other sources. We will see in the next section that only 20 % of the demand for business services comes from the manufacturing sector.

Service activities may be attracted to large metropolitan areas, or smaller areas with excellent air or surface transportation service. On the other end of the scale, for services that benefit from large economies of scale, such as financial processing activities (known also as backroom activities) or telemarketing, cost considerations are a factor and more rural environments can be attractive.

In addition, most researchers view the growth of international trade and the growth of multinational corporations as pushing service activities to larger cities in developed economies. Many services play complementary roles to the headquarters of multinational corporations and are increasingly playing a part in the site selection for advanced production, research and development facilities and for headquarters ⁽⁵⁾. Moreover, while advancements in new information technology provide the potential for the de-concentration of producer services, they can equally promote further concentration. As long as the urban and

⁽⁵⁾ Drennan (1992), in an analysis of metropolitan sources of growth in the export of producer services, emphasises the importance of agglomeration economies. He finds that the largest producer service firms are headquartered in a country's largest nodal cities, which indicates the existence of strong agglomeration economies. Thus, a country's international competitiveness in producer services is linked to the economic and social viability of a nation's largest cities.



agglomeration economies of metropolitan areas remain strong, improvement in information technologies may only enhance the current trend toward concentration.

Martinelli argues that economic trends will only reinforce the tendency for producer services to locate in a handful of large metropolitan areas in developed countries. In fact he makes the point that producer services are more concentrated in these areas than is manufacturing, and highlights the two standard arguments used to explain these trends: (1) the hierarchical structure of large corporate organisations and (2) the peculiar agglomeration economies linked to service transactions. Moreover, the existence of robust business and producer service sectors generates additional benefits including increased productivity within the entire productive system through specialisation and agglomerations and increased growth in employment and human capital. The potential for producer services to affect the productivity of the businesses they serve, principally manufacturers, once again underscores the linkage between service-producing and goods-producing sectors. This linkage has implications for measuring productivity of the two sectors. Instead of considering the productivity of the two sectors separately, as is typically done, one should consider the effect of business services on the productivity of the goods-producing sector as a measure of the productivity of generating business services (Kuznets, 1971 and Porter, 1990).

Jaeger and Durrenberger disagree with Martinelli and others in suggesting that economic trends and corporate restructuring are all pushing toward increased concentration. The authors found a more complex arrangement where multiple hierarchies of city patterns exist where cities concentrate in specific industries. Their research of central Europe found counter urbanisation forces that foster situations of multiple hierarchies similar to that of the United States. Still, the authors concluded that the outsourcing of service activities from a declining manufacturing base tends toward 'centralisation'.

1.4. Structure of employment growth: Shifts in occupational demand

As discussed in the previous section, research points to structural changes in the business sector as one of several factors responsible for service sector growth. The changing industrial structure of the business sector can be detected through changes in the occupational composition of its work force. Since workers' occupations are classified by the functions they perform, it is possible to trace functional activities through occupation composition. For example, a stagnant industry that is undergoing little technical or managerial change will maintain its occupational composition through time. It is likely that its employment base will slip as it fails to adjust to changing markets, but its occupational composition will hold steady. In sharp contrast, a more dynamic sector, which is taking on new markets and adopting new technologies, will most likely have a rapidly changing occupational mix ⁽⁶⁾.

⁽⁶⁾ It is important to note that occupational definitions may also change, which would dampen the ability to detect structural change through examining an industry's changing occupational mix. For example, clerical workers can become skilled in computer processing and data entry but maintain their clerical job titles.

To measure compositional change of occupations, we use a modification of the Lawrence Index of industrial change. The measure is the absolute difference in the share of each occupation between 1984 and 1997, summed over all occupational categories. A value of zero indicates no change in the occupational composition of the industry, and a maximum value of two represents a 100 % change in occupational mix. As shown in Table 3, the United States business services sector witnessed a relatively large change in its occupational composition from 1984 to 1997. At the same time, the occupational composition of manufacturing was much more stable, in that its change was no more than the change for all occupations and all industries within the economy.

Table 3. *Index of the change in occupational composition, 1984–97*

Sector	Index ⁽¹⁾
Total	0.196
Business services	0.392
Manufacturing	0.189

(1) Index is based on the Lawrence index, in which a value of 0.0 shows that the occupational composition of the sector did not change between the two years, while the maximum value of 2.0 would indicate a 100 % shift in the sector’s occupational composition.

1.4.1. Occupational shift-share analysis

A more detailed shift-share analysis can provide more information regarding changes in a sector’s industrial structure and its changing occupational mix. Shift-share analysis separates an industrial sector’s growth in occupations into the following three components ⁽⁷⁾:

National growth — this component reflects overall growth in the domestic economy. It is computed assuming that each occupation grows at the national growth rate of total employment. A growing economy will support a certain degree of employment growth across all occupations in all industry sectors.

Change in occupational mix — industries with a positive occupational mix employ a large number of individuals in occupations that are experiencing faster than average growth nationwide. This component is computed by multiplying each occupation by the difference in the national growth rate of that occupation and the national growth rate of total employment. There are several explanations why an industry’s occupations may grow faster than the national average. First, the industry may be an intensive user of occupations that are in strong demand across many sectors. For example, an industry that has been a long time user of computer analysts will have a positive occupational mix as more and more industries hire computer analysts. Second, the industry may be using a large number of occupations that by

(7) Shift-share analysis is typically used to examine changes in industrial composition across geographical areas. We use it here to look at the change in occupational mix within industries.



their nature have low productivity levels but are in high demand. For example, food service workers are a fast-growing occupation, in part, because of their low productivity; therefore an industry that hires a large number of these workers will have a positive occupational mix.

Change in the occupational share — this component measures the difference between the national rate of growth of an occupation and its rate of growth within a specific industry. Industries with a positive occupational share component experience above average growth in their major occupations. Due to their competitive advantage, these industries provide a more conducive environment for these occupations than exists elsewhere. For example, while computer occupations are in high demand across many industries, their growth has excelled within highly specialised firms in the business services industry. This occurs, in part, because many firms in other industries are outsourcing their computer needs to these specialised firms.

In Table 4 (located in the appendix at the end of the chapter), the change in occupational employment in the United States from 1984 to 1997 is broken down into the above three components. For each of the 14 industries shown in Table 4, employment trends for 50 occupations have been calculated. Turning to both durable and non-durable goods production, the analysis suggests that approximately a third of the gross employment loss in manufacturing is due to shifts in occupational demand as shown in its occupational mix component. Changing business conditions are calling for growth in specific occupations that are not highly concentrated in goods-producing sectors. Obviously, manufacturers are less likely to provide legal, health, or retail services as part of their core activities; hence, it is not surprising that they are losing ground in the faster-growing occupations.

This analysis also captures the movement of seemingly blue-collar production workers from manufacturing to business and professional services through the use of temporary and leasing employment companies. Note that among the top twenty occupations lost by manufacturers, several, including fabricators and assemblers, freight stock and handlers are production occupations. At the same time, as shown on Tables 5, 6 and 7, (located in the appendix at the end of the chapter) fabricators and assemblers are among the top twenty occupations for which business service firms have gained share. Other production level occupations ranked among the top twenty within business and professional services include labourers excluding construction ⁽⁸⁾, and machine operators and or tenders. In short, this analysis supports researcher's claims that in the United States a share of the growth in services is coming from the outsourcing or externalising of activities to the service sector. Moreover, the analysis also points to the growing importance of temporary employment services in staffing production-related activities in manufacturing firms.

⁽⁸⁾ It is interesting to note that temporary employment firms, in general, avoid contracting with construction firms due to work injuries and liabilities issues.

1.4.2. The outsourcing of non-core support services in the manufacturing sector

The above shift-share analysis suggests that many manufacturers, facing highly competitive environments due to a global overcapacity in many core industries including steel, automotive, paper, and semiconductor, have outsourced their non-core service activities to independent providers. In addition, the growth of speciality producer service providers is pulling more service functions out from under the manufacturing umbrella.

Monnoyer and Philippe (1991) argue that much of the growth in producer services is due to large manufacturing organisations externalising their demands for services. Originally pursued as a cost-saving strategy, the practice grew as manufacturers found that specialised service companies offered more expertise in providing the needed service than could be supported in-house. Monnoyer and Philippe (1991) further suggest that structural factors may contribute to the provision of services by small establishments in large headquarter cities. Moreover, there is particular evidence suggesting that manufacturers are using more and more temporary employment services in addition to more flexible in-housing staffing arrangements.

1.4.3. The use of temporary services

A very small percentage of the United States' employed workers work for temporary employment agencies. Yet, it is one of the nation's fastest growing industries. In 1999, temporary employment agencies employed 3 million workers or 2.4 % of the nation's workforce, up from only 1 million workers or 0.9 % of the employed work force in 1990. Temporary employment agency workers, as well as leased workers, contractual workers and self-employed workers, are in work arrangements where the workers' on record employers are different from the organisations and or firms where they work. This, in large part, explains how business services and professional services can house a growing share of production-related occupations as shown above in Tables 6 and 7.

In their national survey of employers, Erickcek and Houseman (1997) find that a large percentage of the surveyed manufacturers, 72 %, used temporary employment agency workers. Table 8 provides the major reasons given by all surveyed employers regarding the use of temporary help agencies. More than 50 % of the surveyed firms cited the need to meet unexpected demand as one of the reasons for using temporary employment agencies. Indeed, more and more manufacturers are finding that their orders are becoming more variable, while intense competition is pushing them to better match their staffing levels to output activity. Many of the employers surveyed use temporary agency workers for the more traditional reason of filling in for absent permanent workers. Finally, while not among the top five reasons, 21.3 % of the employers surveyed use temporary employment services as a screen for potential permanent hires.

In addition to the cost saving generated by being able to more closely match their employee levels to the changing volume of orders, employers also save on hourly labour costs by using temporary employment agency workers. Hourly wage costs of using temporary employment agencies workers are not significantly different from hiring a permanent worker, when the



agency service fee is factored in. However, large savings can occur because the employer does not incur benefit costs for the temporary employment workers. In fact, Houseman (1996) finds that the use of temporary employment services was positively related to the company's level of employee compensation for its permanent workers; better-paying companies are more likely to use temporary employment workers than lower paying firms.

Table 8. Major reasons for using temporary help workers

Reasons	1.1.1.1.2 % responding
Provide needed assistance at times of unexpected increases in business	52.2
Fill in for absent regular employee who is sick or on vacation	47.0
Fill vacancy until regular employee is hired	46.6
Special projects	36.0
Seasonal needs	28.1

Source: Erickcek and Houseman (1996).

The experience of European nations parallels that of the United States. Bronstein (1991) also finds that workers under temporary work relationships accounted for a very small portion of the overall workforce in western Europe. In addition, through his interviews of employers and temporary employment agencies, he found that employers in western Europe used temporary employment for the same reasons as employers in the United States.

In a recent study of German employment relations, Hoffman and Walwei (1999) also found growth in flexible staffing arrangements, although such arrangements represent a small percentage of German workers. Hoffmann and Walwei point out that the growth has been due to the increase in part-time workers and self-employed individuals and not to employers increasing their use of temporary, leased or contractual workers. In addition, the authors could find only a modest relationship between the growth of non-regular work arrangements and the changing industrial and gender structure of the German economy. The authors interpret this to mean 'that even irrespective of the sector-specific and gender-specific changes in the employment structure, regular employment relationships, part-time work and forms of self-employment would have developed in the same direction and to roughly the same extent. Instead the authors point to: (1) more relaxed labour regulations which allow for greater use of flexible staffing arrangements, (2) the greater use of these arrangements to save on adjustment costs of meeting fluctuations in production, and (3) the need to lower unit compensation costs by outsourcing non-core activities.

Hansen (1990) disagrees that outsourcing can explain the rapid growth of producer services. Instead, he turns to earlier research that suggests that a substantial share of producer service growth can be attributed to changing business practices, which in turn are changing the structure of production. Manufacturers are not outsourcing old in-house activities. Rather, they are using new services to meet new challenges that require skills and expertise that were never developed in-house. Although the presence of producer service firms provides potential

cost-reducing opportunities for other firms, it would probably be more accurate to argue that it is typically the changing demands of firms that provide markets for specialised service functions, with the whole process increasing the division of labour.

1.5. Sources of service employment growth

While important in explaining the lacklustre growth in manufacturing, structural change in manufacturing appears to have only a modest impact on the growth in services in the United States. As shown in Table 9 below, services continue to account for a small, although growing, share of manufacturers' intermediate, inter-industry purchases. The selected services share of all intermediate goods purchased by manufacturers stood at 8.4 % in 1992 compared to 7.4 % in 1982. Business services, which include temporary employment agencies, and janitorial and security services witnessed the largest gain in share from 5.2 % in 1982 to 6.4 % in 1992.

Table 9. *Share of manufacturers' intermediate demand for goods and services*

Industry	1982 (%)	1992 (%)
Communications	0.8	0.4
Finance and insurance	1.2	1.4
Business services	5.2	6.4
Health, education, and social services	0.2	0.2
Intermediate inputs	100	100

Source: 1982 and 1992 — input-output tables, United States Bureau of Economic Analysis.

To explain the robust growth in service-producing sectors both in the European Community and in the United States, researchers have focused on several key factors: (1) internal growth in services, (2) the high income elasticity of demand for consumer services, (3) the lack of productivity growth in services, and (4) employment dynamics in explaining the robust growth in service-producing sectors.

1.5.1. Internal growth in services

The growth in services creates increased demand for services, through the purchase of services by service-producing businesses. As shown in Table 10, non-manufacturing activities account for 65.8 % of total demand for business services in 1992, up from 59 % in 1982. While a larger percentage of manufacturers' intermediate purchases are for business services (Table 9), their share of total service receipts fell during the ten-year period. For instance, manufacturers accounted for more than 20 % of total business services sales in 1982. In 1992, the share dropped to less than 14 %. Similar reductions in share are reported in communications and finance and insurance. Finally, personal consumption is the major source of demand for health, education and social services and is a major market for finance and insurance and communication. Beyers (1991) reports similar findings in his 1989 study:

‘... manufacturing is not an important market for most producer services. In fact, household consumers are very important customers for financial, insurance, real estate, and legal services; government is a very important client for accounting, labour supply, research and development, and consulting services. The various services are more important inter-industry markets from most producer services than are the goods producing sectors.’

We will further explore the relation between manufacturing and service growth in our subsequent analysis of service sector expansion in metropolitan areas.

Table 10. *Composition of demand for services by type, percentage of total demand, 1982–92* ⁽⁹⁾

	Manufacturing %	Non- manufacturing	Personal consumption	Government %
1982				
Communications	11.2	35.7	41.1	5.7
Finance and insurance	6.3	40.4	48.2	3.0
Business services	20.5	59.0	8.4	9.3
Health, education, and social services	0.7	3.2	93.9	2.0
1992				
Communications	3.7	42.4	43.9	5.7
Finance and insurance	4.1	36.7	54.0	2.4
Business services	13.9	65.8	8.3	8.5
Health, education, and social services	0.5	3.2	105.7	– 9.4

Source: 1982 and 1992 — input-output tables; United States Bureau of Economic Analysis.

1.5.2. The high income elasticity of demand for consumer services

Although the primary focus in this chapter is on business or producer services, it is useful to digress momentarily to look at consumer services. As shown in Table 10, consumer demand accounts for a large share of service output, except for business services. In addition, consumer demand for services, such as recreation, health, and personal and or household services, increases with disposable income. As shown in Table 11, the GDP per capita from 1988 to 1997 was more robust in Europe than in the United States. Growth in GDP per capita in the United States increased by 50 % during the period. Only Ireland, Finland and Sweden were unable to surpass the United States during the period. Therefore, it is not surprising that employment growth in the community, social and personal services as well as in distribution,

⁽⁹⁾ This table provides the percentage distribution of total demand by type of user for each of the services listed in the first column. The percentages across each of the rows do not add up to 100 % because several smaller demand categories are excluded, for example gross private investment and net exports. Second, because State and local governments are major producers and not users of health and education services, their demand for these activities is negative. This, in turn, forces personal consumption demand for health, education and social services to be recorded as being greater than 100 % of the total output.

retail and recreation are similar in Europe and in the United States. Employment in hotel, retail and recreation grew 16.1 % in the EU-15 compared to 18.3 % in the United States. Employment in community, social and personal services rose by 23.6 % in the EU-15, which was below the 35.1 % increase in the United States.

In the United States, one factor affecting the growth of consumer-originated service is the continuous expansion of the urban fringes of many metropolitan areas. As retailers follow their customers and strive to meet their shopping needs, they continue to build in more rural reaches of the urban fringe and stay open for longer hours. The combination of longer store hours and the continuous pursuit of customers to the outer fringe of expanding metropolitan areas may generate strong retail employment growth in the future that cannot be explained by income growth alone.

Table 11. *Percentage change in per capita income, 1988–97, in USD and %*

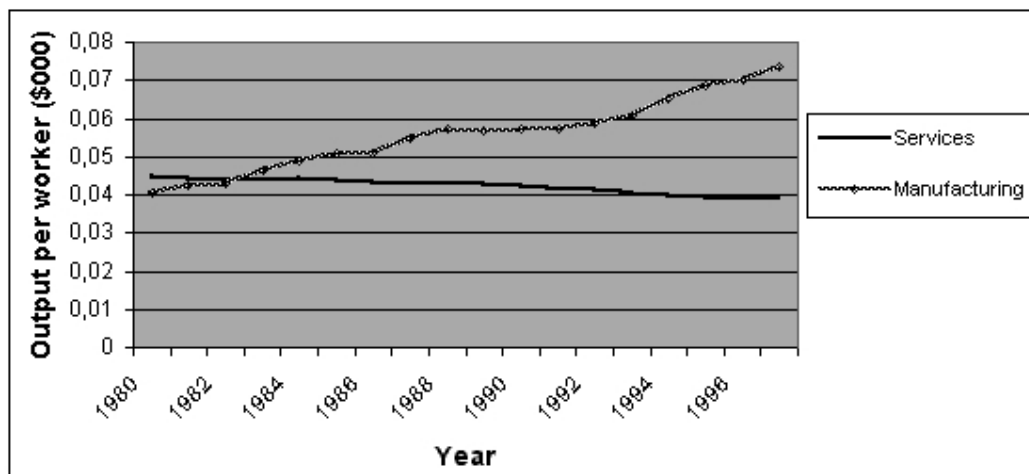
	1988	1997	1.1.1.1.2.1.1.1 % change
Belgium	12 623	23 242	84.1
Denmark	13 682	25 514	86.5
Germany	14 161	22 049	55.7
Greece	6 799	13 912	104.6
Spain	9 343	15 990	71.1
France	13 603	21 293	56.5
Ireland	16 117	20 634	28.0
Italy	12 985	21 265	63.8
Luxembourg	15 558	33 119	112.9
Netherlands	12 832	22 142	72.6
Austria	12 506	23 077	84.5
Portugal	6 750	14 562	115.7
Finland	13 798	20 488	48.5
Sweden	14 772	20 439	38.4
United Kingdom	13 428	20 483	52.5
United States	19 558	29 326	49.9

Source: Historical statistics, 1960–98; OECD Economic Outlook, 1990.

1.5.3. The lack of productivity growth in services

Although hindered by serious measurement problems, many researchers argue that employment growth in services, especially employment growth in relatively low-wage jobs, is due to the lack of productivity gains in services.

Figure 5. Productivity trends in United States manufacturing and services, 1980–96



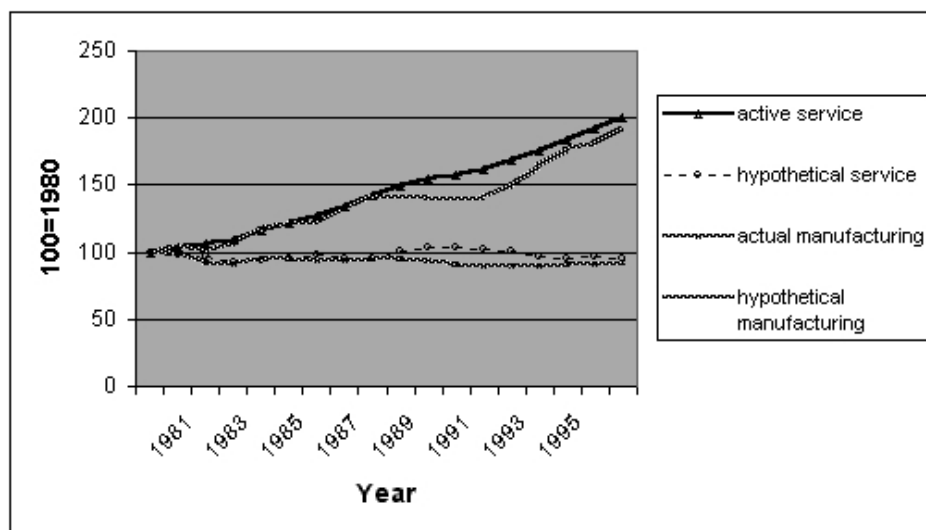
As shown in Figure 5, productivity in United States services, as measured by real output per worker, has modestly declined during the past 18 years. In contrast, manufacturing productivity continued to increase during the period. In percentage terms, service productivity declined by 14 % in the 18 years, while manufacturing productivity rose by a healthy 81 %. With the demand for nearly all services growing, it seems clear that the overall decline in productivity has only heightened the demand for more service workers. At the same time, manufacturing productivity gains have outpaced output increases and have placed downward pressure on the need to hire additional workers. Thus, the productivity differences between services and manufacturing alone account for a significant portion of the gap in the growth of service and manufacturing employment.

The contribution of productivity trends to the growth in services can be illustrated by asking the hypothetical question: What would be the growth rate of service employment if productivity in the services grew at the same rate as productivity in manufacturing? This comparison has some relevance, since in 1980 output in the service sector (narrowly defined) was about the same magnitude as output in the manufacturing sector. Furthermore, output of the two sectors grew at about the same rate throughout the 17-year period; a 72 % increase for services compared to a 66 % increase for manufacturing. Obviously, if service sector productivity approached manufacturing productivity, employment growth would be comparable. These actual and hypothetical growth trends are illustrated in Figure 6.

One can see that the hypothetical growth rate in service employment (labelled *hyposrv*) would be about the same as the actual growth in manufacturing employment (labelled *actman*) if the two shared the same productivity trend. The converse is also shown in the figure. Manufacturing employment growth would grow at roughly the same rate as service sector growth if manufacturing productivity were as sluggish as service sector productivity. Of course, if manufacturing productivity were to follow the same trend as service sector productivity, the increase in manufacturing output would probably not be as great because of

greater cost pressures and less competitiveness. If the service sector shared manufacturing's healthy productivity increase, its output would have grown even faster.

Figure 6. *Actual and hypothetical employment productivity trends, 1981–95*



1.5.4. Employment dynamics

Job creation in the service sector accounts for a significant share of the new jobs in the economy. The generation of these new jobs comes about from the birth of new establishments and the expansion of existing ones. In order to better understand the factors that contribute to the creation of new jobs, it is instructive to examine the dynamics of employment change. Examining gross flows provides insight into the relative contribution of births and expansions to service job creation and the relative effects on closings and contractions to service job destruction. Such information may be useful in fashioning policy to attract and retain businesses.

Calculating gross employment flows requires tracking individual establishments over time in order to observe changes in their employment status. Individual establishment-level census data are confidential and can be analysed only at specified census offices. We contracted with the census to prepare special tabulations of gross employment flows at the State and metropolitan level for one-digit and two-digit industries. At the time of the request, only a few years of data were available and the most recent year was 1992. As 1992 was a recession year, we chose the 1989–90 period. Net employment change within each industry over the time period is divided into four components: (1) employment gains due to the opening of businesses, (2) employment gains due to the expansion of existing businesses, (3) employment losses due to the closing of existing businesses, and (4) employment losses due to the contraction of existing businesses ⁽¹⁰⁾.

⁽¹⁰⁾ Employment due to openings is defined as the employment level in 1990 of an establishment that did not exist in 1989. The definition of a closing is the opposite; employment in 1989 of an establishment that ceases to exist in 1990. Employment due to expansions is calculated as the difference in employment of establishments that expand between 1989 and 1990. Contractions are calculated the same way.

Table 12 displays the components of net employment change for manufacturing, services (narrowly defined) and business services (SIC 73). Several features about the employment dynamics of services stand out in comparison with the manufacturing sectors. First, the service sector is more volatile than the manufacturing. Summing the absolute value of the percentage change in employment of all four components yields a turnover rate for each sector. This turnover rate measures the percentage of jobs that changed hands between 1989 and 1990. For the manufacturing sector, 22 % of jobs turned over within the one-year time span. For services, the turnover rate was 31 % — 9 percentage points higher. For business services, the turnover rate was more than double that of manufacturing, posting a 49 % rate.

The high volatility of the service sector is also apparent in the sheer number of jobs lost. Between 1989 and 1990, the service sector added 1.3 million net jobs to an economy that gained a net total of 1.8 million jobs. Yet, it lost nearly three times as many jobs due to closings and contractions as it created on net. Manufacturing lost an even higher percentage, but this is to be expected given the net loss in manufacturing jobs.

Table 12. *Net employment change by industry sector in the United States, 1989–90*

		Manufacturing	Services	Business services
Openings	Change	401 403	863 818	266 142
	% change	2.05	3.1	5.4
Closings	Change	– 671 358	– 1 245 120	– 352 233
	% change	– 3.45	– 4.51	– 7.15
Expansions	Change	1 581 313	4 118 916	1 094 825
	% change	8.09	14.93	22.22
Contractions	Change	– 1 684 951	– 2 441 625	– 681 944
	% change	– 8.62	– 8.85	– 13.84
Net	Change	– 376 593	1 285 989	326 790
	% change	– 1.9	4.7	6.63
Turnover rate	% change	22.21	31.39	48.61
Total employment, 1989		19 545 070	27 585 222	4 928 143

NB: Turnover rate is the estimation of its rates of change of the four components of employment change.

Source: Bureau of the Census, Census-based small business database, special tabulations for the Upjohn Institute, 1989–90.

For all three industries displayed in the table, expansion of existing businesses is the primary source of job creation. The preponderance of expansions is to be expected, as the time period spans only one year. One year leaves little time for new firms to start up. A longer time period would shift the relative contribution toward openings. However, it is still interesting to examine the difference, or in this case, the similarity in the characteristics of job creation across sectors. Business openings account for roughly 20 % of jobs created. The manufacturing sector experiences a slightly higher percentage, but about the same as business services. The greater role of business openings in job creation in manufacturing than services

is somewhat surprising since manufacturing start-ups typically require more capital investment. Manufacturing firms are significantly larger than service firms, with 57 employees per firm compared with 15 employees per firm in services. Even business services, which include firms like Microsoft Corp, have only slightly more employees per firm, approximately 19.

1.6. Empirical evidence of the manufacturing and/or services nexus

1.6.1. Geographic characteristics of service employment growth

As noted in the literature review in Section II of the chapter, location of service activity should be tied to several factors: (1) proximity to customers, including production activities, (2) sufficient market size to spawn independent suppliers, (3) favourable changes in the organisation of an industry that increase demand for services, and (4) agglomeration economies. We will examine these factors by focusing on 78 of the largest metropolitan areas (MSAs) in the United States. These areas comprise about 43 % of United States employment and 50 % of United States employment in services. These MSAs also account for the same proportion of total growth and service growth from 1985 to 1997. A list of these metropolitan areas is included in the appendix ⁽¹⁾.

To estimate the determinants of employment growth in the service sector, we first consider the change in the share of service employment across the 78 MSAs between 1985 and 1997. Service employment as a share of total employment increased from an average of 27 % in 1985 to 35 % in 1997. These percentages are higher than the national average of 23 % in 1985 and 29 % in 1997, which is to be expected if services benefit from large markets and agglomeration economies. The service share of total employment ranges across the metropolitan areas from a low of 24 % in 1997 for the Cleveland metropolitan area to a high of 51 % for Las Vegas (known for its gaming and entertainment industry). The range was wider for 1985, with Las Vegas topping the list with the same high percentage of 51 % but Charlotte, North Carolina occupying the bottom with 18 %. It is interesting to note that the service sector in Cleveland, while claiming the lowest employment share in 1997, maintained the same 24 % share throughout the 12-year period. Its decline in the ranking from 46th in 1985 to last in 1997 was affected by a faster increase in service share of employment by the 33 metropolitan areas that were listed below Cleveland in 1985. Therefore, to begin to understand the factors of growth, we will examine the change in the share of service employment from 1985 to 1997.

⁽¹⁾ We chose to define regions as metropolitan areas. Another choice, and one often used by researchers doing regional analysis within the United States, is to use States. States are convenient because data are collected by States and for the purpose of this paper, their population size corresponds more closely to European countries. However, most regional economists agree that metropolitan areas approximate a natural labour market more so than States.



Services in all but three of the 78 MSAs expanded their share of total employment between 1985 and 1997. Only Cleveland, Ohio, Little Rock, Arkansas, and Las Vegas registered no growth in the size of the service sector during this time period. Charlotte, North Carolina and Augusta Georgia topped the list with increases in excess of 65 %. As illustrated by the map in Figures 9 and 10 (located at the end of the chapter) most of the metropolitan areas experiencing significant expansions in the service sector are concentrated in the southern part of the United States. The States of Texas, Florida, Georgia and the Carolinas dominate. The number of service jobs in these States' 15 MSAs doubled from 1.5 million in 1985 to 3.2 million in 1997, with their share of total service jobs in the 78 MSAs increasing from 13 to 17 %.

While service sector expansion has occurred at a faster pace in the south than in most other parts of the country, one should not overlook the changes taking place within the northern regions of the United States, which have traditionally been dominated by manufacturing. Groshen and Robertson (1993) examine the changing industrial structure of 10 metropolitan areas in the Great Lakes region. MSAs in this region have lost manufacturing jobs, and their overall employment growth has been sluggish, at least throughout the 1970s and 1980s. Based on their analysis, the authors come to two interesting conclusions. First, MSAs in the Great Lakes were not losing factory jobs to other parts of the country. Rather, these cities were losing factory jobs to smaller municipalities or rural areas in their own region. Several factors may enter into a manufacturer's decision to locate outside large cities. They may find the location advantage of large cities diminishing due to high land costs, lower communication and transportation costs, shrinking plant sizes, greater awareness of environmental contamination, and union avoidance.

Second, replacing these manufacturing jobs are service jobs. MSAs in Great Lake States have increased their share of service sector jobs. While manufacturers find urban areas less attractive, service providers enjoy the urban advantages of first-class office space, easy access to information transfer systems, and a pool of seasoned workers from other service firms and local universities. Furthermore, this suggests that service providers and customers do not have to exist in close proximity. Manufacturers and other firms are continuing to patronise large city service providers even from a distance. From this, Groshen and Robertson reach the general conclusion that services are increasingly exportable, which to them makes sense considering the technological advances that make more distant relationships possible. They list several innovations; the introduction of the fax machine and electronic mail, coupled with a decline in transportation costs.

1.6.2. Factors determining service sector expansion

To explore the factors driving the overall increase in service sector employment share, we relate the percentage change in service employment share on several factors. These factors include population, presence of manufacturing activities, establishment size, unionisation, job creation activity, and characteristics of the workforce. The choice of these variables follows as closely as possible the factors generally cited in the literature, given available data. We estimate these relations for both services (narrowly defined as SIC 70–89) and business

services (SIC 73). The results are shown in Table 13 (located in the appendix at the end of the chapter).

The findings suggest that service sectors expand more rapidly in regions that have a large manufacturing base, low rate of unionisation, low manufacturing wage rate, and a relatively educated labour force. As evident in the table, we tried different specifications to see how the interactions among these variables affect their impact on the service sector. For some variables, the effects were strong across all models. For instance, service expansion is positively related to a strong manufacturing base. This relation holds for both services and business services across all specifications except one. Even the magnitude of the effects is stable across models. The importance of manufacturing on service expansion is evident in the dynamics of employment growth within manufacturing. The business service sector is shown to expand in those MSAs in which job creation in manufacturing originates predominantly from openings. This finding is robust across all models. The same variable is also robust across all specifications for services, but in this case the correlation is negative. It is curious that the share of job openings in service sector job creation has no statistically significant relation with the expansion of the service sector.

On the other hand, job creation activity within an MSA, as measured by the percentage of jobs created through openings and expansions, is statistically significantly related to service and business service expansion in only one specification. Once union representation and wage rates are entered, the job creation variable is no longer statistically significant, but it does retain a positive sign for business services.

Manufacturing wage rates are negatively related to the expansion of both services and business services within an MSA. This result may reflect the difficulty experienced by service firms in attracting workers away from high-paying manufacturing jobs. Unions may also restrict the supply of workers, and this variable is also negatively related to service expansion. The variable, however, is only statistically significant for services and not for the more narrowly defined business service industry. Since union representation is lowest in the south, this variable may be a proxy for MSAs in southern States. Thus, factors associated with southern MSAs, but not included in the estimation, may be proxied by the union representation variable.

The education of the MSA labour force is only weakly related to the expansion of the service sector, with a statistically significant relation between the percentage graduating from college and the expansion of business services. Other variables, such as an MSA's unemployment rate and the employment-to-population ratio, used to measure the availability of labour, were included in the model, but the results were statistically insignificant and thus were not included in the table.

1.6.3. Determinants of service sector job creation

We also consider several factors that may be related to job creation in the service sector within MSAs. We estimate separate equations for the percentage increase in service jobs due to



openings and the percentage increase in service jobs due to expansions. This analysis is based on data for the same 78 MSAs as used in the previous section, but for the shorter time period of 1989–92.

The results are shown in Table 14 (located at the end of the chapter). The results suggest several conclusions. First, service sector job creation is closely tied to manufacturing job creation. In addition, an initially large service sector does not appear to enhance the creation of service jobs. In fact, in several model specifications, it deters job creation. This result runs counter to the argument that service companies require a critical mass within local markets. Nonetheless, larger MSAs witness a greater level of job openings than smaller MSAs, suggesting the importance of agglomeration economies. The results also suggest that union representation is negatively correlated with job openings and expansions. This relation is statistically significant for all specifications. Interestingly, unlike the results in the previous section on service sector expansion, hourly wage rates are not statistically significantly related to either openings or expansions.

1.7. Wage structure

While services have accounted for much of the growth in United States employment during the past several decades, concern has been expressed that these jobs are low-paying and offer little opportunity for advancement. To address this issue, we examine several dimensions of the wage structure of workers in service and manufacturing industries. First, we look at the distribution of wages within the service and manufacturing sectors. Dupuy and Schweitzer (1994) argue that looking at average wages across industries can be misleading in comparing wages across industries. Average wage differences are trivial compared to the wide range of salaries available in each sector. Second, we consider the wages of young workers who recently entered these industries. Examining wages for the entire workforce within industries, which combines new entrants and those with years of experience, can mask the opportunities available to workers who are just starting their careers. Finally, we extend the examination of entry-level workers to look at the wage distribution over an individual's entire career. By comparing age-earnings profiles for a cross-section of workers within manufacturing and services, we can see whether workers in services have less opportunity for advancement than workers in manufacturing.

1.7.1. Wage distribution

Dupuy and Schweitzer (1994) examine the wage distribution within services and manufacturing for 1992. They conclude that the characterisation of service jobs as low-paying, dead-end jobs is inaccurate. Although they find that the median wage in the service-producing sector is about 4 % lower than the median wage in the goods-producing sector, they also find that a wide range of high-paying jobs is available in the service-producing sectors. These wages generally match the wages available in the goods-producing sector. Service-producing sectors, such as fire insurance, and real estate and public administration, offer median and top wages that exceed those in manufacturing. The wage differential for young

workers in the service-producing and goods-producing sectors is negligible, differing only by USD 2 per week. Wages in the narrow definition of services, which includes business services as well as personal services, are higher than manufacturing wages at the median but not at the top 90th percentile.

Dupuy and Schweitzer find that the goods-producing sector benefits the less-educated worker. Workers with only a high school education are paid 20 % higher in the goods-producing sector than in the service-producing sector. The differential is even higher for workers in services than for those in manufacturing. The authors conclude that this gap is not an adequate argument for a policy that would shift the distribution of employment opportunities towards goods production. Instead, they conclude that these results underscore the importance of an educated workforce.

We extended their analysis to include two additional time periods, by grouping the years 1984–86 and 1995–97. Three years of data are pooled for each time period in order to minimise the possibility that the events of one particular year may differ significantly from the general trend. The weekly wages are presented in 1997 USDs so that wages can be compared over time. Only workers on company payrolls are included in the sample ⁽¹²⁾.

The results displayed in Tables 15–20 reveal that median wages in the service-producing sector are roughly 7 % lower than wages in the goods-producing sector. The top-end service-producing jobs are also below the top-end goods producing jobs, but by only 4 %. The wage differential between the narrow service industries and manufacturing is also 7 %.

Entry level workers (ages 25 to 30) find little difference in median pay between the service-producing and goods-producing sectors. The median wages in services are the same as those in manufacturing, but the top-end service wages are somewhat lower. However, there is a greater difference at the lower end of the pay scale. Less-educated workers are at a disadvantage in service producing jobs. The median wage of a service sector less-educated employee is nearly 20 % lower than the median wage of a similar worker in the goods-producing sector. For the narrow services, the wage differential is even greater at 28 %, and the differential for top-end jobs is close to 30 %. Clearly, manufacturing and other sectors with physically-oriented occupations such as construction and perhaps wholesale trade hold greater opportunities for the less educated.

The wage gap between service-producing and goods-producing sectors have narrowed over the decade or so covered in our analysis. Between the mid-1980s and the mid-1990s, the differential for the median wage in the service-producing sector has declined from 87.6 % of goods-producing sector wages to 93.1 %. The gap has also closed somewhat in the narrow

⁽¹²⁾ Data are obtained from the March current population survey (CPS), which includes yearly information on a sample of nearly 60 000 households. Wages are measured as weekly earnings of full-time workers. Workers are considered full-time employees if they work more than 35 hours per week, but not necessarily at one job. The work week for full-time workers is concentrated at 40 hours, so using weekly earnings or hourly wages will yield similar results.



services industries, both for median wages and for the top-end wages. The same narrowing has taken place for entry-level workers and for less-educated workers.

Wage growth for all sectors during this time period has been relatively stagnant. The gap has narrowed because wages in the service-producing sector have not fallen as fast as those in the goods-producing sector, and in some cases, service sector wages have increased. For all three groups, inflation-adjusted median wages in the goods-producing sector have fallen during this ten-year period. The same holds for entry-level workers and less-educated workers in the service-producing sector. In contrast, wages of all workers in the narrow services industries have increased overall.

1.7.2. Age-earnings profile

Another concern about service sector jobs is the lack of wage growth over a worker's career. One way to examine relative opportunities for advancement is to estimate the earnings that individuals can expect over their work lives. This relation is referred to in the labour literature as an age-earnings profile. A profile depicts the pattern of earnings of a cross-section of workers at each age level. We then look for significant differentials in age-earnings profiles between comparable workers in manufacturing and services. We interpret the results of this approach to represent the earnings potential of typical service and manufacturing workers over their work lives. This interpretation rests on the assumption that the behaviour of individuals and labour market conditions affecting their wages do not vary significantly across cohorts. Although this assumption may be open to question, the approach provides a starting point for analysis ⁽¹³⁾.

Two approaches are pursued here. The first is to chart the age-earnings profiles of men and women in the service and manufacturing sectors using hourly earnings. The second is to estimate a wage equation that controls for worker characteristics and then plot the predicted hourly earnings at each age level. The second approach constructs a statistically typical person and thus plots the hourly wages of workers who are observationally identical except for their age.

As shown in Figure 7 (located in the appendix at the end of the chapter), hourly earnings increase throughout most of a worker's career, regardless of whether the worker is male or female, or in the service or manufacturing industries. The most widely cited reason for an upward-sloping age-earnings profile is the accumulation of human capital through on-the-job training. Other explanations include workers' commitment to a firm by accepting low pay early in their career in exchange for high pay later on. The age-earnings profile is steeper for men than for women. Men and women start out with roughly the same pay, between the ages of 18 and 22. However, men's wages increase more rapidly than women's wages, presumably because women are less attached to the workforce due to their choice to assume household and

⁽¹³⁾ Our analysis is an extension of the approach developed by Eberts and Groshen (1990) to compare the wage growth opportunities in the service sector versus the manufacturing sector.

child-rearing responsibilities and thus do not accumulate as much human capital as men at any given age.

For this study, the noteworthy pattern is that age-earnings profiles are roughly comparable for men in manufacturing and services and for women in the two industries. Wages for young entry-level workers are generally the same regardless of the gender of the worker or the industry they work in. Earnings in the service and manufacturing sectors follow the same path over the life of the worker. That is, wages increase for both service and manufacturing workers at roughly the same rate. The wage differential between manufacturing and services persists throughout a person's work life. However, which industry claims a wage premium differs by gender. For men, manufacturing workers are paid more than service workers. For women, service workers are paid more than manufacturing workers. This relation holds true for both years, although the difference is more pronounced in 1984.

The stylised age-earnings profiles, produced by estimating a wage for a statistical worker, accentuates the differences and similarities between these curves in services and manufacturing. As shown in Figure 8 in the appendix, entry-level wages for young workers in 1984 are the same and the wages within manufacturing and services follow the same path. However, the paths are different for men and women. As with the unadjusted data, service wages are below manufacturing wages for a man's entire work life. For women, the opposite is true — service wages are higher than manufacturing wages. Wages in 1997 yield a similar pattern, with one notable exception. The wages of men in the services start out higher than wages of their counterparts in manufacturing. However, the curve for service wages is shallower than that of manufacturing wages, and thus manufacturing wages eventually catch up with service wages by the age of 36. After that point, wages in services and manufacturing follow roughly the same path.

The results of the age-earnings profile indicate that service workers can expect wage growth over their work life similar to manufacturing workers. These findings suggest that the service sector does not create dead-end jobs. Furthermore, women can find higher wages in services than in manufacturing, while men find a wage premium in manufacturing jobs.

1.8. Growth potential of a service sector economy

From a regional perspective (whether it is Member States of the EU or States within the United States), the question is what is the potential for growth within the service sector to spawn overall growth. This question is particularly pertinent for those areas that have lost a substantial number of manufacturing jobs. Manufacturing is considered the quintessential export industry—selling goods outside the area that in turn brings income into the local economy. Exports thus create a multiplier effect, which increases the economic growth of the area.

Groshen (1987) addresses the issue of whether services have become a source of export-led growth. Examining the Great Lakes region, she finds that services are exported outside a region, and can be considered a viable component of the economic base. As of 1982, the time



period used in her analysis, there was apparently less trade in producer services than in manufacturing. Furthermore, the exporting activities of services comprised a smaller percentage of total employment within all United States MSAs than the export activities of manufacturing. Based on calculations of export activity within MSAs, Groshen finds that service sectors with high and moderately high export activity account for 1.5 % of total employment in these MSAs. Manufacturing industries with high and moderately high export activity, on the other hand, account for 5.5 % of total employment. The finding that manufacturing has 3.7 times more export activity than services may be an upper boundary. International trade figures for the United States show that the ratio of goods exports to services exports was about 3.3 in 1982. However, one would expect the ratio to be larger for trade within the United States since the effective distance that service exports may be 'shipped' may be shorter than the effective distance for the shipment of goods exports. Obviously, more work on the export nature of services needs to be pursued.

If services are exportable outside the region, then what effect does such activity have on the local economy? Groshen (1993) also considers the economic impact of an increase in expenditures or employment in services upon a regional economy. Considering regional multipliers for Ohio, she finds that bringing to the region a business service provider that generates USD 1 million in annual revenue creates 41 additional jobs. In contrast, bringing in a tyre manufacturer that does the same amount of business creates only 23 more jobs. She also finds that the service provider augments earning power to a greater extent than does the manufacturer. For each additional dollar earned by the service firm, household earnings rise by 89 cents, versus 54 cents for the manufacturer. She reports that a comparison of aggregated services and manufacturing exhibits the same pattern as shown in the simple example of single industries.

Part of the difference in economic impacts is due to the more labour-intensive nature of services. Countering this effect is the lower indirect effect generated by services than by manufacturing. One additional employee in services induces other firms to hire 0.8 additional positions. In manufacturing, one additional employee results in other firms hiring 1.5 new workers. Nonetheless, the net effect of raising service production by an additional dollar yields more new positions in other industries than does the same rise in manufacturing sales.

Analysing the comparative economic impact of a USD 10 million increase in sales in business services and motor vehicle production in the State of Michigan yields results similar to those obtained by Groshen. As shown in Table 21, the increase in business service sales generates 2.3 times as many jobs as created by an identical increase in motor vehicle sales, even though the State's motor vehicle industry has a much larger employment multiplier. Each new job on the auto assembly line generates an additional four jobs in the State⁽¹⁴⁾. On the other hand, each position created in the business service sector supports only another 0.6 jobs in the State.

⁽¹⁴⁾ It should be noted that this is a very high employment multiplier. Most employment multipliers, even in manufacturing industry, stay below 3. However, the State of Michigan houses a very large number of auto suppliers.

Table 21. *Economic impact of USD 10 million in new sales in the State of Michigan*

	Motor vehicle production	Business services
Total employment	145 jobs	337 jobs
— Direct	29 jobs	207 jobs
— Indirect	116 jobs	130 jobs
— Employment multiplier	5.0	1.6
Earnings per worker	USD 52 540	USD 36 824
Personal income	USD 6.68 million	USD 10.8 million
Gross State product	USD 8.96 million	USD 12.0 million

Source: W.E. Upjohn Institute, REMI model.

Since lower productivity in business services is lower than that in manufacturing — USD 48 310 sales per worker in business services compared to USD 334 830 in sales per worker in the motor vehicle industry — the overall earnings per worker impact of a jump in business services is nearly 30 % lower than for the same increase in motor vehicle sales. Nevertheless, the sector’s impact on the State’s personal income and gross State product is higher by 61.7 % and 33.9 % respectively.

From an economic development perspective, the decision regarding which type of firm to pursue depends upon the cost of nurturing a service firm versus a manufacturing firm, each generating the same revenue. It also depends upon the effect of the local economic market conditions on business creation. Our results in the previous section suggest that the creation of service jobs is affected by factors such as wage rates, population size, and overall economic activity, which are the same factors that affect manufacturing. Therefore, the preliminary inquiry into this issue of the economic development potential of services suggests that service sector businesses can stimulate a local economy and the magnitude of this effect is likely to be as large if not larger than that generated by manufacturing firms. Moreover, previous results from the analysis of MSAs suggest a tight relation between services and manufacturing. In this light, services and manufacturing should be considered complements, not substitutes, at least from a regional perspective.

1.9. Conclusion

The chapters in this volume explore the job creation potential of the service sector in Europe. A motivating factor for this discussion is the slow pace of total employment growth in the EU during the last decade or so, particularly when compared to the robust employment growth in the United States. Both the EU and the United States have experienced significant growth in service producing jobs during this time, but the share of service employment in the EU has lagged behind that of the United States. The gap between the two economies in the size of the service sector has raised questions about the future growth prospects for service sector employment and ultimately total employment in the EU. Even more fundamental is the concern about the growth potential of an economy that increasingly relies upon services.



The purpose of this chapter is to provide an overview of the service sector in the United States. We address several basic questions: What are the determinants of service sector employment, what is the relationship between services and manufacturing, what is the wage structure of service jobs, and what is the potential for the service sector to stimulate overall employment growth? Answers to these questions go beyond the scope of this chapter, but our analysis provides some insight into these issues.

Much of our analysis focuses on business services, as they have achieved remarkable employment growth during the past several decades. Business services are also considered because they are closely related to the restructuring in the manufacturing sector and provide intermediate inputs to manufacturers. Consequently, factors contributing to this tremendous employment gain include the outsourcing of non-core activities by manufacturers. Not only are the United States manufacturers losing share in many service-related occupations to the service sector; the nation's business and professional sectors are gaining share from manufacturers in several production-related occupations, such as, machine operators and assemblers. These findings suggest that temporary and lease employment agencies are increasingly being called upon to meet the needs of manufacturers. Still, while evidence indicates that structural change in manufacturing is a contributing factor to the growth in service employment, its impact is small relative to the growth in the demand for services by other services.

The lack of productivity growth in services accounts for a significant portion of the gap in employment growth between services and manufacturing. In fact, as growth in service output and manufacturing output are roughly the same, the difference in employment growth between the two sectors is almost entirely the difference in productivity growth. This raises the issue of the ability of services to support innovative activities that are needed to sustain future productivity growth. It may be the case that while service sector productivity lags behind manufacturing productivity, innovations in manufacturing are increasingly dependent upon service activities such as engineering and research and development. When these functions were performed internally by firms, the lag in productivity went unnoticed. However, as these services are outsourced and sold in the market, the tendency to measure productivity gains in these sectors, however crude and inaccurate, has raised concerns about lagging service sector productivity growth. However, researchers have suggested that service sector productivity should be measured by how effective the services are in increasing the productivity of those activities that use these services as inputs. This approach relates closely to the standards typically used when these services are provided internally.

Observing variations in service and manufacturing employment across metropolitan areas offers some insights into the factors that contribute to their growth. Service employment is concentrated in large metropolitan areas. The 78 largest metropolitan areas house 50 % of the United States total service employment, while accounting for only 43 % of the nation's total employment. These metropolitan areas accounted for the same proportion of total employment and service growth from 1985 to 1997. Based on observations of the 78 largest metropolitan areas, our research suggests that employment in the services expand in regions

that have a large and dynamic manufacturing base, a low rate of unionisation, low manufacturing wage rates and a relatively educated labour force.

Although the lack of productivity growth is a contributing factor to the employment growth in services, wages and wage growth in services are becoming more comparable to those in manufacturing. The differential for the median wage in services has declined from 87.6 % of goods-producing sector wages to 93.1 % from the mid-1980s to the mid-1990s. Less-educated workers still find better paying jobs in manufacturing; however, on average, service workers can expect the same wage growth over their work life as manufacturing workers.

Finally, the service sector is becoming an increasingly important component of the economic base of many regions in the United States. Services are no longer limited to a 'non-base' function that simply recirculates revenues brought into the region through the sale of manufacturing goods. The regional exportation of services, such as health, financial and professional services, can have a similar impact on the region's economic base, as filling a new order in manufacturing. Equally important, our research shows that manufacturing and services activities are complementary. Hence, regional economic development efforts may become more robust by creating a healthy economic environment for both its manufacturing and service sectors.

Based upon these observations of the United States service sector, several policy recommendations follow. First, as services become more exportable, it is important to extend trade liberalisation measures to service firms that are given to manufacturers. When services, such as banking and telecommunications, were more localised, there was little need to protect local businesses from outside competition. However, as these businesses come under more intense competition, the temptation to protect these entrepreneurs from the rigors of the market should be carefully weighed against the benefits of more liberalised trade.

Second, the close relationship between restructuring within manufacturing and growth in the service sector emphasises the need for flexibility in the labour market. Restrictions, either explicit or implicit, on the mobility of workers may impede the ability of firms to adjust to changing market demands and retard the growth potential of the service sector. Liberalising labour adjustment within firms may improve the efficiency of the manufacturing sector by promoting more efficient use of resources. Accommodating the move toward outsourcing services may also increase the scope and efficiency of the service sector.

Third, the ability of service firms to generate as much additional employment as manufacturing firms changes their role in promoting economic development. Instead of focusing primarily on manufacturing, economic development efforts can also include service firms. The findings that growth in service employment is sensitive to some of the same location factors as manufacturing also emphasises that service firms can choose their location and are not limited to a local market. Therefore, metropolitan areas must remain competitive with respect to wage rates and the cost of other inputs used by business services.

Fourth, the greater role of business expansions for services than for manufacturing calls for a shift in the approach taken to attract and retain businesses in a region. Instead of concentrating on attracting new firms, perhaps more attention should be paid to retaining existing firms, since employment growth appears to come more from expansions than openings. Furthermore, as the turnover rate is higher for services than for manufacturing, it is important to find ways to keep apprised of the problems facing service firms in case there are measures that can be taken to keep the firm from leaving or going out of business.

Appendix

Table 1. *List of metropolitan areas used in the analysis*

Metropolitan areas	Population 1990	Metropolitan areas	Population 1990
Akron, OH	657 575	McAllen-Edinburg-Mission, TX	383 545
Albany-Schenectady-Troy, NY	874 304	Memphis, TN-AR-MS	981 747
Albuquerque, NM	480 577	Miami, FL	1 937 094
Allentown-Bethlehem-Easton, PA	686 688	Middlesex-Somerset-Hunterdon, NJ	1 019 835
Atlanta, GA	2 833 511	Minneapolis-St. Paul, MN-WI	2 464 124
Augusta-Aiken, GA-SC	396 809	Modesto, CA	370 522
Austin-San Marcos, TX	781 572	Montgomery, AL	292 517
Bakersfield, CA	543 477	New Orleans, LA	1 238 816
Bergen-Passaic, NJ	1 278 440	New York, NY	8 546 846
Birmingham, AL	907 810	Newark, NJ	1 824 321
Charleston-North Charleston, SC	506 875	Norfolk-Virginia Beach-Newport News, VA-NC	1 396 107
Charlotte-Gastonia-Rock Hill, NC-SC	1 162 093	Oklahoma City, OK	958 839
Chicago, IL	6 069 974	Omaha, NE-IA	618 262
Cleveland-Lorain-Elyria, OH	1 831 122	Pensacola, FL	344 406
Columbia, SC	453 331	Philadelphia, PA-NJ	4 856 881
Columbus, OH	1 377 419	Phoenix-Mesa, AZ	2 122 101
Corpus Christi, TX	349 894	Pittsburgh, PA	2 056 705
Dallas, TX	2 553 362	Portland-Vancouver, OR-WA	1 239 842
Dayton-Springfield, OH	951 270	Raleigh-Durham-Chapel Hill, NC	735 480
Des Moines, IA	398 928	Riverside-San Bernardino, CA	2 588 793
Detroit, MI	4 382 299	Rochester, NY	1 002 410
El Paso, TX	591 610	Sacramento, CA	1 481 102
Fort Lauderdale, FL	1 255 488	Saginaw-Bay City-Midland, MI	399 320
Fort Wayne, IN	363 811	St Louis, MO-IL	2 444 099
Fort Worth-Arlington, TX	1 332 053	San Antonio, TX	1 302 099
Fresno, CA	667 490	San Diego, CA	2 498 016
Grand Rapids-Muskegon-Holland, MI	688 399	Santa Barbara-Santa Maria-Lompoc, CA	369 608
Greensboro-Winston-Salem-High Point, NC	942 091	Seattle-Bellevue-Everett, WA	1 972 961
Hamilton-Middletown, OH	291 479	Shreveport-Bossier City, LA	334 341
Houston, TX	3 301 937	Stockton-Lodi, CA	480 628
Huntington-Ashland, WV-KY-OH	312 523	Syracuse, NY	659 864
Jackson, MS	395 396	Tacoma, WA	586 203
Knoxville, TN	604 816	Tampa-St. Petersburg-Clearwater, FL	2 067 959
Lakeland-Winter Haven, FL	405 382	Toledo, OH	614 128
Lancaster, PA	422 822	Tucson, AZ	669 880
Las Vegas, NV-AZ	741 459	Tulsa, OK	708 954
Lexington, KY	348 428	Vallejo-Fairfield-Napa, CA	451 186
Little Rock-North Little Rock, AR	513 117	Wichita, KS	485 270
Los Angeles-Long Beach, CA	8 863 164	Wilmington-Newark, DE-MD	578 587

Table 4. *Employment change, 1984–97*

Industries	Employment change due to:					
	1984	1997	national growth	change in occupational mix	change in occupational share	employment change
Agricultural services	2 267 952	2 241 043	432 870	– 643 727	183 948	– 26 910
Mining	1 035 250	686 753	197 592	– 26 338	– 519 750	– 348 496
Construction	6 424 606	7 282 634	1 226 225	– 519 098	150 901	858 028
Durable goods	13 233 498	12 704 758	2 525 796	– 992 853	– 2 061 682	– 525 740
Non-durable goods	9 350 819	8 572 726	1 784 733	– 1 202 728	– 1 360 098	– 778 094
Trans. commun. and public utilities	7 560 464	9 257 971	1 443 019	189 054	65 435	1 697 507
Wholesale trade	4 159 462	4 555 180	793 891	74 364	– 472 537	395 718
Retail trade	19 029 148	23 330 266	3 631 975	583 851	85 293	4 301 118
FIRE	6 626 407	8 140 467	1 264 741	308 523	– 59 204	1 514 060
Business and repair services	5 046 556	7 691 703	963 205	– 99 893	1 781 836	2 645 147
Personal services	4 308 415	4 043 912	822 320	– 700 081	– 386 742	– 264 502
Entertainment and recreation services	1 490 177	2 798 699	284 421	153 083	871 018	1 308 522
Professional and related services	22 458 006	31 158 266	4 286 420	1 892 449	2 521 392	8 700 261
Public administration	5 578 760	6 827 100	1 064 783	983 408	– 799 852	1 248 340



Table 5. *Outsourced occupations in manufacturing — employment loss in manufacturing due to its losing occupational share*

Occupations	Employment loss	Percentage of 1994 employment
Clerical and administrative support	473 346	– 33.1
Computer system analysis	– 298 755	– 250.9
Transportation occupations	– 214 396	– 44.4
Managers and administrators (salaried)	– 212 368	– 15.2
Production inspectors and testers	– 185 058	– 22.5
Freight stock, material handlers	– 179 497	– 50.2
Other professional specialities	– 166 381	– 37.0
Technicians, other	– 148 487	– 62.9
Machine operators, tenders	– 130 939	– 2.5
Material moving	– 127 153	– 25.6
Secretaries, stenographers and typists	– 120 115	– 16.5
Management-related occupations	– 115 076	– 34.6
Accountants and auditors	– 110 874	– 43.6
Cleaning and building	– 105 981	– 30.5
Construction trades	– 97 207	– 35.7
Engineers	– 94 685	– 10.8
Fabricators and assemblers	– 88 901	– 5.5
Natural scientists and mathematicians	– 86 176	– 44.7
Engineering and science technicians	– 84 916	– 15.2
Other precision workers	– 83 685	– 8.7

Table 6. *Employment gains in business services by occupation due to increases in occupational share*

Occupations	Employment	Percentage of 1994 employment
Clerical and support occupations	326 386	62.2
Computer system analysis	309 480	883.7
Managers and administrators (salaried)	194 103	42.4
Sales reps, commodities and financial	177 382	112.4
Cleaning and building services	170 015	35.2
Other specified handlers and cleaners	119 742	96.0
Labourers, excluding construction	83 418	129.9
Mechanics and repairers	74 167	9.9
Engineers	68 417	159.5
Machine operators, tenders	67 895	44.6
Fabricators and assemblers	63 610	56.2
Technicians, other	63 356	77.3
Protective services	59 520	19.1
Production inspectors and testers	56 736	319.7
Other professional specialities	51 555	41.7
Computer equipment operators	31 967	39.3
Engineering and science technicians	26 013	33.3
Teachers, excluding post-secondary	23 875	268.5
Financial record processing occupations	21 761	16.2
Construction trades and extractive occupations	20 334	61.2
Accountants and auditors	16 563	35.3



Table 7. *Employment gains in professional services by occupation due to increases in occupational share*

Occupations	Employment	Percentage of 1994 employment
Managers and administrators (salaried)	424 776	28.9
Secretaries, stenographers and typists	384 222	20.4
Clerical and support occupations	358 694	16.9
Other professional specialities	265 282	22.7
Financial-record-processing occupations	252 649	64.2
Management-related occupations	242 548	140.8
Health service occupations	138 148	7.5
Technicians, other	105 256	38.2
Accountants and auditors	103 330	39.5
Engineers	84 777	36.8
Computer system analysts	81 973	361.5
Personal service occupations	81 147	14.6
Machine operators, tenders	74 364	55.6
Natural scientists and mathematicians	72 773	52.6
Mechanics and repairers	68 344	61.2
Engineering and science technicians	57 558	23.6
Construction trades and extractive occupations	54 166	61.8
Health assessment and treating occupations	52 406	3.0
Sales reps, commodities and financiers	44 282	1 285.2
Fabricators, assemblers and hand workers	38 075	207.2
Protective services	36 011	34.0

Table 13. *Percentage change in service sector share of total employment, selected MSAs, 1985–97*

Model	A		B		C		D		
Variable	Services	Business services	Services	Business services	Services	Business services	Services	Business services	Mean
Openings share of job creation: services	0.546 **	0.958	0.224	0.343	0.139	0.257	0.385	0.067	0.44
Openings share of job creation: manufacturing	-0.262 *	0.726 **	-0.304 **	0.695 **	-0.309 **	0.630 *	-0.281 **	0.556 *	0.41
Manufacturing's share of employment 1985	0.263	0.809*	0.688 **	1.55 **	0.631 ***	1.56 ***	0.531 **	1.75 ***	0.21
% of job creation 1989-92			0.023 **	0.057 ***	-0.003	0.024	-0.007	0.013	10.8
% of job destruction 1989-92			-0.018	0.010	-0.029 *	-0.035	-0.018	-0.104 **	-9.8
% of employees unionised					-0.008 ***	-0.006	-0.007 **	0.0002	15.1
Manufacturing hourly wage					-0.031 *	-0.125 ***	-0.045 **	-0.162 ***	6.22
Per capita income							-0.0001 **	0.0002	14 348
Per capita income squared							4.1e-09 **	-6.82e-09 *	
% of high-school graduates							-0.0006	0.004	59.3
% of college graduates							0.0017	0.020 **	23.3
Dependent variable									0.337
Business services									0.445
Adjusted R-square	0.07	0.05	0.12	0.10	0.31	0.23	0.37	0.30	

NB: * (** ***) indicates statistical significance at the 0.10 (0.05, 0.01) level.

Dependent variables are the percentage change in the share of service employment between 1985 and 1997 for services and business services.

Source: Selected census data.

Table 14. *Percentage change in service employment due to openings and expansions, selected MSAs, 1989–92*

Model	A		B		C	
Variable	Openings	Expansions	Openings	Expansions	Openings	Expansions
MSA population, 1990	8.16e-07 **	2.39e-08	9.19e-07 ***	9.8e-08	9.09e-07 ***	-6.24e-08
Population squared	-8.11e-14 **	-1.54e-14	-7.99e-14 **	-1.5e-14	-6.80e-14 **	6.59e-15
Manufacturing job creation (% change)	0.350 ***	0.224 ***	0.226 ***	0.143 **	0.279 ***	0.169 ***
Manufacturing job destruction (% change)	0.119	0.061	0.109	0.054	-0.104	0.035
Share of services, 1985	-10.1 **	-2.33	-5.53 *	0.145	-7.45 ***	-1.99
% employment unionised			-0.116 ***	-0.075 ***	-0.137 ***	-0.081 ***
Metropolitan areas unemployment rate					-0.160 *	0.072
Manufacturing hourly wage			-0.087	-0.070	0.123	-0.099
% completing high school					0.036	0.048 **
% completing college					-0.045	0.048 *
Manufacturing establishment size	0.23	0.13	0.47	0.31	0.50	0.33

NB: * (** ***) indicates statistical significance at the 0.10 (0.05, 0.01) level.

Dependent variables are the percentage change in service employment due to openings and expansions, 1989–92.

Source: Selected census data.

Table 15. *Weekly wages in the eight major industries, 1984–86*

	Mean	10th percentile		Median		90th percentile		Share of employment
	USD	USD	%	USD	%	USD	%	%
Goods-producing	656	242	100.0	563	100.0	1 142	100.0	32.2
Construction	623	232	95.9	528	93.8	1 119	98.0	6.9
Manufacturing	665	247	102.1	564	100.2	1 147	100.4	25.3
Service-producing	592	208	86.0	493	87.6	1 061	92.9	67.8
Retail trade	440	161	66.5	344	61.1	817	71.5	13.6
Narrow services	565	201	83.1	475	84.4	1 004	87.9	28.1
Wholesale trade	657	258	106.6	549	97.5	1 159	101.5	4.5
FIRE	657	265	109.5	499	88.6	1 198	104.9	7.1
Public administration	687	297	122.7	618	109.8	1 155	101.1	6.1
Transportation and utilities	770	317	131.0	713	126.6	1 218	106.7	8.3

Table 16. *Weekly wages for workers aged 25 to 30, 1984–86*

	Mean	10th percentile		Median		90th percentile		Share of employment
	USD	USD	%	USD	%	USD	%	%
Goods-producing	583	245	100.0	525	100.0	976	100.0	31.8
Construction	587	244	99.6	516	98.3	1 014	103.9	7.6
Manufacturing	582	246	100.4	530	101.0	958	98.2	24.2
Service-producing	531	226	92.2	470	89.5	867	88.8	68.2
Retail trade	448	186	75.9	377	71.8	772	79.1	14.9
Narrow services	512	220	89.8	451	85.9	832	85.2	27.5
Wholesale trade	577	282	115.1	516	98.3	911	93.3	5.1
FIRE	578	285	116.3	488	93.0	918	94.1	8.1
Public administration	585	304	124.1	527	100.4	891	91.3	4.9
Transportation and utilities	647	309	126.1	602	114.7	1 010	103.5	7.7

Table 17. *Weekly wages for workers with only a high-school diploma, 1984–86*

	Mean	10th percentile		Median		90th percentile		Share of employment
	USD	USD	%	USD	%	USD	%	%
Goods-producing	615	252	100.0	542	100.0	1 035	100.0	34.5
Construction	620	244	96.8	535	98.7	1 099	106.2	7.7
Manufacturing	613	253	100.4	545	100.6	1 014	98.0	26.8
Service-producing	500	197	78.2	422	77.9	891	86.1	65.5
Retail trade	414	161	63.9	338	62.4	741	71.6	16.3
Narrow services	428	179	71.0	373	68.8	722	69.8	21.9
Wholesale trade	577	257	102.0	507	93.5	958	92.6	4.7
FIRE	508	247	98.0	422	77.9	861	83.2	7.0
Public administration	577	275	109.1	527	97.2	962	92.9	5.9
Transportation and utilities	721	316	125.4	702	129.5	1 126	108.8	9.5

Table 18. *Weekly wages in the eight major industries, 1995–97*

	Mean		10th percentile		Median		90th percentile		Share of employment
	USD	USD	%	USD	%	USD	%	%	
Goods-producing	685	236	100.0	537	100.0	1180	100.0	27.2	
Construction	633	236	100.0	527	98.1	1 079	91.4	6.5	
Manufacturing	702	236	100.0	538	100.2	1 215	103.0	20.7	
Service-producing	657	210	89.0	500	93.1	1 132	95.9	72.8	
Retail trade	450	165	69.9	346	64.4	790	66.9	14.3	
Narrow services	657	205	86.9	498	92.7	1 131	95.8	32.6	
Wholesale trade	726	246	104.2	538	100.2	1 215	103.0	4.2	
FIRE	827	273	115.7	547	101.9	1 377	116.7	7.0	
Public administration	735	327	138.6	630	117.3	1 194	101.2	6.5	
Transportation and utilities	775	300	127.1	673	125.3	1 226	103.9	8.1	

 Table 19. *Weekly wages for workers aged 25 to 30, 1995–97*

	Mean		10th percentile		Median		90th percentile		Share of employment
	USD	USD	%	USD	%	USD	%	%	
Goods-producing	551	231	100.0	466	100.0	923	100.0	25.8	
Construction	550	240	103.9	472	101.3	913	98.9	6.9	
Manufacturing	552	224	97.0	462	99.1	932	101.0	18.9	
Service-producing	532	212	91.8	453	97.2	865	93.7	74.2	
Retail trade	421	179	77.5	360	77.3	699	75.7	16.8	
Narrow services	544	211	91.3	462	99.1	865	93.7	32.4	
Wholesale trade	574	250	108.2	492	105.6	920	99.7	4.3	
FIRE	614	273	118.2	483	103.6	957	103.7	8.0	
Public administration	583	295	127.7	519	111.4	911	98.7	5.9	
Transportation and utilities	584	269	116.5	527	113.1	962	104.2	6.8	

 Table 20. *Weekly wages for workers with only a high-school diploma, 1995–97*

	Mean		10th percentile		Median		90th percentile		Share of employment
	USD	USD	%	USD	%	USD	%	%	
Goods-producing	583	238	100.0	500	100.0	984	100.0	33.8	
Construction	613	255	107.1	527	105.4	1 013	102.9	8.7	
Manufacturing	572	236	99.2	490	98.0	962	97.8	25.1	
Service-producing	501	197	82.8	405	81.0	833	84.7	66.2	
Retail trade	411	172	72.3	332	66.4	708	72.0	17.4	
Narrow services	426	179	75.2	363	72.6	692	70.3	23.7	
Wholesale trade	624	247	103.8	492	98.4	925	94.0	4.6	
FIRE	581	256	107.6	449	89.8	865	87.9	6.1	
Public administration	576	277	116.4	511	102.2	911	92.6	5.1	
Transportation and utilities	707	288	121.0	649	129.8	1 082	110.0	9.2	

Figure 7. Age earnings profile for men and women in manufacturing and services, 1984 and 1997

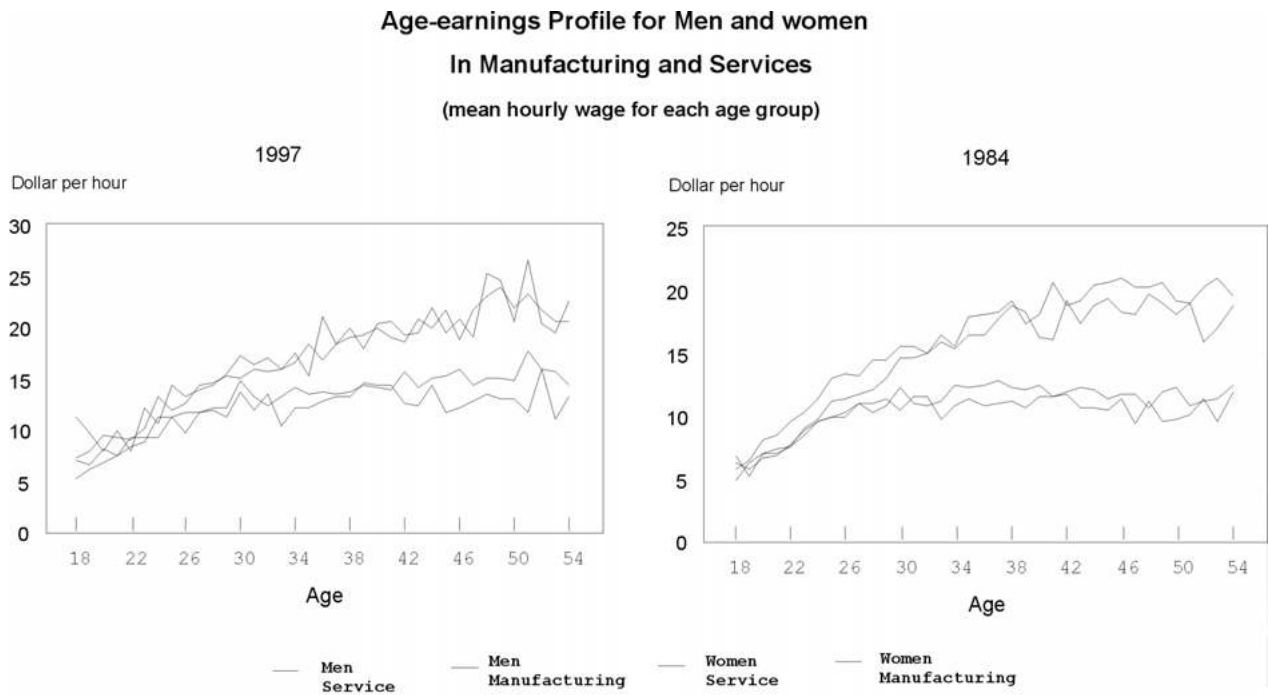


Figure 8. Age-earnings profile for men and women in manufacturing and services, 1997 and 1984 (mean hourly wage for each group)

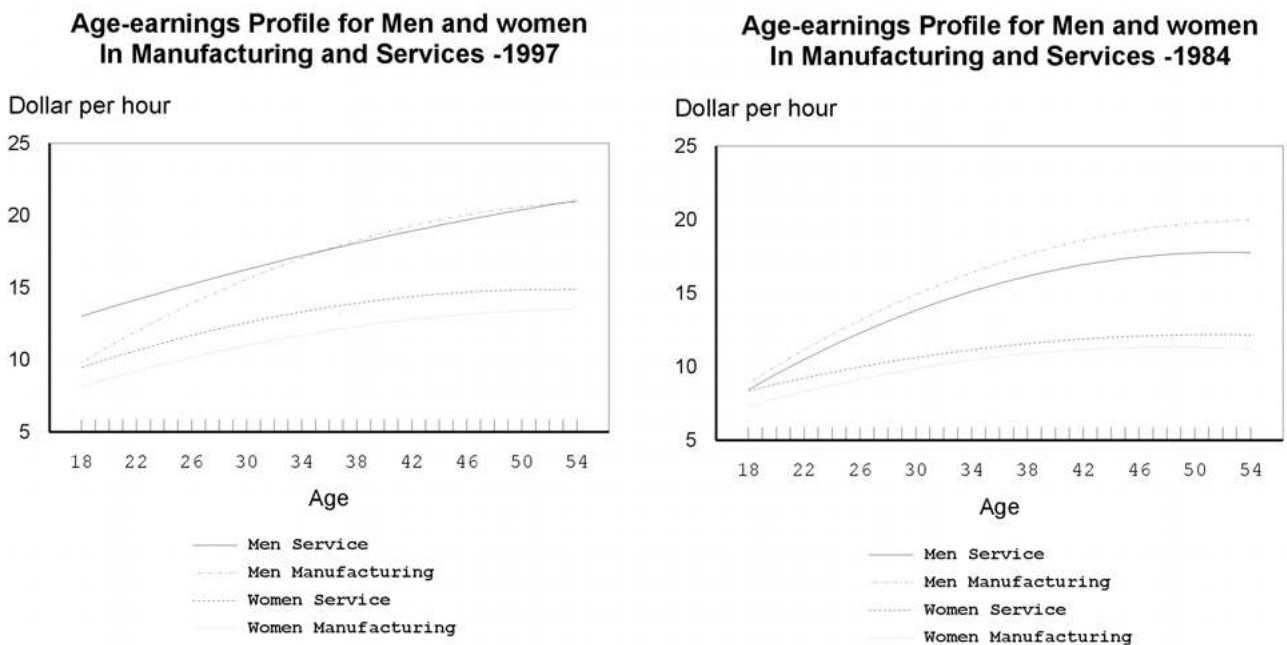




Figure 9. *Percentage change in service industry share, 1985–97, for metropolitan areas in the sample*

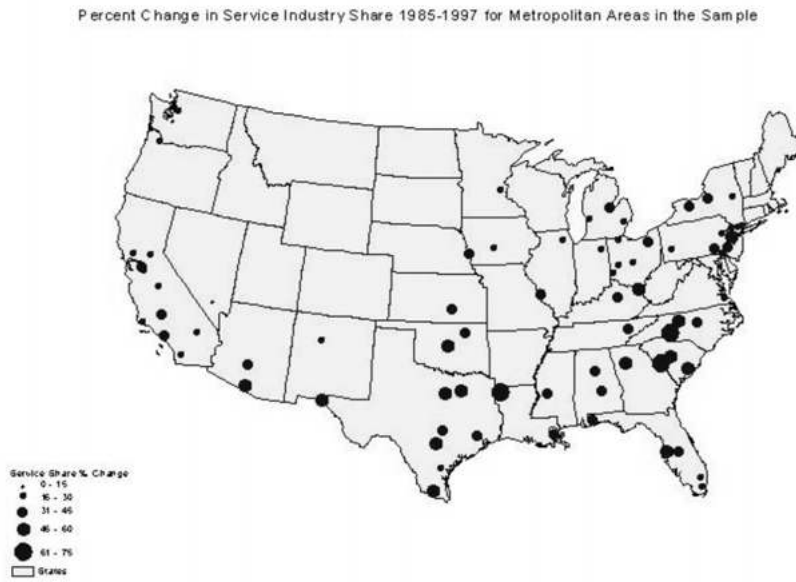
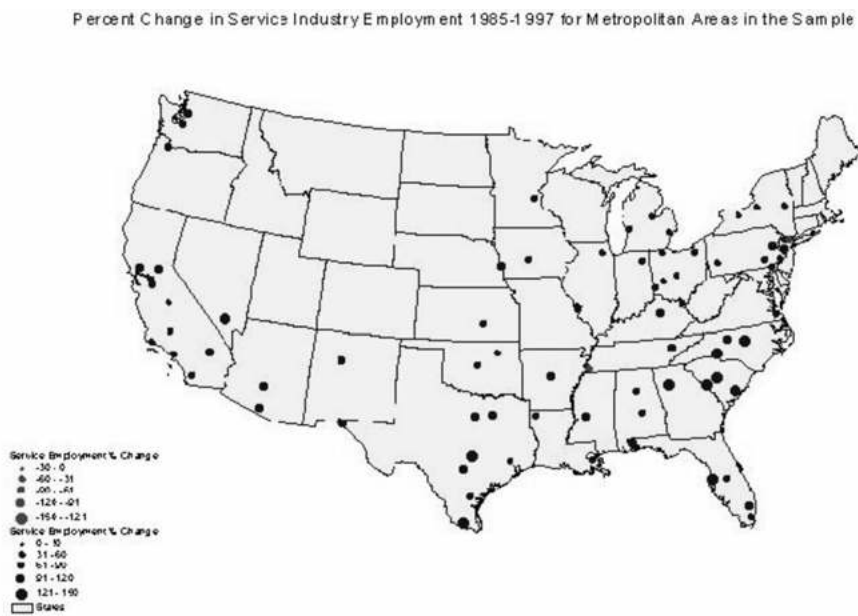


Figure 10. *Percentage change in service industry employment; 1985–97, for metropolitan areas in the sample*





Chapter 2

Determinants of business and personal services: Evidence from the German regions

Dietmar Dathe and Gunther Schmid

2.1. Introduction

The objective of this study is to identify the determinants of employment in business services and personal services. As research strategy we use the variations in the structure and dynamics of regional employment within Germany in the period of 1977 to 1998. The observation of great differences in employment or unemployment performance at this level is not a German specificity; it can be found within other Member States of the European Union as well as in the United States and Japan. The German case, however, is interesting for its massive service gap compared to Anglo-Saxon (United States, United Kingdom) and Scandinavian countries (Denmark, Sweden) in general, and in personal and business services in particular (Freeman and Schettkat 1999).

In neo-classical economics, the regional dimension plays no genuine role in the search for universal rules. In the new institutional economics, however, regions became at least instrumentally interesting as cases of variation to test hypotheses related to institutions of wage formation. A prominent case is the ‘wage curve’ which forecasts on the basis of bargaining theory or efficiency wage theory a persistent negative relationship between regional unemployment rates and wages. An elasticity of -0.1 was found and confirmed for several countries which means that a doubling of the regional unemployment rate leads to 10 % lower average wages (Blanchflower and Oswald, 1994). Although the ‘iron law’ of the wage curve is still contested (Blien, 1996), the policy message is clear: If such regional unemployment equilibria exist, they can only be tackled by changing the institutional setting of regional actors. The likelihood of such disequilibria is confirmed by studies which show that inter-regional employment or unemployment variations can largely be explained by regional-specific (namely, cultural, institutional and political) factors ⁽¹⁾.

(1) See, for example, de Koning and Mosley, 2000; Clark 1998; Miegel, Grünwald and Grüske, 1991.

Comparative sociology, up to now, has relied almost completely on national regimes to explain differences in the performance of service employment. An example is the widely quoted typology of welfare state regimes by Esping-Andersen (1990) which relates job performance to the degree of commodification. National regimes with a high degree of commodification, which means the extent to which income security is directly linked to labour market participation (private or public), will have a higher job performance than countries in which the State provides social security to certain status groups independent of market income. Since we find, nevertheless, enormous differences of job performance within the same national regimes, implementation of national regulatory frameworks or additional institutional factors must be taken into account to explain these variations.

There are, therefore, plausible reasons to start with two assumptions. First, the capacity of wages to regulate labour markets is restricted, either due to behavioural limits (for example, in information, spatial mobility or competition) or due to social norms or objectives (for example, fair wages, equal opportunity, minimum income guarantee). Second, there is relative autonomy of regional actors from framework conditions at the national level. This is not to deny the determination power of national institutional frameworks, but to exploit a neglected source of variation which gains increasing plausibility considering the globalisation process. This process favours or fosters network relations which operate between markets (wage regulation) and hierarchies (State regulation). They flourish usually in a specific regional context which is not restricted to national boundaries (Castells, 1996, Genosko, 1999).

The epistemological argument for these assumptions is based on the insight of evolutionary theory that formalised institutional rules always lag behind informal institutional arrangements (Boulding, 1978). The same institutional rules or games can be played differently, depending on resources, capabilities, learning processes and cultures. Institutions are always both: effective barriers but also challenges to be overcome or circumvented. In addition, Germany is a Federal State in which the 16 *Länder* have not only their own cultural traditions but also considerable political discretion to shape their economic and social systems; education, especially, is subject to the *Länderhoheit* (sovereignty), and social assistance (including often many long-term unemployed as clients) is under the genuine responsibility of the municipalities. Finally, the assumption is widespread that agglomerated areas, especially metropolitan cities, are heading the process of social and structural change; thus, drawing attention to these particular types of regions may provide hints about the future of work, especially service jobs (Sassen, 1991).

Most of our empirical analysis, therefore, will concentrate on a systematic comparison of 'winners' and 'losers' among the 11 largest agglomerated areas in west Germany. These regions are technically based on the aggregation of public employment service districts and constitute functionally integrated labour markets. They cover about 50 % of the total employment population in west Germany. Due to their very specific problems related to the reunification after 1989, east German regions and Berlin were not included in this study. The non-agglomerated areas in west Germany serve as a case of reference for the agglomerated areas.



The structure of the chapter is organised as follows: We start from the obligatory ‘classics’ and develop hypotheses based on a review of recent literature on business and personal services (Section 2.2); the hypotheses are then tested with German data and compared with results of other literature using regional variations (Section 2.3); and finally the results are discussed and policy conclusions are drawn (Section 2.4).

2.2. Theoretical notes and observations on the service gap

The notion of post-industrial society (Bell, 1975) is linked to the ‘Three-Sector-Hypothesis’ (Fourastié 1969 (1954)). It predicts an evolutionary process from employment in agriculture to manufacturing and finally to services. The driving forces in this theory are prices based on productivity and demand based on hierarchical needs. It is important to note here, that according to this theory — and against the mainstream of neo-classical economy — it is not supply and demand that drive the evolutionary process but social and technical innovation. Innovation induces growth in capital and labour productivity, a corresponding long-term decline of prices and therefore an increase in real income. Information and knowledge bring forward technical innovations first in agricultural production, where prices fall and cause a saturation of needs and demand for ‘higher’ durable goods (Fourastié and Schneider, 1989). Innovation shifts towards manufacturing, taylorist and fordist production increase productivity in this sector, prices fall and demand as well as employment increases until a relative degree of saturation is reached (so-called Verdoon’s law). Demand, then, shifts towards ‘higher’ services. The increasing purchasing power through (further) falling prices of primary and secondary goods can be used to buy services whose prices remain stagnant or even rise as productivity gains in this sector remain restricted.

According to Fourastié, service employment can rise as long as the motor of technological innovations drives further productivity gains in the primary and secondary sectors. Thus, the basic message for politicians was clear from this story: induce and support technological innovation as far as possible so that society can afford to pay for services. Because Fourastié believed in technical progress, he optimistically predicted that at the end of the 20th century, about 80 % of the labour force would be employed in the tertiary sector, and only 10 % in the primary (agriculture) and the secondary (industry) sector respectively. Compared with other speculations that often turned out to be crazy a few years later, this prediction from almost 50 years ago fits the reality quite well and seems, therefore, well founded. However, there are three stylised facts that require reflection and fine tuning or revision of the theory. First, agricultural employment declined even faster and more drastically than predicted; second, the reverse is true for manufacturing employment which is still at double the level predicted (in some countries, notably in Germany, even more); and, third, service employment in some countries and in many regions could not compensate for the loss of jobs in the primary and secondary sectors so that mass unemployment is persistent there.

Before we turn to the special case of Germany, we will briefly mention three strands of an argument which temper Fourastié’s optimism without going into details or into a critical discussion of these approaches. First, services can also, to some extent, be transformed

through innovation into (secondary) manufactured goods plus self-servicing if one thinks of typewriters (now PCs), cars or washing machines (Gershuny, 1983). Second, since self-servicing and consumption of services require time, and since individual time budgets are chronically restricted, expectations of job miracles in services should be rejected (Scharpf 1990). Third, there is the well-known theory of cost disease which predicts that, due to the impossibility of productivity gains and due to the link of service wages to secondary wages, prices of many highly valued services, especially cultural and personal services, will rise to such an extent that many people will no longer be able to afford them (Baumol, 1967) ⁽²⁾.

Why, now, is there a service gap in Germany? Which additional theories can help us understand the deviations from the core prediction of Fourastié? The following deliberation regarding these questions will concentrate on the recent German debate.

2.2.1. The service gap I: The case of personal services in Germany

In international comparison, three stylised employment regimes can be distinguished (Schmid 1992, 1993): (1) Regimes in which wages are paid in accordance with productivity or market value; that is, high-productivity jobs pay commensurately higher wages, while low-productivity jobs (especially in the service sector) pay commensurately lower wages; targeted welfare payments or kinds of negative income taxes provide social protection at the last resort. This is the Anglo-Saxon model in which private (tertiary) service jobs compensate for the loss of manufacturing (secondary) jobs. (2) Regimes in which every job should guarantee a socially adequate income; in the private sphere, this guarantee is implemented by minimum wages or family components of wages; jobs in the social sphere are created by the State and financed from tax revenue or other contributions. This is the Scandinavian model in which public service jobs take over the compensatory function for the historic decline of the secondary sector. (3) Regimes in which new jobs with low productivity (especially in the service sector) are not subsidised due to a high-skill, high-productivity and corresponding high-wages strategy on the one hand, and non-interventionist employment policy on the other hand. Low skill, less productive tasks are left largely to the informal sector or private households to supply society with these services. Germany comes close to this model. It 'combines (...) the weaknesses of the American and the Swedish models. We have almost as few workers in private services as Sweden and exactly as few workers in the public sector as the United States' (Zukunftskommission 1998, p. 242).

2.2.1.1. *Doubts about the empirical evidence of the service gap*

Empirical estimates concerning the size of the service gap vary, in some cases considerably, depending on the approach chosen (whether sectoral or functional) and the classification and measuring method applied. Some authors use potential values derived from 'United States structures' to determine the size of the service gap. Klös (1997) arrived at an employment

⁽²⁾ See Tronti et al., 2000 for an extensive discussion and critic of this theory.

potential totalling 6.8 million jobs on the basis of job density in the tertiary sector (persons in employment per 1 000 inhabitants). Following ‘United States structures’, 3.8 million of these jobs (distributive and household related services) would be suitable for the so-called low-skilled. The employment gap resulting from the minimum wage is somewhere in the region of 4.7 to 9.5 million, according to Klös, jobs that by definition would largely be on offer to low-skilled workers. Sesselmeier et al. (1996), on the other hand (but likewise basing their calculations on the employment structure in the United States), identified an employment potential of 2.8 million in Germany’s ‘low-wage sector’.

Haisken-DeNew et al. (1996), by contrast, challenge the existence of a quantitative service gap on the basis of the share of services in total employment. Cornetz and Schäfer (1998), using the same micro-data sources as Haisken-DeNew et al. (The United States: Current Population Survey; Germany: socioeconomic panel), but a modified approach, arrived at a different result. The Otto-Blume-Institute in Cologne and the German Institute for Economy in Berlin (Schupp. et al., 1997) point to the under-reporting of marginal jobs below the DEM 630 threshold (‘geringfügige Beschäftigung’ not liable to social security contributions). They argue that a proper account of these primarily low-wage jobs would largely close the gap between the United States and Germany⁽³⁾. On the other hand it is clear that such a threshold creates disincentives for employers to hire people for jobs in the range between this threshold and the full social security threshold which is at 15 hours regular weekly working time with an average monthly gross wage of about DEM 1 200. Regular part-time jobs between the DEM 630 threshold and 15 hours (practically speaking between 10 and 15 hours), are heavily under-represented⁽⁴⁾.

2.2.1.2. Underdeveloped household related services

The German discussion about the insufficiently tapped employment potential of personal services is focusing on ‘potentials for new services geared towards demand from private households’, (Weinkopf, 1999, p. 195). According to the literature, this potential consists in particular of household related services (Albach, 1989) or domestic services (Europäische Kommission, 1995): These are understood to include both material services or housekeeping — such as shopping, preparation of meals, care of clothing and living quarters — and personal services, in so far as the latter are related to the supervision and care of persons living in the household or who are associated with the family⁽⁵⁾. Given that these activities have been

⁽³⁾ In fact, the recent official adjustment of employment figures by the Federal Agency of Statistics (Statistisches Bundesamt) added about 2 million more employees (from a reported 34 million to 36 million, that is, an increase of about 6 %), mostly related to a more precise account of marginal jobs.

⁽⁴⁾ See the box regarding the so-called DEM 630 jobs in Germany in Appendix 1.

⁽⁵⁾ The classification ‘household related services’ is not used consistently in the literature. In order to distinguish such services from enterprise-related services, all services availed of by private individuals are categorised either as household related (Albach, 1989) or as personal services (Schettkat, 1996). Häußermann and Siebel (1995) differentiate between household related services, personal services and consumer-oriented services. The European Commission (Europäische Kommission 1995) subsumes domestic services (in addition to childcare, new information and communications services, assistance for young people in difficulties and integration services) under the generic term ‘services for daily life’. Given that it is impossible to clearly differentiate household related services on the basis of the official statistics, the areas of trade, hotels and restaurants, the public service, and social and personal services, for example (according to the OECD Labour Force Statistics), are classified as services that benefit domestic turnover (cf. Zukunftskommission, 1998).

carried out to date largely in the form of (unpaid) housework (Meyer, 1997), the hope that new employment potential can be tapped is based on the assumption of increasing efficiency through the commercialisation and professionalisation of this informal housework (Kommission, 1997). The European Commission (Europäische Kommission, 1995) traces the (assumed) willingness to replace housework by external market-conforming services back to structural changes in society; to the ageing of the population, the increased labour force participation of women, the reductions in working time, the higher levels of education, and to urbanisation. These ‘elementary activities’ (SOFI, 1999) or ‘elementary services’ (Kommission, 1997) are believed to constitute the potential jobs for the low-skilled (Klös, 1997; Zukunftskommission 1998) ⁽⁶⁾.

Another aspect of the current debate concerns the term ‘services or service areas that are associated with the household’, (Deitelhoff, 1999; Evers, 1999). This aspect is linked to concepts favouring a return of employment policy to the communal level (SOFI, 1999) or the exploitation of the local dimensions to development and employment (Europäische Kommission, 1995). The types of enterprise and employment discussed in this context range from ‘household related small businesses’ and ‘private households as service enterprises’ (Albach, 1989), through local employment initiatives — understood as sponsors of ‘strategies for new household related services and provisions that have a community orientation, are business entities and seek to satisfy individual needs’ (Evers, 1999, p. 108) — to an employment sector called ‘services for private households’ which is liable for social insurance contributions (Weinkopf, 1996, 1997).

Gries and Birk (1999), on the other hand, trace the service gap back to the employment deficit in Germany in the financial sector compared to the United States and find no particular development shortfalls in the ‘low-wage sector’ or in personal services. The ifo-institute in Munich also comes to the conclusion that the research and development activities in service-specific information technologies (for management, administration, design, financing and marketing) are very weak in Germany (Faust et al., 1999). They stress, however, the point that the ‘tertiarisation’ of German manufacturing industries is far more advanced than official statistics seem to show. These observations are worth examining more closely in theoretical terms.

2.2.2. The service gap II: The case of business services in Germany

Business services ⁽⁷⁾, in very general terms, are services that enterprises carry out (primarily) for other enterprises. The current debate is focused, not only in Germany, on so-called

⁽⁶⁾ Because the current employment policy proposals concerning exploitation of the employment potential of services are related almost exclusively to this area, these concepts in particular will be presented in the following.

⁽⁷⁾ Other terms in the literature are ‘producer services’ or ‘production oriented services’, and in the German literature *unternehmensnahe Dienstleistungen* or *produktionsorientierte Dienstleistungen*. In a more narrow sense, production-oriented services relate only to services for business in manufacturing (tangible) products. In the following, however, we use the more general term including services to businesses in the service sector, for example, advertisement for banks or private insurance companies.



knowledge-intensive services (software and data-processing, financial services, legal, economic and technical consulting, advertising and marketing). The conceptual basis for the term 'knowledge-intensive' is the assumption that the 'codification of theoretical knowledge' (Bell, 1999, p. XXXIX), is the essential distinguishing feature of 'post-industrial society'. The starting point for inventions, innovations and their diffusion (with positive employment effects) is not empirically inductive, but theoretically deductive knowledge. In other words, a significant feature of the path leading to a (theory-based) knowledge society will be interaction, or innovative milieus, between knowledge-intensive services and knowledge-intensive industrial sectors (⁸).

Estimates regarding the employment effects of an expansion in business or producer services vary considerably. While researchers looking at the United States (Hummel, 1999) speak of a hugely untapped employment potential, others (Baethge, 1999) point to the large potential for rationalisation in information and communication technologies (in connection with their continued expansion), and in modern services (by virtue of their increasing geographical autonomy and tradability). Moreover, the employment trends within the business-service sector are by no means found to be identical. Employment is rising in some branches while it is falling in others (SOFI, 1999). Overall, the growth of business services has a much wider margin of fluctuation than that of the manufacturing sector. Kaiser and Voß (1999) suspect, in the light of the continuing significance of personnel costs, that service firms offering business services react (and can react) more flexibly to demand fluctuations because the costs of high personnel fluctuation are lower for them than for industrial enterprises, where there is a higher degree of regulation. According to Licht et al. (1997), most business service firms in Germany nonetheless expect positive employment trends in the coming years, or at least they plan to employ more personnel. However, the positive expectations for employment expressly exclude workers without a vocational qualification. What are the driving forces which foster business services?

2.2.2.1. Interaction between employment in industry and in business services

Proponents of the supply theory believe that the growth of the service sector is the result of increasing competitive pressure forcing industrial enterprises to offer high-quality products, into which increasingly diverse services then flow (development, design, marketing, customer support, etc.). The traditional value added chain is seen to be turning into a value added alliance; because few enterprises today are able to efficiently carry out all value added activities, the importance of a value added alliance or cooperative value added systems (networks) is increasing. The result is that fewer value added operations are being carried out in enterprises, and processes are being outsourced because they can be accomplished by specialised service firms with better know-how and at a lower cost. The decision as to which services can be provided internally and which bought on the market (or rather, which services

(⁸) In operative terms, we will measure 'knowledge-intensive industries' later on by an above-average share of employees with an academic qualification and or above average expenditure on product and process innovation (see Section 2.3).

are outsourced) depends on the ensuing costs for the enterprise. The advantages of external services are not only the expertise and the higher degree of flexibility offered by private service firms, but also the fact that enterprises that purchase external services are not subject, in this case, to regulations regarding dismissal, working time and co-determination. The competitive pressure of external suppliers, in addition, might reduce prices without affecting quality. All this taken together reduces hourly labour costs for external compared to internal services. The proponents of this approach logically conclude that the relatively low diffusion of services in the Federal Republic of Germany, compared to the United States, for example, is due to the high degree of regulation (for instance under labour law), which also applies to the service sector characterised by a majority of small and medium-sized enterprises. The strong dynamic observed nonetheless in business services is due to the existence of a functioning market in this sector (Albach, 1989b), which would thrive even more, according to the supply theorists, if there were further deregulation.

There is disagreement in the discussion as to whether the process of outsourcing influences employment trends and as to whether failure to outsource results in a competitive disadvantage on international markets. One reason is that the shortcomings of current statistical data on business services prevent quantitatively accurate conclusions. According to Schimmelpfennig (1999), utilisation of internal services in the manufacturing sector actually increased between 1984 and 1995, outsourcing notwithstanding. This corresponds with an American study of the 1970s and 1980s showing that outsourcing or 'the unbundling explanation accounts for a very small portion of the recent employment growth of producer services industries', (Tschetter 1987:31). This study explained the bulk of the growth dynamics in business services by new services related to changes in final demand and to changes in production due to new information technologies. So, if outsourcing occurs, it is related to new services rather than to internal restructuring that would largely turn out as a zero sum game in terms of employment.

For Häußermann and Siebel (1995), sectoral tertiarisation (due to outsourcing) is to an extent no more than a statistical artefact; thus, differences in the sectoral structure of employment should not necessarily be interpreted as an indication that services are less important. By contrast, Strambach (1997) believes that the lower degree of outsourcing is evidence of an institutional weakness in the German economic model: spin-off processes require greater individual economic efficiency in the now independent service firms, while at the same time they increase efficiency in the enterprises that have divested (theory of interaction). The interaction theory expresses the idea that rationalisation and innovation in industry have spillover effects for production-related services (especially high-quality services), which in turn improve the competitiveness of the manufacturing sector. According to the extended interaction theory, spillover effects are also generated within the service sector itself. In other words, these enterprises not only function as demanders of technical and product innovations, but also generate such innovations themselves (Wyckoff, 1996). The institutional weakness in the area of business services is also seen to manifest itself in a lack of competitiveness on international markets. An increase in service exports would lead to domestic employment gains in the same way as a substitution of imported services by services produced at home (Hild et al., 1999). This assessment seems to be supported by the facts: while the United States

is achieving an international trade surplus of over USD 50 billion in knowledge-intensive services, in 1998 Germany had a trade deficit of DEM 62 billion in this sector ⁽⁹⁾.

We need to ask whether the trade deficit is an indication of a decline in Germany's innovative strength (Zukunftskommission, 1998) or whether it expresses a different profile of innovative strengths: 'The decisive difference between Germany, the United States and the United Kingdom is thus not the less evident high-tech sector, but the smaller (in sectoral terms — author's note) service sector' (BMBF, 1999: 42). Supply and demand-based theoretical approaches are not perforce mutually exclusive, rather they demonstrate the multi-dimensionality of services. This complexity is embraced by approaches that combine the supply and demand aspects, which assume the existence of a positive feedback effect: processes of rationalisation and adjustment to changing competitive conditions result in increased demand for services, which in turn guarantee efficient industrial production. This also means that increased utilisation of services by industry does not necessarily prevent growing interaction between industrial and service enterprises (interaction theory), rather the two can be parallel processes (O'Farrell, 1995). The interaction theory is also supported by the innovation hypothesis, according to which industrial demand for input is the driving force behind structural change ⁽¹⁰⁾. Related to the interaction theory is the term 'hybrid products' which refers to manufactured products including client-oriented services before or after the production of or during the use of the product. 'Hybrid products' take into account changing or rising consumer demands. Clients are more apt to buy 'problem solving' systems than individual products (Bullinger, 1998, Ganz, 1999).

2.2.2.2. *Business services and regions*

The theory of interaction is supported by the many contributions to discussions about 'industrial districts' and 'local economic networks'. ⁽¹¹⁾ These approaches incorporate the levels of political and economic actors, institutional structure and region-specific economic cultures in order to interpret regional differences ⁽¹²⁾. The success of such 'industrial districts' is seen above all in the specific (regional) mix of industrial and service enterprises, which exert reciprocal and positive feedback effects and grow stronger on the basis of a cumulative process ⁽¹³⁾. In this view, business services are considered extremely significant as catalysts of

⁽⁹⁾ The negative German trade balance is primarily due to the fact that Germany is still 'world champion' in tourist travel (a service import), but the above assessment still applies when travel is excluded from the equation.

⁽¹⁰⁾ On balance, industrial enterprises purchased around DEM 250 billion worth of input from business-service firms in 1997. Measured as an overall share of gross value added, the significance of this input alliance between industry and service firms has increased considerably in recent years. While the manufacturing sector's share of GDP (without input) was 34.9 % and the share including input was 35.6 % in 1978, the two values had diverged sharply by 1993; 25.8 % and 31.7 % respectively. In other words, the degree of interpenetration between industry and business services has increased. For the year 2000, the manufacturing sector's share of GDP (including input) is expected to be 32 %, against only 23 % without input (see Daimler Chrysler Services, 1999).

⁽¹¹⁾ Exemplified by essays in Pyke and Sengenberger (1992), Camagni (1991) and Häußermann (1992); for an overview Genosko (1999).

⁽¹²⁾ This is also the framework or point of reference for political intervention and regulation. A summary of the scientific debate can be found in Heinze and Schmid (1994).

⁽¹³⁾ However, the possibility of a 'negative spiral' also exists (Grabher, 1994: 65). This is the case, for example, in the Ruhr Valley, which was long considered the classic example of an 'industrial district', but has now become a crisis zone because of entrenched and one-sided economic structures and adherence to traditional practices despite changed conditions on the world market. The endogenous potential in the area must now be exploited to develop new production networks (Kilper et al., 1994).

structural change (Kilper et al., 1994; Brusco, 1992; Läpple, 1994; Begg, 1993). ‘Innovative milieus’ or ‘innovative networks’ represent a relatively recent approach (on Germany, see, for example, Beise et al., 1998; Läpple, 1989; Ronneberger, 1992). What these approaches have in common is the question as to which factors give rise to conditions that foster innovation, and the regional approach (milieu) is combined with the actor approach (network) to provide an answer. The network consists of regionally based public and private research and development institutions, political actors and enterprises that maintain successful — both formal and informal — network relationships at the regional level. Innovative networks or milieus are also supported by the outsourcing approach; by reducing their value added activities, industrial enterprises become more dependent on a network of types of cooperation that have as their objective expansion and diversification of the production and service programme (Sauer and Döhl, 1994). In a sense, these concepts tie in with the term ‘industrial atmosphere’ coined by Marshall (cf. Ronneberger, 1992) in connection with his theory of industrial districts, which today can be translated as ‘innovative atmosphere’.

As regards the spatial effects of employment development, two theoretical approaches are relevant here (Lichtblau and Rhein 1993). It is assumed in the more recent location theory that industrial conurbations have exploratory advantages over peripheral or rural regions and can thus evolve more dynamically. This is explained by the (positive) external effects that are generated when many enterprises belonging to the same sector or technology domain are in geographical proximity, and by the development of specific human capital, a particular infrastructure and informal networks. By contrast, the factor equalisation theory (the old location theory), sees regions converging because, compared to the dynamic centres, costs (wages, rent, etc.) are lower and because there are increasing bottlenecks (transport, lack of qualified manpower, etc.) in the high-density areas, so that enterprises are increasingly locating in the less dense regions. An intervening factor is the political constitution. In Germany, one can speak of a polycentric distribution of innovation potential, which is a considerably different situation to that in the United States, but also to that in France, Italy and the United Kingdom (Beise et al., 1999). This polycentric distribution of the innovation potential is mainly a consequence of Germany’s federal structure, which has the effect of a much more balanced distribution of universities and publicly funded non-university institutions than in other industrialised countries (Beise et al., 1998). However, despite this relatively balanced regional distribution, it is above all the urban agglomerations, and especially those in the Federal States of Baden-Württemberg, Bavaria and Hesse as well as in the city States (in eastern Germany, Dresden), that have an above-average concentration of research-intensive branches of industry and thus an above-average potential for outsourcing. Therefore, one could argue that business services still need the exploratory advantages of the conurbation, or that within the business service sector there exist different types of (spatial) dependencies on industry ⁽¹⁴⁾, or also that one conurbation can be more

⁽¹⁴⁾ Brake (1994: 483) has elaborated a rule of thumb on this issue: the less routine involved and the more complex the cooperation, the more central the locations of business services. This is particularly true for knowledge-intensive business services such as financial services and enterprise consultancy. While new information and communications technologies in principle allow decoupling from locations, a spatial (global) distribution of production plants, offices, branches, etc., requires centralised management functions and increases the demand for highly specialised services for complex organisations (Sassen, 1991, 1993). The close proximity of such services is described as an indication of a kind of just-in-time cooperation (Brake, 1993).



attractive for certain business services than another (Begg, 1993). The notable preference of multi-media companies in Germany for core cities appears to confirm this dependency (Beise et al., 1998; on Hamburg, see Gornig et al., 1999) ⁽¹⁵⁾.

The advocates of the 'global regions' concept believe that it is primarily the regions which have to compete internationally for globally active enterprises. While this idea contradicts the theory of the 'location-free' economy, at the same time it provides further support for the theory of polarisation or hierarchisation of spatial development (Döhl and Sauer, 1992; Häußermann and Siebel, 1995). Regions with efficient and internationally oriented service firms and industrial manufacturers will be among the winners in the globalisation process, while the risk potential for regions with little human capital and with only regionally oriented enterprises is already very large and will continue to increase (Zart and Huege, 1999).

The conclusions for political action derived from this theory are very diverse. On the one hand, there are calls for further deregulation, which would allow the regions to adapt to the new location requirements of globally active enterprises. On the other hand, new concepts for structural policy in the regions, in the sense of a performance-based regional policy, are demanded (Lammers, 1999), which, unlike regional policy to date (targeted at reducing geographical disparities), would accept regional differences or even further reinforce them. The alleged decline of political influence is refuted not least by the concept of innovative networks and milieus, which refers precisely to the increased need for cooperation on the part of the political actors. Target-oriented policies and public-private interaction is required in particular, given the structural changes described, in the development of a long-term infrastructure for lifelong vocational training and education (Lennartz, 1999; Reissert and Schmid, 1999).

To sum up: The key argument to be tested is that (proper policies and favourable context conditions given) Verdoon's Law might work in business services and in some of the (industrialised) personal services, whereas Baumol's cost disease seems to hold for the rest of the personal services. In the case of business services, it would be the ability of the region to foster 'service-industrial' districts through an innovative milieu or interactive networks of key actors in local communities and through a high level (quantitatively and qualitatively) of training and education. In the case of personal services (which, of course, would also benefit from a prosperous sector of business services), three alternative solutions are available in principle: First, the allowance of large wage spreads possibly leads to more jobs in low-wage services. However, this possibility is widely incompatible with the German constitutional framework of liberal corporatism and social security because it leads to poverty for substantial segments of low-skill persons. Nevertheless, even acknowledging the limits of path-dependency (the 'German model'), there is still untapped adjustment capacity and adjustment need in the wage formation process to which we turn briefly in the policy conclusions (see also

⁽¹⁵⁾ 'Multimedia' is assigned the role of a leading key technology which makes the distinction between industry and service obsolete. In the multimedia sector numerous product innovations overlap with process innovations (for example, telework).

Schmid, 2000). Second, the State as employer (of the last resort) may create more service jobs. Fiscal constraints, however, are limiting this option which in addition will only be successful if new public employment is decentralised and organised by modern management principles (management by objectives, accountability, etc.). The third option is an active industrial and labour market policy through support of innovations and through training or selective wage subsidies (or combinations of transfers and wage income). With respect to the second and third alternatives, there is already relatively high regional discretion despite central regulations concerning unemployment insurance and employment promotion ⁽¹⁶⁾.

2.3. Structure and dynamics of service employment in German regions

We start with general trends of regional employment dynamics in Germany from 1977 to 1998, and then turn to special items and puzzling items for explanation. As we already remarked in the methodological introduction of the contribution, the internal view of German regions and their variations might counterbalance to some extent the general view of Germany as an ‘over-industrialised’ and ‘under-serviced’ country. Even if this might be true on a general level, regional or location specifics (of which there are many in a federal system like Germany) can provide insights into relationships which counterveil general tendencies. This expectation seems all the more justified under the assumption that ‘globalisation’ leads to higher competition between regions and rewards regional innovations deviating from national trends. We concentrate on West Germany (without Berlin) to abstract from the very special development in east Germany; interaction of these two regions since 1989, of course, has to be acknowledged.

2.3.1. General trends of employment

Before starting to present the results, the reader should be aware of some special features of our data base. The figures presented in the following are based on the employment statistics (‘Beschäftigtenstatistik’) of the Federal Employment Service (‘Bundesanstalt für Arbeit’) ⁽¹⁷⁾. This data include only employees in ‘regular jobs’, namely, employees who have to pay contributions to the social insurance system (unemployment insurance, health insurance, senior citizen insurance). This means that employees in occasional jobs, part-time jobs under the threshold of 15 hours, the self-employed and free professionals as well as civil servants are not included. Thus, unfortunately, the service sector is under-represented, especially the so-called low-wage sector. The disadvantage of this data may not be so severe if one assumes a reasonably high correlation of ‘regular employment’ and employment not covered by the obligatory social security system. However, the possible displacement of regular jobs by

⁽¹⁶⁾ See Schmid, Speckesser and Hilbert, 2000 as well as Mosley and Schütz, 2000 who — on the basis of aggregate impact analysis and implementation studies — found considerable regional variance of active labour market policy even holding constant unemployment rates. They found also that training and long-term wage subsidies contribute significantly to reduce long-term unemployment.

⁽¹⁷⁾ This is a good occasion, of course, to thank the ‘Bundesanstalt für Arbeit’ for providing the data.



'irregular jobs' (especially occasional jobs, precarious part-time jobs or feigned self-employment) cannot be taken into account, but should be kept in mind in interpreting the data. The data we are using are not individual data but data aggregated at the level of the 181 employment office districts in Germany. Finally, the data are not representing flows but stocks at one point of time in the respective year, 30 June, which is the seasonally least affected month.

- (1) Our first observation is, that the overall employment performance for west Germany was not as bad as often quoted: The loss of 1.6 million jobs primarily in industry (manufacturing) was overcompensated by 3.8 million additional jobs in the services, a growth rate of 44 %. Thus, Germany is on the march in the service economy; now with a share of 59 % of service employment in 1998. What is interesting to note, however, is that knowledge-intensive (manufacturing) industries lost in employment, too (Tables 1, 2 and Figure 1).
- (2) If we split the period into the pre-unification (1977–89) and the post-unification periods (1989–98), we see a slightly lower growth dynamic in services in the recent period, but a breakdown in industrial employment, especially in knowledge-intensive industries. This indicates a failure of adjustment to 'globalisation' and a loss in competitiveness (Figures 2 and 3).
- (3) The collapse in manufacturing was regionally unbalanced; mainly agglomerated areas were affected and not compensated for by higher growth in service employment (Figures 4 and 5). In terms of location theory or of economic geography, the consistent pattern of relative employment losses in agglomerated areas has to be interpreted in the way that centripetal forces (linkages, thick markets, knowledge spillovers and other pure externalities) have weakened, and that centrifugal forces (immobile factors, land rent and commuting, congestion and other diseconomies) have strengthened or remained constant (Fujita et al, 1999: 346). A first possible conclusion from this observation could be that services in general, and dynamic services in particular rely less on local specific externalities than manufacturing. A second conclusion is that centrifugal forces relevant for manufacturing became stronger, for instance rising real estate costs, transport costs and labour costs. For our research question — namely the search for favourable conditions to create more service jobs — the specification of changing externalities (weakening centripetal and increasing centrifugal forces) and the way some agglomerated areas could stem this general trend, is most interesting.
- (4) Although widely known, the concrete evidence with respect to the gender impact is still astonishing: Two thirds of the new (and mostly service) jobs have been taken by women. The overall growth rate of women's employment during this period of 21 years (1977–98) was 27.2 % whereas men's employment almost stagnated (1.5 % growth). In the agglomerated areas, the growth dynamic was considerably smaller than in the non-agglomerated areas (probably also a base-effect), men's employment even declined. During the last decade, however, the overall growth dynamic in services declined and women were especially affected (Tables 3 and 4; Figures 6 and 7).
- (5) In a functional breakdown of the services into five categories (business, distribution, consumption, social and governmental), we see rocketing growth rates in social services

and business services as a consistent pattern over the whole period ⁽¹⁸⁾. Furthermore, the dynamics of business services surpass social services during the last decade. Among the other service branches, we observe moderate increases in distribution (retailing, transport), consumer and government services, the latter turning into negative rates of growth in the recent period. As expected in theory, knowledge-intensive services contribute most to the growth in business services. If we divide services in the dual categories of domestic trade oriented services and expert-oriented services, we see that expert-oriented services increased a bit more than overall services but they still make up a relatively small share of total services (1977: 20.1 %; 1998: 23.6 %); they are clearly concentrated in agglomerated areas (1998: 27 %) (Table 1, Figures 8 and 9).

- (6) The gender impact of the categorical split of services also does not come as a surprise: about 80 % of the employment growth for women is related to domestic trade services, the rest (20 %) to expert-oriented services; men's proportion in expert-oriented services is about 40 %. In terms of the five functional categories, every second woman found her job in social services. However, women also share the same proportion of job gains in business services, and among the business services they even gained in the knowledge-intensive sector where they are now in the majority, especially in non-agglomerated areas. If one accepts the share of service employment as indicator for modernisation, the agglomerated areas are undeniably leading the development: 81 % of women now work in services (against 75 % in non-agglomerated areas), and the corresponding figures for men are 51 % (against 39 %). Women are now in the majority in the service sector as a whole (57 % in 1998) with a tendency towards increase, especially in the non-agglomerated areas. However, the main factor contributing to this trend was the drastic decline of men's employment in government services during the last decade whereas women's employment continued to increase in this sector (Tables 3 and 4). Within our five functional categories of services, women are now under-represented only in the distributive services. In the dual categorical split, however, women are still in the minority (44 %) but gaining considerably in the expert-oriented services, and in the majority in domestic trade oriented services (61 %) (Tables 5, 6 and 7; Figures 10 and 11). A tentative interpretation of these patterns is that women's over-proportional gain in service employment is related first to their traditional proximity to the rising service activities, second to their relatively lower wages compared to men, and third to their greater willingness to accept flexible employment relationships related to the new jobs, for instance part-time or fixed-term contracts.
- (7) Apart from the generally lower growth dynamics in services of agglomerated areas, the regional pattern is relatively balanced. Most noticeable is the lower capacity of agglomerated areas to create simple service jobs which is indicated, for instance, by the considerably lower growth rate of domestic trade oriented services compared to non-agglomerated areas. We assume, however, that this reflects the lack of marginal jobs ('630-mark jobs'; see Appendix 1) which are not counted in the statistics used here and which are very likely concentrated in agglomerated areas. In addition, 'black work' or the

⁽¹⁸⁾ For a specification of these aggregated branches see Appendix 2.

illegal informal sector is growing in Germany and probably concentrated in the cities. Thus, the observed pattern of relatively low employment dynamics in agglomerated areas can to some extent be interpreted as a substitution of regular employment relationships through informal or even illegal employment.

- (8) If we go a bit further into the details concerning the knowledge-intensive sectors, we see heavy losses in the machine tool and the electric and electronic industries (Germany's pillars of manufacturing), and within the services we observe failures in financing and insurance jobs but also a lack of dynamics in the engineering services. The foundation of Germany's knowledge-intensive business services consists of counselling, marketing and advertising services. Expert-oriented services increased a bit more than overall services but they still make up a relatively small share of total services (1977: 20.1 %; 1998: 23.6 %); they are clearly concentrated to agglomerated areas (1998: 27 %).

2.3.2. The influence of sectoral branches on regional employment

In the next step we look at some simple linear correlations on the basis of the 12 largest agglomerated areas (taking the non-agglomerated areas as a contrasting case)⁽¹⁹⁾. The aim is to identify interesting patterns as first hints of the determinants of the regional employment dynamics.

- (9) There is a long-standing debate on the linkage between manufacturing and services. Even if manufacturing employment (here 'industry') is declining due to productivity effects, according to the 'base-multiplier analysis' ('export-base theory'), a competitive core of expert-oriented industries is crucial for a sustainable regional economy. The export industries or services multiply employment because many services or intermediate industrial goods are required as inputs to the manufacturing industry. In the extended version of interaction theory we have argued that high quality services are required to maintain competitiveness in the industry. This linkage or complementarity hypothesis is confirmed by the strong correlation between industry and total employment (Figures 12 and 13) and between industry and services in particular (Figures 14 and 15) However, the correlation deteriorates and supports the argument that the regional service economy becomes more and more independent from industrial development. At this level of observation it cannot be determined whether export-oriented services replace export-oriented industries, or whether heavy outsourcing and corresponding downsizing of industrial production lies behind the eroding or even the negative correlation between industry and services most recently.
- (10) The interaction theory also seems, at first glance, to be refuted in the recent period. During the 1980s, business services and industry were still positively correlated, but the relationship reversed during the 1990s and became negative, with more supporting the

⁽¹⁹⁾ These areas have been composed by the aggregation of employment office districts ('Arbeitsamtsbezirke') which build functionally integrated labour markets; for details of this procedure see Albrecht/Schmid (1985). For the specification of these functionally integrated labour markets (agglomerated areas) see Appendix 3.

outsourcing theory or the theory of relative autonomy of services (Figures 16 and 17). We have to be careful, however, with this interpretation because some of the breakdown in the relationship may be due to the impact of the 1992–93 recession which heavily affected manufacturing whereas services seem to be less sensitive to business cycles. Nonetheless, there are indications that globalisation and information or communication technology weaken the spatial ties between manufacturing production and services, especially business services which interact more and more globally.

- (11) On the other hand, the extended interaction theory is clearly confirmed by the fact that the overall employment dynamics depend heavily on the existence of the combined knowledge-intensive services and knowledge-intensive industries in the region. The correlation is quite strong (1977–89: $r = 0.62$) and becomes even stronger (1989–98: $r = 0.70$) (Figures 18 and 19).
- (12) The globalisation (or de-linkage) theory is also confirmed by the fact that all other correlations between specific branches and overall employment dynamics become much weaker in the recent period. For instance, the strong correlation between expert-oriented services and overall employment growth $r = 0.74$ (1977–89) fell to a level of $r = 0.10$ (1989–98).

2.3.3. Structural and location determinants of service employment

A shift-share-analysis can reveal to what extent a favourable regional development is due to ‘structural’ or to ‘location’ determinants⁽²⁰⁾. ‘Structural’ determinants reflect the composition of branches corresponding to the overall development of the economy, and ‘location’ determinants hint at specific characteristics of the region. These specifics can be changes in the ‘geo-strategical location’ of the region (for example, belonging to the ‘European group’) or, and of most interest for us, in institutional arrangements or explicit policies. A positive structural component of growth indicates that the region was favoured by the overall service development, whereas a negative structural component of growth indicates an unfavourable mix of services. A positive location component of growth reflects some hidden institutional or geo-political factors and just good luck, and a negative location component indicates institutional or political failure or just bad luck. We now turn to the results of the shift-share analysis on the basis of agglomerated areas contrasted to the (one case) non-agglomerated areas (see Tables 8, 9 and 10).

- (13) Although agglomerated areas were favoured by the mix of services (structural effect), their strong negative location effect hints at the main reasons for the low or modest employment performance. The hypothetical employment growth of 46.9 % (between 1977–98) was only reached by 82 % (38.7 % realised growth rate); such a strong negative location effect indicates adjustment failures or bad luck. On the other hand, the non-agglomerated areas could compensate for their lower structural advantage to some extent by location specifics.

⁽²⁰⁾ The shift-share analysis refers only to service employment; the same analysis with overall employment reached almost the same results with some changes in the ranking of regions.

- (14) The breakdown of the period shows that the negative locational factor for the agglomerated regions remained constant but the positive structural effect declined drastically. In other words, the recent relative decline in the employment performance of the agglomerated areas is mainly due to structural effects and not to a worsening of locational effects.
- (15) The figures, however, show drastic differences in the locational effect. Some cities (and their immediate surroundings) have positive locational effects (Nuremberg and Rhein/Neckar) during the 1980s, and some cities have consistently high negative effects, especially Hamburg and Bremen. The differences in the rankings (1977–89, 1989–98) also indicate interesting changes: Cologne and Hanover performed relatively better in the 1990s than in the 1980s when Munich and Stuttgart seemed to be model regions. Nuremberg is a consistently high performer. We will return to speculate about the hidden ‘institutional’ factors or possible changes in the ‘geo-political arena’ later ⁽²¹⁾.
- (16) The much stronger correlations between the locational effect and total effect (equal to total employment growth) compared to the correlations between structural effect and total effect indicate that there is more homogeneity between the agglomerated areas with respect to the structural component than with respect to the locational factors (Figures 20, 21, 22 and 23). In other words, to gain further insight into the determinants of regional employment performance, we must look more closely at the locational rather than the structural effects.

2.3.4. Employment rates and sectoral mix

One way to approach the difficult question of the ‘hidden determinants’ behind the locational effect, is to look at the relationship between employment rates and changing sectoral mix ⁽²²⁾. The employment rate here is defined as the number of actual employed persons in the region as a percent of the total population (residents) in the respective region. This indicator, thus, does not measure labour force participation but rather the workplace intensity of a region relative to the number of its population. Nevertheless, it can be taken as a measure of performance indicating both regional attractiveness and social integration through gainful employment (Schmid, Schütz and Speckesser, 2000). The employment rates vary between 26.7 and 43.5 % (mean = 36.2 %) in the agglomerated regions. Due to the attractiveness for commuters from ‘rural zones’, these rates are higher in agglomerated areas than in the non-agglomerated areas, although the difference diminished during the period of observation. In the following, we compare the three regions with the highest employment rates (Düsseldorf, München, Stuttgart), and the two regions with the lowest (Essen and Bremen).

- (17) The first observation shows some commonalties between high performers but also different sectoral mixes especially related to industries (the ‘secondary’ sector). Stuttgart is a case with continued high rates of manufacturing whereas the high employment rate

⁽²¹⁾ About the ‘model Baden-Württemberg’ compared with the region of Massachusetts, see Sabel et al. (1991).

⁽²²⁾ We intend to go deeper into this question in follow ups of this report.

of Düsseldorf and especially Munich can be mainly traced to high rates in services. However, it is important to note that even Düsseldorf and Munich still have employment shares in manufacturing industries which are not far below the national level. The commonalities relate to knowledge-intensive business services and domestic-trade oriented services, whereas other business services, distribution and export-oriented services (high in Düsseldorf) and consumer or social services (especially high in Munich) vary considerably among the regions (Table 11 and Figures 24 and 25).

- (18) The low performing regions of Essen and Bremen were traditional mono-centred areas (shipbuilding and fishing in Bremen, mining and steel industry in Essen) ⁽²³⁾. The breakdown of these industries could not be compensated for by modern industries or business services. Thus, both regions have not only a tremendously low rate of industrial employment but are also below average in modern services, as well as meeting only average standards in social and household related services (Table 12 and Figures 26–27).
- (19) Some first-hand statistical relationships provide hints for explaining the high or low performance of regions. We find a significant negative correlation between employment rate and share of social services ($r = -0.45$), and a strong positive correlation between employment rate and share of business services ($r = 0.65$) as well as a strong correlation between employment rate and the combined knowledge-intensive industries and services ($r = 0.56$); the relationship between employment rate and knowledge-intensive business services is even stronger ($r = 0.70$). In all three cases, the three selected high performers have top scores whereas the two low performers (Bremen and Essen) fall even under the expected values of the regression line (Figures 28–30).

To sum up this section: High performance in terms of the employment rate can be connected with at least two production clusters. The agglomerated area of Stuttgart is still characterised by a dynamic manufacturing sector connected with knowledge-intensive industries and (to a lesser extent) with knowledge-intensive business services. The other two high performers (Munich and Düsseldorf) are focused on services but still have a substantial and polyvalent industrial core. Within services, there are clearly knowledge-intensive business services which are the driving motor of the employment dynamics, and knowledge-intensive industries are also strong. Both service sectors are not well developed in the low performing areas of Bremen and Essen. This can be interpreted as a strong indication for the overall importance of knowledge for sustainable regional employment dynamics. In other words, new service jobs are created especially in regions in which knowledge-intensive services and knowledge-intensive industries interact. Especially in Munich and Stuttgart (with Nuremberg and Frankfurt close behind), we find the characteristic elements of ‘innovative clusters’ (Simmie and Sennett, 1999): Of the seven knowledge-intensive industries, five were over-represented in Munich, and four in Stuttgart; of the four knowledge-intensive business services, four were

⁽²³⁾ The agglomerated area Essen (one of the largest cities in the ‘Ruhrgebiet’) is an example of the decline of a once prosperous industrialised area. These — in a life-cycle analogy — ‘old’ industrialised areas are the ‘victims of an early form of division of labour’ (Steiner, 1985: 396).



over-represented in Stuttgart, three in Munich, and two in Düsseldorf (with an exceptionally high share of public relations and advertisement) (Tables 13 and 14).

2.4. Summary discussion of the results and policy conclusions

The following final section summarises and discusses the main results of the empirical study in the light of the theoretical framework (2.4.1). Since the service gap in Germany is mainly related to the so-called low-skill sector of personal and domestic services (at least in public opinion from inside and outside Germany), we take up this discussion in more detail (2.4.2), provide our own view on this issue (2.4.3) and finish with policy recommendations (2.4.4).

2.4.1. Evidence on business and personal services from Germany

The most important result related to business services is the interactive nature of the knowledge-intensive sector within business services and knowledge-intensive (manufacturing) industries. Whereas the overall nexus between industries and services declines, this nexus is the crucial determinant for explaining positive and sustainable employment dynamics. This means that the manufacturing of products (the so-called secondary sector) remains crucial, but these products contain more and more service elements or are closely connected with them ('hybrid products'). A corollary feature is the strong correlation between the skill level of the regional labour force and the regional employment growth, especially related to export-oriented services and business services.

In terms of the spatial impact we find that high-skill and expert-oriented services and knowledge-intensive industries are still concentrated in agglomerated areas. However, there are indications that they move more and more to the periphery of these agglomerations. Low-skill services seem to locate in the centre of agglomerated areas⁽²⁴⁾ or at the rural periphery. On the other hand, large-scale internal labour markets in manufacturing, primarily in agglomerated areas, are transformed into network labour markets. The headquarters and skill-intensive manufacturing parts of those industries may remain in the agglomerations but semi-skilled and low-skilled production is moving to low-wage regions or to the proximity of the foreign sales markets. This is why especially agglomerated areas were confronted with dramatic job losses in industries. Only those regions could compensate for this loss by being able to establish interactive networks of knowledge-intensive services and industries.

The interaction between knowledge-intensive services and industries also has spillovers into other domains. Increasing demand in service intensive manufacturing goods leads to a parallel development (positive correlation) of employment in industries and services; this creates higher income thereby higher demand for personal services thus creating a virtuous circle (as well as a vicious circle in regions in which the industrial core loses its foothold). Interactive

⁽²⁴⁾ Which we cannot test with the kind of data we have; see the box on '630-mark jobs' in Appendix 1.

services may also reverse the conventional product cycle: intermediate services turn into (exportable) service goods such as software packages, management and expert systems. Export services still require personal interaction, that is, personal presence on the foreign markets, thereby language and communication capabilities. The culture of mobility is crucial for competitive advantages in high-skill services; this is a further explanation for the strong correlation between skill level and expert-oriented services.

There is a strong correlation between high-cost industry and high-cost services; this might, as a paradox, improve the competitiveness of export manufacturing ('made in Germany'), but diminish the competitiveness of (high skill) services which require a low-cost regime due to international competition, for instance by cheap computer specialists in Poland or India. As far as this relationship works, the correlation between manufacturing and knowledge-intensive services is eroding; we found some indication of this.

Two of the most important determinants of successful adjustment to globalisation are information and communication networks. They are the crucial lever to increase productivity in business services and knowledge-intensive industries with likely spillover to personal services. The reason is that information networks increase their efficiency with rising numbers of participants, probably exponentially. The existence and public support of such networks explains regional differences. We were not able to test this assumption explicitly; however, the strong correlation of 'locational factors' ('Standortfaktoren') with the overall employment dynamics can be taken as an indicator; and anecdotal evidence from case study material confirms this expectation. Thus, taking the main results relating to business services together, there is justification to extend the 'industrial-district hypothesis' to the 'service-industry-district hypothesis'.

As far as personal services are concerned, the main result is the confirmation that the road in the service society is the road of women into the system of gainful labour market work. This road of professionalisation changes the form in which the female labour potential is organised but hardly the contents; thus, regions with high personal or social services have a higher female labour force participation and vice versa; this relationship is especially pronounced in the large cities, namely, in the agglomerated areas. A corollary to this finding is that demand for commercialised and professional personal services rises with qualification, especially with the skill level of women. Thus, we find higher service employment rates in regions with high skill levels, a pattern that correlates with agglomeration as the skill and income level in these regions is higher than in rural areas ⁽²⁵⁾.

Wage subsidies for low-wage personal services combined with social innovations such as service centres or services agencies induce sustainable social service employment in regions. Regions with high expenditures for public work creation or wage subsidies have, *ceteris*

⁽²⁵⁾ Especially regarding these aspects, follow-up studies will have to complement the present evidence with more precise information for which data are lacking.



paribus, higher employment rates and higher increases in household-related social services than regions with lower expenditures (Figure 31) ⁽²⁶⁾.

The spatial impact of personal services can be hypothesised in the following way: There are two models of organising many of these services (see also Section 2.4.3): First by industrialising service functions plus self-servicing (the ‘inward-shift thesis’, for example, Gershuny 1983), second by large wage differentials that make buying services affordable (the ‘outward-shift thesis’, for example, Esping-Andersen 1999). The industrialisation process of services substitutes high-cost services by highly sophisticated durable goods combined with self-service (car driving, using washing machines, videos, personal computers, home trainers, sauna equipment, haute cuisine facilities); this kind of self-servicing requires an increase in household income through both rising labour force participation of women and time. The alternative model would be to use cheap personal services (taxi drivers or public transport personnel, laundries, cinemas, consumer, counselling, tax advising, banking services, fitness centres and restaurants); this service model requires less free time but an even higher household income through full-time work to afford buying the services ⁽²⁷⁾.

2.4.2. Curing the service gap by wages or consumer subsidies

In theory, the high employment effectiveness of the elementary services sector (especially for the low-skilled) is often explained by the fact that such services usually require little knowledge or capital (Kommission, 1997), as well as by being geared towards the domestic market, they are not subject to productivity pressure and foreign competition (as they usually offer locally delivered and locally consumed services) (Zukunftskommission, 1998). In a way, this line of argument follows up the ‘three-sector theory’ postulated by Fourastié (1969). While the contrasting theory of ‘cost disease’ (Baumol, 1967) is increasingly being called into question in connection with the spread of new information and communication technologies and in particular with respect to enterprise-related services, a cost reduction via increased productivity still appears out of the question for the majority of household related services ⁽²⁸⁾. Support for the Anglo-Saxon model of a wider wage spread, as recommended by the Commission of the Free States of Bavaria and Saxony (Kommission, 1997), remains the exception to date in the German debate, with reference being made to the high social follow-up costs (Semmler, 1998; Werner, 1997). Likewise, the Scandinavian model is to be excluded as a possible solution in view of the anticipated political opposition to the tax implications (Scharpf, 1998). There is, therefore, an increased debate recently about a middle road between the two possibilities, namely the creation of a formal (that is, State-regulated and State-subsidised) low-wage sector. Two possibilities for an expansion of the legal demand for

⁽²⁶⁾ See Spee and Schmid, 1995; to be tested for recent periods in follow-up studies.

⁽²⁷⁾ The expectation, that the second model is more common in agglomerated areas than in non-agglomerated areas would be confirmed by the lower rate of part-time work of women (if controlled for the sectoral structure), and by the higher rate of consumer and distributional services in agglomerated areas.

⁽²⁸⁾ See Tronti et al., 2000; Albach, 1989; Baumol et al., 1985; Schettkat, 1996.

elementary services are being discussed: reduction of wage costs by means of employee wage subsidies and/or public support for consumption via consumer subsidies ⁽²⁹⁾.

The debate focuses on three types of employee wage subsidies. First, the combination wage model ('Kombilohn') (cf. Bäcker and Hanesch, 1997; Becker, 1998; Dreger et al., 1998; Gerster and Deubel, 1999; Kaltenborn, 1998; Vierling, 1998) provides for a reduction in labour taxes for recipients of a welfare benefit who have extra earnings from employment. Second, under the income allowance model (Scharpf 1993, 1994), gross hourly wages of up to DEM 15 would be increased by degressive subsidies. Third, the reduced social contributions model (Schreiner, 1997; Zukunftskommission, 1998) represents a combination of increased net incomes for workers and reduced gross wage costs for employers: up to an hourly wage of DEM 10, compulsory social contributions are borne by the State alone; the subsidy is then degressively reduced (up to an hourly wage of DEM 18).

The range of the three models (that is, the target group reach and the related volume of the subsidy), varies considerably. Scharpf's model has the widest range because it does not involve a means test; thus, the household situation of the beneficiary has no influence on the rate of income allowance. The combination wage model has the shortest range because beneficiaries must already be in receipt of a welfare benefit; at the same time, the basis of calculation is determined by way of a means test (unemployment assistance, social assistance) and the amount of the tax-financed additional income granted thus depends more on the household situation. Different estimation procedures are used to determine additional employment effects. Employment effects can be derived from potential values ⁽³⁰⁾ or by using model calculations based on demand and supply elasticities. The latter approach yields considerably lower employment effects ⁽³¹⁾.

Another proposed strategy of stimulating job creation in low-skill services is the support of effective demand from private households for such services through consumer subsidies. In Germany, this option is represented by the tax model introduced in 1989 ⁽³²⁾. The employment

⁽²⁹⁾ The third possibility is wage subsidies for employers. Because this form of wage-cost subsidy is not specifically relevant to the question of the low-wage sector, it will not be detailed here. In contrast to wage subsidies for employers, employee wage subsidies would be granted, as a rule, for an unlimited period and, with the exception of the combination wage model, the restriction of the subsidy, that it is for only difficult-to-place unemployed would be lifted. Spermann (1999) points out that wage subsidies for employers (cf. Snower 1997) would yield lower employment effects because of the associated higher transaction costs and stigmatisation effects.

⁽³⁰⁾ Bellmann (1998) and Seewald (1999) calculate the workforce potential that can be tapped among recipients of social assistance through combination wage models as being around one million, or two thirds of the total beneficiaries.

⁽³¹⁾ Kaltenborn (1998) and ZEW (1998) arrived at additional employment effects of approximately 17 000 to 18 000 persons on the basis of the combination wage model. The corresponding labour market effect for the State of Saxony-Anhalt has been estimated at 2.4 % of all social assistance beneficiaries (cf. Dreger et al., 1998). As regards the model involving a degressive subsidy towards social insurance contributions, Bender et al. (1999) have calculated additional employment amounting to a total of 140 000 persons. The cost of each additional job would amount to around DEM 80 000 per annum (cf. Schupp, et al., 1999).

⁽³²⁾ Under this model, families with at least two children (at least one aged under 10), single parents with at least one child aged under ten and families with persons requiring care are entitled to a tax deduction of up to DEM 12 000 for the costs of domestic personnel.



effect expected on the part of policy-makers was 100 000 insured jobs in the area of private households (cf. Munz 1996) ⁽³³⁾. In 1997 the tax deduction was raised to DEM 18 000, the restrictions on eligibility were lifted and a so-called ‘household chequebook’ (*service cheque*) was introduced. This type of service cheque is a more restrictive option (it ultimately only certifies to the finance authorities the entitlement to claim a tax benefit), than the service-cheque or coupon models (Finger, 1997). The employment effects policy-makers hoped for fluctuated between 500 000 and 600 000 persons (cf. Müller-Siebrands, 1999). By the end of 1998, however, only 8 449 household cheques had been used (cf. Sommer, 1999) ⁽³⁴⁾.

The weak employment effect to date of this tax model is primarily traced back to this instrument being only advantageous for households with a very high income and in considerable need of assistance. This criticism was the departure point for the transfer model for service cheques or coupons proposed by the German Social Democratic Party (Schreiner, 1997) ⁽³⁵⁾. The service coupons are to be used to pay for corresponding services from service agencies; private households are not liable for any employer obligations. The expected employment effects range from 330 000 (Finger, 1997) to 700 000 full-time jobs (Schreiner, 1997). Schettkat and Fuchs estimate an employment effect in Germany of around 170 000 full-time jobs on the basis of 50 % co-financing of care of invalids (aged 70 and over) via service cheques, while the same financing model would result in the creation of 214 000 full-time jobs in the area of childcare (cited in Europäische Kommission, 1995).

Care insurance (‘Pflegeversicherung’) introduced in Germany in 1994 can also be interpreted as a consumer subsidy model in the area of care services. Under this model, a maximum of DEM 2 800 per month for material care services (payment of outpatient services) or a maximum of DEM 1 300 per month care allowance (compensation for related extra expenditure on the part of the person providing care) is made available. Although up to 150 000 additional jobs were expected in outpatient care, the actual employment growth in this area was around 70 000, including 20 000 low-skilled workers (Pabst, 1999). The difference between the predicted and actual employment effect is because 84 % of the total 1.2 million persons requiring care preferred the care allowance to material services. The option to choose was certainly politically desired in the sense that it represented recognition of and pension insurance for care provided within the family (Evers, 1995); it was also availed of, despite the notable difference to the monetary value of the material services.

⁽³³⁾ In 1989 the number of insured employees in the area of private households was 32 000; this figure had risen to 34 000 by 1997 (cf. Bittner and Weinkopf, 1999).

⁽³⁴⁾ Finger (1997) estimated the employment effect of this model at 14 000 full-time jobs. Munz (1996) arrived at an employment effect of 130 000 (on condition that the tax deduction be raised to DEM 24 000) or 180 000 if there were no ceiling on the deductible amount.

⁽³⁵⁾ Under this model, households (with at least one child aged under 14 or one person requiring care and aged at least 80) receive service cheques to the value of DEM 1 200 per annum (and an additional DEM 600 per additional person).

2.4.3. Evaluation of the present discussion

The discussion presented so far has pointed out the substantial discrepancy between estimated employment potentials in low-wage or personal service jobs and actual expansion to date. Before turning to policy proposals, some reflections on the causes of this discrepancy are required. Contrary to the thesis of an outward shift of production, a range of authors supports the thesis of an increasing inward shift of production into private households. Falling output prices and rising wage rates for working women favour the substitution of time-intensive household production by capital-intensive household technologies (Ott, 1998). However, Meyer (1997) maintains that this substitution — in conjunction with a tax system that favours the ‘wife-at-home’ model — also reinforces the trend towards a self-service economy, which in turn makes the idea of delegating household services to third parties seem unattractive. Schweitzer (1995) believes that the preconditions for the welfare-based shift of production into private households will be increasingly called into question in the future in view of the erosion of the standard employment relationship based on the ‘breadwinner model’. The trend towards a shift of production into households, however, might be reinforced through the rise of precarious jobs and long-term unemployment, while home or individual work would become more significant as a source of livelihood.

Another obstacle to the establishment of a formal low-wage sector is the existence of an informal low-wage sector, estimated for Germany at around 1.4 million employees in the area of private households (Ochs, 1999) and confirming corresponding job creation potentials in this domain calculated by various authors (cf. Albach, 1989); 2.8 million households regularly employ domestic help, while 1.5 million households do so periodically (Schupp, et al., 1997). In other words, more than every tenth private household in Germany use such services ⁽³⁶⁾. At present, the formal low-wage sector is unable to compete, either on the supply or the demand side, with the informal sector because of the prevailing price discrepancies ⁽³⁷⁾. If the ‘elementary activities’ sector is discussed only as an alternative to public services in this area, it can be implied that an insufficient supply of public services (especially in childcare) is often the basis for the establishment of an informal low-wage sector, which in turn becomes a limiting factor for the regulated low-wage sector ⁽³⁸⁾.

On the other hand, if one looks at the sector solely as an alternative to the informal employment sector, the only strategy for establishing a formal sector is the path of price competition via publicly subsidised low prices or a reduction of the legally guaranteed

⁽³⁶⁾ To compare: there are currently 62 service agencies in Germany with 1 047 employees and 3 571 customers. Three quarters of these agencies have received or are receiving publicly funded project support, while 95 % have made use of wage-cost subsidies (cf. Zukunft im Zentrum, 1999a).

⁽³⁷⁾ The average (contribution-free) hourly wage paid in the informal service sector is between DEM 15 and DEM 25 (Odierna, 1995). Service agencies charge their customers an average of DEM 23 an hour, while the gross wage paid to their employees is an average DEM 15 an hour (cf. Zukunft im Zentrum, 1999a). This discrepancy results, among other things, from paid holiday leave for the employees, continued pay in the event of illness and provision of training measures.

⁽³⁸⁾ Consequently, the co-existence of a trend towards a shift of services into the household and an increasing supply of services on the ‘grey’ labour market is not necessarily a contradiction.



minimum income. The latter path is more 'economical', but it is not certain whether a corresponding demand would follow, as demand elasticity in this area is not only determined by prices but equally by the quality and the 'image' of the services (Zukunft im Zentrum, 1999b). The removal of these qualitative reservations is linked in turn to the recruitment of suitable employees, which is prevented by the low wage incentives.

At the same time, the problem of a qualitative service gap, said to limit the quantitative demand for services, is also noticeable. New and qualified fields of employment are said to be found in the integration of care and supervision services with housekeeping and maintenance work on domestic technology and the home ('associated services'), in the interface between new information and communication technologies and private households (home information technologies), in advisory services, and in the areas of culture and leisure (Bopp, 1996; Meyer et al., 1999; Mundorf, 1999; SOFI, 1999). This path would also be more in line with the opinion that Germany's employment problems are not primarily caused by a gap in elementary services, but are rather the result of a gap in high-quality, knowledge-intensive and enterprise-related services (Gries and Birk, 1999; Semmler, 1998; Werner, 1997; Freeman and Schettkat, 1999). The definition and elaboration of these new fields of employment will be an important task for further research in the area of household related services.

The insufficient exploitation of the employment potential of household related services is generally recognised. What remains controversial are the ways and means of tapping this potential. The criticisms made as regards the creation or expansion of the low-wage sector are the following:

- Substitution effects between 'regular' and subsidised jobs and resulting deadweight effects can be expected (Bäcker and Hanesch, 1997; Becker, 1998; Bofinger and Fasshauer, 1998; ZEW, 1998), while the incentive to invest in human capital would decline (Schettkat, 1996).
- Because these services are made use of largely by high-income households, public subsidisation of such employment relationships would have a regressive distribution effect (SOFI, 1999).
- As regards the effect on the level of unemployment, it should also be noted that these measures would probably increase the labour market participation of persons who had previously not sought work (Bender et al., 1999; Schupp. et al., 1999).

Despite these objections, some authors also recognise the fact that a wider wage spread would increase the demand for household related services and at the same time improve the employment prospects of less competitive male and female workers. A wider spread of gross wages could be compensated for by easing the contributions burden via increased funding of the social insurance system from tax revenue (Bender et al., 1999; Bofinger and Fasshauer 1998; Walwei, 1998). We find this argument convincing in as far as the general contribution level to social security could be reduced and if some current expenditures not directly related to social insurance (such as for adult training for German immigrants from eastern Europe) would be financed from the general State budget. There is surprisingly little discussion about support for the supply side by means of a reduction in or exemption from liability for VAT

(Zukunft im Zentrum, 1999a), although this would entail much less intervention into the taxation, contributions and wage systems. The Council of the European Union has also recently suggested, as a step towards more employment-friendly taxation systems, that the VAT rate should be reduced for labour-intensive services (Europäische Kommission, 1999). Our study predicts further support for this proposal: To the extent that a favourable tax structure enhances the professionalisation of household related services, prices will fall in the long run and psychological barriers of buying such services will decline ⁽³⁹⁾.

2.4.4. Policy recommendations

Our study suggests two pathways to increase the job potential in services: improving the competitiveness of high quality and expert-oriented business services, and relieving the cost burden for personal or labour intensive services. With regard to the first pathway, competitiveness of business services can mainly be improved through innovation and increased productivity. The most promising policy orientations that correspond to the results of our study are the cultivation of innovative milieus or networks at the regional level. However, the concentration on business services is too narrow. A related but often neglected path for fostering services is to have specialised high quality and high skill personal services in education, health, culture and tourism. Through the digital revolution (information and communication technology), these personal services become more and more tradable or can attract 'service tourism' (foreign students, clients for special health or body treatments, consumers of cultural events, etc.). In addition, as our study has confirmed, product innovation in manufacturing is still an option and a promising orientation for industrial policy, for example, solar-energy or bio-technology.

The effective governance of networks is still not well understood. However, four lessons appear to have achieved widespread consensus in reviews of network literature: First, most effective regional networks are voluntary private enterprise networks in which policy-makers have a very limited role. The most important support of such networks is indirect through provision of 'hardware' infrastructure (for example, excellent transport and communication networks) and 'software' infrastructure (for example, a skilled and competent labour force, information clearing). Second, some effective regional networks are public-private-partnerships in which regional governments or municipalities enter as co-financiers and, therefore, as important bargaining partners. City contracts, regional pacts or target specific associations (in which local or regional governments are members) are common elements in successful public-private-partnerships. Third, policy-makers can play an important role as

⁽³⁹⁾ A model project in Berlin turned out quite successfully: The agency 'Inhouse' (Privatinstitut hogan) trains and employs personal managers, care managers, event managers and 'butlers' who offer professional services to private households in terms of care for children, the disabled or elderly; housekeeping, maintenance or administration; organising festivities; private secretarial work; garden work, etc. The agency is now independent from public support. It employs 16 persons on a permanent basis or on the basis of a guaranteed monthly honorarium, paying an hourly salary between DEM 23 and 30 (on average higher than informal services of this kind); for further information see Hogan 1999. Further arguments for reducing or differentiating VAT in favour of services are provided by the contribution of Schmid in this volume.



‘gatekeepers’ or moderators in the formation of regional networks. This follows from the reflexive use and transmission of knowledge as the core of an information or knowledge society. Knowledge of knowledge requires translators or interpreters of information. In playing the role of ‘moderators’, local or regional governments take over an entrepreneurial role which indirectly may lead to new jobs in new service markets. Fourth, networks are no panacea. Conventional strategies of economic policy (setting proper market frameworks and compensating obvious market failures), and social policy (setting proper frameworks of social security and equal opportunity policies) are still required.

The second path for fostering personnel or labour-intensive services is the extension of basic income support to persons with low earnings capacities and the professionalisation of household-related services. Several routes are open to stimulate (low skill) personal services. However, the general strategy is clear: a widening of the wage spread combined with various methods of wage subsidies, income policy or tax differentiation. The route to be selected should be left to the individual employment regimes in the European Union’s Member States taking into consideration path dependency and slow learning capacities of institutional routines. In the German context, the start-up support of local agencies providing home-related services, the employment-friendly differentiation of non-wage costs (especially employers’ contributions to social security), and a differentiation of VAT are probably most promising in terms of effectiveness and political feasibility.

Appendix

Appendix 1: Marginal jobs

Box A1: Service jobs outside the regular labour market in Germany ('630-mark-jobs')

This form of contract, valid until the end of 1998, meant that the employee was, by law, registered by the employer, who had to report all details to the chamber of trade, but the employee was only allowed to work for less than DEM 630 a month (EUR 321) and not for more than 19 hours a week. These were not 'black' jobs. They were legal but did not count in the employment statistics because the persons were not regular employees. To some extent this was and still is a special German variation of low wage jobs excluded from the social insurance. No payments were made to the obligatory social insurance, no tax was paid by the employee. The employer paid a low 'head tax' for each contract. The offers of the public employment service (PES) could be used as these persons were not registered as employed with full rights and duties, nor as unemployed.

These particular job facilities were originally meant for students and pensioners, but were not restricted to these groups. So there has been a steady increase of these jobs in many areas such as restaurants, hospitals, air bases, retail shops and so on. Between 1992 and 1997 a rise of 80 % of this type of contract was registered. It is easy to see why. Employers could avoid paying high labour costs, the social costs and could neglect other rights the employees have in regular contracts. In 1997, a total of 5.5 million such contracts were signed (about 15 % of the total active labour force). The women made up 90 % of these. Twenty-eight percent of those with such contracts worked in households, 18 % in retail sales, 15 % in industrial trades, 10 % in the restaurant and business cleaning services. However, such contracts were also used in teaching institutions (for example, in the *Volkshochschulen* or private schools), or as personnel attached to private medical doctors and dentists, to welfare organisations, newspaper delivery, or to private hospitals. In the households of 1997, a total of 1.4 million such domestic jobs were registered. This does not include those who work privately without any registered contract at all; 500 000 to 1 million households are estimated to employ persons in such a way, without any formal regulations or a contract. The agreement is totally private on both sides, but it also hints at the shadowy existence of a great many household services (Fölster, 1999).

The new government in power since October, 1998 has, as a first step, turned the tax obligation of the employer into social security contributions (12 % to the pension system, 10 % to health insurance); in order to receive full entitlements from the pension system, employees must contribute an additional 7.5 %. The reason for this (hotly contested) decision was to avoid the increasing substitution of full-time work (underlying social security contributions) by '630-mark' jobs; non-regular 630-mark jobs for up to two months or 50 working days per year (seasonal jobs) are still completely exempt from social security contributions. The impact of these legal changes is not yet clear. First hand evidence, however, shows that neither the fears (dramatic decline of these jobs) nor the hopes (drastic increase of regular low-wage jobs) were realised.



Appendix 2: Classification of industries and services

Knowledge-intensive industries/ business services	Industries/services with a large concentration of professional occupations; professional occupations include such jobs as engineers, computer scientists, natural scientists, physician, lawyers and architects.
Knowledge-intensive industries ⁽¹⁾	Chemicals and allied products, machinery, motor vehicles and equipment, aircraft and parts, electrical machinery and equipment.
Knowledge-intensive business services ⁽²⁾	Financial services, legal services, management services, engineering and architectural services, research and testing services, public relations services and advertising.
Other business services	Services to buildings, rental services, business associations, mailing, reproduction and stenographic services and miscellaneous business services.
Distribution services	Wholesale and retail trade, transportation and communication.
Consumer services	Hotels and other lodging places, restaurants, beauty shops, entertainment, media, publishing houses, photographic studios, individual and family services.
Social services	Childcare and senior services, educational services, health services, civic and social associations.
Government services	Public administration and social insurance.
Domestic-trade-oriented services	Other business services, retail trade, consumer, social and government services.
Expert-oriented services	Knowledge-intensive business services, transportation and communication.
Household related services	Wholesale and retail trade, consumer services, childcare and senior services.

⁽¹⁾ Total employment share of engineering and science technician occupations in manufacturing in West Germany (1995): 2.7 %; chemical industry: 6 %; machinery: 6.1 %; motor vehicles: 3.5 %; aircraft: 16.3 %; electrical engineering: 9.5 %; precision mechanics and optics: 3.1 %; office machines and data processing equipment: 11.9 % (see BMBF, 1996).

⁽²⁾ Total employment share of people with university education in West Germany (without public sector; 1995): 6.5 %; financial services: 7.8 %; legal and management services: 30.5 %; engineering, architectural, research and testing services: 37.7 %; advertising: 20.4 % (see BMBF, 1996; 1997).

Appendix 3: Tables and figures

Agglomerated areas in Germany

Name of the agglomerated areas	The following employment office districts (<i>Arbeitsamtsbezirke</i>) are included
1.1.1.1.3. Hamburg	Hamburg, Bad Oldesloe, Elmshorn, Lüneburg
Bremen	Bremen, Bremerhaven, Oldenburg, Verden
Hanover	Hanover, Celle, Hameln, Nienburg
Essen	Essen, Bochum, Gelsenkirchen, Oberhausen
Düsseldorf	Düsseldorf, Wuppertal
Cologne	Cologne, Bergisch Gladbach, Bonn, Brühl, Düren, Solingen
Frankfurt/Main	Frankfurt/Main, Darmstadt, Hanau, Offenbach, Wiesbaden
Rhine-Neckar	Heidelberg, Ludwigshafen, Mannheim, Neustadt
Stuttgart	Stuttgart, Göppingen, Ludwigsburg, Waiblingen
Nuremberg	Nuremberg, Bamberg, Weißenburg
Munich	Munich, Freising, Rosenheim

Table 1. *Changes in employment in West Germany, 1977–98 (%)* ⁽¹⁾

	West Germany	Agglomerated areas	Non-agglomerated areas
Job loss	- 8.5	- 11.5	- 6.3
Additional jobs	19.8	19.3	20.5
Balance (total)	11.3	7.8	14.2
Proportion from women of			
Job loss	31.3	29.9	33.2
Additional jobs	64.3	59.9	67.8
Balance (total)	91.7	108.5	83.8
Relation ⁽²⁾	2.32	1.68	3.36
Job loss	100	100	100
Agriculture/mining	9.0	0.1	21.9
Knowledge-intensive industries	15.8	20.2	9.5
Other industries	62.6	66.1	57.2
Construction	12.6	13.6	11.4
Additional jobs			
Services	100	100	100
Business services	36.4	45.5	29.0
Knowledge-intensive services	21.7	27.1	17.4
Finance and insurance	5.7	6.2	5.3
Other business services	14.7	18.4	11.6
Distribution services	14.4	9.8	18.2
Consumer services	5.9	6.4	5.5
Social services	42.3	38.0	45.9
Government services	1.0	0.3	1.4
Services	100	100	100
Domestic-trade-oriented services	74.1	69.2	78.2
Expert-oriented services	25.9	30.8	21.8

⁽¹⁾ See Appendix 2.

⁽²⁾ Relation between job loss/additional jobs.

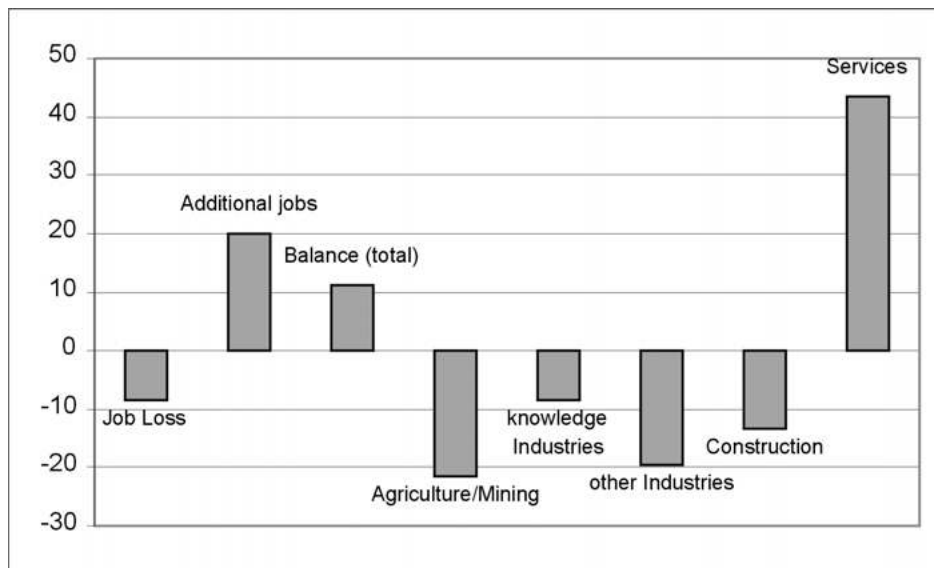
Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 2. Changes of employment shares in West Germany, 1977–98 (%)

	West Germany		Agglomerated areas		Non-agglomerated areas	
	1977	1998	1977	1998	1977	1998
	100	100	100	100	100	100
Agriculture/mining	3.5	2.5	2.9	2.1	4.1	2.8
Industry	42.5	32.6	39.2	28.3	45.7	36.2
Knowledge-intensive industries	16.0	13.3	17.8	13.7	14.2	12.7
Other industries	26.5	19.3	21.4	14.6	31.5	23.5
Construction	8.0	6.2	7.2	5.3	8.6	6.9
Services	45.9	58.6	50.7	64.2	41.6	54.1
Services (total)	100	100	100	100	100	100
Business services	16.8	22.7	19.5	26.9	13.7	18.7
Knowledge-intensive services	12.0	15.1	14.0	17.9	10.0	12.4
Other services	4.8	7.6	5.5	9.0	3.7	6.3
Distribution services	40.5	32.9	41.2	33.0	41.5	32.7
Consumer services	8.5	7.5	8.3	7.9	8.7	7.6
Social services	20.0	26.6	18.3	23.2	21.8	29.7
Government services	14.2	10.3	12.7	9.0	14.3	11.3
Services (total)	100	100	100	100	100	100
Domestic-trade-oriented services	79.9	76.4	76.7	72.7	83.2	80.0
Expert-oriented services	20.1	23.6	23.3	27.3	16.8	20.0

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

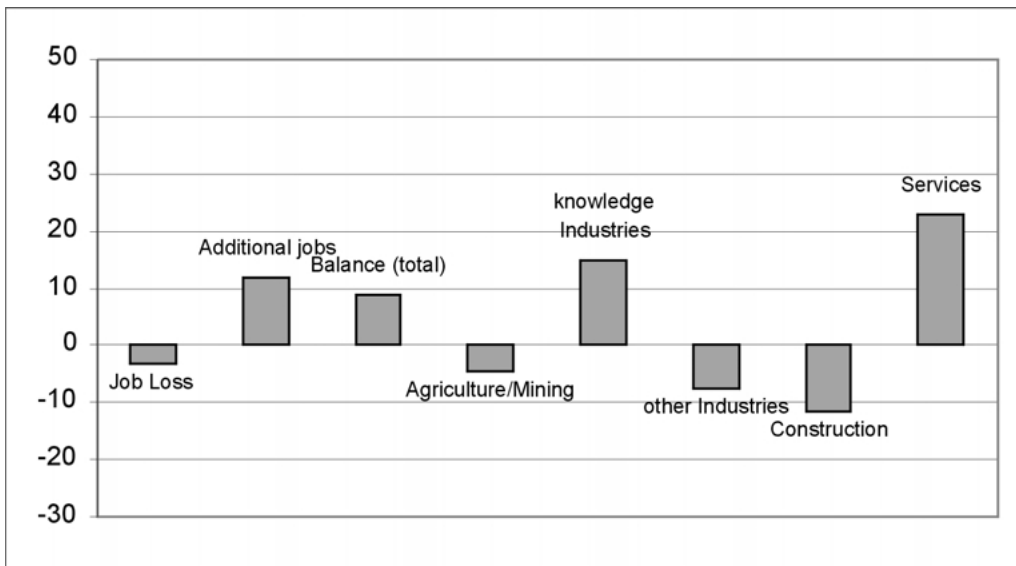
Figure 1. Employment trends in West Germany, 1977–98 (%) ⁽¹⁾



⁽¹⁾ Job loss, additional jobs and balance in per cent of total employment in 1977. For agriculture/mining, knowledge and other industries, construction and services: employment change between 1977 and 1988.

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

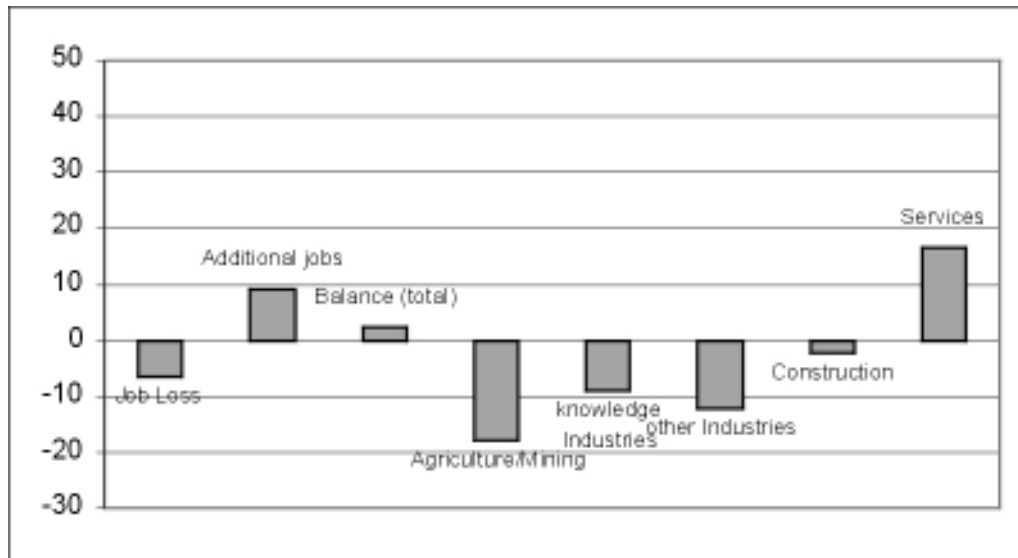
Figure 2. *Employment trends in West Germany, 1977–89 (%)* ⁽¹⁾



⁽¹⁾ See Figure 1.

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 3: *Employment trends in West Germany, 1989–98 (%)* ⁽¹⁾

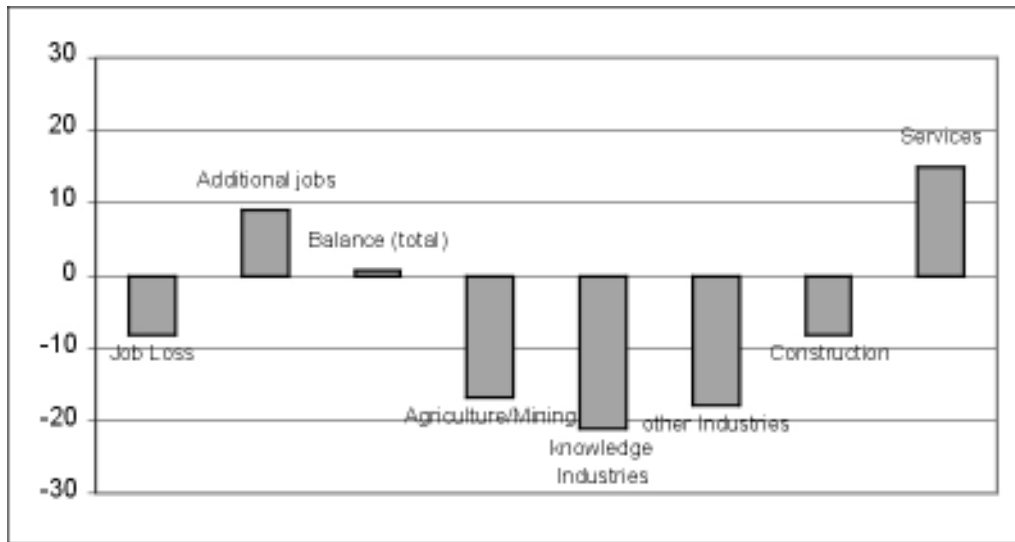


⁽¹⁾ See Figure 1.

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.



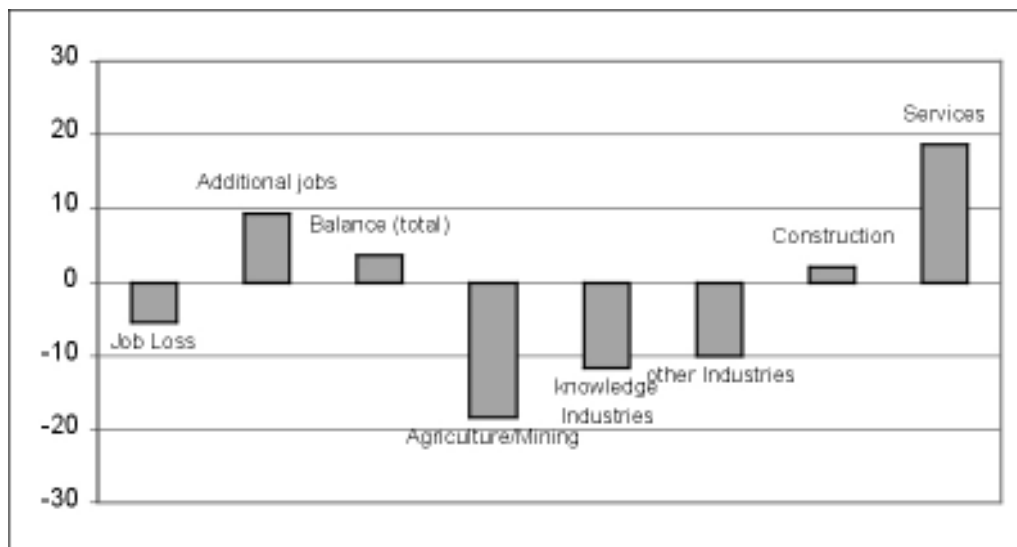
Figure 4: *Employment trends in agglomerated areas, 1989–98, (%)* ⁽¹⁾



⁽¹⁾ See Figure 1.

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 5: *Employment trends in non-agglomerated areas, 1989–98 (%)* ⁽¹⁾



⁽¹⁾ See Figure 1.

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 3: *Changes of employment in West Germany, 1977–98, Women (%)*

	West Germany	Agglomerated areas	Non-agglomerated areas
Job loss	– 6.1	– 7.4	– 5.1
Additional jobs	33.3	29.7	37.6
Balance (total)	27.2	22.3	32.5
Relation ⁽¹⁾	4.55	3.47	5.82
Job loss	100	100	100
Knowledge-intensive industries	23.3	38.4	5.6
Other industries	36.7	61.6	94.4
Additional jobs	100	100	100
Agriculture/mining	0.6	0.6	0.6
Construction	1.4	0.8	1.9
Services	98.0	98.6	97.5
Business services	27.3	35.0	21.8
Knowledge-intensive services	17.3	22.5	14.7
Finance and insurance	5.4	6.1	4.9
Other business services	9.4	12.5	7.1
Distribution services	12.9	9.1	15.9
Consumer services	4.6	5.3	4.1
Social services	47.2	44.5	49.2
Government services	6.0	6.1	9.0
Services	100	100	100
Domestic-trade-oriented services	78.0	72.2	79.5
Expert-oriented services	22.0	27.8	20.5

(1) Relation between job loss/additional jobs.

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

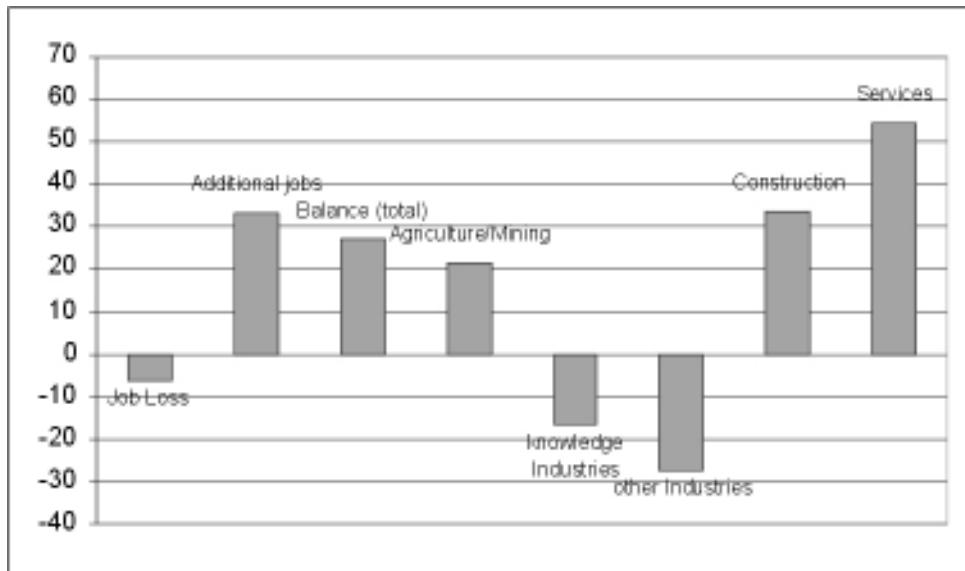
Table 4: *Changes of employment in West Germany 1977–98: Men (%)*

	West Germany	Agglomerated areas	Non-agglomerated areas
Job loss	– 10.1	– 13.1	– 7.6
Additional jobs	11.6	12.0	11.2
Balance (total)	1.5	– 1.1	3.6
Relation ⁽¹⁾	1.15	0.99	1.37
Job loss	100	100	100
Agriculture/mining	13.2	1.0	30.0
Knowledge-intensive industries	10.3	10.8	9.6
Other industries	47.6	62.6	26.9
Construction	19.7	19.4	20.1
Government services	9.2	6.2	13.4
Additional jobs			
Services	100	100	100
Business services	48.5	57.5	39.6
Knowledge-intensive services	26.0	31.7	20.4
Finance and insurance	5.5	5.7	5.3
Other business services	22.5	25.8	19.2
Distribution services	15.4	10.1	20.7
Consumer services	7.5	7.5	7.5
Social services	28.6	24.9	32.2
Services	100	100	100
Domestic-trade-oriented services	61.3	59.0	63.6
Expert-oriented services	38.7	41.0	36.4

(¹) Relation between job loss/additional jobs.

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

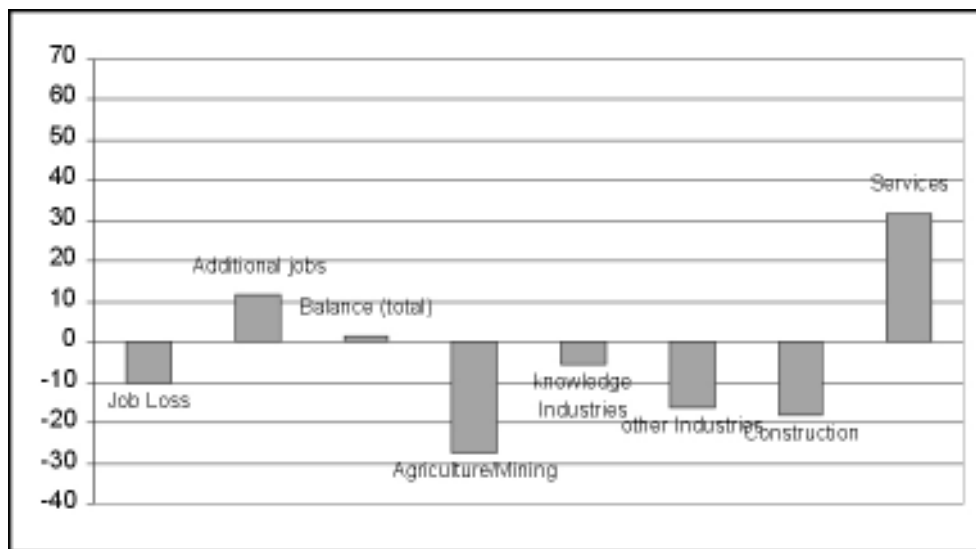
Figure 6: *Employment trends in West Germany, 1977–98, Women (%)*



(¹) See Figure 1.

Source: *Regionaldatenbank Arbeitsmarkt am WZB/AB.*

Figure 7: *Employment trends in West Germany, 1977–98, Men (%)*

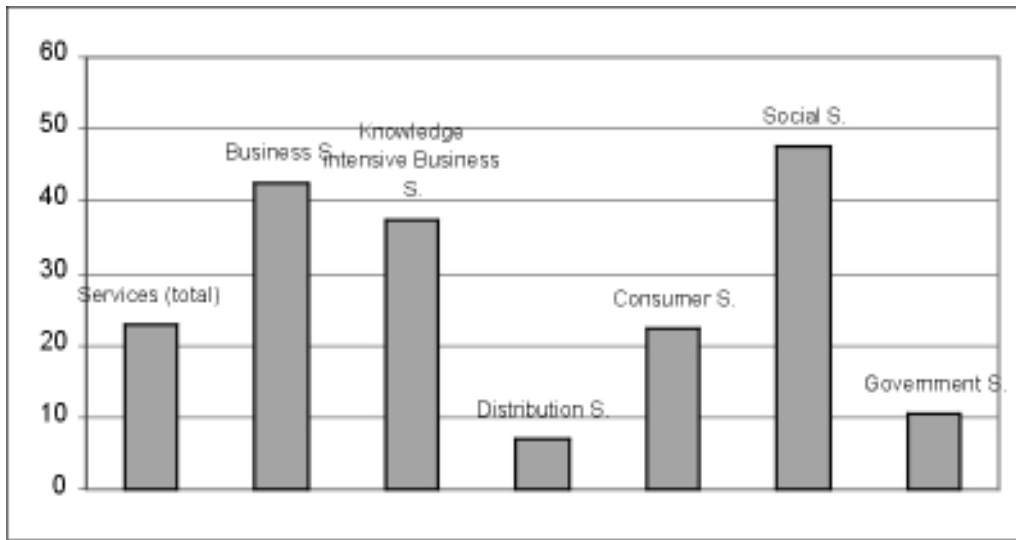


(¹) See Figure 1.

Source: *Regionaldatenbank Arbeitsmarkt am WZB/AB.*

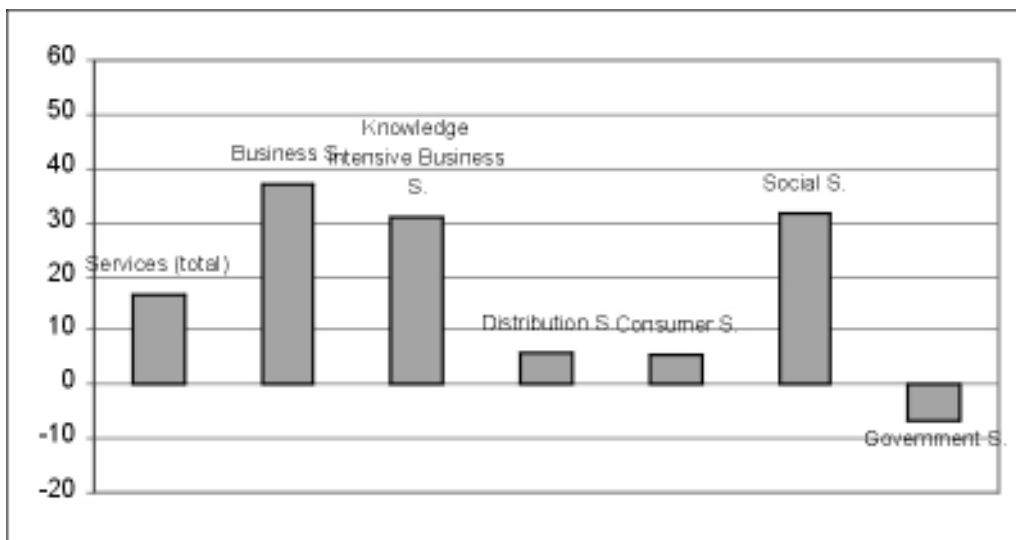


Figure 8: *Employment trends in services in West Germany, 1977–89 (%)*



Source: *Regionaldatenbank Arbeitsmarkt am WZB/AB.*

Figure 9: *Employment trends in services in West Germany, 1989–98 (%)*



Source: *Regionaldatenbank Arbeitsmarkt am WZB/AB.*

Table 5: *Changes of employment shares in West Germany, 1977–98 Women (%)*

	West Germany		Agglomerated areas		Non-agglomerated areas	
	1977	1998	1977	1998	1977	1998
	100	100	100	100	100	100
Agriculture/mining	1.2	1.1	1.1	1.0	1.4	1.2
Industry	32.9	19.6	29.1	16.3	36.3	22.3
Knowledge-intensive industries	11.0	7.2	12.2	7.1	10.0	7.3
Other industries	21.9	12.4	16.9	9.2	26.3	15.0
Construction	1.5	1.6	1.5	1.4	1.5	1.7
Services	64.4	77.7	68.3	81.3	60.8	74.8
Services (total)	100	100	100	100	100	100
Business services	16.4	20.1	18.9	24.1	13.0	16.6
Knowledge-intensive services	11.6	14.0	13.7	16.5	9.6	11.7
Finance and insurance	7.5	6.8	9.1	8.2	5.9	5.6
Other services	4.8	6.1	5.2	7.6	3.4	4.9
Distribution services	34.5	27.3	35.8	27.5	34.0	27.1
Consumer services	10.2	8.3	9.4	8.1	11.1	8.4
Social services	27.0	34.5	24.1	30.7	29.9	37.8
Government services	11.9	9.8	11.8	9.6	12.0	10.1
Services (total)	100	100	100	100	100	100
Domestic-trade-oriented services	83.8	81.8	80.7	78.4	86.8	84.8
Expert-oriented services	16.2	18.2	19.3	21.6	13.2	15.2

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 6: *Changes of employment shares in West Germany, 1977–98: Men (%)*

	West Germany		Agglomerated areas		Non-agglomerated areas	
	1977	1998	1977	1998	1977	1998
	100	100	100	100	100	100
Agriculture/mining	4.9	3.5	3.2	3.1	6.4	3.9
Industry	49.0	42.4	46.9	37.3	50.7	46.5
Knowledge-intensive industries	18.9	17.6	21.9	20.5	16.4	15.2
Other industries	30.1	24.8	25.0	16.8	34.3	31.3
Construction	11.8	9.7	10.8	8.3	12.7	10.8
Services	34.3	44.4	39.1	51.3	30.2	38.8
Services (total)	100	100	100	100	100	100
Business services	17.6	26.1	20.6	30.3	14.5	21.7
Knowledge-intensive services	12.8	16.6	15.0	19.5	10.5	13.5
Finance and insurance	8.4	7.8	9.9	9.0	6.9	6.6
Other services	4.8	9.5	5.6	10.8	4.0	8.2
Distribution services	44.4	40.2	48.7	39.6	46.6	40.8
Consumer services	6.4	6.8	6.9	7.1	5.9	6.5
Social services	11.4	16.1	10.6	14.4	12.3	18.0
Government services	20.2	10.8	13.2	8.6	20.7	13.0
Services (total)	100	100	100	100	100	100
Domestic-trade-oriented services	70.3	69.4	66.8	65.9	74.0	73.1
Expert-oriented services	29.7	30.6	33.2	34.1	26.0	26.9

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

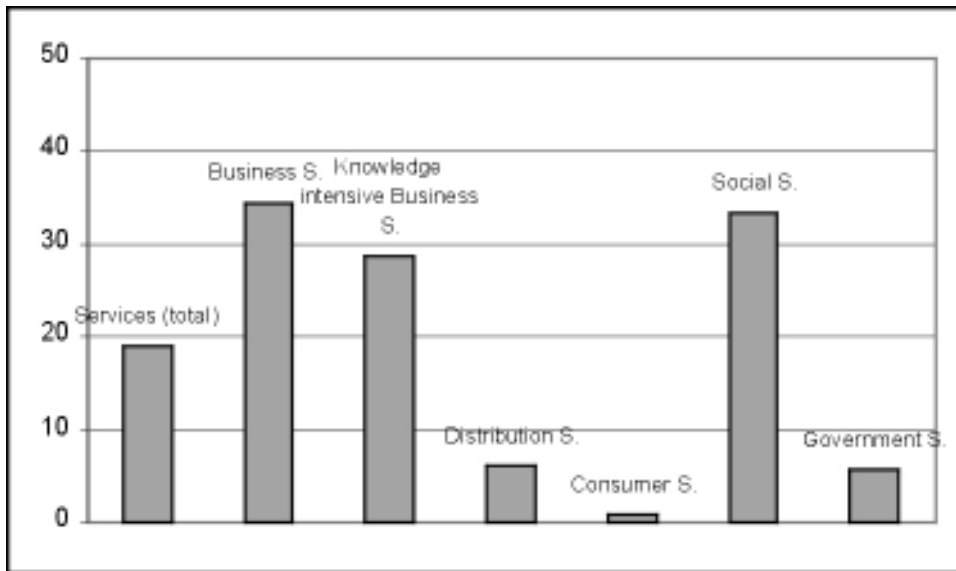
Table 7: *Employment from women as a proportion of total employment (%)*

	West Germany		Agglomerated areas		Non-agglomerated areas	
	1977	1998	1977	1998	1977	1998
Total	37.3	42.8	38.0	43.1	36.7	42.6
Agriculture/mining	13.0	19.5	17.2	20.4	11.2	18.9
Industry	28.6	25.7	27.7	24.9	29.2	26.3
Knowledge-intensive industries	25.8	23.5	25.6	20.8	26.0	26.2
Other industries	30.2	27.2	29.4	29.3	30.7	26.3
Construction	7.0	10.9	7.8	11.4	6.5	10.8
Services	52.8	56.7	51.9	54.5	53.7	58.9
Business services	50.3	50.3	49.9	48.8	51.0	52.4
Knowledge-intensive services	50.3	52.5	49.6	50.4	51.3	55.4
Finance and insurance	49.9	53.2	50.0	52.2	49.9	54.6
Other services	50.5	46.0	50.6	45.7	50.3	46.2
Distribution services	45.1	47.1	44.3	45.4	45.9	48.7
Consumer services	64.2	61.4	59.5	57.7	68.6	65.0
Social services	72.7	73.7	71.1	71.8	73.9	75.1
Government services	43.9	54.4	48.8	57.3	40.0	52.3
Domestic-trade-oriented services	57.2	60.7	56.6	58.7	57.7	62.4
Expert-oriented services	38.0	43.9	38.6	43.2	37.1	44.8

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

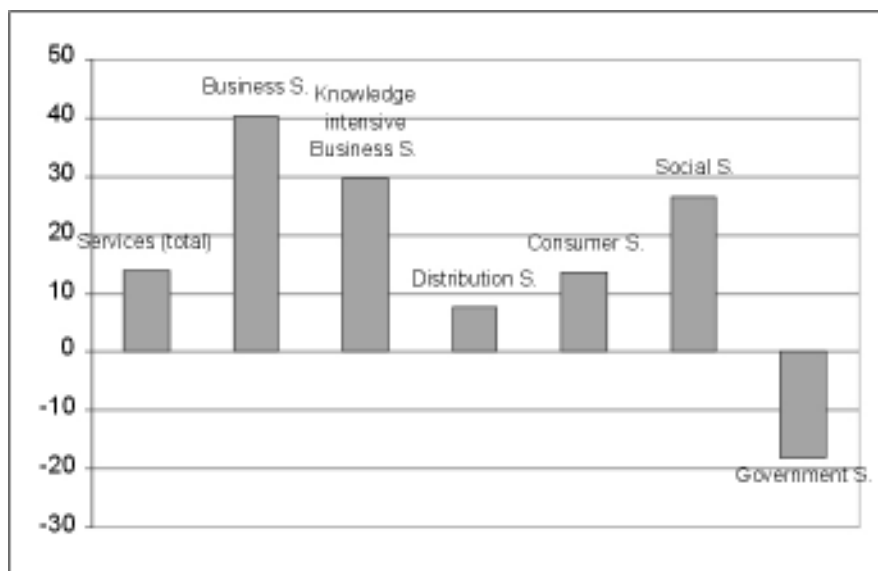


Figure 10: *Employment trends in services in West Germany, 1989–98: Women (%)*



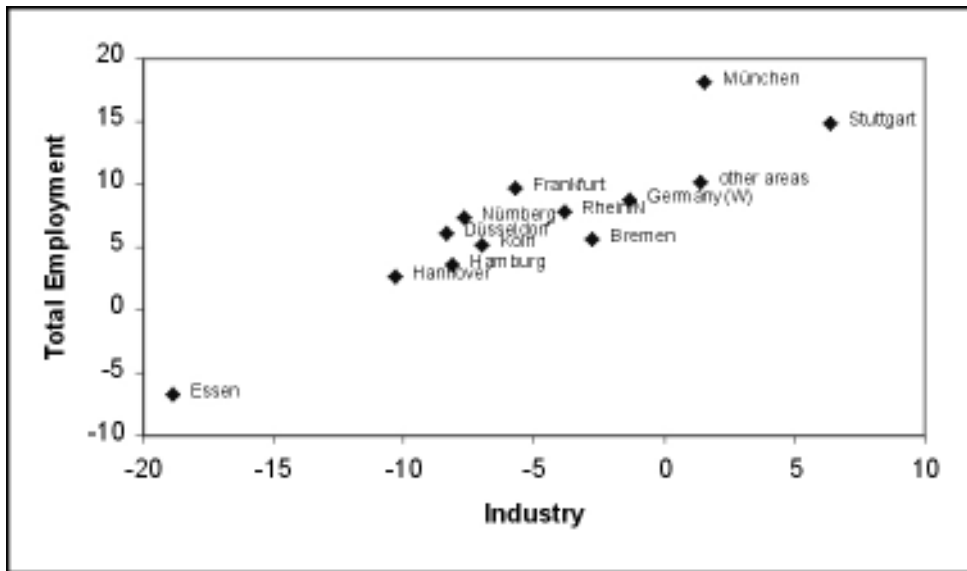
Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 11: *Employment trends in services in West Germany, 1989–98: Men (%)*



Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

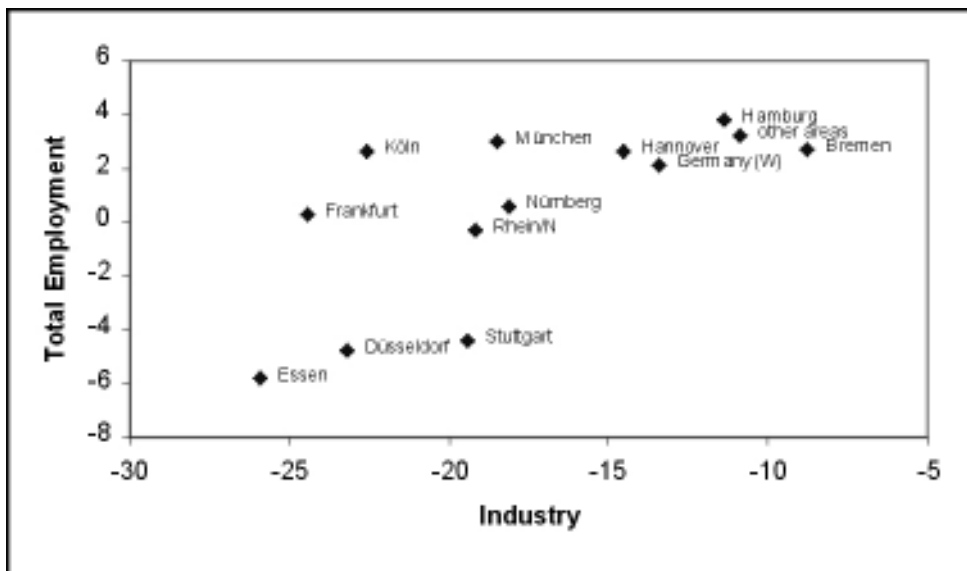
Figure 12: Industry and total employment: growth rate, 1977–89 (%)



$r = 0.90$

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 13: Industry and total employment: growth rate, 1989–98 (%)

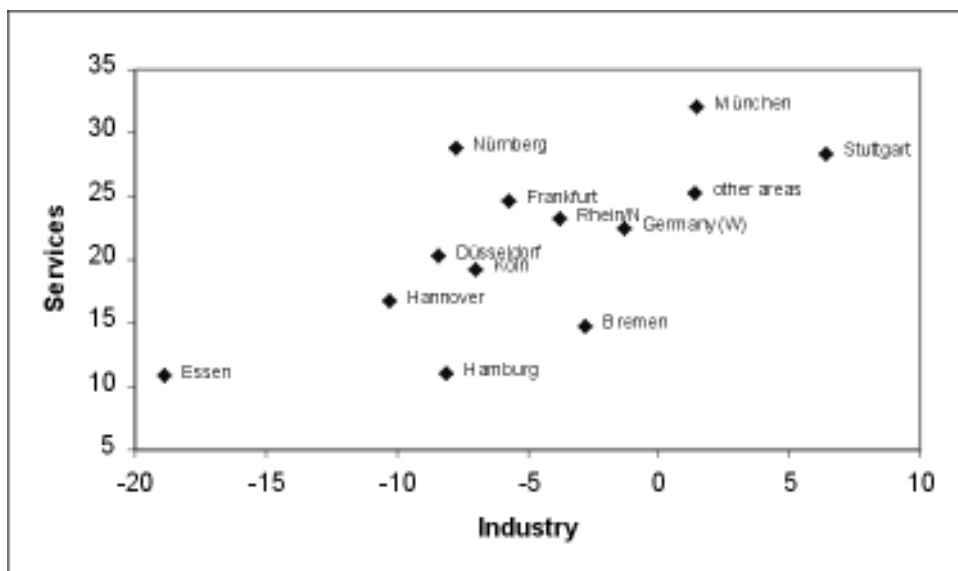


$r = 0.69$

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.



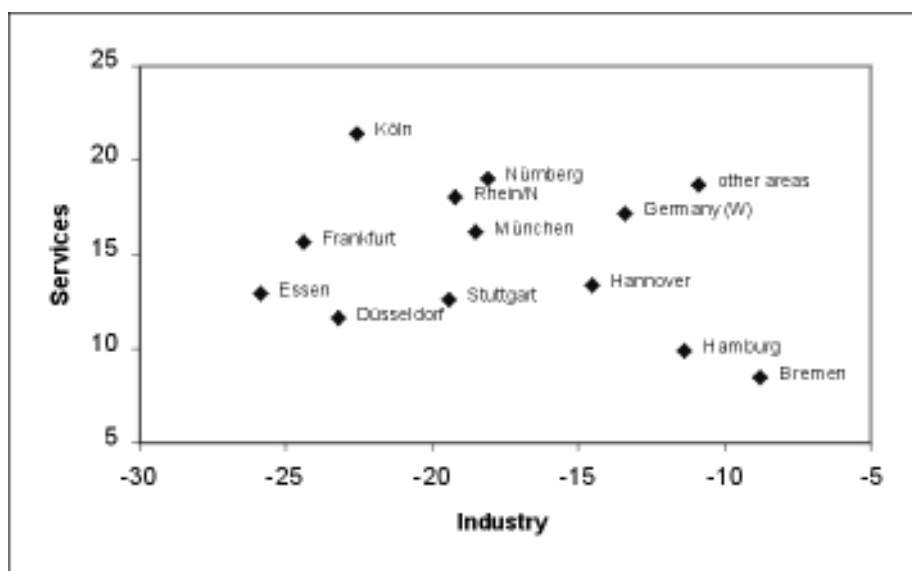
Figure 14: *Industry and service employment: growth rate, 1977–89 (%)*



$r = 0.69$

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

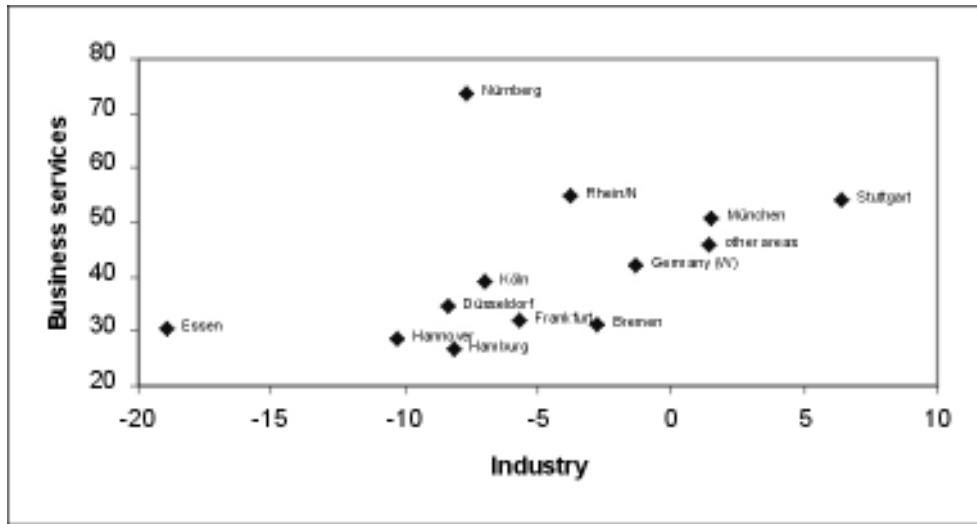
Figure 15: *Industry and service employment: growth rate, 1989–98 (%)*



$r = -0.25$ (agglomerated areas alone: -0.49)

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

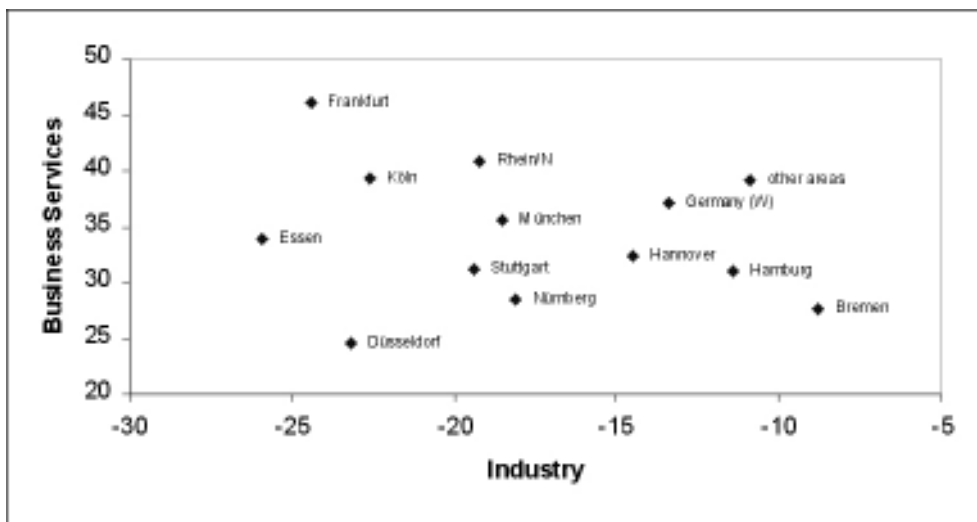
Figure 16: Industry and business services: growth rates, 1977–89 (%)



$r = 0.42$

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 17: Industry and business services: growth rates, 1989–98 (%)

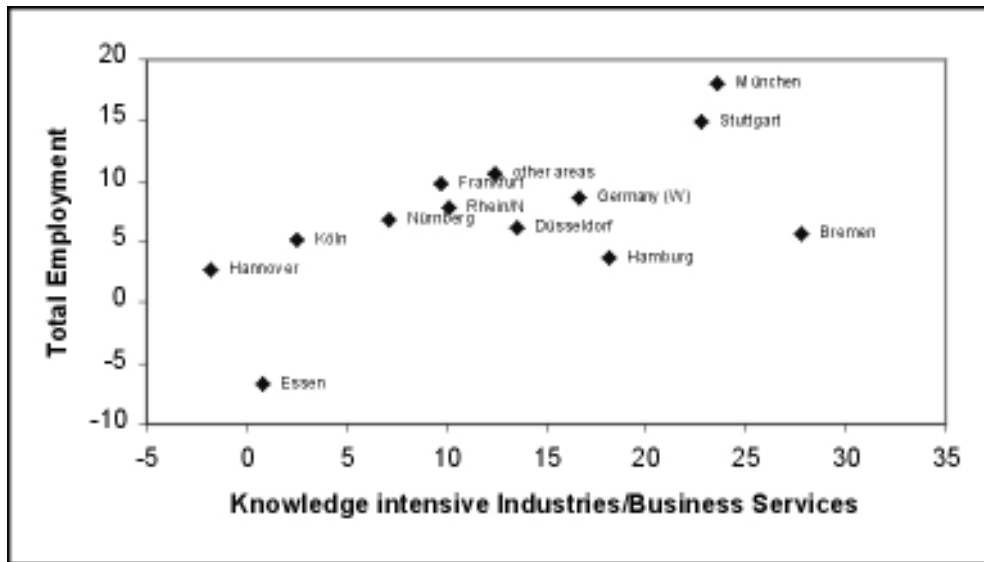


$r = -0.23$ (agglomerated areas alone: -0.42)

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.



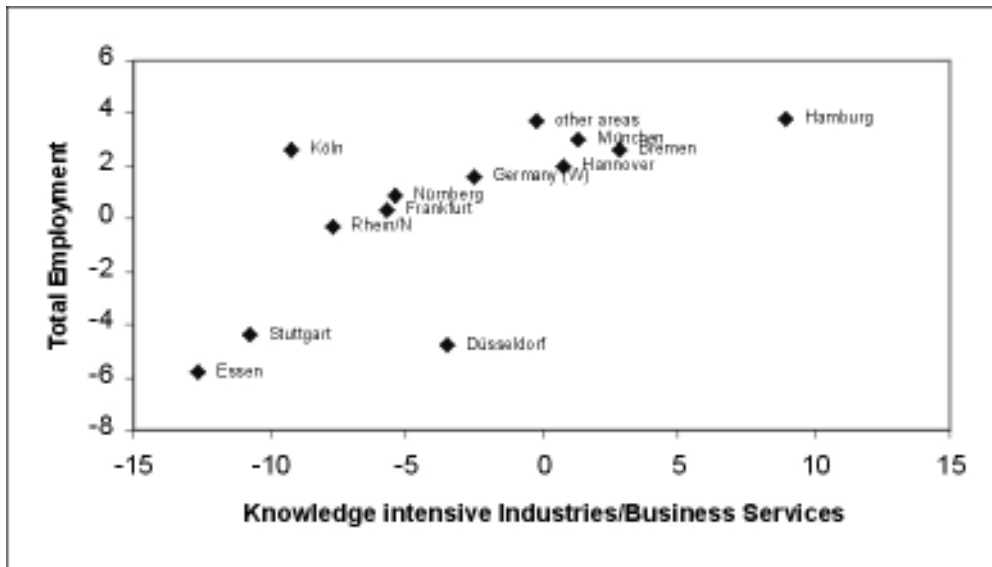
Figure 18: Knowledge-intensive industries/business services and total employment: growth rate, 1977–89 (%)



$r = 0.62$

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 19: Knowledge-intensive industries/business services and total employment: growth rate, 1989–98 (%)



$r = 0.70$

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 8: *Shift-share components of service employment change in West Germany, 1977–98 (%)*

	Locational component	Structural component	Total employment change
Nuremberg	14.2	39.2	53.4
Munich	5.9	47.5	53.4
Rhein/Neckar	1.9	43.6	45.5
Stuttgart	0.7	43.8	44.5
Cologne	0.0	45.5	45.5
Frankfurt	– 1.5	45.7	44.2
Düsseldorf	– 9.0	42.7	33.7
Hanover	– 11.8	44.2	32.4
Bremen	– 12.6	37.0	24.4
Essen	– 18.4	43.5	25.1
Hamburg	– 19.2	41.3	22.1
Agglomerated areas (total)	– 8.2	46.9	38.7
Non-agglomerated areas	7.5	41.2	48.7
West Germany	0.0	43.6	43.6

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 9: *Shift-share components of service employment change in West Germany, 1977–89 (%)*

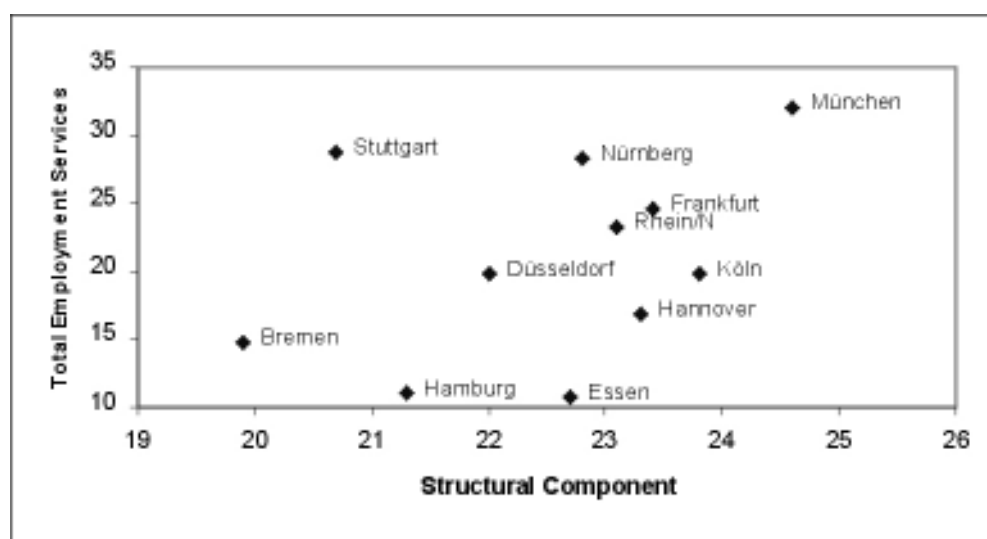
	Locational component	Structural component	Total employment change
Stuttgart	8.1	20.7	28.8
Munich	7.4	24.6	32.0
Nuremberg	5.5	22.8	28.3
Frankfurt	1.2	23.4	24.6
Rhein/Neckar	0.2	23.1	23.3
Düsseldorf	– 2.2	22.0	19.8
Cologne	– 4.0	23.8	19.8
Bremen	– 5.2	19.9	14.7
Hanover	– 6.5	23.3	16.8
Hamburg	– 10.3	21.3	11.0
Essen	– 11.9	22.7	10.8
Agglomerated areas (total)	– 1.9	22.7	20.8
Non-agglomerated areas	3.1	22.2	25.3
West Germany	0.0	23.0	23.0

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 10: *Shift-Share components of service employment change in West Germany, 1989–98 (%)*

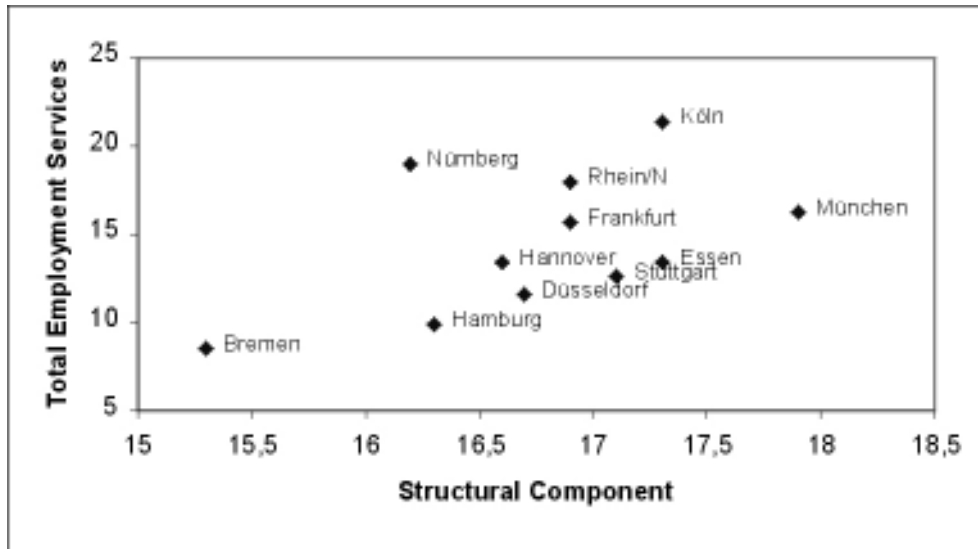
	R 89/98	R 77/89	Locational component	Structural component	Total employment change
Cologne	1	7	4.1	17.3	21.4
Nuremberg	2	3	3.2	16.2	19.0
Rhein/Neckar	3	5	1.1	16.9	18.0
Frankfurt	4	4	- 1.2	16.9	15.7
Munich	5	2	- 1.7	17.9	16.2
Hanover	6	9	- 3.2	16.6	13.4
Essen	7	11	- 4.4	17.3	12.9
Stuttgart	8	1	- 4.5	17.1	12.6
Düsseldorf	9	6	- 5.1	16.7	11.6
Hamburg	10	10	- 6.4	16.3	9.9
Bremen	11	8	- 6.8	15.3	8.5
Agglomerated areas (total)			- 2.1	16.9	14.8
Non-agglomerated areas			3.2	15.5	18.7
West Germany			0.0	16.7	16.7

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

 Figure 20: *Correlation between the structural components of service employment change and the total service employment change, 1977–89 (%) $r = 0.38$*


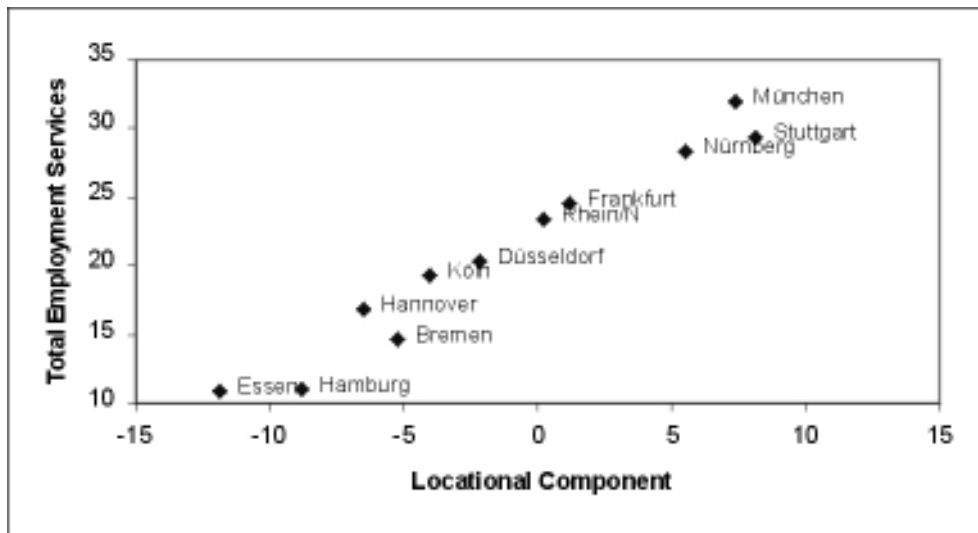
Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 21: Correlation between the structural components of service employment change and the total service employment change, 1989–98 (%) $r = 0.51$



Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

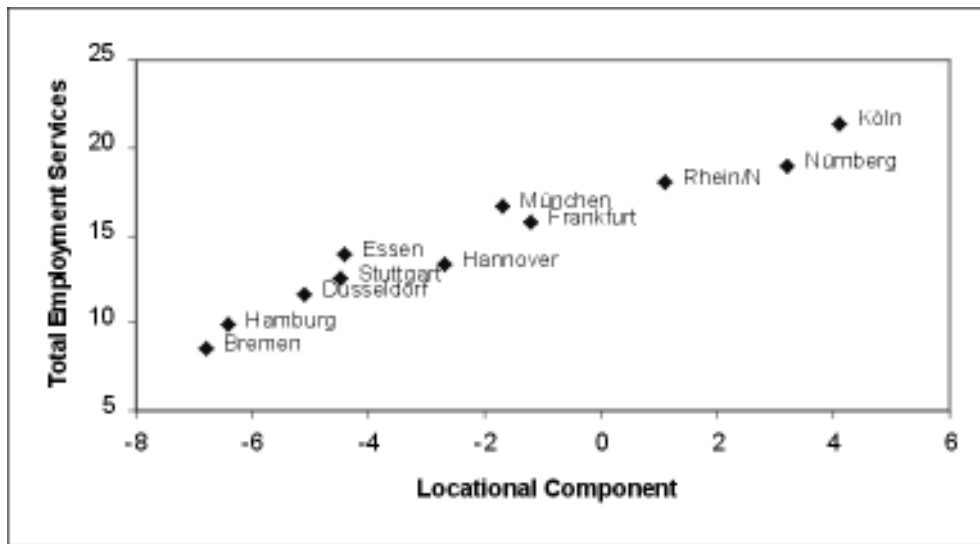
Figure 22: Correlation between the locational components of service employment change and the total service employment change, 1977–89 (%) $r = 0.98$



Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.



Figure 23: Correlation between the locational components of service employment change and the total service employment change, 1989–98 (%) $r = 0.97$



Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 11: *Relations of employment rates, 1998, between West Germany, Düsseldorf, Munich and Stuttgart (employees in percent of inhabitants)*

	West Germany	Düsseldorf	Munich	Stuttgart
Total	36.2 100	43.5 120	40.3 111	39.5 109
Industries	10.2 100	12.0 117	9.6 94	16.1 157
Knowledge-intensive industries	5.0 100	4.8 97	5.5 111	9.6 193
Other industries	5.3 100	7.2 136	4.1 78	6.5 123
Services	23.2 100	29.2 126	27.8 120	20.8 90
Business services	6.2 100	8.4 134	8.1 130	6.0 95
Knowledge-intensive services	4.2 100	5.6 136	6.0 144	4.3 104
Other business services	2.0 100	2.8 131	2.1 103	1.7 79
Distribution services	7.7 100	10.9 142	8.2 107	6.5 85
Consumer services	1.8 100	1.9 107	3.0 168	1.6 91
Social services	5.4 100	5.3 98	6.4 119	4.5 84
Government services	2.1 100	2.8 131	2.8 131	2.1 100
Knowledge-intensive industry/services	9.1 100	10.4 115	11.5 126	13.9 152
Household related services	7.3 100	11.2 153	10.2 140	7.4 101
Domestic-trade-oriented services	16.9 100	20.8 123	20.4 121	14.8 88
Expert-oriented services	6.3 100	8.4 133	7.4 117	6.0 95

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 12: *Relations of employment rates, 1998, between West Germany, Bremen and Essen (employees in percent of inhabitants)*

	West Germany	Bremen	Essen
Total	36.2 100	27.5 63	26.7 59
Industries	10.2 100	8.4 82	7.3 72
Knowledge-intensive industries	5.0 100	3.2 64	2.6 52
Other industries	5.3 100	5.2 99	4.8 90
Services	23.2 100	20.3 87	19.4 83
Business services	6.2 100	4.0 63	4.3 69
Knowledge-intensive services	4.2 100	2.4 58	2.6 62
Other business services	2.0 100	1.6 74	1.7 79
Distribution services	7.7 100	7.7 100	6.4 83
Consumer services	1.8 100	1.1 61	1.2 65
Social services	5.4 100	5.5 102	5.8 107
Government services	2.1 100	2.0 95	1.6 76
Knowledge-intensive industry/services	9.1 100	5.6 61	5.1 56
Household related services	7.3 100	7.6 104	7.3 100
Domestic-trade-oriented services	16.9 100	15.5 92	15.3 91
Expert-oriented services	6.3 100	4.8 75	4.0 64

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 13: *Employment shares in knowledge-intensive industries, 1998 (%)*

	West Germany	Düsseldorf	Munich	Stuttgart
Employment total	100	100	100	100
Industries	32.6	27.5	23.9	40.7
Knowledge-intensive industries	13.1	11.1	13.8	24.2
Knowledge-intensive industries as percent of industrial employment	40.2	40.3	57.8	59.6
Chemicals	6.7	13.6	6.0	2.3
Machinery	7.8	7.4	4.4	11.4
Motor vehicles	9.1	4.9	13.2	22.8
Aircraft	0.8	0.2	5.8	0.1
Electronic	12.3	12.0	21.5	17.7
Computing hardware	0.7	0.2	3.0	0.1
Instruments/optics	2.8	1.7	3.9	3.4
	West Germany	Bremen	Essen	
Employment total	100	100	100	
Industries	32.6	26.5	24.1	
Knowledge-intensive industries	13.1	10.1	8.5	
Knowledge-intensive industries as percent of industrial employment	40.2	38.0	35.2	
Chemicals	6.7	2.6	4.8	
Machinery	7.8	5.9	5.2	
Motor vehicles	9.1	12.9	11.9	
Aircraft	0.8	4.3	0.0	
Electronic	12.3	9.7	11.9	
Computing hardware	0.7	0.2	0.2	
Instruments/optics	2.8	1.1	2.0	

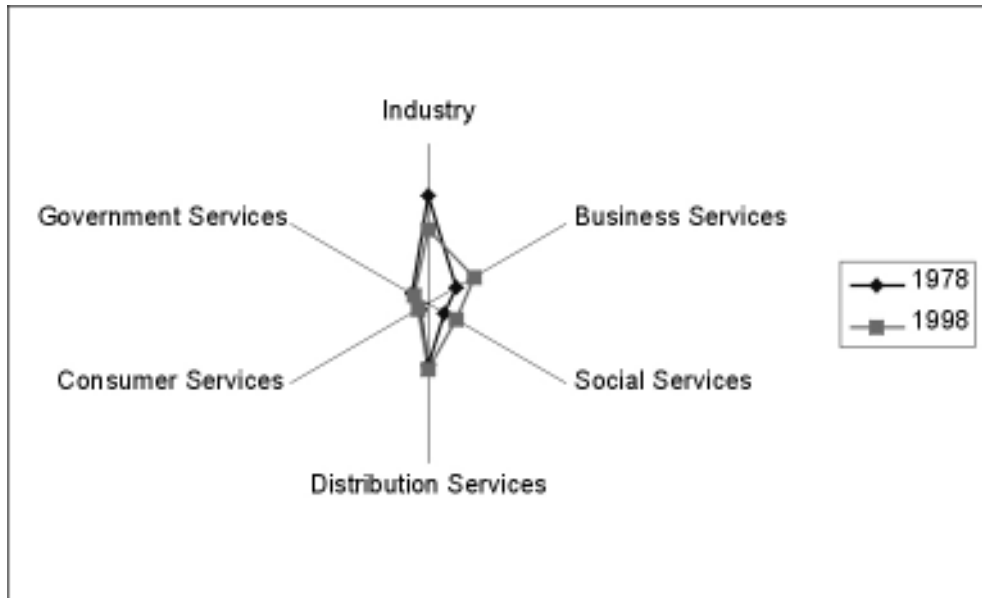
Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Table 14: *Employment shares in knowledge-intensive business services, 1998 (%)*

	West Germany	Düsseldorf	Munich	Stuttgart
Employment total	100	100	100	100
Services	58.6	67.1	69.3	52.6
Business services	13.1	19.2	20.3	15.1
Knowledge-intensive business services	8.1	12.9	14.9	10.9
Knowledge-intensive business services as percent of business service employment	66.4	67.2	73.4	72.3
Finance and insurance	32.4	31.1	34.2	34.4
Legal and management services	18.4	21.7	15.4	19.4
Engineering, architectural services	12.8	7.3	20.5	14.6
Public relations, advertising services	2.8	7.1	3.3	3.9
	West Germany	Bremen	Essen	
Employment total	100	100	100	
Services	58.6	64.2	63.8	
Business services	13.1	12.5	14.3	
Knowledge-intensive business services	8.1	7.7	8.4	
Knowledge-intensive business services as percent of business service employment	66.4	60.8	58.9	
Finance and insurance	32.4	29.1	19.9	
Legal and management services	18.4	18.2	21.3	
Engineering, architectural services	12.8	11.1	14.7	
Public relations, advertising services	2.8	2.4	3.0	

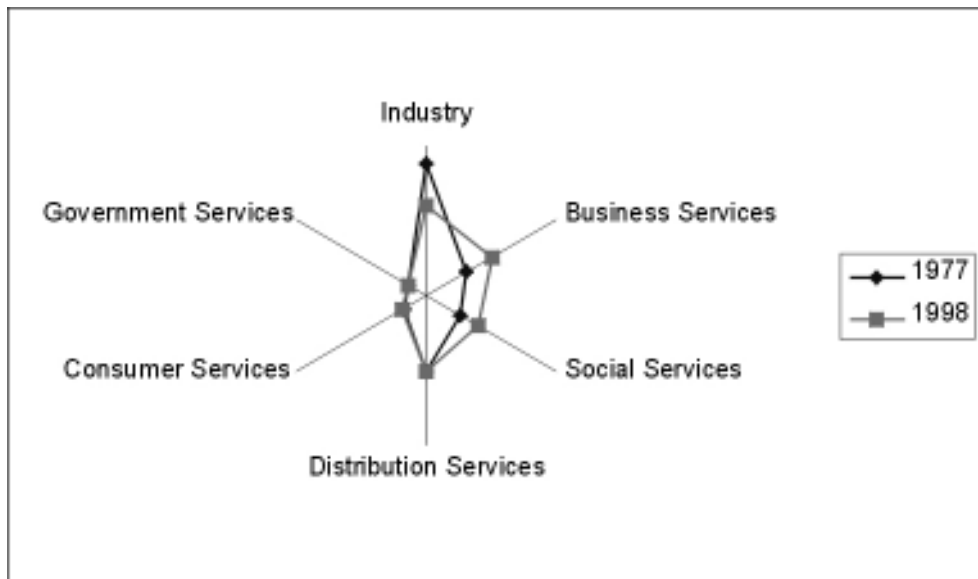
Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 24: Changes of employment shares in Düsseldorf, 1977–98 (%)



Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

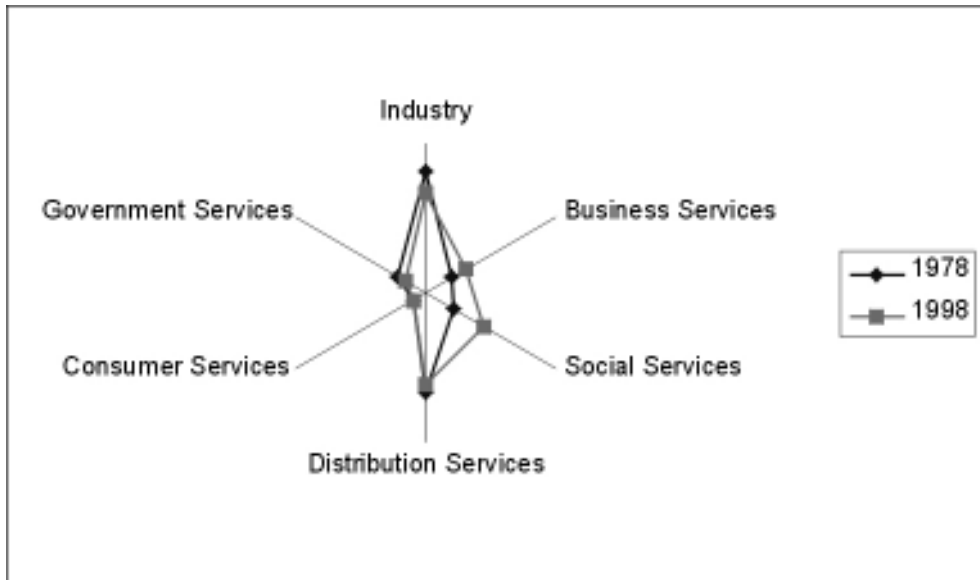
Figure 25: Changes of employment shares in Munich, 1977–98 (%)



Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

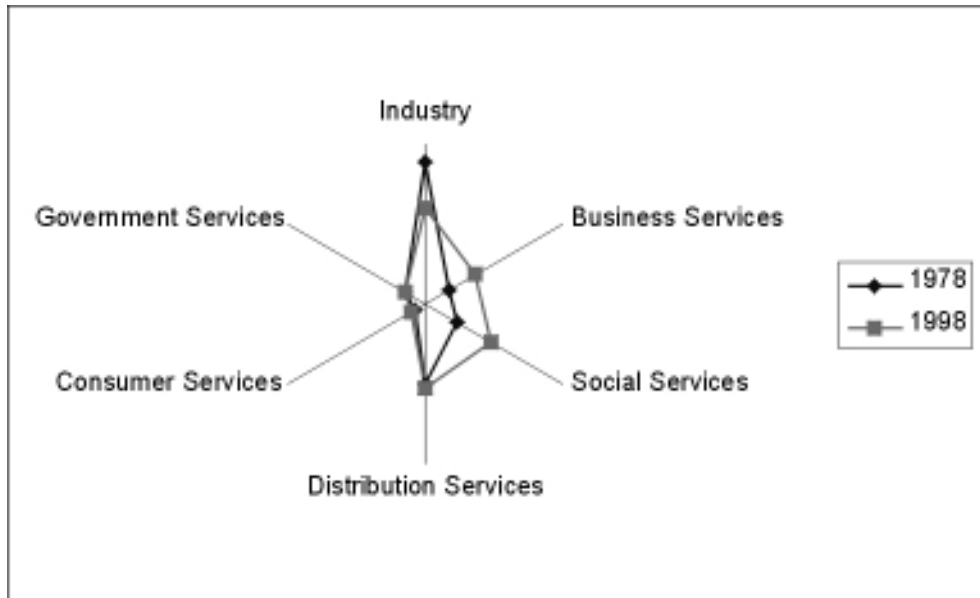


Figure 26: Changes of employment shares in Bremen, 1977–98 (%)



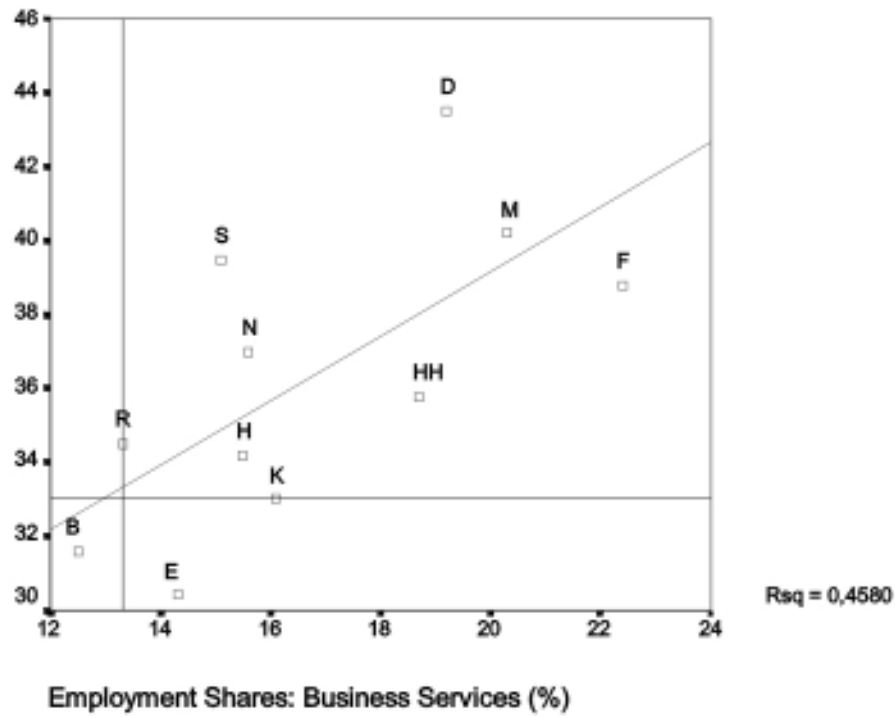
Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 27: Changes of employment shares in Essen, 1977–98 (%)



Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

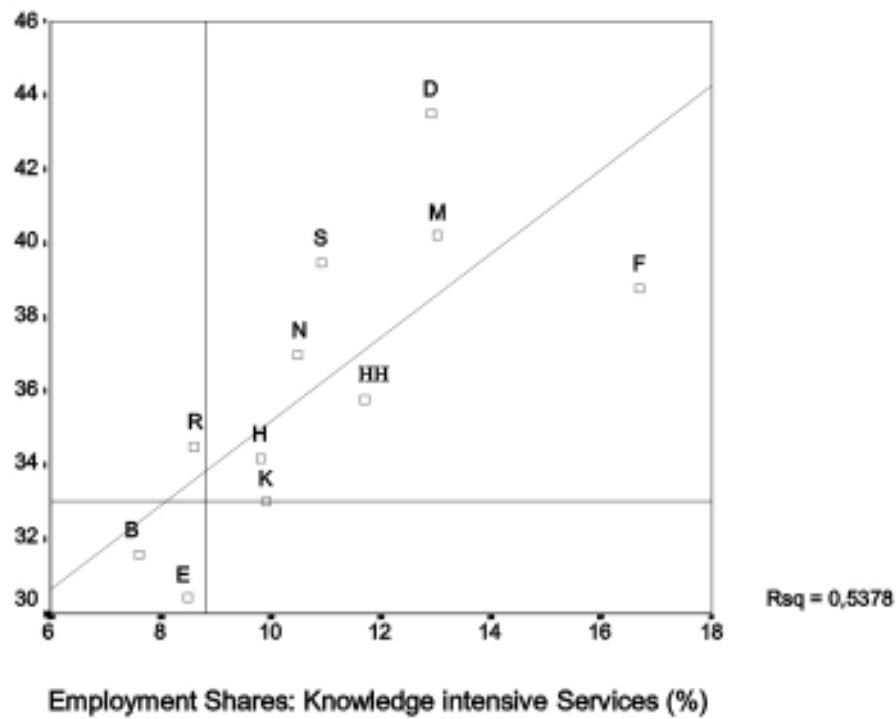
Figure 28: Correlation between employment shares in business services and the total employment rate, 1998



$r = 0.65$

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 29: Correlation between employment shares in knowledge-intensive business services and the total employment rate, 1998

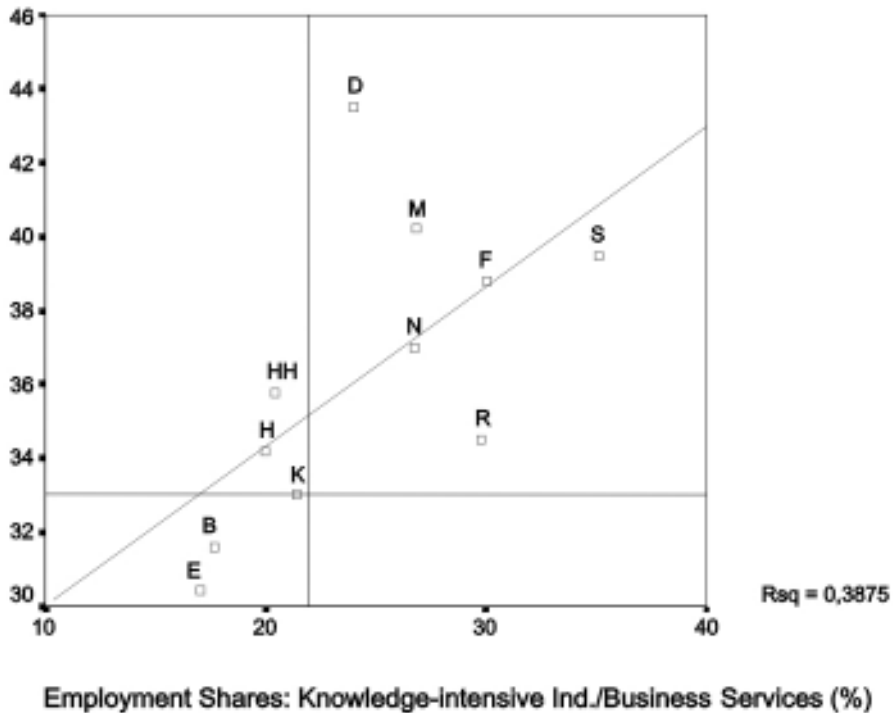


$r = 0.70$

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.



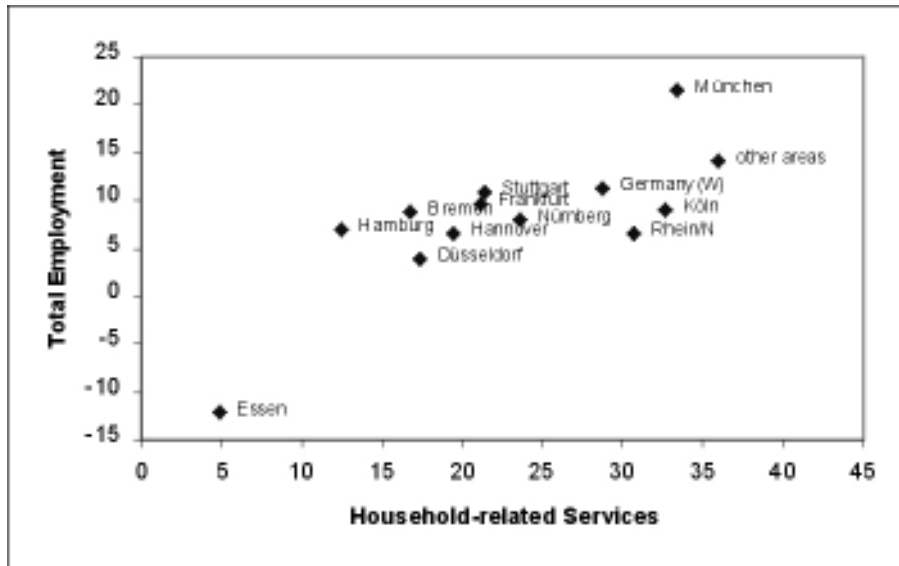
Figure 30: Correlation between employment shares in knowledge-intensive industries/business services and the total employment rate, 1998



$r = 0.56$

Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.

Figure 31: Household related services and total employment: growth rates, 1977–98 (%) $r = 0.77$ (without Essen: 0.63)



Source: Regionaldatenbank Arbeitsmarkt am WZB/AB.



Chapter 3

Analysing business services employment — some theoretical and methodological remarks

Bernard Gazier and Nadine Thevenot

3.1. Introduction

With the development of the business service sector, many hopes arose regarding job creation in European countries. The main reasons are linked to the secular growth of service employment, in particular to the growth of employment in market services compared with the decline of agricultural and industrial employment. In the last decades, it is the business service sector within the broader service sector that many economists and specialists have found attractive because of its rapid growth. One illustration of this is in a recent report provided by the main French economic institute on employment in the market services sector: business services comprise 60 % of all jobs created in the market service sector between 1962 and 1996 in France (INSEE, 1999). Several explanations of this evolution are usually suggested: (1) some services are new services that respond to new needs for user firms (like computer services); (2) more usual service activities performed in the past by user firms' employees are now externalised (cleaning, security, accounting and legal functions, etc.); (3) firms develop new ways of organising work and activities to adapt to new conditions of competitiveness like search of flexibility.

The purpose of this chapter is to explore, in a theoretical and methodological way, some important dimensions and determinants of such a growth. A fundamental problem raised is that numerous processes interact in the development of services because of their relational character. Generally, services involve a more or less close relationship between customer and producer, services may be organised in various ways, with various consequences on the nature, status and scope of the work relationship. The question of the quantity of jobs created interferes with the question of the very nature of these jobs: salaried or self-employed, stable or precarious?

In the precise case of business services, these questions are magnified. As stated above, firms are service users but they can choose to produce or buy them. So the competitive pressures probably are stronger than in other service sectors (even if some tough competition can be found in private personal services) because the option of performing the task in-house is systematically considered by the firms and they look for competitive advantages in each dimension of their activity.

These questions are complicated by the externalisation process evoked above. When one tries to assess the job creation potential of the business service sector, one faces the problem of job transfers.

Varied approaches can be found in the literature, stressing a wide span of factors. Some recent contributions may be of interest here, either stressing the potential for numerous, high-quality new jobs in a positive way, or insisting on the risk of fewer, unstable and low-quality jobs.

A systematic confrontation being out of our reach, we will limit ourselves to some clearly identified recent approaches. They will be diverse, belonging to different disciplines: economic approaches from various fields (labour, industrial and organisational economics), a management approach and labour law approach. Some approaches are a combination of disciplines.

Our design is to introduce three sources of complexity step-by-step, and to discuss their employment consequences in the case of business services. The first is the need for trust and loyalty. The second is a diversified process of risk management underlying various work arrangements, and the third is the heterogeneity of the very nature of services provided.

We begin by analysing a purely managerial point of view, which is optimistic for services as a whole (Section 3.2). We will show that the main argument, centred on the need to build a long-lasting relationship of trust and loyalty between providers and clients, strongly depends on a double segmentation process affecting customers and workers. We briefly apply such reasoning to business services.

In the second step, we keep the concern of trust and loyalty, and introduce a recent labour law and economic risk treatment approach, developed for any kind of work relationship but with strong applications to business services. The main result is the identification of increasingly blurred frontiers between salary and self-employed work, and considerable room for manoeuvring as regards the organisational and employment choices of firms (Section 3.3).

Then we focus exclusively on the case of business services, and explore an economic approach in more detail, combining the labour economics, industrial economics and organisation economics points of view. Some dimensions of service heterogeneity (tangibility, specificity, degree of user's participation) are considered since they imply different risks and stakes and help us understand their various externalisation potential (Section 3.4).



Last, as an application of the previous developments, we deal briefly with some persistent problems affecting the measurement of externalised business service employment, and we present some hypotheses on the differentiated development of such services (Section 3.5).

3.2. An optimistic management approach: The ‘service profit chain’

The focus of this section is on assessing the scope and validity of a recent management book centred on the idea of a ‘service profit chain’. ⁽¹⁾

The book deserves special attention for three reasons. First it is written by three renowned specialists of management. Second, it is the converging point of previous research, which was done somehow with other collaborators. The book is synthetic in its aim — it seeks to generalise a set of relationships. Third, the rather optimistic message is based on an integrated set of relatively new arguments. The main thesis is that there is a ‘mirror effect’ between loyalty and satisfaction of employees. When this occurs it is possible to build a stable, long-lasting relationship which generates profitable business in services. The ‘service profit chain’ is the link between long-standing customers and employees, and growth and profit for the service firm.

The message seems to be common sense and is certainly good news: well-paid and valued employees lead to high-quality service and profits. Yet the book goes further, notably because it insists more on employee attitudes and values than on skills or diplomas. This kind of diagnosis is in line with the idea that a new ‘service economy’ might develop, offering good jobs with initiative, responsibility and high rewards to the bulk of employees, not only to a well-trained elite.

Three main strands of arguments are combined in the book, each deserving attention.

1. The authors develop an operational analysis of the relatively complex processes existing in a service relationship, starting from the consumer’s point of view and combining it with the employee’s point of view. Two sources of complexity interact. First, consumer diversity: different people expect different quality. Second, service heterogeneity: in fact a service relationship can combine very different elementary operations; some of them directly done by an employee, others by a machine, and others by some mix of machine and man. According to the situations and preferences, the combination could evolve. The main operational consequence is the need of segmenting customers. A central idea in the book, is that the customer is not always right: some of them could ask for a service or a service quality not belonging to the target of a given service business, and they need to be reoriented towards other firms.

⁽¹⁾ Heskett, Sasser, and Schlesinger, 1997, *The service profit chain. How leading companies link profit and growth to loyalty, satisfaction and value*, The Free Press, 301 pp.

2. Then, with regard to the employees, there is a need to foster initiative, especially for frontline workers, involved in the ‘service encounter’. They must be able to select a service subset by themselves and adapt quickly to the demand. The second operational consequence is giving them a ‘capability’, namely, some latitude in performing their work (within specified limits), and a number of disposable means and background technical support. A third consequence is the need for selecting employees according to the corresponding profile: ‘nice’ people are recruited; those who are open-minded and flexible. The customer segmentation is mirrored by an employee segmentation. The technical skills and the training policies, though important, are presented here as being secondary.
3. If we put together the two preceding lines of argument, we find the organisational basis for a stable, long-lasting relationship between a firm and a service customer. The book insists on the ‘lifetime value of a customer’, namely, the revenue flow stemming from a satisfied customer maintaining an active participation through the years. As most of the service relationships are personal, frequent, and involve some risks, it is important and profitable to build mutual trust, then a satisfied customer consumes an evolving set of services (for example, in a banking activity), and generates other clients with limited additional costs.

However, some unaddressed questions arise when one tries to assess the general lessons stemming from the book in more detail.

What is first lacking is a specific application to business services. The authors do not focus on such services even if they do not exclude them. For example, they discuss the case of pest exterminators, a service with important clients in businesses like restaurants or hotels. It seems reasonable to state that the business service sector is fully covered by the arguments presented in the book. Indeed, business services exacerbate the stakes and risks of consumer dissatisfaction. As was noted above, another alternative always exists — in-house production. The competitive pressure is probably tougher, because an ill-performed service may have important negative consequences for the efficiency of the client, and because the client is trained at looking for available alternatives and minimising costs. The consequence yields more competitive pressures, on more dimensions. It may lead to frequent checks, and also to systematic networking: either the systematic research of a price advantage, or a closely matched network of firms sharing the same values and technological level.

The authors illustrate four extreme behaviours of clients (p. 85). The ‘apostles’ are strongly satisfied and loyal, the ‘terrorists’ are neither satisfied nor loyal, the ‘hostages’ are not satisfied but loyal (because they are, for example, hostages of a monopoly), and last the ‘mercenaries’ are satisfied but not loyal. In the case of business services, there is an overall tendency leading to more ‘mercenary’ behaviour. ‘Hostages’ and ‘terrorists’ may exist, of course, but the need for some quality and satisfaction as well as the private operating context ⁽²⁾ may limit their importance. ‘Apostles’ may become rare, except in the case of high-quality level networks.

⁽²⁾ Things could be very different in a developing country context, with some business services in a monopoly situation (for example, the software and computer maintenance services).



The book's argument leads to similar conclusions, which paint a more unstable picture. Even if trust is a key component, it leads to a contrasted balance with loyalty: less loyalty in the sector (and higher price sensitivity of clients) and more intense loyalty (among peers) when it is obtained.

We now turn to methodological remarks. It must be first observed that with this book we have the classical advantages and drawbacks of most management analyses. They are based on concrete and operational experiences, and they focus on integrated relationships (such as the interaction between employees and customers). However, they give only limited grounds for easily generalising. The method followed in the book is threefold. Firstly, it presents some comparative evidence for ten big service firms using methods that could be connected with the management proposals of the 'service profit chain', these firms being much more profitable than a selected sample of firms bringing 'reasonable matching comparisons', (p.15). Secondly, it documents some correlations between variables belonging to the conceptual 'service profit chain'. Yet these correlations, although presented in a systematic table (p. 31), are partial correlations extracted from different cases. Lastly, the book presents a wide number of case studies.

There appear to be two main limitations found in the analysis, from an employment-centred point of view.

The first concerns the size and frequency of the customer and or employee segmentation. The book gives numerous evidence of self-reinforcing links: some of them within the 'service profit chain', each variable reinforcing others, and some of them within the 'employee and or customer mirror', good quality 'winning' employee attracting good quality (as regards the target of the service business) and 'winning' customers. It must be noticed, however, that the book (logically) limits the segmentation process and the segmentation needs of frontline employees. However, the study does not address the question of the effective growth of such a category. What about the backline employees? What do they need or what do they tolerate?

A second question is how to go further as regards the organisational aspects of the service relationship. The need to build trust in difficult-to-control, frequent and risky interactions, evokes the williamsonian theory. However, here, such a situation is used only to introduce the need for some contractual stability between stable employees and customers; that is not the 'hierarchy' concept. The book insists on the need for involving the frontline employees in the business gains (participation in capital and management) as well as in profit-related gains.

A wider management approach is in order, with other ways of building trust without necessarily engaging the firm in long-term employment relations.

3.3. Combining a labour law and economic approach: Risk management, risk spillover and the service employment relationship

The ground upon which the rather optimistic conclusions of the ‘service profit chain’ were built, emphasises the needed continuity and trust of the service relationship. In a sense, the authors went back to the classical ‘internal labour markets’ developed by big firms during the 1960s in industrialised countries, with the aim of stabilising important groups of employees and offering them good employment perspectives. However, their proposals differ in two ways. They focus on ‘frontline’ employees, who are directly in contact with clients, and they insist on the need to establish individual autonomy and performance-related compensation.

An important aspect was ignored in these developments: if the product cannot be dissociated from the actual performance of the worker (namely, one of the main definitions of services), then the burden of establishing the continuity and trust, of segmenting the customers and selecting some of them for a durable interaction, of adapting to their evolving needs, usually shared by the firm and the worker, may in some cases, be transferred to other organisations or to the worker alone. This results in the worker being directly responsible for the long-lasting relationship with the customer without involving the main firm in a stable employment relationship. Some small subcontractors may then be as dependent or insecure as temporary salaried workers, and at the same time, some employed workers may be treated as if they were self-employed, responsible for their activities.

An interesting analysis, along these lines, was recently presented in collective research which centred on business service activity under the direction of M. L. Morin. This work joined the economic-management and labour law points of view. The aim was to help clarify the increasingly blurred borderlines between independent and salaried work in France ⁽³⁾. The method was based upon a conceptual (economic and labour law) elaboration of work relations and in-depth case studies regarding recent developments and practices; some were explicit, others more or less hidden or implicit.

They first presented: (a) a general assessment of the various risks which occur in a work situation (either self-employed or employed). Then they showed, in the domain of business services: (b) that numerous management choices must be analysed as intermediate choices between self-employment and pure employment, depending on organisational choices and risk sharing choices.

Turning back to the work relationship, four risk categories were distinguished:

- economic risks
- employment risks
- work security risks
- social risks

⁽³⁾ Morin (ed.) 1999, *Prestation de travail et activité de service*, La Documentation Française.



The economic risks are business risks: financial risk of failure, of profit and losses, of shareholder pressure, risk of irregular demand, and of production errors. These risks are classically borne by the owner of the firm.

The employment risks are the risks stemming from creating and filling a job: they include the job's responsibilities, the job's duration, and the employability of the worker (ability to find another job). Such risks are traditionally shared by the employer and the community. In some cases they may involve an important share of individual responsibility and management (for example, reputational risks for the employed recruited on a short-term project basis).

The work security risks are the risks of work accidents which are individually and collectively borne by the employer. Finally, the social risks arise in the situations where individual or family needs of the worker cannot be covered by current labour income: sickness, old age, childcare and unemployment. These risks are traditionally borne by the community (social security arrangements).

Thus the starting situation puts the salaried worker and the self-employed worker in opposition to each other. The economic risks and the security risks are mainly borne by the employer, either solely or collectively, while the two remaining risks, employment risks and social risks, are mainly shouldered by the workers, primarily in a collective manner. For the self-employed, everything is the responsibility of the worker, either individually or collectively.

However this elementary sharing has recently undergone changes, especially in the case of business services. Two main hypotheses are offered about risk management today.

- (1) There is a clear tendency to transfer more responsibility to the salaried worker: it amounts to a risk spillover. For example, rewarding individual performance when it depends on unpredictable market conditions, is a risk transfer (economic risks) from the firm to the worker. Another example could be policies aimed at strengthening the individual initiatives for 'employability'. Here, it is the employment risks that are, in part, transferred to the worker.
- (2) This tendency does not lead to unilateral changes in the employment relationship, because it must be combined with a variety of organisational choices. Risk management leads to very different work arrangements, even for the same task. It can be performed within different organisational frameworks, with different sharing of risks, duties and compensations.

The main contribution of the research appears here: a systematic table allowing the situation of hybrid arrangements between the classical salaried work contract and self-employed status.

Table 3.1. Risk management and work relationship

Risk of the service provision → Work organisation ↓	Y_i (individual)	$Y\alpha_i + \beta c^*$ (mixed)	Y_c (collective)
X_i (individual)	1 Self-employment	4	7
$X\alpha_i + \beta c^*$ (mixed)	2	5	8
X_c (collective)	3	6	9 Pure salaried work

* The α and β coefficients ($\alpha + \beta = 1$) indicate that the proportions of the individual (i) and collective (c) dimensions are mixed and may vary according to the different cases introduced. (Cf. text.)

We first give some examples of the contents of the table, all taken from the business service sector. Then we extract some more general statements about the span of service work relationships, and the consequences as regards the kind of employment provided.

The best is to start from cell 9: pure salary work situation, with the firm acting as the collective responsible. The odds of producing, pricing and trading are born by the firm, which also benefits from the possible profits. If we look at cell 6, we find any individual performance related to compensation for ‘normal’ employees; if we look at cell 8, we find a more individualised work organisation. It could be separate software services within firms, outside project missions for subcontracted workers, with clear work specification, or outside complex and integrated cooperative projects for salaried workers. It could also be accounting inside the firm, with work autonomy, as well as the separate training unit inside the firm. In each case, the worker belongs to the firm as a salaried worker, but he or she performs more or less independently of the core group.

If we cumulate the characteristics of cells 6 and 8, we find hybrid working arrangements: separate tasks with individual performance-related compensation. Such a case, not the most frequent, is observed in brand merchandising. The worker, hired by a specific trademark, works inside a selling unit (department store) and represents his or her brand with personal autonomy. The situation is analogous when an accounting expert, belonging to an accounting firm, operates within a given client’s firm for a personal mission and manages the contract.

The work situation of cell 3 is quite frequent. Individual workers are integrated into a collective work group, but are fully responsible for their service provision. It is the case of some merchandising arrangements. The worker can be directed by the retail trade firm, but hired and paid by the supplier of some product to be sold, on a purely individual basis (hours worked). In the French contracts, it corresponds to ‘external aid paid by the supplier’. Another



similar case is any individual outside in a software project with permanent control of the client.

At the opposite, cell 7 is quite rare and was not observed in the research. It corresponds to workers with a salary contract but performing, for part of their activity, some managing task. It happens in some small firms, where workers play two different roles.

Now we start from the self-employed worker (cell 1) and we introduce some complexity with cell 2: more collective work organisation. It corresponds to repeated short-term tasks given by training firms on the basis of a continuing flow of specific projects; either short-term salary contracts, or short-term independent missions.

Lastly, cell 4 corresponds to some collective management of individual work: either by the firm, for example, when a long-term contract is concluded for an independent software assistant, or when an independent worker benefits from a public social protection scheme allowing him/her to switch from one task to another with some income and insurance guarantees, such is the case in France with the status of ‘intermittents du spectacle’.

This perspective brings an interesting broadening of the causality network surrounding the choices made by firms as regards business services.

The main prospective orientation, left implicit by the authors, is that the cells on the diagonal are increasingly active and correspond to various behaviours from the firms. The firms transfer risks from themselves to outside subcontractors and/or to individualised workers, either self-employed or benefiting as salaried, from increased autonomy. So the authors find an interesting principle which helps us understand why the ‘service profit chain’ may lead to out-of-the-firm and/or unstable work arrangements.

However, this approach gives only illustrations taken from different business service activities, and does not attempt to explain why specific work arrangements may differ or coexist in a given region and for a given service. The labour law point of view, combined with a general risk-management argument, is enough to open a wide variety of arrangements, and raise fundamental questions about the need of controlling and regulating the growing dispersion stemming from the risk spillovers ⁽⁴⁾.

In order to discuss the consequences on job creation and job quality, it would be necessary to consider in more detail the meaning of service heterogeneity from an organisational point of view, and the issue of externalisation.

⁽⁴⁾ A different but converging analysis is proposed in Benhamou and Gazier (cf. this research), about the determinants of cultural employment. The aim of Morin et al. is to show that for a given service, different work arrangements may coexist in a given country and a given place. However, the emphasis may be put in contrasting national ‘employment regimes’ fostering different dominant work arrangements in each country. Self-employment in British cultural employment is connected to weak labour market regulation, while the importance of short-term contracts and part-time in the case of France is connected to the French specificity of labour market regulation.

Thus, this study opens a highly general field, and needs complementary elements to give a more detailed account of the various work relationships connected to service activity.

3.4. An economic approach: The determining factors of business service externalisation

On a theoretical level, the theories of the firm develop two main lines of argument, reflecting the traditional opposition in economic analysis: the treatment of economic phenomena in an exchange or production point of view. In an exchange economy, we find the contractual approaches, among them transaction cost theory to be the main ‘make or buy’ problem treatment (Williamson, 1985). In a production economy, there is a set of contributions stemming from the works of Penrose (1959) or Richardson (1972) that place resources and competencies at the centre of the analysis. These recent works enter into the more general evolutionary perspective by insisting on the condition of resource creation and accumulation. These analyses do not specifically take into consideration services but suggest propositions that are likely to be applied both to goods and services.

Though the arguments proposed by the theories of the firm are interesting for the study of the organisation of service activities, it is necessary to consider the features of a given service to understand the factors that explain why a firm performs the service in-house or uses external service providers. The combination of industrial economics and service approaches allows us to evaluate the features of service activities which are likely to affect their mode of organisation (Section 3.4.1). In fact, these features concern the ‘object’ of the transaction and the production and may change the main results of transaction and production analyses (Section 3.4.2). Finally, we emphasise the different organisational arrangements by which service activities can be provided. The classification underlines the respective roles of the provider and the user in the conception and the production of a given business service. In this perspective, we shall show that the alternative for the user firm is not that of ‘make or buy’ but rather involves complex forms, which need both participation and competence in co-production of service units internal to the user firm (Section 3.4.3).

3.4.1. The heterogeneity of business services: What are the origins?

We do not intend here to discuss the theoretical concept of services but rather aim at specifying the characteristics of business services that explain their heterogeneity. From this point of view, we consider business service as the result of a transformation process from the definition of service as a change (Hill, 1977, Gadrey, 1992). It is the effect of this change that is expected by firms asking for business services.

Characterising business service heterogeneity consists in differentiating the major dimensions of service in combination with the components of service activity (Box 3.1).

**Box 3.1. The components of business service activities**

- the ‘expected useful effect’ of services for the user firm;
- the production process of services and the ‘service relationship’;
- the service as result;
- the realised effect of service.

This combination leads to the following characterisation ⁽⁵⁾:

- The expected useful effect refers to the ‘reach’ of services for the user firm, that is to the operational or exploring character of service in the organisation of production of the firm ⁽⁶⁾.
- The production process and the service relationship ⁽⁷⁾: The intensity of interactions between user and provider is a determining factor of the definition and production of service. The participation of the user firm can take place at several levels during the provision of the service: the conception and definition of service, the production and achievement of the service effects. The importance and the level of participation depend on the specificity degree of the user firm needs in the sense that when the user firm has particular needs, it has to define and produce with the provider a service which possesses a high level of novelty.
- The service as a result is defined by a change in the condition of a ‘thing’ (Hill, 1977, Gadrey, 1992) which is the ‘object’ of the transaction. The more this thing is intangible, the more difficult the evaluation of the service (Barcet, Bonamy, 1994, Gadrey, Delaunay, 1987). It is interesting to differentiate services with the degree of tangibility of their support.
- The realised effect of service has various temporalities for the user firm, that are the times of using the service effect after the service has been produced and consumed. Moreover, it is possible that the achievement timetable of service results does not fit in with the timetable of service effects. This possible time lag enhances uncertainty for the user firm.

These dimensions lead us to consider several service categories that function differently in production and transaction.

3.4.2. Business service activities and the ‘make or buy’ dilemma

In general, theories of the firm consider goods and services indifferently and do not take into consideration the features of the ‘object’ of the production and transaction. Nevertheless, it

⁽⁵⁾ For more details, cf. Thèvenot (1999).

⁽⁶⁾ In the case of an ‘operational reach’, the firm is aiming to exploit an existing potential. An ‘exploring reach’ refers to services that are realised in association with the search of new productive opportunities.

⁽⁷⁾ The ‘service relationship’ developed by French economists refers to the social and operational interactions between user and producer in the production and organisation of both goods and services. Cf. De Bandt, Gadrey dir. (1994), Reboud dir. (1997).

seems to us that these features have an impact on the main propositions of the two prevalent contemporary approaches that deal with the firm's boundary problems: the contractual and competency perspectives (for a presentation of these analyses, see Box 3.2 in Appendix 1).

3.4.2.1. What are the transaction costs associated with service transactions?

Our intention is to show that the provision of service confronts producer and customer with some particular contractual hazards linked to the features of this activity. The major uncertainties affecting the transaction concern the evaluation of both service and provider performances (i) and the appropriation of the result of the provision by the producer (ii). In other respects, the fact that the user firm could have specific needs entails a decrease of uncertainty due to the participation of the user firm in the provision of service (iii).

- (i) The evaluation of service and provider performances: Like many inter-firm relationships, the provision of service is about a 'product' that does not exist before the transaction. Thus, the contract that joins the firms is considered to be an exchange of promises (Baudry, 1992). However, in the particular case of a provision of service, two features increase the contractual hazards and are sources of transaction costs: the intangible character of services and the time structure of their effects. Bowen, Jones (1986) have shown that the intangible character of service increases the uncertainty affecting the 'object' of the transaction (What does the customer purchase?). Because it is not easy to standardise such services, higher transaction costs are supported by the user firm compared with goods transactions. These costs are linked to the fact that the user firm has difficulties evaluating the quality of the service it receives (the output) and the time and resources (input) necessary to produce the service when it cannot compare it with another one. Moreover, the user firm is engaged in post-purchase evaluation of the service when its effects can only be measured in the future. Thus, the existence of this time lag between the provision of the service and the achievement of its effects entails higher transaction costs.
- (ii) The appropriation of the result of the provision by the producer: The difficulties for the user firm arise with informational services and can be of two types. On the one hand, the user firm could have to transfer strategic information to the provider. The risk consists in the disclosure or the use of this information by the provider for competitive advantage. On the other hand, the service that is received by the user firm can correspond to its particular needs though it is not specific, that is the service can be re-deployed to alternative uses. Thus, the risk consists in the service re-deployment by the provider. The more the reach of the service is linked to exploring activities, the higher the contractual hazards ⁽⁸⁾. In this case, the necessity of protecting strategic information that can be re-deployed is a transactional factor that encourages recourse to integrated forms of organisation.

⁽⁸⁾ Analogies are possible with research and development activities when the regime of appropriability is weak (Teece, 1988, Pisano, 1990).



(iii) Interface and needs specificity: When the object of the transaction corresponds to the user firm's specific needs, it has to participate in the provision of service. The 'relational' dimension of these personalised provisions allows the user firm to reduce the uncertainty surrounding the transaction because it has to develop capabilities in the realisation of the service (production and transfer of information, and capacities necessary to the provision of service). Thus, the existence of an interface within the user firm can reduce the uncertainty linked to the evaluation of both service and provider performances. The consequence of this participation hinges on a co-evaluation of the service by the provider and the user firm which can be viewed in two complementary perspectives.

First, the co-evaluation is linked to the user firm participation which implies a co-responsibility in the achievement of the result (Gadrey, 1990). In this case, it generates higher transaction costs associated with more complex negotiation and control mechanisms.

Second, the co-evaluation can be viewed as the result of the user firm's intention to reduce uncertainty on services and providers' performances by investing in the realisation of the co-production. From this perspective, this is the buyer who realises investments in the aim to reduce transaction costs.

Thus, business service transactions entail differentiated transaction costs according to the characteristics of services. From this perspective, the combination of transaction cost theory and service approaches may explain on the one hand why some services are more prone to be outsourced than others, and on the other hand why some complex forms of arrangements have to be found to govern business service transactions. Nevertheless, it is difficult to explain the growth of the business service sector and the externalisation process by only a decrease of transaction cost related to service transactions. In particular, one should take into consideration the growth of needs and the economies of scale in relation to the market size as it is developed by Stigler (1951). From this point of view, the process of specialisation leads to a vertical disintegration of industries as the demand for final products (business services) increases.

A complementary point of view consists in explaining the forms of organisation from the competencies developed in certain kinds of activities in relation to the principal activity of the firm.

3.4.2.2. *Learning processes and service activities*

In the competence-based approach, learning processes take part in the definition of the firm's boundaries by determining the scope of competencies developed in complementary assets. In our perspective, service activities represent intermediary and complementary activities necessary to the user firm's principal activity. In a 'knowledge-based economy' (OECD, 1996), certain kinds of services, and in particular informational services, appear all the more important as they influence the conditions of the development of the product value ⁽⁹⁾. In a

⁽⁹⁾ See also Philpott in this volume for a discussion of the differentiated jobs created in the service sector by the weightless economy.

general way, informational business services are linked to the conception, the organisation of the production of the firm and the development of the firm's strategy in an environment where the availability of knowledge and information takes part in the development of the firm's competitive advantage.

Evolutionary contributions have insisted on the internal learning processes that create the conditions of development of competencies. The interdependency between firms does not appear in an explicit way in these works that focus on the specific, dynamic and cumulative dimensions of intra-organisational learning process. The participation of the user firm to the service provision leads us to consider various learning processes that influence the organisation mode of business service activities. In particular, a major difficulty encountered by the user firm in the provision of informational services consists in the assimilation of the information and capabilities that have been built during the provision. Cohen, Levinthal (1990) have shown that a firm's 'absorptive capacity,' that is the ability to evaluate and use outside knowledge, is a function of the level of prior related knowledge because the firm needs a knowledge basis in order to assimilate and exploit new knowledge. We encounter the same necessity of an interface in the user firm able to participate in the provision of informational service and to exploit the service that it has received. The functions of the interface depend on the characteristics of the service activities, and in particular on the degree of specificity of the user firm's needs (which determines the level of its participation) and on the 'reach' of the service effects (which influences the uncertainty related to the service effects). Thus, the learning processes have different objects according to the characteristics of the activities. Two major complementary distinctions can be made.

- First, when the user firm has to participate to the service provision, the interactions between user and provider generate the conditions for interactive learning process (Lundvall, 1988, 1992, Cohendet, 1994) which can concern both traditional 'doing' and 'using' learning, or the 'search' activity when the result of the provision is not specified before its achievement. Thus, according to the degree of the user firm's need specificity, learning processes are intra-organisational or interactive.
- Second, the uncertainty related to the 'reach' of the service effects influences the way by which user and provider can achieve the service. The operational services can be realised on the base of the firm's experience in the sense that it is possible to improve the provision by repetition (Levitt, March, 1988) ⁽¹⁰⁾, and benefit from increasing returns. This process can be achieved by interacting if user needs are specific. The exploring services possess temporal and uncertain effects which have to be learned. Thus, effects are the object of a 'search' led internally or by interacting according to the degree of the user firm's needs specificity.

⁽¹⁰⁾ This process can lead to a 'competency trap' (Levitt, March, 1988) because learning by experience is a cumulative process which contributes to the risk of specialisation in inferior procedures and routines.



In summary, the propositions made by the theories of the firm depend on the characteristics of business service activities and on the behaviour of the firm that influences its trajectory and the things that it is able to make. Considering the interactions between user and provider, we have seen that the problem of organising these activities is more complex than one of ‘make or buy’. We now turn to the various forms of externalisation of business service activities.

3.4.3. Proposals for a classification of the forms of externalisation of service activities

The traditional ‘make or buy’ problem concerns the conditions under which firms have an interest in making a good or service or in purchasing it on the market (Hollard, Ruffieux, 1996). We have considered the limits of applying this problematic to activities which consist of provision, and in particular, service provision. Nevertheless, the heterogeneity of business service activities leads us to consider various external forms of organisation along the lines of ‘market-outsourcing-cooperation.’ After presenting the criteria of distinction (Section 3.3.1), we give some details on the classification according to the characteristics of business service activities (Section 3.3.2).

3.4.3.1. *The criteria*

One may use two types of criteria to differentiate the forms of externalisation according to the level of the participation of the user firm: the originator of the conception and the originator of the production of service.

- The originator of the conception: Three situations can be considered depending on whether the conception is made by the provider, the customer or the provider in relation with the customer. In the first case, we find the standard market transactions for which the service exists independently of the user firm demand. When the customer conceives the service, he possesses the ability to define the service and make a ‘purchase on order’ by specifying the characteristics of the service. These situations correspond to traditional outsourcing. The last case covers the major part of business service activities. It refers to situations where the user firm participates in the conception process by defining its needs and the functional specifications of the service though the provider has the knowledge of the ‘technical’ possibilities existing. Thus, there is an interactive process in the definition of the service that has to be produced. We find different definitions of these inter-firm relationships in the literature: partnership (Baudry, 1995) or ‘speciality outsourcing’ (Morvan, 1991, De Bandt, 1996).
- The originator of the production: As with the previous criteria, the user, the provider or the provider in relation with the user can perform the production of the service. In the majority of cases, the provider produces the service but the forms of externalisation depend on the originator of the conception. We do not consider that the first case corresponds to internal production within the user firm when it also conceives the service. Nevertheless, it is possible to consider situations like ‘self-service’ for which the provider conceives the service though the customer produces it. The very case of ‘co-production’ concerns the association between provider and user firm in the conception and production of service.

3.4.3.2. *The classification*

Table 3.2 summarises the various situations of external forms of organisation of business service activities according to the characteristics of these activities in terms of tangibility and specificity.

Table 3.2. *A classification of externalisation forms of business service activities*

Forms of externalisation	Kind of service	Level of participation		Features of service		Examples
		Conception	Production	Tangibility level	Specificity level	
Purchasing	Standardised service	Provider	Provider	High	Low	Installation of standard software
	Self-service	Provider	Customer	Indifferent	Low	Database consulting
Outsourcing	Industrialised service	Customer	Provider	Indifferent	Low to medium	Premises standard cleaning
Co-conceiving	Personalised service	Provider and customer	Provider	High	Medium to high	Tailor-made packaging
				Low	Low to medium	Opinion survey in a marketing process
Co-producing	Co-produced service	Provider	Provider and customer	Low	Low to medium	Professional training
		Provider and customer			High	Management consultancy

3.5. Measurement problems and differentiated job creation potential of business service externalisation

This section chapter deals with the difficulties of measuring the job creation potential of externalisation of business service activities. Though externalisation represents a recurring theme of the specialised press that has removed any doubt of its existence, this phenomena remains very difficult to consider at a statistical level. In fact, the available statistical field (at least in France), does not give us a satisfying picture of externalisation at a general level. However, we share some insights on what could be indirect measures of the process in the French case (Section 4.1). Finally, we make some hypotheses about the job creation potential of business service externalisation (Section 4.2).

3.5.1. Measures of business service externalisation and their limits

Externalisation may be defined as a process by which service functions realised previously in-house are henceforth produced by external providers. So, an ‘externalisation rate’ accounts for the part of services that are bought by the user firms into the total of intermediary consumption of services in their production process. Two kinds of measures seem conceivable but they have



a static dimension: the intermediary consumption of services (Section 4.1.1) and the number of employees affected to ‘service occupations’ (Section 4.1.2).

3.5.1.1. *The intermediary consumption of services*

This kind of measure deals with purchases of services by user firms. These data are available in the ‘input-output’ tables produced by national accounts. In France, the *entrées-sorties* tables are the only tools which measure the enterprises’ demand for business services (Fontaine, 1987).

Two sets of problems arise with such data. First, the internal consumption of services achieved by in-house production in user firms is out of the statistical field. So, though it is possible to have a clear idea of the needs for business services that are bought, the externalisation process remains an indirectly known phenomenon. Second, the data present a high level of generality insofar as they deal with ‘business services’ and do not consider the very heterogeneous services belonging to this category.

3.5.1.2. *Employment in ‘service occupations’*

This measure of externalisation deals with the number of workers in industrial or tertiary sectors, classified by occupation. Applied to business services, the measure considers the number of workers in ‘service occupations’ in the whole economy compared with the identical number of workers in specialised service enterprises. So, an approximated ‘rate of externalisation’ could consist in the following ratio: numbers of workers whose profession is ‘A’ employed in the enterprises with ‘A’ as activity, to total numbers of workers whose profession is ‘A’, whatever the activity of the enterprises.

Concerning this kind of measure, it is necessary to have on the one hand a relatively detailed breakdown of occupations and activities, and on the other hand a description of these occupations and activities precise enough to combine them. In France, the lists of activities and occupations allow such a combination, but the data that intersect occupation and activity only concern the ‘business service activity’ category as a whole and not its various components ⁽¹⁾.

We thus see that the existing statistical field needs to be developed in order to have measures of externalisation that allow for comparisons. However, these previous measures are static and reflect more a ‘rate of outsourcing’ than a ‘rate of externalisation’ ⁽²⁾. We present in Appendix 1 some measurements by combining ‘service occupation’ and the activity of the enterprise in the French case.

⁽¹⁾ The data are produced by the DARES in the enquête structure des emplois (DARES, 1998).

⁽²⁾ In order to obtain the latter, it would be necessary to isolate the growth of needs for business services and the process by which activities are ‘extracted’ from the production process of user firms.

3.5.2. Organisation of service activities and employment relations: Some hypotheses about measuring job creation potential of business service externalisation

We have seen that it is very difficult to appreciate the job creation potential of business service externalisation because the available statistical field does not allow us to isolate the growth of needs and the strict externalisation process. Nevertheless, the analysis of business service activities has led us to show that the forms of organisation depend on the characteristics of these activities. In this perspective, we intend in this section to study the working hypothesis that the job creation potential of business service externalisation is also influenced by the characteristics of business services and by the way they are conceived and produced. Two classes of arguments are used.

- First, it is necessary to consider the potentialities of obtaining productivity gains by externalisation. Several possibilities appear here: (1) the economies of scale reached in the service sector lead to job losses in this sector on the assumptions that, on the one hand, the division of labour and the specialisation that it generates allows for productivity gains, and on the other hand the needs and the demand for these business services are constant; (2) this previous argument would be compatible with the idea that the industrial sector would become more competitive after externalisation and such could be the case at the origin of job creations; (3) in a complementary point of view, the service sector, by generating productivity gains, also becomes more competitive and generates new demands from the industrial sector. The consequence would be job creation in the service sector. Finally, the total effect depends on the weight of job losses linked to productivity gains compared with these job creations in the service sector.

These speculations assume that there is a possible substitution between internal and external organisation of business service activities. Moreover, this substitution would be performed from the only cost differential between these forms of organisation. Nevertheless, we would argue that for many services, this substitution is not always possible because of the very characteristics of business services, and it is not always efficient for the firm when we consider determining factors not to be limited to cost comparisons ⁽¹³⁾.

In general, the available data on externalisation does not point to dominant behaviours that substitute one solution for another. For example, in the case of cleaning, which is a service prone to industrialisation, the ‘outsourcing rates’ reflect the diversity of behaviours in one country on the one hand, and the divergences of behaviours between European countries on the other. The rate is 30 % in Denmark, 55 % in France in 1994 and 70 % in the Netherlands ⁽¹⁴⁾ (Panorama de l’industrie communautaire, 1997).

The same conclusions arise with security. The ‘outsourcing rates’ vary greatly between European countries. Nevertheless, in this case, we have an example of a largely externalised

⁽¹³⁾ For such a discussion cf. Benhamou, Gazier in this volume.

⁽¹⁴⁾ The data are detailed in Appendix 2.

service: 60 % in Denmark and Germany, 90 % in France, 98 % in Italy and 66 % in the Netherlands (Panorama de l'industrie communautaire, 1997).

- Second, the job creation potential of business service externalisation depends on the way business services are produced and conceived. The study of the heterogeneity of business services has led us to consider various forms of externalisation within which we find co-conception and co-production. These services have a strong relational dimension that cannot be industrialised unless this dimension is deleted. Thus, we can assume that there is job creation potential in externalisation both in the service sector and in the industrial sector: in the service sector because there are few economies of scale potentialities, and in the industrial sector because it is necessary for the user firm to have an internal interface to co-conceive and co-produce the service with the provider.

This analysis can be illustrated by the study made by the European Community on externalisation of business services that shows the extent of the combination of internal and external forms of organisation for many services (55 % in computer services, 38 % in legal services, 30 % in engineering, public relations, research and development) according to a study made by Peat Marwich Mc Lintock for CCE (CCE, 1991).

3.6. Conclusion and policy implications

The development of business services employment is quite rapid today. We showed that part of it represents a statistical artefact. We underlined the complexity of the organisational determinants, as regards the employment relationships and the inter-firm relations surrounding these services. The interplay of these determinants may lead to situations characterised by low-level equilibria, and possible dual employment structures; for example, with hidden dependency of subcontractors, low training and low guarantee levels, or with restricted employment and low output.

Business services also present a high level of heterogeneity that needs to differentiate the modes of organisation and externalisation behaviour adopted by user firms. We have studied the 'make or buy' dilemma from two complementary perspectives; the transaction cost theory on the one hand and the competence perspective on the other, the two in combination with service approaches. Our representation of business service heterogeneity leads us to discuss the main propositions made by these theories of the firm and to show that these propositions depend on the characteristics of business service activities (the reach, the intensity of interactions, the degree of tangibility and the temporalities of services). Moreover, the problem of externalisation cannot be summarised as a simple transfer of activities and workers because it can take various forms, some of which imply the participation of the user firm in the conception and/or the production process.

At a methodological level, it is very difficult to measure the process of externalisation and its corresponding job creation potential. The existing statistical field does not allow for the isolation of the transfer of activities between firms and the growth of needs for business services.

Five main policy consequences stem from our analysis. They correspond indirectly to a rationalisation and a re-structuring of the sector.

An important new field of intervention and rationalisation emerges when one considers the connection between labour law and business law: there is a need for new rules, to clarify the legal structures for collective entrepreneurship, as well as the long-lasting relations between subcontractors and main firms. The same holds for the status of self-employed workers, who, with a flow of short-term contracts, are without the normal protection given to salaried workers. At stake is the visibleness of the real work situation, and the sharing of the risks in these activities.

The analysis of the job creation potential of business service externalisation needs more development of the statistical field on services and on the behaviour of the firm. For instance, there is little data about the internal production of services by user firms. Moreover, it is necessary to distinguish the various categories of services and to produce data about these categories (not about business services as a whole). We also stress the role of more or less hidden transaction costs in determining which kind of organisation could be chosen, which have consequences for the producers and the users. Here there is an information challenge because the management of these costs through flexible arrangements may well induce instability, risk spillovers and ill-perceived externalities.

One solution frequently adopted in the case of big risks and needed trust and loyalty is to build networks. However this is not a panacea, because networks need to be open, plentiful, and equilibrated in order to share risks and disseminate information. There is here a third policy target: structuring networks brings norms and cooperation.

- (1) There is a need for the homogenisation of mobility prospects for workers in the business service sector, especially through the right to training and access to promotions. In such a context, the flexibility stemming from the intense competitive pressure of the business service sector could be more accepted and socially controlled.
- (2) Finally, service employment and the job creation potential of externalisation must be differentiated according to the nature of services. The potential can be assumed to be higher in the business services corresponding to high-quality jobs for at least two reasons. First, for these kinds of services, the externalisation process does not correspond to a simple transfer with a substitution of internal and external solutions. Because these business services are co-conceived or co-produced, the growth of the service sector parallels the growth of employment in the user sectors. Moreover, the relational dimension of these services implies little economies of scale potentialities. Second, there is a growth of the needs for these services which influences the competitive advantage of the firms in a 'service economy' ⁽¹⁵⁾. So, the job creation potential stems as much from externalisation as from the growth of the needs.

⁽¹⁵⁾ See also Philpott in this volume regarding the 'weightless economy'.



Appendix 1

Box A1: The main theoretical basis of ‘make or buy’ problem: Contractual and competence perspectives

— Transaction cost theory (TCT): The contractual perspective

TCT poses the problem of activities organisation as a problem of contracting. The modes of organisation are defined as ‘governance structure’ which are contractual arrangements in which transactions are located. The major principle of the model is the following: ‘Transactions, which differ in their attributes, are aligned with governance structures, which differ in their cost and competence, in a discriminating — mainly, transaction cost economising way’ (Williamson, 1993, p. 127). Williamson (1985) defines three dimensions with respect to which transactions are differentiated: asset specificity, uncertainty and frequency ⁽¹⁶⁾. The matching of these three dimensions leads Williamson to determine the ‘efficient governance’, that is the one which minimises transaction costs. The issue is summarised in Table 2 which refers to Williamson’s works of 1991 and 1993 ⁽¹⁷⁾.

Table 2. *The organisation of transactions*

Investment characteristics Transaction frequency	Non-specific	Mixed	Idiosyncratic
Occasional	Market governance (classical contracting)	Trilateral governance (neoclassical contracting)	
Recurrent		Bilateral governance (neoclassical contracting)	Unified governance (forebearance)

Because of bounded rationality and uncertainty surrounding transactions, contracts are incomplete and need adaptative and sequential decisions that generate a risk of opportunistic behaviours from contractors. Thus, when the transaction implies specific investments, the ‘fundamental transformation’ (Williamson, 1985) entails the parties being in a situation of bilateral dependency which can lead the buyer to the decision of vertical integration. Resorting to internal organisation avoids repeated opportunistic negotiation linked to perturbations by appeal to the contractual device of authority and the hierarchical one in the work relationship. Thus, it is the *ex ante* choice of internal organisation that allows for the minimisation of the transaction costs linked to the *ex post* risk of opportunistic behaviour.

⁽¹⁶⁾ Uncertainty is assumed to be present in an intermediate degree that needs adaptative and sequential decisions. Frequency (occasional or recurrent) refers to the buyer activity on the market. Finally, asset specificity (non-specific, mixed, idiosyncratic) refers to investment characteristics.

⁽¹⁷⁾ The classification is slightly different in Williamson (1985); it does not differentiate between the contract law of unified governance and bilateral governance.

— The competence perspective

In this perspective, the firm is defined as a repository of competencies. Although it is still difficult to refer to an 'evolutionary theory of the firm', many contributions have analysed that work in the way of such a theoretical building ⁽¹⁸⁾. In reference to Nelson and Winter's book (1982), competencies are characterised by specificity and their dynamic characters. Competencies are specific because they are included in organisational routines and they possess a strong tacit dimension. Moreover, competencies are dynamic because they are subject to learning (Dosi, Marengo, 1994) which is an organisational, cumulative and collective process (Teece et al., 1994). For the firm's boundary problems, this conception has led to the definition of the firm from its 'core competencies' (Teece, 1988) from which it is possible to delimit its 'core business' and to measure its 'coherence'. A firm's 'core business' encompasses 'the set of competencies which define its competitive advantage' (Teece, 1988, p. 265). They include technological skills, organisational routines and capabilities, and complementary assets from which the firm can solve organisational and technical problems in one or more activities. The 'coherence' of the firm expresses the fact that 'their constituent businesses are related to one another' (Teece et al., 1994, p. 2). The evolution of core competencies is constrained by technological trajectories and by the complementary assets the firm has built in the past. Thus, the limits and the possibilities of evolution of the 'core business' are largely determined by the scope of competencies developed in complementary assets. Finally, the evolutionary perspective leads to emphasise the importance of the past and learning processes to determine the firm's boundaries.

⁽¹⁸⁾ For a presentation of the competence-based approaches, cf. Foss (1993), Hodgson (1998).

Appendix 2: An indirect measure of externalisation: Sector allocation of business service employment by speciality in France, 1987–94

Sector	All activities	Industry and agriculture NAP 15A: U01-U07 NAF 16 EA-EH			Tertiary without market services / Business services NAP 15A:U08-U14 (except U10) NAF 16: EJ-ER (except EN)			Market services / Business services NAP15A: U10 NAF 16: EN					
		Rate of variation 1987–94 (%)	Rate of variation 1987–94 (%)	1987	1990	1994	Rate of variation 1987–94 (%)	1987	1990	1994	Rate of variation 1987–94 (%)	1987	1990
Direction	- 33.4	- 39	47.9	48.5	43.8	- 13.3	32.9	31.6	42.8	- 53.8	19.2	20	13.3
Management and administration	- 15.4	- 22	35.3	36.4	32.6	- 2.1	46	44.9	53.2	- 35.7	18.7	18.7	14.2
Human resources	29	- 5.3	37.3	37.3	27.3	57	45.7	45.5	55.6	28.9	17.1	17.2	17.1
Organisation of production	1.9	- 0.1	83.5	84.5	81.8	7.8	11.2	9.1	11.8	21.8	5.4	6.4	6.4
Computing	4.8	- 16.7	30.9	30.7	24.6	- 6.5	35.7	31.2	31.8	36.9	33.4	38.1	43.6
Architecture	- 1.8	28.9	9.3	10.5	12.2	24.8	34.6	33.4	44	- 23.4	56.1	56.1	43.8
Geometer	- 13.4	- 22.5	72.4	70.4	64.8	76.6	11.3	17.4	23	- 34.8	16.3	12.3	12.3
Engineering, technical studies	11.7	- 0.2	69.6	68.8	62.2	2.2	9.8	8.9	9	56.2	20.6	22.4	28.8
Advertising, public relations	11.1	- 1.2	29	28.8	25.8	54.5	21.3	19.9	29.6	- 0.4	49.7	51.3	44.6
Inquiry and security	16	- 11.3	22.1	22	17	33	19.2	17.8	22	20.8	58.6	60.2	61.1
Cleaning	7.5	- 38.2	16.2	13	9.3	- 22.1	19.1	13.2	13.8	27.6	64.8	73.7	76.9
Secretarial and translating work	- 23.5	- 27.9	36.5	39.1	34.3	0.4	37	35.1	48.6	- 50.8	26.5	25.8	17
Total	- 10.4	- 20.1				- 1.6				- 8.7			

Source: Data produced by INSEE, Structure des emplois au 31 December, INSEE Résultats, Emploi-Revenus, Tableau III ⁽¹³⁷⁾.
Own calculation (Thèvenot, 1999).

For example, 76.9 % of the employees whose profession is cleaning were salaried in the business service sector in 1994. This is a crude measurement of the externalisation degree in this activity.

We have also calculated the rate of variation of the number of salaried classified by function or speciality. Thus, the number of cleaner has increased by 7.5 % between 1987 and 1994 in all activities, by 27.6 % in the business service sector, it has decreased by 38.2 % in the agricultural and industrial sectors. Moreover, the total number of salaried has decreased by 13.8 % between 1987 and 1994.

⁽¹⁹⁾ The data only concern the establishments that have more than 20 employees.

Appendix 3: Some illustrations of business service externalisation

1.1.1.1.3.1.1.1. The share of computer maintenance contracts

Share of enterprises that use maintenance contracts according to the activity sector		Share of enterprises that use maintenance contracts according to their size	
Sectors	Share (%)	Size	Share (%)
Industry	53	6 to 9 salaried	54
Services	53	50 to 100 salaried	64
Retail trade	62		
Wholesale trade	72		
Transportation	64		

Source: UFB-Locabail, in Xerfi, Secteurs 700–1997, Série 701, Services aux entreprises Vol. 2, p. 108.

The outsourcing market of cleaning (%)

Country	1989	1991	1992	1993	1994
Belgium	47	55	55	55	55
Denmark	23	25	30	30	30
Germany	—	65	65	65	65
Spain	37	55	60	60	60
France	43	46	48	50	55
Netherlands	55	58	63	67	70
Portugal	45	45	60	63	65
United Kingdom	20	30	35	39	40

Source: Fédération Européenne du Nettoyage Industriel (FENI), Panorama de l'industrie communautaire 1997.

Outsourcing rate of security, 1996, (%)

Country	Outsourcing rate
Belgium	78
Denmark	60
Germany	60
Greece	70
Spain	99
France	90
Ireland	82
Italy	98
Luxembourg	70
Netherlands	66
Austria	75
Portugal	70
United Kingdom	67

Source: Confédération Européenne des Services de Sécurité (CoESS), Panorama de l'industrie communautaire.

Externalisation level of business services in the European Community, 1988

	Origin of service		
	Exclusively external	Exclusively internal	Combination of external and internal
Sector			
Engineering and linked	56	14	30
Management consultancy	35	37	28
Advertising	49	24	27
Public relations	11	59	30
Computer services	22	26	55
Research and development	12	58	30
Legal services	41	21	38
Operational services	58	22	20
Country			
Germany	32	47	21
France	56	30	14
Italy	47	33	18
Netherlands	39	18	43
United Kingdom	34	23	43
Size (employment)			
0-50	37	44	19
51-500	56	22	22
501-1000	38	29	33
1001-5000	39	35	26
5000+	37	33	30

Source: Panorama de l'Industrie communautaire, 1991-92, Study of Peat Marwick Mc Lintock, 'The costs of non-Europe for business services', CCE, (1988).

Part III:

New perspectives of the service economy



Chapter 1

Weightlessness and the political economy of service sector job creation

John Philpott

1.1. Introduction

References to the ‘new economy’ are nowadays commonplace in books, political speeches and official policy documents. ‘New’ in this context means far more than simply ‘modern’. The underlying theme is that developed economies are increasingly knowledge dependent, founded on information and communications technology, and ever more geared to the production of services rather than primary and manufactured goods.

The new economy is thus a super buzz-phrase encompassing others such as ‘the knowledge economy’, ‘the information economy’, ‘the digital economy’, ‘the service economy’ and — most noteworthy of all — the ‘weightless’ (or ‘dematerialised’) economy. The latter term stems from the observation that the real value of what developed economies produce now far exceeds the physical weight of output. The initial observation is often attributed to Alan Greenspan, Chairman of the United States Federal Reserve. He noted in 1996 that whereas the weight of the United States output in the 1990s was little different from the 1940s the real value of output was three times higher.

The reasons for this are fairly straightforward. The service sector accounts for a larger proportion of developed economy gross domestic product (GDP) than a generation ago (the OECD average is now around 70 %). Technological improvements meanwhile have altered the physical attributes of manufactured goods, thereby making them lighter (miniaturisation being the most obvious example). Moreover, far more of the value of goods and services resides in the higher quality that richer and more sophisticated consumers demand of them, notably in the form of design and specification.

The labour market corollary is that the new economy is only capable of creating weightless work. Fewer workers are employed in the production of tangible goods and those that remain are increasingly knowledge workers — needed to improve the intangible qualities of products — rather than either unskilled muscle workers or routine skilled or unskilled manual operatives. This in turn leaves the service sector — which produces intangibles — as the sole source of net employment growth.

Economic weightlessness is a classic ‘oh yeah!’ fact — everyone is aware of the phenomenon in their everyday lives as workers or consumers but still surprised and intrigued when it is pointed out to them. The problem with such facts is that once heard the novelty soon wears off and they tend to be treated as statements of the blindingly obvious. With intangibles accounting for a greater share of what is produced, technology advancing, and much of the value of goods and services itself intangible, it is perhaps not surprising that developed economies have grown without gaining weight and offer new forms of light employment.

For many economists the temptation is thus to dismiss references to the weightless economy as little more than trendy terminology for the technological change and deindustrialisation that has characterised developed economies since the late 1960s — the implications of which have been the subject of debate for many years. However, to do so is short-sighted. As this chapter demonstrates, an examination of the issues highlighted in the literature on the new economy and economic weightlessness opens up fresh perspectives on discussion of the job creation potential of the service sector in Europe and related policy issues.

For example, the new economy literature challenges apocalyptic ‘end of work’ scenarios of economic development. Work is becoming weightless because the types of jobs being created are different, not because there is less need for workers. Indeed, affluent service-based economies have the potential to create more jobs, not fewer. In view of this the fact that deindustrialisation has coincided with mass unemployment in the EU during the past two decades is paradoxical. The explanation lies partly in relatively slow rates of output growth. However, more important, policy failures have prevented many EU Member States from maximising the employment potential of the service sector, as evidenced by the EU’s service sector ‘job deficit’ when compared with the United States.

Employment in services accounts for around 55 % of the working age population in the United States but only 39 % in the EU (the United Kingdom figure is around 50 %). Whilst this deficit may be considered bad news when viewed as a measure of relative labour market performance, it is good news insofar as it indicates unfulfilled potential for service sector employment in the EU. Making use of this potential could help the EU move back toward full employment — which explains the European Commission’s interest in the current Resnet project.

Yet mention of the need to create more service sector jobs is associated with unease in many EU Member States where for most of the post-war era manufacturing has been considered the mainstay of ‘good’ employment. Service sector jobs, by contrast, are often portrayed as being mainly poor quality low-paid jobs, summed up in the condescending phrase ‘McJobs’. A focus



on the new economy literature is also useful in this respect, because it both highlights what is required to create weightless service sector jobs and demonstrates that, contrary to the popular stereotype, such jobs provide high as well as low quality employment, much of it knowledge-based. However, this literature makes no promise of an automatic guarantee of a jobs Nirvana. Weightlessness is not the same as painlessness; there are winners and losers in the new knowledge-driven economy, an outcome that poses serious policy questions.

Section 1.2 of this chapter discusses the causes and consequences of weightless growth and assesses what this means for employment and the labour market. The chapter draws primarily upon the United Kingdom literature and data but should be of interest to the wider EU audience ⁽¹⁾. Section 1.3 then considers the related broad policy implications and sets out criteria that policy-makers might wish to take into account when deciding upon the relative merits of policies designed to create service jobs in the private, public and social economy sectors.

1.2. Weightless growth and employment

Many conventional accounts of deindustrialisation offer a fairly pessimistic view of the effects of structural change on employment. Improvements in productivity combined with shifts in demand as incomes grow reduce the number of jobs in primary and manufacturing industries, with labour transferring into service sectors where productivity is lower.

Technological change plays a large part in this story — often in association with globalised trade — with the corollary that productivity gains will eventually spread into services leaving only service jobs that are immune to technology as the mainstay of employment. Whilst this conclusion is far removed from the simplistic ‘end of work’ scenarios of economic development peddled by crank futurologists, the picture that emerges is nonetheless rather sobering. Not so much the weightless economy as the anorexic economy.

Accounts of the new economy, by contrast, paint a more optimistic vista of job and income-rich weightlessness. Human creativity and skill is presented as being vital to making the most of knowledge-based technology, while ‘the human touch’ is essential to the provision of a wide variety of personalised services, both high-tech and low-tech. This section looks at the central role played by knowledge in the weightless economy and how this affects developments in the labour market.

⁽¹⁾ This section draws heavily upon a number of key sources. Coyle, D. (1997), UK Department of Trade & Industry (1998), Quah, D. (1999) and Leadbeater, C. (1999).

1.2.1. The knowledge economy

Knowledge is generally considered the main driver of the new economy ⁽²⁾. Of key importance are four main types of knowledge activity, all of which are intrinsically light and intangible:

- Information and communications technology, including the Internet.
- Intellectual property, including not only patents and copyrights but more broadly brand names, trademarks, advertising, financial and consulting services, health care and education.
- Electronic libraries and databases, including new media, video entertainment and broadcasting.
- Biotechnology, which include carbon-based libraries and databases as well as pharmaceuticals.

Knowledge is not only an essential input to these activities but also the prime output, either in the form of knowledge products or as systems for managing and transmitting knowledge. The various activities are centred on specific knowledge-based sectors of the economy. These in turn can be classified as high-tech industries (aerospace, computer and office equipment, communications, equipment and pharmaceuticals) and knowledge-based services (telecoms, computer and information services, finance and insurance, education and health). Together, the knowledge-based sector accounts for more than 50 % of OECD-wide business sector value added — up from 45 % in the mid-1980s ⁽³⁾. Investment in knowledge (research and development, computer software and public and private spending on education) represents about 10 % of OECD-wide GDP. However, the influence of the knowledge economy extends far beyond the boundaries of these sectors.

1.2.2. Knowledge as an engine of growth

Knowledge products and services can be applied throughout economies and indeed across geographical borders. As a result, information and communications technology (ICT), for example, has been likened to steam power and electrification in previous eras — the new knowledge-based technological mode affecting not just a few products and services but practically every product and service ⁽⁴⁾. Improvements in ICT have both reduced the cost of computerisation and made information systems less expensive and more effective. Between 1992 and 1999 alone the United States quality adjusted computer hardware price index shows a 40 % reduction for large computers and a 90 % fall in the case of personal computers.

⁽²⁾ Quah (1999) op. cit.

⁽³⁾ OECD (1999).

⁽⁴⁾ Freeman, C. (1996).



Examples such as these make it easy to understand why the generation and application of knowledge-based technology is said to be the major growth engine of the new economy. However, equally important is the fact that all of these knowledge products and systems can be used frequently and simultaneously by business and consumers without depleting the initial stock. This quality, referred to as ‘infinite expansibility’, opens up even greater potential for economic growth albeit creating a dilemma for the producers of knowledge products and society at large ⁽⁵⁾.

A key characteristic of knowledge products is that the marginal cost of production falls toward zero. Given that in competitive markets product prices are driven down to marginal cost, companies may be reluctant to invest in knowledge products unless they can gain sufficient market power to enable them to price above marginal cost. In some cases this market power is sanctioned by the state in the form of patents — an acknowledgement that there is a trade-off between the economic and social advantages of making the fruits of knowledge available at the lowest possible price and the need for incentives to produce knowledge products in the first place. In general, however, governments are keen to foster product market condition. As a result, companies seek to gain market power by clearly distinguishing their products from those of competitors — hence the growing importance of brand names and advertising in the new economy.

1.2.3. Explaining the ‘productivity paradox’

Despite the obvious growth potential of knowledge-based technology, commentators have often questioned the degree to which the developed economies are experiencing a technological revolution. Best known is Solow’s ‘productivity paradox’ — summed up in the Nobel Laureate’s much quoted comment that ‘you can see computers everywhere but in the productivity statistics’. Growth in productivity and output were faster in the old industrial era of the 1950s and 1960s than in the 1980s and 1990s. Several explanations have been suggested for this, ranging from greater difficulty of measuring output in service economies to the slow diffusion of technology.

The most important explanations refer to problems surrounding the effective transfer and absorption of knowledge technologies. Knowledge is truly transferable only if formalised and codified. However, a lot of the knowledge actually being applied in developed economies is of an informal or tacit kind. Whilst this can be a powerful source of competitive advantage for individual companies and/or nations, its power as a general driver of improvements in productivity and economic growth is more limited. Perhaps the most persuasive explanation, however, is that which relates to what is called the ‘inherent unknowability’ of knowledge products and systems ⁽⁶⁾.

⁽⁵⁾ Quah (1999) op. cit.

⁽⁶⁾ Quah (1999) op. cit.

Put simply, this means that, when confronted with new forms of knowledge, businesses and consumers are often uncertain about how to use them and perhaps even suspicious of them. It thus takes time before the potential of knowledge can be fully utilised. It has been suggested that the time lag could amount to more than a generation. However, there is optimism that recent signs of a productivity improvement in the United States — productivity is currently rising at a rate of 3 % per annum compared with just 1 % a decade ago — indicate that the productivity paradox is beginning to be resolved.

In many societies the ‘tried and trusted’ is preferred to the new, while more generally the ‘pre-tech’ generation are slower to adapt to change than the young. In October 1999, for example, the United Kingdom Prime Minister, Tony Blair, had his first tutorial in the use of the Internet, commenting in the process that his children were putting him to shame in the computer stakes. In a similar vein, consumers may initially suffer from ‘technophobia’ when confronted by new knowledge-rich products that limit demand. In the 1980s, this was evident with regard to the computer-based products but consumers have since been on a fast-rising learning curve, as evidenced by the number of ‘wired’ households now making use of the Internet. At present, the biggest source of technophobia is seen in consumer wariness of genetically modified foods which may limit the growth potential of this aspect of the biotechnology industry.

Despite constant talk of technological revolutions most developed economies thus remain a mix of the new and the old with many businesses, workers and consumers blissfully attuned to the latter. Some British commentators, for example, argue that too many companies remain wedded to low quality products involving little knowledge input because high-quality product strategies require substantial investment and radical changes in corporate organisation ⁽⁷⁾. This of course gives rise to externality problems since what makes short-run business sense for these companies is not in the long-run interest of society as a whole.

This kind of cultural or institutional aspect to the speed with which technology is applied and spread throughout the economy is also relevant to broader debates about the role of technological change in the process of economic growth. Whereas technological progress has traditionally been viewed as ‘manna from heaven’, it is increasingly recognised that the underlying growth rate depends critically on the way in which market and social institutions are geared to the generation and utilisation of knowledge ⁽⁸⁾.

The latter view stems from ‘post-neoclassical endogenous growth theory’ — once famously referred to by the United Kingdom Chancellor of the Exchequer, Gordon Brown, in a speech much lampooned by the media. This rather esoteric sounding theory — which boils down to the conclusion that institutions matter and that policy can make a difference, especially by encouraging investment in knowledge skills and technology — nonetheless underpins much of the current United Kingdom Government’s approach to making the most of the new economy so as to raise productivity, growth and employment.

⁽⁷⁾ Keep, E. and Mayhew, K. (1998).

⁽⁸⁾ Romer, P. M. (1990).



1.2.4. Weightlessness and employment

Debate surrounding the impact of knowledge-based technologies on productivity and growth spill over into debates about ‘the future of work’. Some commentators talk of revolutionary change in the labour market while others temper this by highlighting the strong degree of continuity that exists⁽⁹⁾. Since as already mentioned, economies are an amalgam of the old and the new, evidence can be used to support either perspective. United Kingdom data, for example, show little change in average job tenure since the 1970s casting doubt on the common assertion that employment is becoming more unstable and that the ‘job for life’ is a thing of the past. By the same token, however, there have been some significant changes in the industries in which people work and the types of jobs being performed which means that the labour market at the start of the third millennium is very different from that of a generation ago.

At first sight the observed pattern of employment change in the United Kingdom and most OECD economies would appear consistent with the standard account of structural change. Jobs have been lost from all parts of manufacturing — light high-tech knowledge-intensive ‘sunrise’ industries as well as traditional heavy ‘sunset’ ones — with net job creation confined to the service sectors. Manufacturing now accounts for fewer than one in five United Kingdom jobs, down from one in three thirty years ago.

The decline in manufacturing employment is explained partly by productivity gains resulting from technological change and partly from productivity gains inspired by the need to reduce costs in the face of competition from non-OECD countries. In the United Kingdom, periodic bouts of job shedding from manufacturing since the 1980s have also been associated with the overvaluation of sterling on currency markets.

The relative contribution of technology and trade (or globalisation) to the loss of manufacturing jobs has been a hotly contested topic for several years⁽¹⁰⁾. The jury is still out on this issue albeit the consensus favours the technology story (or some link between trade and technology). However, what is apparent is that there is no simple relationship between technology, productivity and employment growth in the service sector.

Although productivity growth in some knowledge-based service sectors like telecommunications has resulted in a fall in employment, knowledge-based service sectors as a whole have experienced job growth alongside productivity gains in response to rapidly growing demand from businesses and consumers. The index of employment in knowledge-based industries in the OECD thus rose from 100 to 118 between the mid-1980s and mid-1990s⁽¹¹⁾. In the United Kingdom employment in knowledge-based services has grown faster than in areas like retailing, the largest increases being in finance, insurance, real estate and

⁽⁹⁾ Meadows, P. (1999).

⁽¹⁰⁾ Freeman, R. (1996).

⁽¹¹⁾ DTI op. cit.

business services. The share of the latter in total UK employment has risen from around 10 % to around 20 % since the early 1970s ⁽¹²⁾.

1.2.5. The new micro-service economy

These sectoral shifts show only one dimension of the changing profile of jobs in the new economy. Even more revealing are occupational data ⁽¹³⁾. These highlight three clear trends since the early 1980s. First, a marked decline in manual employment, skilled and unskilled; the occupational dimension of the fall in manufacturing jobs. The share of skilled manuals in total employment has fallen from 18 to 13 %. Secondly, a rise in skilled employment of people performing managerial, professional and technical jobs. The share of professional workers has risen from 7 to 13 %. And thirdly a rise in essentially low-skilled employment performed by a group classified as ‘personal and protective’ workers — their share of total employment has doubled to 14 %.

Manufacturing accounts for some of the growth in skilled employment; net job loss in the sector has coincided with increased demand for knowledge workers — engineers, scientists, designers and the like. However, the major determinant of employment growth, whether high- or low-skilled jobs, is increased demand from businesses and consumers for a wide variety of professional and/or personalised services. These range from high-tech knowledge-based services to ‘high touch’ services. Collectively these suppliers comprise a new broad subsector of micro-service providers, the emergence of which can be traced to developments in both the corporate and household sectors of the economy.

1.2.6. Outsourcing and networking

Within the corporate sector increased demand for micro-services stems from a tendency for large companies to focus on a core of essential functions and buy-in non-core services rather than produce them in-house and incur all the necessary overhead costs. This practice known as ‘outsourcing’ challenges the concept, initially formulated by Coase, of companies as large virtually integrated corporate citadels operating on the principle of command and control.

Bought-in services commonly include catering and cleaning as well as long-standing professional services, like law and accountancy. However, businesses are also buying-in new professional services, such as software consultancy and web site design. Services of all these kinds are supplied either by specialist contracting companies of varying size, or by self-employed contractors or consultants (often known as ‘portfolio workers’ if they provide services to a number of business clients).

It is important not to confuse outsourcing with the common notion that companies are reducing their core permanent workforce to the bone and relying instead on a periphery of

⁽¹²⁾ Institute of Employment Research (1999).

⁽¹³⁾ Ibid.



temporary workers who can be taken on and laid off at will and incur fewer staff overhead costs. The employment effects of these two distinct practices are very different. Whereas outsourcing appears to be a fairly widespread practice in the United Kingdom there is little evidence of a marked trend to toward adoption of the core-periphery workplace model ⁽¹⁴⁾.

Temporary employment accounts for only 6 % of the employed workforce in the United Kingdom, little different from a decade ago.

In statistical terms it is sometimes argued that outsourcing of services by manufacturing companies exaggerates both the decline in manufacturing employment and the rise in service employment. As a result differences between economies in the degree of outsourcing can distort international comparisons of the relative shares of manufacturing and service employment. A related but broader argument is that outsourcing does not lead to net employment generation in the economy since outsourced jobs provided by micro-service enterprises or the self-employed would in any event exist within large companies. Anecdotal evidence abounds of individuals leaving large companies as employees on a Friday only to turn up the following Monday as self-employed consultants (which explains current controversy in the United Kingdom over the tax treatment of consultants) ⁽¹⁵⁾. Moreover, if contracting firms can supply outsourced services more efficiently outsourcing might even reduce employment.

Arguments such as these are often associated with the ‘manufacturing matters’ view. This questions whether economies can be truly serviced based on the grounds that manufacturing is the prime source of income to be spent on services. In this respect it is necessary of course to distinguish the contribution of manufacturing to output from its contribution to employment; even a healthy manufacturing sector is no longer a source of net employment generation. However, debates over the relative primacy of manufacturing or services anyway appear rather stale in the new economy where knowledge is the wellspring of growth — a conclusion that itself has some bearing on the relationship between outsourcing and employment.

Although the practice of outsourcing is normally associated with low-tech services such as catering and cleaning, as already mentioned it also encompasses the buying-in of knowledge skills from ‘ideas’ contractors, like computer software or design consultants. It is now said that companies make use of such external knowledge skills by utilising ICT to establish strategic or creative networks — a phenomenon referred to as ‘virtual integration’ or ‘wired world’ ⁽¹⁶⁾. Such networks or joint ventures can result in long-standing collaborations or fluid project-by-project relationships that can be established and disestablished (what might be called ‘velcro’ or ‘Lego’ ventures). Networks can also involve partners all around the world using ICT to the

⁽¹⁴⁾ See, Philpott, J. (1999).

⁽¹⁵⁾ Burton, J. (1999).

⁽¹⁶⁾ Leadbeater op. cit. See also DTI (1999).

full, albeit in practice a lot of collaboration involves business clustering. However, either way a strong degree of trust is required to make them work.

Specialist small businesses or self-employed consultants are considered crucial to the effectiveness of such networks since they impart flexibility, flair and creativity of a kind that larger corporations are not necessarily able to foster themselves. This is very different from low-tech service outsourcing and much more important to the overall growth and employment potential of the economy. Knowledge outsourcing should not therefore be considered as simply reallocation of labour from one part of the economy to another.

The suggestion that networking will inevitably provide a major boost to employment at the knowledge end of the micro-service economy is itself questioned, however. For reasons already discussed, some commentators consider 'wired world' an idealised typology in an economy where many businesses still seek to operate in low-tech markets. Consequently, although knowledge-based networking might be an identifiable trend it will not necessarily become a dominant corporate form. Moreover, other commentators believe that even if more businesses do gear-up for the knowledge economy the large corporation will stage a renaissance ⁽¹⁷⁾.

The idea here is that investors will place ever greater weight on the value of companies' human capital and knowledge talent, encouraging businesses to protect knowledge assets by developing them in-house rather than buying them in. Likewise, companies will seek to secure a comparative advantage in product markets by developing tacit knowledge within corporate boundaries rather than networking on the basis of transfer of codified knowledge.

In this context ICT networking will still be conducted but intra-firm rather than inter-firm. If so, the rise of the portfolio workers could turn out to be a short-lived phenomenon of the 1980s and early 1990s rather than a long-run trend, with the next decade witnessing an increase in teleworking involving intra-networked employees. This might be one reason why self-employment has fallen in the United Kingdom in the 1990s having experienced a meteoric rise in the 1980s (self-employment currently accounts for 12 % of total United Kingdom employment, only a shade higher than in the mid-1980s). There is, however, no evidence as yet of a marked rise in teleworking despite the best efforts of commentators to talk-up the phenomenon (estimates of the share of teleworking in total United Kingdom employment range from 1 to 5 % depending on the definitions used).

1.2.7. Households

Demand for professional and personalised services within the household sector has grown out of a combination of two trends: rising real incomes and an increase in the proportion of dual or multi-earner households.

⁽¹⁷⁾ Ibid.



In recent years considerable public and policy attention has been given to workless households. However, this has been merely one aspect of a growing polarisation of work. At the other end of the scale there has been a rise in the proportion of people living in 'job rich' multi-earner households — up from 70 % in the mid-1970s to 80 % in the mid-1990s ⁽¹⁸⁾. The latter development reflects an interaction between the types of jobs on offer in the new economy and social change which has increased female participation in the labour market.

Women gaining professional qualifications have taken advantage of rising demand for workers with problem-solving and creative skills. More generally women have benefited from the shift into service sector employment which has offered greater opportunity for part-time work, enabling women to combine jobs with domestic roles. However, all of the increase in female working since the late 1970s has been in households where the partner also works.

The obvious difference between dual earner households and the traditional sole earner households of the 1960s and 1970s is that they have higher incomes and also value time more highly. This means that they are more likely to purchase goods and services that reduce time spent on household chores (everything from convenience foods to fast food and domestic help) and higher quality goods and services that can be enjoyed during whatever spare leisure time they have available (whether a visit to a top class restaurant, the local multi-plex cinema or a cosmetic makeover).

As a result, the types of personalised services that are in demand can be quite wide ranging, with professional services at one end of the spectrum and services like house cleaning or dog walking at the other. The mid-range includes services combining high-tech with high touch — music tutors, chiropractors, interior designers and homeopaths, etc. — offering a personal service involving some specialist skill or knowledge (albeit based on qualifications with varying degrees of professional standing). Unfortunately, this is a very under-researched area and it is not known to what extent these services are supplied by sole traders as opposed to somewhat larger businesses. What is likely, however, is that demand for such services will be cyclical.

The combination of high income and scarce leisure time is most marked in dual earner professional households (who may have earned income in excess of GBP 70 000 per annum) ⁽¹⁹⁾. These are not only capable of purchasing a large volume of services but also the widest variety of high and low value added services. Because such households tend to be rich in knowledge and information as well as income this can result in increased demand for services such as Internet shopping and banking. This raises the potential for job creation in the growing e-commerce sector, although the overall impact on employment will depend on the extent to which wired shopping opens up new markets or simply substitutes for existing jobs in retail or financial services.

⁽¹⁸⁾ Gregg, P. and Wadsworth, J. (1996).

⁽¹⁹⁾ Hutton, W. (1999).

The use of information technology in this way to some extent de-personalises the provision of these services since it breaks the physical or geographical link between purchaser and provider. Such services occupy cyberspace rather than physical space which means that jobs created as a result of Internet shopping and banking are not necessarily located in traditional retail centres. However, this is still not the case where the human touch, rather than the disembodied human voice or electronic impulse, is essential to the service provided.

In affluent areas with agglomerations of high-income households, localised expenditure on personalised services can thus be considerable. Some estimates suggest that the average dual income household in London spends GBP 5 000 each year on services of this kind (which may be an underestimate because of informal tax dodging in the supply of personalised services) ⁽²⁰⁾. Given that these professional households comprise the knowledge elite of the new economy it is possible to observe a link between the rise in the numbers of people living in knowledge occupations and those engaged in the personal and protective occupations.

1.2.8. Weightless worries

Despite the potential for growth in employment of all kinds in the weightless economy the fact that there are losers as well as winners nonetheless raises concern about ongoing developments in the labour market ⁽²¹⁾.

It is important to appreciate that the knowledge economy has posed problems for a wide variety of workers, not just manual workers shed from manufacturing. For example, certain categories of manufacturing workers have been displaced as companies have downsized and restructured managerial hierarchies. Whatever the impact of the knowledge-based technology on the Coasian corporate citadel it is evident that Tayloristic 'top-down' management practices have been eroding. More companies have introduced flatter management structures and operate by way of team working and internal networks ⁽²²⁾.

Banks and financial institutions meanwhile have been rationalising high street branches and instead establishing more call centres, resulting in net hiring of call centre staff but a reduction in more traditional forms of clerical work. Call centres have been identified as the fastest growing source of new jobs in the United Kingdom, with between 150 000 and 350 000 employees at present according to available estimates. Call centres can operate at lower cost and, most important of all, around-the-clock. There is concern that this is leading to the emergence of a '24 hour society' with adverse consequences for workers and their families albeit criticism that call centres offer only low pay and poor working conditions and are plagued by high labour turnover is not always justified ⁽²³⁾.

⁽²⁰⁾ London Evening Standard, 20 September 1999.

⁽²¹⁾ Coyle op. cit.

⁽²²⁾ See Cully, M. et al. (1999) Britain at Work. Routledge.

⁽²³⁾ Incomes Data Services (1999). See also Mital (1999).



What is significant is the fact that call centres do not have to be located close to the consumer in order to provide services. Net job creation in call centres may therefore be of little comfort to workers in financial service sectors made redundant by high street branch closures. Moreover, the fact that proximity to the consumer is no longer a pre-requisite of service provision in the information age raises the spectre of ‘service globalisation’. This is the possibility that information-based service sector jobs might be lost as a result of employers transferring data processing tasks etc. to countries with lower labour costs. Within the United Kingdom, for example, call centre jobs tend to be created in low-wage areas where unemployment is high. While such jobs are normally welcomed the fear is that, should wage levels rise, jobs will move away.

Knowledge-driven restructuring of the various kinds described above, combined with justified or unjustified worries about globalisation, almost certainly underlies a heightened sense of job insecurity in United Kingdom society. It is currently fashionable for United Kingdom commentators to argue that increased job insecurity is a myth, pointing to evidence to show that the proportion of workers experiencing concern about losing jobs has not changed since the mid-1980s. The inference is that the sense of insecurity has been whipped up by opportunist politicians and a scaremongering media. It should be remembered, however, that United Kingdom unemployment in the mid-1980s was double the rate in the 1990s. A fall in job insecurity might therefore have been expected, rather than constancy⁽²⁴⁾. This is likely to reflect the fact that even in a relatively buoyant labour market workers at the sharp end of structural change may feel insecure.

For example, according to opinion polls around half the United Kingdom workforce fear being left behind with regard to developments in information technology. Such fears may well be heightened amongst workers with an older knowledge ‘vintage’ — especially older men, a group that have experienced a substantial reduction in average job tenure since the 1970s.

Job fears might also stem from the emerging pattern of employment change by occupation as discussed in section 1.5. There are more well paid knowledge jobs and more less well paid ‘personal and protective’ service jobs but fewer ‘mid-range’ jobs of a kind that were once plentiful in manufacturing. Moreover, the pay gap between knowledge workers and the remainder of the workforce has grown as the pay of the knowledge elite has accelerated. In the United Kingdom, the ratio of the top to the bottom of the male earnings distribution rose from 2.5 to 3.1 between the late 1970s and the mid-1990s.

Higher pay at the top of the distribution is observed in its most extreme form in the ‘winner-takes-all’ phenomenon. This arises where information technology and/or the growth in international markets enables highly talented individuals to command astronomic salaries far in excess of the average for their profession. For example, cheap and easy replication of music

⁽²⁴⁾ Felstead, A. et al. (1998).

and videos opens up mass markets for the world's top entertainers. Cross border competition likewise drives up the pay of company executives.

What is even more interesting, however, is that a kind of 'winner-takes-all' effect is seen within all occupations, that is, the pay gap is not only widening between different groups of workers but also within different groups of workers. Whilst the reasons for this are not entirely clear, it would appear that in the new economy workers are being rewarded for that 'extra something' — the undefinable human element people bring to the labour market whatever their position in the job hierarchy.

A mid-range worker is likely to view the 'hollowing-out' of the labour market and the resulting inequality with some trepidation, especially if unprepared for the knowledge economy. Workers in this situation who worry about their employability may thus feel insecure not because of fear of imminent job loss but instead because of what might happen if they were to lose their job. Those unable to 'trade-up' in the new economy may worry that they will have to trade-down in order to stay in work and accept lower pay (United Kingdom workers who lose their jobs typically find that re-entry jobs on average pay around 20 % less).

1.2.9. New economy, third way

The shifts in labour demand that give rise to weightless worries are at the root of the structural unemployment and/or growing inequality that one way or another bedevil all the EU Member States as well as other developed economies. Within Europe this gives rise to a rather polarised debate founded on the assumption that societies inevitably face an adverse trade-off between 'low pay or no pay'.

On one side, there are those who advocate worksharing or a large dose of citizens income transfer to shield the losers from social exclusion. On the other side, there are those who call for deregulated labour markets and radical welfare reform to ensure that the losers are priced into jobs.

Those in-between include traditional Keynesians who attempt to side-step the trade-off by arguing that Europe's employment problems have largely macroeconomic causes and thus require aggregate demand side solutions.

The in-betweens also include those who acknowledge the existence of structural problems but argue that the notion of a 'low pay or no pay' trade-off is far too simplistic. On the basis of an observation of the way in which relative demand is shifting in the new economy the latter conclude instead that modern developed economies can enjoy high rates of growth and employment and, moreover, are capable of creating well paid as well as low paid jobs.

The corollary is that this positive outcome will not occur automatically in the absence of an appropriate policy response designed to create conditions of macroeconomic stability, foster improvements in productivity and address structural labour market problems.



This type of conclusion has much in common with so-called Third Way thinking; not surprisingly there is a strong Third Way element in much analysis of the new economy. However, the consensus in favour of this kind of policy approach extends well beyond those normally associated with the Third Way. The remainder of this chapter thus considers the mix of employment policies likely to be most conducive to the creation of jobs in the weightless economy.

1.3. Employment policy in the weightless economy

In terms of micro and employment policies the response to the economic challenges posed in the new economy requires measures that, (a) increase the supply of knowledge workers to all sectors of the economy, (b) facilitate the development of market and social institutions conducive to the best use of knowledge, (c) foster entrepreneurship and the creation of service sector jobs and (d) adjust tax and benefits systems to support low productivity workers in employment rather than in unemployment or inactivity.

These are necessary conditions for the establishment of full employment and will result in net job creation if implemented in the context of macroeconomic and industrial policies that ensure macroeconomic stability and encourage improvements in productivity.

Given the structural changes affecting developed economies net job creation will be confined to the service sector. This section briefly examines the general conditions for service sector job creation in the new economy and then sets out criteria against which to judge the relative merits of job creation in the private, public and social economy sectors.

1.3.1. General conditions for service sector job creation

The most basic requirements for job creation in the new economy are an increase in the supply of knowledge workers, flexible internal workplace structures that can make the best use of knowledge workers, competitive product and capital markets, and employment friendly tax and benefit systems.

Variations on this basic theme — with adjustments made to suit individual ideological whim — can be seen in policy prescriptions flowing from the G8 and the OECD, as well as in the recommendations of the high-level group established by the European Commission to study the economic and social implications of industrial change ⁽²⁵⁾. They of course provide the essence of the four pillars of the European employment strategy and the related employment guidelines. The guidelines, therefore, provide a useful reference point for discussion of the conditions needed for job creation.

⁽²⁵⁾ See OECD (1992). See also European Commission (1998).

Increasing the supply of knowledge workers will not only meet growing demand for such workers but also enable a faster rate of growth in productivity and output, thereby creating higher incomes and increasing demand for employment as a whole. To achieve this, education and lifelong learning policies need to instil the ability to use and impart knowledge. This implies the teaching of information management, personal networking skills and problem solving skills. In other words, education and initial training should focus primarily on the provision of generic skills, key skills and ‘soft’ (that is, personality) skills rather than narrow specific academic or vocational qualifications ⁽²⁶⁾.

In the new economy workers benefit most from transferable skills that offer access to work, the ability to benefit from lifelong and work-based learning, and to switch between a range of work functions and careers. Several of the guidelines contained within the improving employability pillar are consistent with this requirement. However, a larger supply of skills will not raise productivity, growth and employment in the absence of flexible working arrangements and greater product and capital market flexibility — which is why the guidelines on developing entrepreneurship and encouraging adaptability are equally as important.

A key aim should be to foster a United States-style entrepreneurial culture. It is thus encouraging that the developing entrepreneurship guidelines encourage Member States to improve the availability of venture capital, to reduce overhead costs and administrative burdens on business, and to reduce tax obstacles to small business formation.

At present, budding entrepreneurs in the United States find it easier to obtain venture capital than their EU counterparts and face a regulatory environment which makes it relatively easy to set-up and operate (for example, in terms of allowable hours of operation and planning restrictions, etc.). This helps increase the contestability and competitiveness of United States product markets and is arguably the main reason why employment rates in Europe are lower in all parts of the service sector, high-skilled and low-skilled ⁽²⁷⁾.

This fact should not be overlooked as it is often implied that the United States outperforms the EU only because it has a very de-regulated labour market and minimal welfare provision that encourages the creation of poorly paid service jobs. United States’ employers face few restrictions over hiring and firing staff and can tap into a ready supply of low wage labour. The minimum wage and labour taxes are low. With limited benefits jobless people have little option but to take low-paid jobs (many then receiving annual tax credits to boost their incomes). Consequently, businesses are able to operate and create jobs in low value added service sectors where profit margins are tight.

However, whilst this undoubtedly leads to the creation of a lot of low productivity jobs it is necessary to remember that the United States has a relatively large pool of low-skilled labour. It is arguable therefore that United States-style business practices would be more beneficial to

⁽²⁶⁾ Seltzer, K. and Bentley, T. (1999). Also Westwood, A. (1999).

⁽²⁷⁾ European Commission (1998).



the creation of higher productivity jobs in the EU because the EU's generally superior education and training systems provide employers with a better supply of skilled labour. Although a relatively high proportion of people complete upper secondary schooling in the United States, a relatively high proportion also leave school with poor basic literacy and numeracy skills ⁽²⁸⁾.

As for the EU's own pool of low-skilled labour the 'low pay or no pay' trade-off can be alleviated by measures that offer greater incentives to businesses to create job vacancies, and to individuals to fill them, at existing real wage levels. This objective is pursued by the improving employability guidelines on activation, and by the developing entrepreneurship guidelines relating to the possibility of lower labour taxes for low-wage labour and reductions in VAT on labour intensive services.

1.3.2. The relative merits of private sector, public sector and social economy jobs

Policy-makers may be concerned not just with the overall level of service sector job creation but also the sectoral distribution, especially in the face of market failure. For example, private entrepreneurs may fail to supply certain types of social service, be reluctant to set-up in high unemployment areas and/or be reluctant to employ certain groups, such as individuals with multiple disadvantages in the labour market.

As a result, it may be deemed necessary, or considered preferable, to create service sector jobs outside the private sector. The public service sector has traditionally been the main source of such non-market employment. However, the so-called 'social economy' — consisting of non-profit distributing organisations producing goods and services to meet particular social needs — is increasingly identified as a potential source of service sector job creation (as evidenced by the 1999 employment guidelines).

However, policy choices may be constrained. There may, for example, be structural or financial limits on job creation outside the private sector. Assuming that EU Member States remain committed to fiscal consolidation within the constraints set by EMU and/or governments are unable or unwilling for political reasons to finance employment creation by raising taxes, there is likely to be an imperative for job creation measures that involve low, zero (or perhaps even negative) net cost in terms of public finances.

In view of this, it is useful to establish criteria against which to assess the contribution that an expansion of employment in different sectors of the economy might make to overall economic and social well-being. These criteria considered below are: (1) targeting of jobs, (2) the cost of job creation to the public finances, (3) productivity, (4) pay and conditions of employees and (5) scope for job creation.

⁽²⁸⁾ The United Kingdom Department for Education and Employment and Cabinet Office (1996).

1.3.3. Targeting of service sector jobs

When it comes to targeting, the public and social economy sectors score more highly than the private sector. Social economy organisations in particular target their services at disadvantaged groups and distressed communities, often providing jobs to unemployed people from those communities. Indeed, although cooperatives and mutuals have a long tradition, much activity in the social economy over the past two decades has been a direct response by voluntary associations to the unemployment and social distress caused by the withdrawal of private investment from many local areas, especially where cash-starved public agencies have struggled to cope with the consequences.

In this latter respect community enterprises have played a particularly important role in generating local multiplier effects, enabling income to circulate within depressed local economies that would otherwise have deteriorated still further owing to an ongoing dearth of private and public investment.

However, whilst generalising about the social economy is fraught with difficulty, it is probably fair to conclude that social economy organisations target more closely in relation to the areas they serve and the services they provide than in terms of the jobs they create. For example, a recent large study of 800 social economy organisations in lowland Scotland — one of the United Kingdom's most vibrant areas of social economy activity, employing 42 000 people, on a par with the region's electronics sector — found that 79 % of organisations spent at least half their income on helping disadvantaged groups. However, while 30 % of organisations recruited at least half their paid employees from disadvantaged areas only 16 % recruited at least half from disadvantaged groups ⁽²⁹⁾.

1.3.4. The cost of job creation

Private sector jobs are ostensibly created at no cost to the public purse, albeit in the case of low productivity jobs the State may have to finance supplements to the incomes of low wage workers. Cash strapped governments are therefore likely to look favourably on private sector jobs. Similarly, while many social economy organisations are to some degree dependent on public funds from central and local government and the EU structural budgets, some are self-financed and others financed from multiple sources, including trading surpluses. In public policy terms this means that on the face of things, creating jobs in the social economy sector is also a less expensive option than standard public sector job creation.

1.3.5. Productivity, pay and conditions

Private, public and social economy sector jobs range from high to low productivity activities. For example, in most EU economies education and health services are located in the public

⁽²⁹⁾ McGregor, A. (1997).



sector and comprise everything from very knowledge-intensive work to ancillary work. The same is true of the social economy. The principal areas of activity of social economy organisations (especially non-profit associations) are social care, education, health care, housing, culture and recreation. Some of these activities are themselves knowledge-intensive and even where they are not, social economy organisations tend to be led by skilled social entrepreneurs.

Nonetheless, at the low skill end of the job spectrum the public and social economy sectors tend to be more labour intensive than the private sector and thus score poorly on conventional measures of labour productivity. However, such conventional measures (namely, output per worker employed or output per hours worked) do not capture the ‘social productivity’ inherent in the public and social economy sectors. Where the provision of a social service is important, efficiency and effectiveness (at least up to a point) is raised, not lowered, by increasing the ratio of labour inputs to service outputs. Mention of social productivity also highlights the fact that the social economy employs workers with considerable ‘people skill’ of a kind not always recognised by formal definitions of skills and qualifications ⁽³⁰⁾.

Pay in the private sector varies considerably in line with differences in productivity. However, it is evident that in both the social economy and public sectors social productivity is not adequately reflected in pay rates. Even skilled workers in these sectors tend to earn less than their private sector counterparts. Much instead depends upon the value society places on work undertaken in these sectors and the willingness of taxpayers to fund pay awards. The social economy is a particularly low paid sector. In the United Kingdom, the National Council for Voluntary Organisations (an umbrella group for mostly non-profit organisations) reports that pay for employees in the voluntary sector is between 20 and 30 % below that in the commercial sector and usually lower than pay rates in local government and the civil service.

Some social economy organisations deliberately keep pay scales low for ethical reasons in order not to create a ‘social gap’ between the incomes of staff and those of clients in the communities they serve. Indeed, some employees in the social economy may even be prepared to work for a relatively low wage because of a ‘vocation’ to the work they are doing (or because they derive a high ‘psychic wage’ outside the commercial ‘rat race’ that compensates for relatively low financial reward). However, while this may be considered laudable from the point of view of social solidarity there is clearly a risk that organisations might take advantage of the goodwill of employees, especially given the relative absence of organised collective labour practices within the social economy. This is particularly true when one considers that lack of funding creates pressures on social economy organisations to keep core costs low.

⁽³⁰⁾ Delors, J. (1996).

1.3.6. The scope for job creation in the private, public and social economy sectors

The scope for private service sector job creation is likely to be unlimited so long as the general conditions for growth and employment in the economy are met. By contrast, funding constraints are likely to limit the ability of governments to create jobs in the public services. This leaves the social economy as the main alternative means of service sector job creation. Therefore, what contribution might the sector make to employment growth?

The social economy has already become a substantial generator of jobs throughout the EU. The European Commission estimates that in the early to mid-1990s some 6.4 million jobs were situated in the social economy — 4.4 % of total employment in EU-15 ⁽³¹⁾. This amounts to around 10 % of total service sector employment. Given the extent of unmet social needs and cultural wants that might be catered for by enterprises operating within the social economy there would appear to be scope to increase employment in the sector. However, it is necessary to caution against over-optimism.

The European Commission notes that between 1988 and 1992 the annual rate of growth of employment recorded by the EU's 500 'most dynamic' social economy organisations was 6.6 % ⁽³²⁾. Applying this rate of growth to the current EU stock of social economy jobs indicates that it would take 12 years to double the existing stock, even if such a rate of expansion were possible on a sustained basis. This offers some indication of the likely limits on the overall contribution of the social economy to service sector job creation.

In this respect, however, it is worth noting that the activities identified by the European Commission as potential sources of social economy jobs range from childcare and domestic services to housing improvements, cultural development and nature protection. It is not immediately obvious that activities of these kinds are sector specific. It might be possible therefore to devise innovative partnerships between private, public and social economy sectors to create such jobs, thereby maximising the job creation potential of limited public funds. Indeed, insofar as joint ventures of this kind might themselves be facilitated by information networks, it is possible that knowledge technology will prove its ability to help meet social need as well as being a source of overall growth and employment in the new weightless economy.

⁽³¹⁾ European Commission (1997).

⁽³²⁾ Idem.



Chapter 2

Beyond conventional service economics — utility services, service product chains and job services

Gunther Schmid

2.1. Introduction

Two pathways to increase service employment are usually suggested: improving competitiveness of high quality and expert-oriented business services, and relieving the cost burden for (low-skill) personal services. Whereas competitiveness of business services can be increased through innovations in information and communication technologies (innovative milieus or networks), low-skill personal services are thought to be stimulated by widening the wage spread combined with various wage subsidies or income policies. There are still untapped possibilities for improving these strategies by policy reforms or further research. However, both pathways are rather conventional and do not exhaust the range of innovative approaches towards the modern service society.

In the following essay, I will therefore explore three complementary (if not alternative) ways to foster job creation in services: First, the switch from product markets to utility markets would induce more and new types of user services. Such a switch would not only be more employment-friendly but also foster a sustainable economic development compatible with ecological principles. The reorientation from products to utilities provides strong arguments for an emphasis on the framework conditions of services; for instance for lowering VAT in favour of labour intensive services, for forward regulation through (usually service enhancing) high quality standards, for deregulating market entry barriers, and for subsidising networks instead of individual products or services. Second, Baumol's cost disease has to be reconsidered in view of productivity-enhancing possibilities by new technologies, and in view of innovative possibilities in managing specific income risks related to modern services. Service product chains provide the main ingredient for increasing productivity in services, and I will demonstrate this in the field of art services, Baumol's prototype and the inspiring area

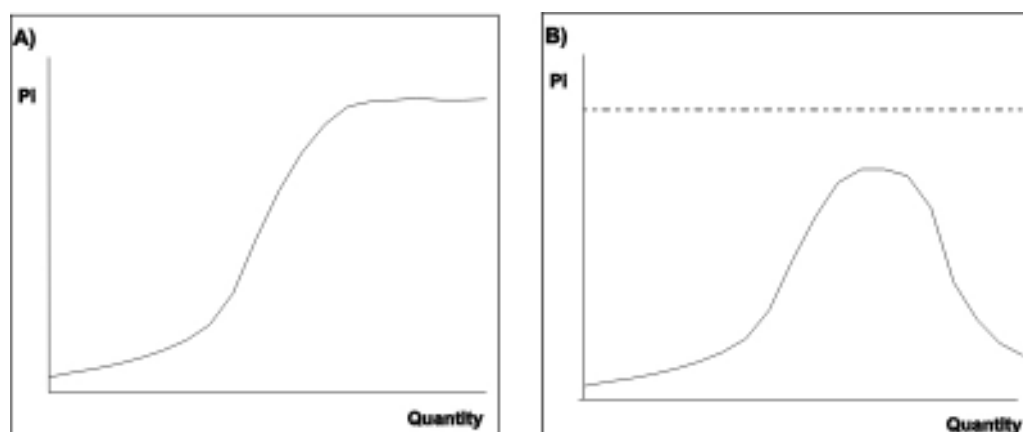
for the theory of cost disease. The evolution of social insurance in this field also offers intriguing ideas for risk management beyond the traditional welfare state. The most important policy conclusion related to this experience is the inclusion of consumers into the financing of social insurance. Third, the switch from transfers to persons with low earning capacities to supporting people's self-reliance through their own work could also induce increasing demand for already existing or new types of job services, and contribute especially to gender equality in the labour market. The central policy conclusion is the recommendation to turn social benefit entitlements (transfers) into vouchers for buying or co-financing job services.

2.2. From producer services to user services

So far, high quality services have been looked at mainly from the perspective of productivity enhancing inputs into (manufactured) products. However, this perspective becomes more and more elusive, as the rationalisation of services themselves is only to a limited extent possible. Thus, if the input of services for a product (research, development, raw material transport, labour services, marketing, advertisement, transport, distribution and storing of the ready product) and finally the required waste disposal of the used product reaches a certain proportion, the price of the final product might become so high that it is not marketable, even if the production process itself is completely automated and at the highest productivity level. When the costs of all services necessary for distributing and using the product are increasing much faster than the increase of productivity on the pure production side, the overall productivity curve points downwards before reaching the top of the S-curve in the traditional theory of 'economy of scale' (Figure 2.1).

Figure 2.1: *The productivity paradox*

- (a) Increases in productivity regarding the effects of new technologies and specialisation only,
- (b) and, in addition, taking into account all service functions necessary to make the product available to the customer



Pi: Productivity increase

Source: Adapted from Giarini and Stahel, 1989, p. 18.



A model case is the idea of disposable sheets (reported in Giarini and Stahel, 1989: 18). On average, a sheet is washed about fifty times a year before being thrown away. For producers, it would be fantastic if consumers would buy fifty sheets instead of one, attracted by the much lower price and by the elimination of the necessity of washing them. However, this would mean storing an enormous number of sheets at each home, the destruction of the same amount of sheets either at home (at a cost very near that of washing them), or through an addition to the local waste disposal systems (which would increase local taxes for collecting and destroying the bedsheets). The lesson of this model is that the key economic problem is to consider the optimum product-life of a specific good, taking into consideration the costs of all services related to utilise and finally to dispose of the consumed product. The utilisation or function of the product is the real issue, and products have to service optimal utilisation, and not the other way round, for services to increase the amount of products.

How such a shift in the production system towards a real service economy would affect employment in favour of both low-skill and high-skill services (and in the regions where people are living) can be demonstrated by the case of extending the product-life of automobiles (Figure 2). In the specific example, the pattern of which can certainly be generalised, the purchasing price of the car after 10 years of use makes up 58 % of the total costs for the consumer; the labour costs concerning maintenance and repair are at 20 % relatively modest, and so is the 17 % expenditure for replacement units. After 20 years of use, however, the (same) purchasing price's share of the total costs declined to 32 %, whereas the share of labour costs increased to 33 %, and the share of replacement units to 29 %. After 20 years, the utilisation of the car contains higher expenditures and therefore higher investments in the form of local wage work than in the form of manufacturing the final product. In addition, the costs for replacement units and consumption material together exceed the purchasing price.

Increasing the life of products by increasing their time of utilisation, therefore, increases the share of service employment in the local region of utilisation. In addition, increasing product-life substitutes energy and raw material with labour (preserving, thereby, the natural environment), whereas replacement units will come partially from dismantled old cars and partially from suppliers who are independent from the automobile producer. The producers of new cars and people employed by them are the losers in this game since the turnover of automobile products and corresponding sales fall. It is very likely, however, that the net employment effect for the overall economy is higher since the new services are more labour intensive than the car manufacturing firms which might, in the extreme case, be totally automated.

Figure 2.2. Comparison of energy and labour input for manufacturing and maintenance of a middle class car (Toyota Corina MK II, 1969) with a utilisation period of 10 and 20 years; without gasoline



Source: adapted with small corrections from Stahel, 1997, p. 87.

For the user, the longer utilisation of the car must not be a loss of utility, if the design of the automobiles is such that one can keep track of the latest useful technology by replacing corresponding components. One can even imagine that only new technology which really improves utility will be stimulated by such customers who — not having to buy new cars — can afford more new components. A further condition, of course, is that the prices of maintenance and repair services are affordable. This, probably, requires new incentive structures by the tax system, for instance a differentiation of VAT (value added taxes) and/or a differentiation of employers' contribution to the social security system (the so-called non-wage labour costs) in favour of services. From this point of view, the proposal by the European Commission to differentiate VAT in favour of service employment makes much sense (Europäische Kommission, 1999). In addition, the regulation of high quality standards aimed at extending the product-life would enhance high quality services or the content of services in the products. A case of such 'forward regulation' would be the obligation of car producers to take back cars after utilisation. Finally, more and more specialised services are to be expected



which is a case for deregulating any market entry barrier through occupational membership rules, and replacing such rules by professional standards supervised by a licence system.

Such a new strategy would replace consumers by prosumers (Alvin Toffler) who buy utility systems and not individual goods (for example, leasing transport facilities instead of buying cars which are not used 95 % of the time), and it would replace producers of goods by the managers of utility systems. The new service economy is a complex production system in which supply and demand are not strictly separable as traditional economics supposes; in such a system, the distinction between manufacturing and services becomes more and more blurred (¹). The new service economy aims at providing results or an economic value defined in terms of actual utilisation. From the ‘production side’, this includes various inputs (maintenance, counselling, repairing, restructuring) during the time of utilisation plus finally the prospective costs of waste management related to the product. From the ‘consumption side’ this involves contributions by the consumers themselves as part of the production system. Product managers inevitably encounter the situation in which they need the active collaboration of the users who condition the possibilities of generating usable results. The user or consumer thus becomes her/himself a condition for making the ‘production’ work (Giarini and Stahel 1989:94).

As the contribution of the prosumer is usually an activity or work which cannot be monetarised, the distinction between paid work (*Lohnarbeit* or labour) and unpaid work (*Aktivität* or work in the narrow sense) also gets blurred. In any case, the new service economy requires the explicit articulation of the interface between the labour market and the non-monetarised world of work. Paid work (services) for childcare, for instance, will have to compete with unpaid (services) for childcare, and the choice between both types of ‘work’ is not based on comparing prices with shadow prices but is according to a more complex procedure of evaluation. This procedure includes indicators of performance or quality in terms of educational performance and sociability as well as valuing the emotional rewards. The outcome of such procedures, as we know, might be a combination of both ways of providing childcare depending on culture and budget constraints. The value of health services, to give another example, cannot be determined by the consumption of drugs or by the salaries of physicians, but in terms of the level of health achieved for a given population or individual; the same holds true for educational services. Whereas during the industrial period the value of products could be identified essentially with the costs involved in producing them (material, wages, capital), the notion of value in the service economy is shifting towards the evaluation of costs incurred with reference to obtained results in utilisation (Giarini and Stahel, 1989: 33).

In the extreme case, the price of the product might even become zero or a symbolic sum like the case at present in Germany in which high quality computers are offered for only one DEM, however related with buying a whole package of services for the use of Internet or specific

(¹) This is also one of the main conclusions from many sophisticated comparative empirical studies, for instance by Peter W. Daniels (1999).

software. In Sweden, mobile phones may cost only a crown but are coupled to a telephone subscription. In a way, one can interpret this product-service chain as a form of credit market in which one receives the product as credit and pays later for the related services (or immediate utilities) ⁽²⁾. Where high capital costs are involved, leasing is one appropriate form of buying utilities, and product-sharing (like car-sharing or vacation-home sharing) another. In both cases, various services are involved which are not required in a simple product-consumer chain: organisation, maintenance, a more complex form of financing and insurance, contract management. Functioning product-service chains have job creation potential, because products are to some extent substituted by services which — normally — are more labour intensive than the products.

Thus, the term ‘services’ means, finally, performance in real periods of times whose value over the time is uncertain and has to be determined by probabilities. If this is accepted, a theoretical framework of reference based on the notion of risk and uncertainty is required, and policy interventions or institutions suitably adjusted to the new service economy will have to consider the insights of modern risk management or insurance policy. If not, products but service packages or utilities over time are purchased, it is clear that conflicts arise about the right value and the need to insure against the risks that the service is not delivered as expected. As the new service economy also implies increasing horizontal complexity (interaction networks), service production and delivery systems become more vulnerable to small errors, unknown influences from outside or even criminal attacks. This explains the rocketing rise of various insurance and counselling services. As we know from history, innovation in risk management was always extremely important for economic development ⁽³⁾.

To sum up, increasing the job creation potential of services requires, first of all, an emphasis on changing the framework conditions in favour of immediate utilities (functions or results) instead of products with potential utilities. Such a switch increases the consumer’s sovereignty but also the consumer’s responsibility in participating in the valuing process; very often it is only this interaction between the consumer and the producer which brings forward the decisive value added of the service involved. Behavioural customs or transaction costs, of course, will slow or — in some areas — even prevent such a transition from consumers to ‘prosumers’. However, as there is no ‘free lunch’, there is also no ‘free utility’. Policy can only set the right incentive structures. However, there are — as I have tried to demonstrate — still many untapped possibilities in this respect.

So far, I have argued on the basis of Baumol’s cost disease which means that important productivity gains are not possible for most of the labour intensive services. Thus, if the content of such services in products increases, the price of the product may become prohibitive and therefore not marketable. The switch to utility systems was a strategy to overcome such a stalemate. However, at a closer look, more services than conventional

⁽²⁾ I owe this idea to Dominique Anxo and Donald Storrie.

⁽³⁾ For an enlightening and extremely well written story about risk management in history, see Bernstein 1996.



economics imagines are prone or suitable to productivity gains. As shown in another contribution (D. Dathe and G. Schmid, 2000), interaction between knowledge-intensive manufacturing and knowledge-intensive services ('service-industry districts') explains much of the divergence in regional employment performance. In the following, I will reconsider Baumol's cost disease in his own favoured field, in the area of art services, a case however, which can be generalised beyond that ⁽⁴⁾.

2.3. Repealing cost disease through service product chains

For Baumol, productivity gains have created ways to reduce the labour needed to produce a car, but no one has yet devised ways of reducing the work hours needed to perform a 45 minute Schubert quartet (Baumol and Bowen, 1993 (1966): 164). Baumol's 'sombre conclusions' are clear: The arts cannot match the productivity gains of the economy as a whole. As the musicians performing this nice quartet or other pieces ask for wage increases related to the overall productivity, a chronic gap between the costs of performing organisations and their income is created. Either art disappears slowly or subsidies, tax exemptions or other incentives have to fill the productivity gap. Apart from this cost disease, Baumol cites the social benefits (especially in form of positive externalities) as argument for subsidising the arts. Since education, child or health care are also prone to the same cost disease, large areas of human services require continuous public support in one way or the other.

The logic of this argument is unassailable, and it certainly still holds true for a substantial part of human services. However, the assumptions need both empirical and theoretical re-examination ⁽⁵⁾. David Throsby (1994) reviewed empirical studies finding lower wage increases (than overall productivity increases), changes in the repertoire (which requires fewer players or low copyright fees), changes in the organisation of performing (larger concert halls), increasing demand (income elasticity in favour of services), and — finally — donations as mechanisms for increasing productivity or overcoming the cost disease. More importantly, technology, specifically the development of mass media, rendered the private good of orchestra music into a potential public good which is unrivalled in consumption at various levels: as live performances, as broadcasted performances, and as recorded performances. When a 45 minute Schubert quartet is played, (almost) no additional production cost is incurred by additional listeners (Tiongson 1997: 119). Although Baumol and Bowen already acknowledged these possibilities in their classic book on the economics of art, they underestimated their impact.

Apart from the aforementioned possibilities of productivity increases, the cost disease can be overcome specifically through service product chains in which the one-time performance

⁽⁴⁾ The following section has been inspired by Frank and Cook 1995, Menger and Ginsburgh, 1996, and especially by Tiongson, 1997 who reviewed some of the recent literature on Baumol's cost disease in the economics of art. For the labour market of artists and journalists in Germany see Haak and Schmid, 1999; for an excellent monograph on the economics of culture (with special emphasis on France) see Benhamou, 1996.

⁽⁵⁾ For a systematic critique of the Baumol model see Tronti, Sestini and Toma 2000.

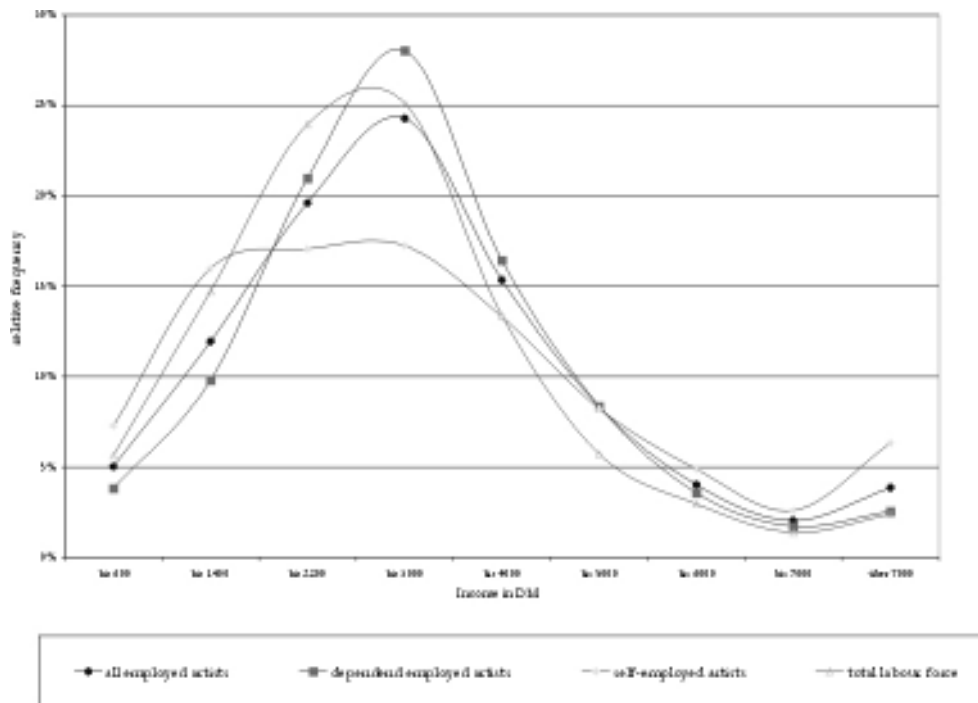
induces a chain of other services or products which again feed back to raise reputation and demand. Broadcasting and recording may function like advertising, making it more prestigious to consume the orchestra's products in the process. In addition, merchandising art activities may provide substantial additional income, for example, from Broadway — shirts, posters, and other souvenirs. Christo's art of packaging is a clear model for such service product chains where the manufactured products at the end pay for the performance. Because merchandising activities benefit from advancements in the manufacturing sector, this suggests other, more complex relationships between the arts and the rest of the economy. The economy uses the arts more and more, as the arts are using the economy. Technology may facilitate productivity gains in both the manufacturing sector and the performing arts, albeit in different, and at times interconnected, ways (Tiongson, 1997: 120). Symphony orchestras or theatres can develop into multi-product non-profit enterprises with performances varying in content, audience, composition, location, and number of performances; or they can develop 'strategic alliances' with commercial enterprises.

The logic of service product chains is not only restricted to the sector of arts. The digital revolution opens many possibilities to transform originally expensive services into standardised cheap products later. The sector of education is a good example in which learning programmes (software) replace the immediate act of teaching, or at least part of this face-to-face service. The genuine service act of teaching can be specialised and be relieved from routine tasks. Like the product-services chain discussed in the first section, the service product chain can open a symbiotic relationship with overall higher productivity plus increased employment if new markets are opened through this (for instance professional training services in computer aided design, training in multimedia presentation). Public provision or publicly supported provision of the required communication networks (information highways, computing facilities in schools, etc.) are crucial to develop such potential new markets.

Although service product chains are flourishing and still open untapped possibilities, the fact cannot be contested that the majority of artists or artist-like professions face lower income or at least much more volatile income streams than the average wage earners of comparable (formal) skill levels ⁽⁶⁾. This is largely due to the 'winner-take-all' quality of these markets, which has been studied perceptively by Frank and Cook (1995). Menger and Gurgand (1996) provide additional arguments for the structural surplus of labour in the artist labour markets, which are responsible for low and volatile wages for a majority of artists. Haak and Schmid (1999) show the dual structure of income distribution among self-employed artists in Germany — a relatively high percentage in the bottom income range, and a relatively high percentage in the upper range, but a flat curve around median income levels instead of a 'normal distribution'. The income structure of dependent artists does not differ much from that of the total active labour force, however, considering the above-average education level of artists, one would expect a higher average income (Figure 2.3).

⁽⁶⁾ For the two different but functionally equivalent models of artist labour markets in the United Kingdom and France see Benhamou and Gazier, 2000.

Figure 2.3. Monthly net income of artists compared to all employees



Source: Micro Census 1995; own calculations (Haak and Schmid, 1999).

How do (self-employed) artists solve the problem of high income risks involved in their kind of service activities? Are there comparable patterns in other professions? Can we learn from these institutions of risk management if those kinds of service jobs are further increasing or even intended to be fostered? An interesting model is the French special unemployment insurance system for artists as described and explained in Menger and Gurgand (1996). This system provides relatively generous benefits during the intermittent periods of non-engagements, a system heavily subsidised by the State. Since its introduction during the 1970s, the number of artists as well as the number of (short) engagements increased due to serious moral hazard problems. Although one could legitimise the subsidies, along the line of Baumol, with the argument of cost disease and with positive social externalities related to an increasing number of artists, it seems unlikely that such a system can survive (?).

The German social security system for artists and journalists, introduced in 1982 after long and heavy battles (⁸), is far from perfect but provides an interesting innovative feature which could serve as a model for larger welfare reforms. Self-employed artists are dealt with like dependent employees in as far they were obliged to pay contributions into the ‘art social security fund’ (*Künstlersozialkasse*, KSK) which should cover 50 % of the expenditure. The

(?) See also Benhamou and Gazier (2000) for the most recent development of this system.

(⁸) In which the recent Nobel price winner Günter Grass played an active role in pushing through the new system.

innovation is, that the other 25 % are subsidised by the State ⁽⁹⁾, whereas 25 % comes from a special tax of art utility providers, merchants or publishers; for instance art galleries have to pay 4 % of the honorariums or the sales to the KSK. The KSK covers health risks and pensions but not unemployment. It is a true public-private mix, and the implicit participation of the (art) consumer takes into account the asymmetry of ‘winner-take-all markets’. As more and more jobs become like the jobs of artists or journalists (Haak and Schmid, 1999), an extension and continuous reform of this system seems to be recommendable.

There is, finally, another aspect of risk management in the artist labour market which is closely related to the uncertainty of the utility value which we considered in the first paragraph. Artist or writers in the service product chain produce prototypes whose utility for consumers is (by definition of the art as an institution specialised in innovation) not known and valued consecutively by market processes. The common private solution to this uncertainty is authors’ property rights and royalties that guarantee income or profit-sharing depending on the ‘result’ of the valuing process ⁽¹⁰⁾. How effective this ‘future market’ is working seems not to be well studied so far. It seems plausible, however, that equity and fairness require regulatory provisions that compensate for the often structurally weak position of individual artists or writers or professions in a comparable situation. Successful artists are able to work with and to pay for professional agents, a precondition which many young artists, beginners or not yet successful artists are not fulfilling. Trade unions may find here an untapped area for collective support and specialised advice or services. However, as artists provide services or produce products which often have the character of public goods, apart from the engagement in social security (see above), public provision of infrastructure and (regulated) obligatory risk sharing systems seem to be required to mobilise the job creation potential in artist and artist-like labour or product markets ⁽¹¹⁾.

3.4. From personal transfers to job services

As we know from modern job search theory, social networks play a crucial role in adjusting to structural changes in the labour market, especially in finding a new job (Anxo and Storrie, 1999). The policy consequences of this insight have not yet been rigorously addressed. Although generous cash benefits can be regarded as financial precondition to maintain networks (membership in clubs, attending social events with friends etc.), a more proactive orientation towards establishing or supporting existing networks can be taken. It is almost by

⁽⁹⁾ The present government intends to reduce this share to 20 % due to heavy deficits of the public budget, but also to prevent further increases of members in the art social security fund which, by the way, holds also for journalists or writers.

⁽¹⁰⁾ See on this point also Benhamou and Gazier, 2000.

⁽¹¹⁾ Here is a structural equivalent problem to ponder: Why should firms or individuals invest in the production of knowledge (or art) if they cannot exclude others from the final product? The American economists Romer, Hyde and Solow, basing their argument on experiences in Silicon Valley, argue for deregulation in the sense of legally not supporting property right issues related to knowledge, and for generous public support in various ways, among others fostering private art sponsoring through tax exemptions or — this provides a bridge to the next part — by extending the earned income tax system (Hyde, 1998).



definition true that ‘social networks’ cannot be created artificially. ‘job search courses’ and the related job services, therefore, are often rightly ridiculed. However, if one regards ‘social networks’ as a metaphor for the existence of ‘experience knowledge’ and ‘access of relevant information,’ there are several ways to exploit this insight in a more systematic way. Some of this ‘experience knowledge’, often not known by the local placement officers, can be stimulated by arranging suitable context conditions which usually involve professional services related to job search. The activating of cash benefits into job (search) services makes also sense from the knowledge that service jobs, especially new services related to the information sector, are often ill-defined and changing fast. Thus, the importance of experience knowledge is itself related to the service economy and its development.

In the following, I will briefly sketch some examples and good practices related to the basic concept of stimulating job services as a kind of ‘double strategy’: to increase employment in a relevant and increasing segment of the labour market which enhances the efficient job search or job mobility itself. I will thereby apply a very wide (and contestable) definition of ‘job services’ which ranges from ‘self-servicing’ through accepting low-wage jobs, up to the top with a kind of negative income tax to job services provided by commercial time work agencies.

- (1) As most jobs are related to a ‘social network’ (co-workers, clients, a new neighbourhood), widening the range of acceptable jobs can be counted as ‘job service’, because accepting a job sets in motion a ‘self-servicing’ activity to collect relevant experience knowledge. The acceptance can be blocked by high reservation wages, lack of job-related skills or the loss of cash benefits. In any case, the possibility of transforming the cash benefit into a voucher to be used as wage (cost) subsidy or, if such an entitlement is not at stake, by compensating the deficits of earning capacity by a kind of negative income tax (like the Earned Income Tax in the United States would increase the range of choices of individuals without a job and certainly increase their self-reliance.

The institutional details are important but cannot be discussed here in detail. In general, however, it is obvious that such a scheme cannot be universal to avoid market distortions. Compensation of earning capacities seems only legitimate if connected with socially acknowledged (legitimate in terms of values) reasons. Candidates for such targeted income compensation schemes are people with care responsibilities for dependants (relevant especially for men and women with small children) or persons with work disabilities. In some cases, this kind of ‘job service’ might involve the complementary creation of ‘public jobs’ to provide the opportunity of choices. However, because such jobs often provide a narrow or stagnant ‘social network’, such a ‘secondary labour market’ should be kept very restricted. Another, more relevant case, is the provision of public infrastructure (daycare for children etc.). Such a system will not come cheap. However, as Bob Solow (1998) persuasively elaborated, each person taken from the welfare payroll increases altruism at the same time, which means the willingness to pay for such a system. Self-reliance and altruism are mutually reinforcing.

- (2) Placement services by the public employment service (PES) and or by private employment services (PRES) are acknowledged in the evaluation literature to be the most cost-efficient measure of active labour market policy (Walwei 1996). Training measures or wage subsidies turned out to be only effective under specific circumstances, very often connected with an effective placement service before or after the measure. Thus, to some extent a shift from cash benefit expenditure or from less effective job services to placement services seems to be justified. At present, only between 10 and 30 % of the total hirings in Europe are supported through intervention by PES. In 1995, around ECU 185 billion (3.3 % of Union GDP) was spent on income support for the unemployed and active labour market programmes; ranging from counselling and brokerage to training and subsidised employment. One third of this sum (ECU 65 billion) went for active measures, which to a large degree was organised through PESs. The share of national GDP spent on active labour market programmes ranged from 0.3 % in Austria to 3 % in Sweden. Across the Member States expenditure on PESs' staff and equipment ranges from less than 0.10 % to around 0.25 % of GDP. This range reflects individual Member States' expenditure on active and passive labour market programmes and the part played by PESs in implementing these programmes. Excluding the administration of benefits and programmes, expenditure on PESs is estimated to be below 5 % of total expenditure on active and passive policies. This is a fairly modest investment which can bring a substantial return in terms of increased market efficiency and of savings on unemployment benefits (European Commission 1998). An increase of this kind of job service — under the condition of a modernised PES (through professionalisation, decentralisation and cooperation with private professionals) — would certainly pay off. For Germany, it had been calculated that reducing the average duration of unemployment (presently at a level of almost eight months) by one month through intensification of placement services would save around DEM 11 billion on cash benefits and related transfers (Schmid et al., 2000) ⁽¹²⁾. Research on determinants of mismatch shows that it is especially services which are prone to long unfilled vacancies.
- (3) There is an untapped potential for initiatives based within local communities which may aid in the formation of networks. The local communities would also probably be more capable than the PES to mobilise and to interact with non-governmental organisations (NGOs). City employment contracts, and local or regional employment pacts for organising local job markets have turned out to establish quite efficient networks for various employment initiatives. It is self-explanatory, that the implementation of such networks is job-intensive, and therefore not a cheap solution. However, since functioning networks have long-term impacts, such investments usually pay off ⁽¹³⁾.

⁽¹²⁾ It would, of course, be nice to have harder facts such as some kind of 'elasticity measure' showing how much expenditure on job services for placement activities is necessary to reduce cash benefits for the unemployed by 1 %. I do not know such figures or estimates, therefore my argument is (I guess, however, reasonable) speculative and suggestive.

⁽¹³⁾ For the overall philosophy of the 'network society' see Castells, 1996; for theoretical backgrounds and examples of regional employment policy see Sabel, 1989; for the theory and practice of policy networks see Marin and Mayntz, 1991; the importance of the network strategy for rural areas is demonstrated in Van Depoele, 2000.

(4) Buying professional placement and training services is another untapped source of transferring cash benefits into job services. One strategy is the internalisation of placement services into firms and using benefit entitlements of the potential unemployed as co-financing measures for re-training or wage subsidies related to a new job. For instance, outplacement services in cases of large-scale restructuring or bankruptcy and job rotation are used more and more as efficient instruments, and they slowly create a market for commercial services in this field. Another strategy is bundling interrelated services to tap spillovers or economies of scope: PES contracting with professional private training centres can include placement into jobs as an explicit element of the service package and thus stimulate more market-oriented training courses. The establishment and support of training and education networks between firms which alone do not have the capacities would also be a new form of job services. Availability of local job services is important especially for young couples tied to family responsibilities at home. Belonging to the same category is the purchasing of rehabilitation services and job maintenance services for injured persons, chronically ill persons, and elderly people with reduced work capacities. Also job-pools and the cooperation with temporary work agencies are promising job services which can substitute cash benefits. Experience in Germany and the Netherlands shows that between one and two-thirds of temporary workers find a regular job this way ⁽¹⁴⁾.

(5) A final case — closely linked with the aspect of uncertainty related to service utilities considered in the second section — is the support of risk management services related to job creation. An example is the establishment of networks and specialised business services supporting business start-ups for the unemployed. In comparative research, it has been found that the evaluation of business start-ups for mobilising the required capital is much more future- (or forward-) oriented towards the potential utility of the new business idea in the US than in Germany ⁽¹⁵⁾. In the German system, the evaluation of business start-up ideas is much more backward-oriented in emphasising the financial securities which the persons or the group applying can guarantee. Mobilising venture capital for business start-ups is usually the task of professional intermediaries in the United States whereas in Germany, banks or saving institutions (*Sparkassen*) are taking over this business. Banks apply conventional financing techniques relying on traditional securities (real estate, capital assets). Intermediaries, for instance community development corporations (CDC) rely on the evaluation of the business idea and the underlying management concept. New financing concepts such as ‘peer groups’, ‘loan loss reserve funds’ and ‘stepwise lending’ manage a joint risk sharing between lenders and users. This demonstrates again the importance of new institutions of risk management which are at the core of an employment-friendly service economy.

⁽¹⁴⁾ For the Netherlands see Visser and Hemerijck, 1997; for Germany see Rudolph and Schröder, 1997.

⁽¹⁵⁾ See Kritikos and Wießner, 1999 and United States small business administration, 1999.

3.5. Conclusion

The main lesson from this essay starts with the critical difference between manufacturing and services: Whereas services provide immediate utilities to known clients, manufactured products provide potential and standardised utilities sold on an anonymous market. If service utilities are standard and quickly consumed like fast food, window cleaning or transporting beer, the valuing of these utilities is also standard and most efficiently organised by the market. The majority of services, however, are utilities which are hard to measure. Their real value is uncertain, especially if they contain investive elements like health, childcare, education, information and research services. The utilities of such services are often accumulated in the future, or are realised only after some years or, in the worst case, never. Most importantly, many service utilities are often realised only if they are combined with other services or with non-monetary inputs of the consumer or client ⁽¹⁶⁾. So, the problem of these kinds of services is how to organise a proper valuing system which takes into account the value of the real outcome or performance which contains high risks and uncertainty, and which takes also into account the often required non-monetary work to tap the potential utility of high quality services. Risk management and risk sharing is the real economic problem of the new service economy. The main thesis of this essay, therefore, is that it is those societies which display successful employment performance and which have established effective and efficient risk management systems which are able to properly evaluate contingent and future oriented utilities.

The chapter considered three strategies which could — over and above the conventional recommendations — help to enhance a more employment friendly service economy in the European Member States: first the switch from product markets to utility markets (1), second the support of service product chains (2), and third the stimulation of job services (3). In the following conclusions, I concentrate on their specific contribution to risk management and to their possible impact on employment.

(1) One strategy of enhancing utility markets would be to increase the life cycle of consumer products such as motor cars, electrical machines in the household and so on. Such a strategy would, as I have demonstrated with the example of our most celebrated consumer product — the automobile — affect employment in favour of both low skill and high skill services, and it would at the same time enhance the regional content of employment and counteract spatial concentrations of production. I have also developed arguments, that such a strategy would foster technological development which is more consumer-friendly; this may open new markets and exportable services for the region. A further condition, of course, is that the prices of the increased service content of products, like maintenance and repairing services, are affordable. This probably requires new incentive structures by the tax system, for instance a differentiation of value added taxes (VAT) or a differentiation of employers contribution to the

⁽¹⁶⁾ To give an anecdotal example: A pain in the hip can be the starting point of expensive treatments by orthopaedists or surgeons and might never be cured, but in a lucky case, it can be corrected by a chiropractor and the daily physical exercise of the service consumer, here the 'prosumer'.



social security system (the so-called non-wage labour costs) in favour of services. From this point of view, the proposal by the European Commission to differentiate VAT in favour of service employment makes much sense. In addition, the regulation of high quality standards aimed at extending the product-life would enhance high quality services or the content of services in the products. A case of such ‘forward regulation’ would be the obligation of car producers to take back the cars after utilisation. Corresponding regulation might be useful for the lots of electrical machines in private households. Finally, more and more specialised services are to be expected which is a case for deregulating any market entry barrier through occupational membership rules and replacing such rules by professional standards supervised by a licence system.

Another possibility of enhancing utility markets, not discussed here at length, would be the switch from input payment systems to outcome payment systems or — at least — to proper mixes of both. A good example is changes in the payment systems of professors and teachers. We observe more and more complex evaluation systems which try to assess the real utility which teachers or professors are delivering, whereas former systems have mainly relied on input criteria like formal educational status, age, time worked and so on. A further important element of risk management institutions, also not dealt with explicitly here, are wage formation institutions. My hypothesis is that payment systems of the new service economy are outcome or forward oriented, whereas payment systems of industrial societies are basically input and backward oriented. The failure of Germany to lead the modern service economy has much to do with its former success in manufacturing and with the still central role of manufacturing. The input oriented payment systems of manufacturing still govern the service sector to a large extent where an increasing share of performance oriented payment systems containing risk sharing elements would be necessary.

(2) The second strategy starts from a critique of Baumol’s ‘cost disease’ by demonstrating that service product chains are an important way to repeal this ‘iron law’ of services. Here, the principle of risk sharing is the postponement of the ‘proper’ pay of the service delivered and the profit sharing from related and succeeding products. The model of the service product chain demonstrated in Baumol’s favoured sector, the artist labour market, is applicable to other service sectors, for instance education. The main proper policy response, here again, is not selective intervention but setting the suitable framework conditions for the functioning of such networks; for instance by regulating the complex issue of property rights involved in this issue, legal protection of these rights and the provision of a supportive infrastructure. The same holds true for the reverse case, the product-service chain in which the basic principle of risk management is crediting future services related with the (cheap) purchase or leasing of the product.

To generalise this point, risk management and related jobs will no longer be secondary services but core activities in the new service economy. Here, neither the smooth market exchange of individual products nor services is representative, but complex and self-organising provider systems such as ‘health maintenance organisations’ (HMOs in the United States), ‘human resource management systems’, ‘house energy saving agencies’, ‘local service agencies’ and so on. Thus, the right policy direction to foster corresponding service

employment should not be to subsidise single services or products but to endorse the functioning of such complex and self-organising networks (service product or product-service chains). To give an example: To foster employment in renewable energy systems such as solar techniques, the proper strategy would not be to subsidise the investment in producing new solar cells but to support local networks of counselling and risk management in energy saving, including the cooperation between large-scale producers or utility managers and individual ‘prosumers’.

Apart from these possibilities, the art sector was identified as a prototype of increasing income risks related to precarious employment relationships. It is likely that such relationships are spreading more and more to other sectors although there is still need of more precise and longitudinal analyses in this respect. How do (self-employed) artists solve the problem of high income risks involved in their kind of service activities? Are there comparable patterns in other professions? Can we learn from these institutions of risk management if we want to expand those kinds of service jobs? It was argued that the German case of *Künstlersozialversicherung* provides an interesting model of a future oriented ‘employment insurance’ (replacing old-fashioned UI-systems) for the systematic inclusion of consumers — the final evaluators of service utilities — in the social security contributions.

(3) The third strategy of switching from cash benefits to in-kind benefits, here job services, starts from the observation that social networks play a crucial role in adjusting to structural changes in the labour market, especially in finding a new job. The policy consequences of this insight have not yet been rigorously taken up. Although generous cash benefits can be regarded as financial precondition to maintain networks (membership in clubs, going to social events with friends etc.), a more proactive orientation towards establishing or supporting existing networks can be taken. Some of this ‘experience knowledge’, often not known by the local placement officers, can be stimulated by arranging suitable context conditions which usually involve professional services related to job search. The activation of cash benefits into job (search) services also makes sense from the knowledge that service jobs, especially in the new services related to the information sector, are often ill-defined and changing fast. Thus, the importance of experience knowledge is itself related to the service economy and its development. Concrete policy proposals reported in this essay were related to targeted vouchers or earning credits, intensification of placement services, support of local community networks, buying professional placement or training or rehabilitation services, and the support of new risk management services related to job creation — for instance business start-ups for the unemployed.




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