ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Strategic Business Services

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STRATEGIC BUSINESS SERVICES

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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Pursuant to Article 1 of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

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FOREWORD

Strategic business services have grown in importance in recent years and are now an integral part of the business infrastructure for firms in general and for manufacturing firms in particular. These services, which are as yet insufficiently researched, are proving to be key elements for firm-level competitiveness and an important source of growth and dynamism in their own right.

The importance of these new services was clearly recognised in the 1999 meeting of the OECD Council at Ministerial level when new services were identified as one factor driving long-term growth. "Ministers asked the OECD to study the causes of growth disparities and identify factors and policies (such as rapid technological innovations and the growing impact of the knowledge-based society and its demand on human capital, the arrival of new service industries, the best framework conditions for fostering the start-up and growth of new enterprises including SMEs) which could strengthen long-term growth performance." [OECD Council Meeting at Ministerial Level, Communiqué, Paris, 26-27 May 1999, PAC/COM/NEWS(99)52].

The OECD's Industry Committee launched an analytical study and related data collection exercise in 1997 on a group of five strategic business services believed to be essential for business processes, firm competitiveness and growth: computer software and information processing services, R&D and technical testing services, marketing services, business organisation services (comprising management consultancy and labour recruitment services) and human resource development services. Twenty-one countries (Australia, Austria, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States) provided data for the study.

This report was prepared by Marian Murphy and Graham Vickery of the Directorate for Science, Technology and Industry and is published on the responsibility of the Secretary-General of the OECD.

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SUMMARY

Business services, and strategic business services in particular, have grown rapidly in OECD countries and have generated strong employment in the recent past. The strong performance of strategic business services [*i.e.* computer software and data processing services, research and development (R&D) and technical services, marketing services, business organisation services and human resource development services] has been driven by a wide range of factors, including:

- The general shift towards supply and consumption of services in the economy.
- The rise of knowledge-based economies, which rely on expertise and specialised service inputs.
- The need for greater flexibility within firms.
- Specialisation and increased division of labour in many areas.
- Outsourcing by established firms of many of their former activities.
- The growth of smaller production units and firms which use external services to supplement their own internal resources.

Strategic business services generated turnover in excess of USD 1 trillion in 1995. These services have been growing at around 10% per year in current terms so their combined turnover may exceed USD 1.5 trillion in 1999. In turnover terms, computer services are the most important, generating USD 350 billion in 1995. In 1995, 11 million people were directly employed in these activities in the OECD countries; business organisation services were the most important employer, with 3.6 million in personnel recruitment services and 1.5 million in management consultancy.

The provision of strategic business services is key to enhancing performance across the economy, in manufacturing and service sectors alike. Increased efficiency in the provision of strategic business services will have positive spillover effects for both large and small firms. For example, a considerable share of the growth in strategic business services is the result of outsourcing by established firms which are shifting various functions and activities to external suppliers. Information technology services and personnel supply and training services are among the areas which are increasingly outsourced. In general, outsourcing can promote economic growth by improving efficiency for the firms which outsource by increasing the supply of effective and efficient lower-cost, high-quality services inputs. Outsourcing provides the basis for greater firm specialisation and restructuring in addition to promoting new venture businesses and job creation.

Governments can influence both the supply of and demand for strategic business services. A number of framework conditions in the areas of regulatory, fiscal, intellectual property, education and competition policy affect the supply of strategic business services. More directly, governments can increase demand for such services by promoting intangible investments by the private sector in R&D,

training and education and business organisation and by supporting the supply of these services through a range of intermediary services supply bodies. The enhanced provision of strategic business services, sometimes financed by governments, is seen as particularly valuable in improving the performance and competitiveness of the small and medium-sized enterprise (SME) sector. Another policy aim of governments is to further liberalise international trade and foreign investment in strategic business services in order to expand supply and improve the competitiveness of service providers.

Part 1

OVERVIEW AND ANALYSIS

INTRODUCTION

For more than three decades, services have constantly expanded their role in OECD economies. By the mid-1990s they accounted for approximately 70% of GDP; during the same period, the average share of manufacturing value added in GDP declined to approximately 20%.[1] Similarly, employment in services has expanded since 1960, amounted to approximately 65% of total employment in OECD countries in 1995, and has continued to expand. For example, by 1997, employment in services in several countries accounted for at least 70% of the workforce in Australia, Canada, France, the Netherlands, Norway, Sweden, the United Kingdom and the United States. In contrast, employment has declined in manufacturing in recent decades and by 1995, represented less than 18% of total employment in OECD countries.

Among the services which have grown in importance in recent years and have become an integral part of the business infrastructure for firms in general and for manufacturing firms in particular, are a little-known, and as yet insufficiently researched, group of strategic business services. These services are proving to be key elements for firm-level competitiveness and an important source of growth and dynamism in their own right.[2]

The importance of these new services was clearly recognised in the 1999 OECD Ministerial Council Meeting when new services were identified as one of the factors driving long-term growth. "Growth performance varies considerably across and within OECD countries. Ministers asked the OECD to study the causes of growth disparities, and identify factors and policies (such as rapid technological innovations and the growing impact of the knowledge-based economy and its demand on human capital, the arrival of new services industries, the best framework conditions for fostering the start-up and growth of new enterprises including SMEs) which could strengthen long-term growth performance".[3]

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1. OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

2. An author recently expressed in the following way the lack of knowledge about the "intellect industry" (the professional services industry, including marketing communications services, management and IT consulting services, recruitment, placement and personnel services, market research services): "It is usually dismissed as a ragbag of asset-less firms employing unmanageable prima donnas. You would be hard-pressed to find reliable statistics about the key areas of the industry. So why give it much thought? Simple. Size and growth!" Mark C. Scott (1998), *The Intellect Industry*, John Wiley & Sons, Chichester.

3. OECD Council Meeting at Ministerial Level, Communiqué, Paris, 26-27 May 1999, PAC/COM/NEWS(99)52.

The OECD's Industry Committee launched an analytical study and related data collection exercise in 1997 based on a group of five strategic business services believed to be essential for business processes, firm competitiveness and growth: computer software and information processing services, R&D and technical testing services, marketing services, business organisation services (comprising management consultancy and labour recruitment services) and human resource development services. Other important business services, such as engineering consulting, were not included as they are not an integral part of business processes to the same extent as the selected group of strategic business services. Twenty-one countries[4] provided data for this study; individual country reviews are presented in Part 2.

4 . Australia, Austria, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Mexico, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. Most countries reported incomplete data sets and neither New Zealand nor Switzerland were in a position to report turnover data.

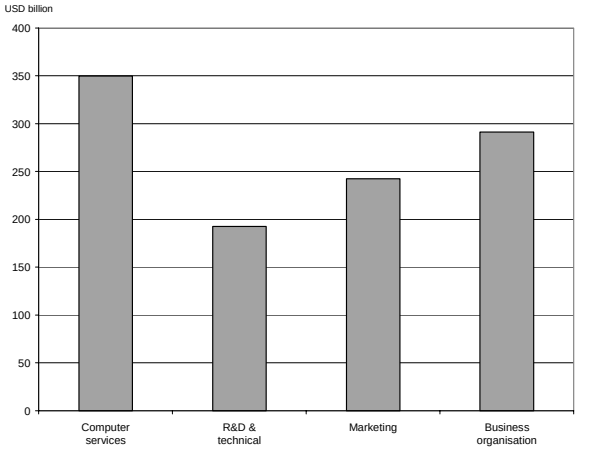
TRENDS IN STRATEGIC BUSINESS SERVICES IN OECD COUNTRIES

Turnover and production

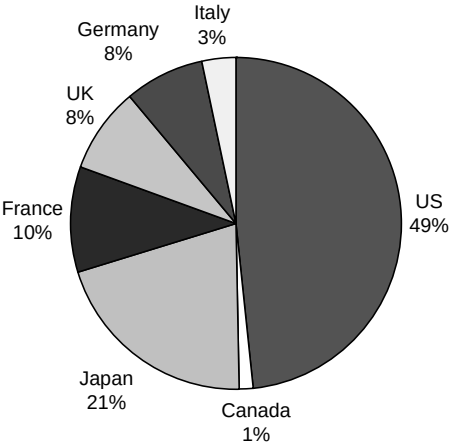
Turnover for the selected strategic business services reported by 19 countries amounted to approximately USD 1.1 trillion in 1995 (Figure 1). This is an estimate, as data for the nearest available year were used for some countries when 1995 data were not available. Furthermore, this figure certainly understates actual turnover as the data have several important gaps. For example, turnover data for human resource development services were available for only five countries: Austria, France, Mexico, Switzerland and Turkey. A number of countries reported incomplete data for other categories of business services. Turnover data were not available for New Zealand or Switzerland for any category. It is therefore reasonable to assume that actual turnover for these five groups of strategic business services, if available, would have been well in excess of USD 1.1 trillion.

Figure 1. **Turnover and share of total turnover of strategic business services**

Turnover of strategic business services in 19 OECD countries, 1995 or nearest available year
USD billion



Share of total turnover of strategic business services, 1995 or nearest available year
Incomplete data reporting by some countries



Turnover was reasonably evenly distributed among the four groups of strategic services industries for which data are available.[5] Computer services generated the largest share of turnover in the total, accounting for approximately USD 350 billion or 32%. The second largest category of business services in turnover terms was business organisation services which generated just over USD 290 billion, of which USD 158 billion was generated by management consultancy services and USD 108 billion by labour recruitment services. Marketing services generated USD 242 billion and turnover for R&D and technical testing services amounted to USD 192 billion.

Strategic business services' share of value added in GDP in the mid-1990s is also relatively high, although data are scarce. For example, the share of value added in GDP was 3.6% for UK strategic business services, the highest for any of the six countries providing data (the other countries which provided value-added data were Canada, France, Mexico, Norway and Sweden). The information collected shows that the growth of these business services, by whatever measurement, has been robust in general and in many cases spectacular in recent years, even in those years when overall economic growth was slow or absent. For example, in Finland, official data report that value added for the broadly defined business services group grew by 9% annually during the period 1985-95.

Similarly, in the United Kingdom, official estimates for a somewhat broader group of business services conclude that these are some of the fastest growing activities in the UK economy, with real growth rates in output double those of the entire economy in the past decade. Value added in France for strategic business services expanded by 19% between 1993 and 1995. Turnover growth also illustrates the expanding role of such services in other economies. For example, in the United States, growth in turnover for these activities was estimated at 50% between 1990 and 1995, with even faster expansion in certain individual activities. In Japan, turnover increased by 28% between 1989 and 1994. In Canada, growth in turnover for these business services amounted to 23% for the period 1993-95.[6]

Outsourcing is an important driving force. A considerable, but unknown, share of the growth in strategic business services is the result of outsourcing by established firms (Hales, 1997). Outsourcing refers to shifting the firm's value-added functions or activities to external suppliers. Outsourcing of strategic business services is increasingly common, affecting activities such as R&D and design, human resources, management and production operations, IT functions and marketing. Outsourcing is motivated by various objectives: concentration of firm and management resources on core activities, specialisation of outsourced functions, cost reduction. In the United States, the top ten commonly cited reasons for outsourcing include: reducing and controlling operating costs, improving company focus, gaining access to world-class capabilities, freeing up internal resources for other purposes, gaining access to resources not available internally, accelerating benefits from reengineering, improving efficiency of functions which are difficult to manage, making capital available for other purposes, reducing or sharing risks, providing a cash infusion (The Outsourcing Institute, 1998).

Surveys in the United States by The Outsourcing Institute (1997) showed that in 1997 companies with over USD 80 million in annual revenue increased outsourced services by 26% to USD 85 billion. The bulk of these expenditures related to strategic business services. Outsourcing of information technology was the fastest-growing function, and the one most likely to be outsourced (approximately 30% of outsourcing expenditures), followed by human resources (16%), marketing/sales (14%) and finance (11%). Human resource service outsourcing is growing rapidly for agency work and for seeking new employees. There is considerable stability in US outsourcing – 90% of outsourcing was

5. Comprehensive data are not available for human resource development services.

6. Growth rates cited are calculated on the basis of current prices.

undertaken by firms already involved in outsourcing. Furthermore, companies which outsource services are financially more stable than the average. In the United States, manufacturers account for nearly two-thirds of all outsourcing, with durable goods manufacturers accounting for close to 40% of all activity. Information services companies (telecommunications and technology companies) are substantial users of outsourcing, accounting for 13% of all activity, with information services increasing outsourcing faster than other industries (The Outsourcing Institute, 1997).

In Europe, information technology outsourcing is also growing rapidly, with total European IT outsourcing estimated at USD 15 billion in 1997 and expected to rise to USD 27 billion in 2001 as firms concentrate on their core competencies. The most active markets are in France, Italy and the United Kingdom.[7]

A Japanese survey showed that the following functions are most likely to be outsourced from the business sector: job training (20%), information systems (20%), production processes (17%), accountancy and tax (14%), R&D (14%) (MITI, 1997). The motives given by users are: promotion of specialisation in areas such as expanding the information network, improving human resource functions and employment-related benefits for workers, performance evaluation (65%); cost saving in areas such as responding to business fluctuations and restructuring (50%); improving business efficiency in areas such as concentrating on core activities, diversification of risk, improving flexibility, accelerating new business formation (36%). Furthermore, more than 70% of Japanese firms undertaking outsourcing reported that they had achieved their objectives.

Cost savings from outsourcing in Japan have been estimated to be of the following magnitudes: administrative services and logistics, between one-quarter and one-half of costs; information services, one-tenth of costs (Fujitsu Research Institute, 1998). Efficiency gains from outsourcing in manufacturing are probably an important contributor to high-level, consistent growth in manufacturing productivity. On the other hand, productivity performance in strategic business services themselves has been poorly researched to date and is more difficult to measure because of the heterogeneity of these services and associated measurement problems.

On the supply side, customer demand has been an important driving force for the development of business service suppliers. In the United States, the following are seen as important factors in choosing service suppliers: quality, price, reputation, flexibility, scope of resources, additional value-added capabilities, cultural match, existing relationship and location (The Outsourcing Institute, 1998). Outsourcing is generally expected to continue growing for: information services (software and hardware supply, system operation and maintenance), labour recruitment/provision of personnel, vocational education and job training, personnel management, human resources, R&D, planning, design, management consultancy and marketing, as well as professional services (legal, accounting and taxation consultancy), security, etc. Future demand in Japan for strategic business services (in descending order) was expected in: information services, logistics, business assistance services (consultancy), training, advertising/marketing, professional services (MITI, 1995).

A number of broad trends have recently been seen in outsourcing, all of which are reshaping strategic business service firms and industries. Outsourcing firms are increasing multi-sourcing arrangements, with closer relationships between service purchasers and service suppliers and greater involvement of service suppliers in core functions at the heart of business processes. This is likely to favour large international firms offering a range of strategic services. Outsourcing is moving well beyond IT and data processing, as demonstrated by very rapid growth in logistics, human resources, and back-office

7. *Infoserver, The Journal for Strategic Outsourcing Information*, August 1997, http://www.outsourcing-journal.com/issues/aug1997/html/legal.html.

operations. Large service suppliers, such as the international accounting and consulting firms, are stepping in from their traditional bases to provide new services and new bundles of strategic services.[8]

Box 1. **Human resource development services**

Data on the supply of human resource development services have proven particularly difficult to obtain. Consequently, no OECD-wide conclusions can be drawn concerning recent developments and trends in this area. Of the G7 countries, only two, France and the United Kingdom, reported quantitative information on human resource development services while Canada provided qualitative information. Austria, Mexico, Switzerland and Turkey provided quantitative data. Despite the shift towards knowledge-based economies, and the high political interest shown in ideas such as "lifelong learning", information is very scarce in standard statistical sources (ISIC/Rev.3, category 809 comprises adult and other vocational education and job training and vocational rehabilitation).

Three of the six countries providing quantitative information reported data for more than one point in time, and these data reveal strong growth in employment, value added and firm numbers for France, Mexico and the United Kingdom. For France, the value added of these activities grew by 35% in the period 1993-95 while employment and firm numbers expanded by 9% and 18%, respectively. Data for Mexico for the years 1988 and 1994 reveal the following growth rates: value added, 42%; employment, 55%; and expansion of firm numbers, 84%. The United Kingdom showed 29% growth in value added in 1995-96; a 19% increase in firm numbers in 1995-96; and 18% growth in employment in 1994-95. It is important to collect more comprehensive data for all OECD countries in order to track developments in this sector, especially as governments continue to stress the crucial importance of a continued supply of highly skilled workers and the necessity of "lifelong learning" to enable individuals, firms and countries to prosper in knowledge-based economies.

Educational and training services in Canada

In Canada, 55% of known firms engaged in the provision of education and training services have been established since 1984, making it a comparatively young sector. This sector is quite diversified, comprising specialised SMEs, training arms of companies in other sectors (such as equipment suppliers and consulting engineering firms) and training supplied by public educational institutions on a contractual basis. Canadian suppliers focus on job-related training and skills upgrading. The main areas of expertise associated with these services are: executive and management development training, computer-related training and supervisory communications, sales and marketing, and professional technical training. Provision of second-language training is a feature of Canadian educational services and significant numbers of foreign students attend such institutions. The Canadian government believes that a strong and vibrant training sector will play a key role in the transfer of knowledge and expertise to Canadian industry. There are no reliable estimates of overall industry revenue but it is believed that almost half of Canada's private education and training suppliers export their services, mainly to the United States and Europe.

Corporate training in the United States

Data for human resource development services are difficult to obtain for the United States. The US market is not very formalised and is highly fragmented. Despite positive effects of employee training and education on productivity improvement, US companies apparently offer less training to employees than do their European or Japanese counterparts. According to recent surveys, the US market for private and corporate training is worth USD 26 billion annually. Formal training is relatively concentrated, most of it in large companies (which spend three times more on training per employee than do small firms), and 60% is targeted at professionals and managers. Training for line workers and skilled labourers is usually more skill-specific and takes place on the job. Many small companies choose on-the-job training in preference to more formalised training, believing this to be more effective. The extent to which training functions have been externalised does not appear to have been captured in statistical data, nor has the creation/expansion of training functions by independent service providers in response to intensifying international competition, restructuring and associated needs for employment flexibility.

Source: Statistics Canada, Industry Canada; *US Industry and Trade Outlook*, 1998.

8. *Infoserver, The Journal for Strategic Outsourcing Information,* January 1999, http://www.outsourcing-journal.com/issues/jan1999/html/editor2.html.

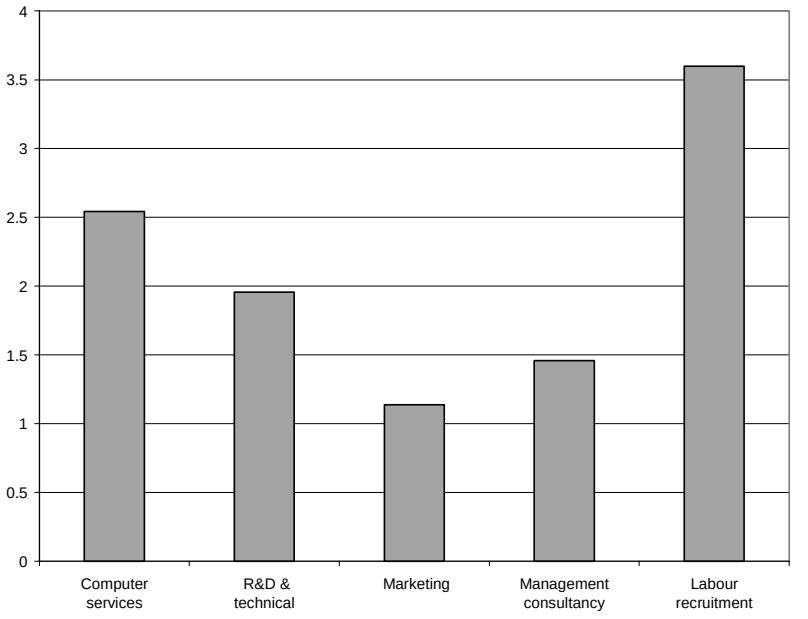
The following are seen as major economy-wide benefits from outsourcing: growth of new outsourcing-related sectors; improved service quality; and lower service prices. At enterprise level, outsourcing may be expected to: promote greater and more efficient specialisation of businesses, including in public services; lead to restructuring of firms' business and organisation; enhance international competitiveness; foster venture businesses; and contribute to long-term job creation. General obstacles to the growth of outsourcing include: immature and inefficient services markets; information asymmetries; and little experience in measuring and evaluating outsourcing relations. Obstacles on the user's side include: leakage of confidential information; reduced understanding of outsourced business; quality control; and reduced acquisition of know-how. Obstacles to implementation, covering both the supply and demand sides, include: industry- and country- specific laws and regulations; contractual issues and how they differ across countries; organisational and financial considerations; employment mobility and related human resource issues; public procurement rules.

Government policy may directly and indirectly affect outsourcing and the growth of business services by: improving the overall infrastructure for business services (fostering employment mobility, information, standardisation and quality, clarifying the contractual framework); promoting new businesses and venture businesses, including service businesses; encouraging market growth through regulatory reform; outsourcing public services such as education, welfare, etc. Industry associations can also play a key role in improving supplier quality, developing human resources, providing information, etc.

Employment

An estimated 11 million persons were employed in strategic business services in 1995, according to the data reported for this study. This is equivalent to approximately 2.4% of total OECD employment for the 21 countries reporting employment data (Figure 2). To appreciate the importance of this figure, employment in the entire OECD motor vehicle industry (ISIC Rev.2 category 3843) amounts to approximately 4.8 million. However, incomplete data for a number of countries and important data gaps, especially for employment in human resource development services, all point to an underestimation of total employment in these services. (Only Austria, France, Mexico, Switzerland, Turkey and the United Kingdom reported data for human resource development services. There are lesser gaps for R&D and technical services and for business organisation services.) Furthermore, data for the nearest available year were taken when employment data for 1995 were not available for some countries. Business organisation services employed the most, almost 5.1 million in 1995, of which 3.6 million were accounted for by labour recruitment services, compared with almost 1.5 million in management consultancy services. It should be added that the labour recruitment/placement branch of business organisation services included employees recruited and placed by agencies (Box 2). Computer-related services (computer software and information processing services) employed just over 2.5 million persons, and R&D and technical services almost 2 million. Marketing services were responsible for employing over 1.1 million. Given the data gaps, it is likely that employment in strategic business services in the 21 OECD countries in 1995 was well in excess of 11 million. More recent data for some countries indicate that strong growth in business services employment has continued.

Figure 2. **Employment in strategic business services in 21 OECD countries, 1994 or nearest available year**
Million



Source: OECD estimates, based on data reported by 21 Member countries. Important data gaps remain in the data reported. See Part 2 for country details.

The United States accounted for 53% of total employment in these strategic business services in the 21 OECD countries for which data were available. Japan ranked in second position with 10% of the total while the United Kingdom and France followed, with 9.3% and 7.8%, respectively.

Employment growth in these strategic business services has been strong in OECD countries over the past decade. For the countries for which the data allowed a trend to be drawn, it is clear that overall employment expanded substantially. Considerable country diversity in the composition and relative weights of different services as well as in growth patterns for individual countries is evident (see Part 2). In general, there are considerable problems in measuring employment in strategic business services as well as in other services sectors (Boxes 1 and 2).

In 1995, employment in strategic business services in the United States (excluding human resource development services) represented 6.3% of services employment and 4.6% of total employment. Of the 5.8 million persons employed in these activities in 1995, 2.6 million were engaged in the labour recruitment/provision of personnel, an increase of 90% on 1987 figures. Computer software and information processing services recorded employment growth of 71% during the same period. This field of activity has been estimated to have generated 200 000 new jobs between 1997 and 1998.[9] R&D and technical testing services employed over 1 million in 1995, an increase of 37% on 1987 levels. Employment in management consultancy expanded by 57% in the same period, and is estimated to have continued growing strongly, resulting in 500 000 new jobs in the 1992-98 period. Employment in advertising advanced least, increasing by 20% overall for the period 1987-95.

9. American Electronics Association, cited in the *Financial Times*, 3 June 1999.

Box 2. **Personnel supply services**

One of the most dynamic areas of strategic business services has been the personnel supply sector, which has experienced rapid growth in recent years. This sector provides staff on a short- or long-term basis to other sectors of the economy, in response to temporary staff shortages. Traditionally, the sector concentrated on the supply of office and administrative staff but nowadays it supplies increasingly a wide range of highly skilled staff.

An advantage for the receiving firms is that staff requirements can be managed more flexibly. In addition, using experienced staff as the need arises results in increased overall efficiency. A major disadvantage stems from the lack of employee continuity. Firms' core competencies can be undermined when they rely extensively on agency workers; another disadvantage is the higher cost of engaging agency workers (salaries plus margins for the supplying agency). There can be certain advantages for those employed through agencies, such as greater flexibility and variety in jobs and, frequently, higher pay to compensate for the more fragmented duration of work assignments. On the other hand, there are disadvantages: lack of employment security, fragmentation of work experience, absence of certain work-related benefits usually associated with permanent work contracts, and lack of training opportunities. To increase the benefits and limit the disadvantages of agency work, many countries (for example, the Netherlands) have recently clarified arrangements surrounding temporary work via private agencies, in order to provide greater flexibility for agencies and employers and to improve security and benefits for workers.

Although turnover in the provision of personnel services is of the same order as for other strategic business services, employment is considerably higher in personnel supply services than in other areas. As reported to this study there were 3.6 million employees in 1995, although this figure probably seriously underestimates the true total, owing in part to the method used to count and classify employees statistically. It is the statistical convention to assign agency workers to the employment agency (ISIC Rev.3 category 7491), and not to the business where they are actually accomplishing the work. However, in surveys an unknown number of agency workers may be assigned to their place of work, and in local employment data sets for example, agency workers may be classified in their place of work. Available data suggest that strong employment growth has continued.

The growth of agency work has potentially important impacts on productivity measurement. In the industries where agency workers are actually working, agency worker costs will be assigned to the agency and these costs recorded as purchases of external services (deducted from value added) by the business in which such workers work. The overall result is a reduction in both employment numbers and value added. The impact on productivity will arise from the extra value added which agency workers produce above their cost, which will be ascribed to the firm and industry where the agency workers are working. This may increase measured productivity levels and growth in that industry, and have an effect similar to that of outsourcing. On the other hand, value added in the industry providing agency workers will mainly consist of personnel costs for these workers, which may not fully reflect their overall contribution to value added in other industries. Overall, rapid growth in the provision of personnel and the growth of agency work in many OECD countries means that time series on employment, value added and productivity need careful interpretation.

In the case of Japan, R&D and technical services, at 30%, recorded the highest employment growth in the period 1989-94. Given data availability, it was only possible to compare 1995 and 1996 figures for Germany. In this twelve-month period, employment grew in all categories with the exception of computer software and information processing services, where a net decline was due to a significant drop in data processing employment. Employment in both R&D services and advertising in Germany increased by just over 12% in 1995-96.

In France, between 1993 and 1995, employment in the five strategic business services grew from 3.2% to 3.9% of total civilian employment, corresponding to a net gain in employment of 150 000. A more restrictive measure, using salaried employees but allowing for a longer time series, reveals that employment of salaried employees in these activities expanded by 44% between 1992 and 1997. There was, however, considerable diversity in the evolution of employment in the different activities: labour recruitment services (66%), computer services (34%), management consultancy (28%), marketing services (20%), and a decline in technical testing services employment (-18%) during the same period. The evolution of employment in these activities over the period 1989-97, resulting from an official

study[10] and covering a larger range of business services, is estimated at 407 000 jobs, an increase of 21.5%, which contrasts with a loss of 625 000 jobs in manufacturing.

Since 1980, the United Kingdom has recorded considerable employment growth in services in general and even more significant gains in business services employment. The number of employees in the broader category of business services[11] grew by 94% from 1.54 million in 1980 to 2.98 million in 1998, compared with a growth rate of 28% for services employment in general. Employment in strategic business services expanded strongly between 1993 and 1997: computer services (65%), marketing services (46%), human resource development services (38%), management consultancy (30%), and a mere 5% in employment in R&D and technical services. Employment growth was fastest in labour recruitment services but statistical measurement difficulties for data prior to 1997 preclude an exact measurement.

In Canada, computer services and advertising were responsible for substantial job creation. Employment trebled in computer services between 1987 and 1996, and advertising continued to make large employment gains in the 1990s, growing by 14% in 1995-96.

Smaller OECD countries also attach considerable importance to the contribution being made by business services in job creation. As evidence of this, Austria chose "Business Services and Employment" as one of its industry-specific themes for the duration of the Austrian EU presidency in 1998, and commissioned a major study.[10] Employment in business services in Austria had grown by, on average, 6% a year during the 1980s and strong growth continued into the 1990s. Business organisation services (in particular, labour recruitment services) and computer services have made considerable employment gains in recent years.

In Australia, business services have made a substantial contribution to growth in employment in the 1990s (Figure 3). Property and business services contributed 48% of total growth in employment in services between 1990 and 1998.

In Finland, strategic business services generated significant employment in recent years, expanding by 29% between 1993 and 1995. Ireland, too, has experienced high employment growth rates in business services throughout the 1990s, particularly in the area of computer software. After the United States, Ireland exports more software than any other country in the world. Currently more than 700 software companies operate in Ireland, over 80% of which are Irish-owned, although most are small.

A significant finding of this data collection exercise was the predominance of small firms in strategic business services. Average firm size, when calculated by country, was systematically a fraction of that for the manufacturing sector or for the economy as a whole (see Part 2). In addition, the average is likely to be overstated due to the inclusion of labour recruitment services which usually have a high number of employees per firm. It has been observed that, overall, the business services sector can be characterised as having a large number of small firms with few employees and a small number of firms with a large number of employees. The latter are often highly internationalised.

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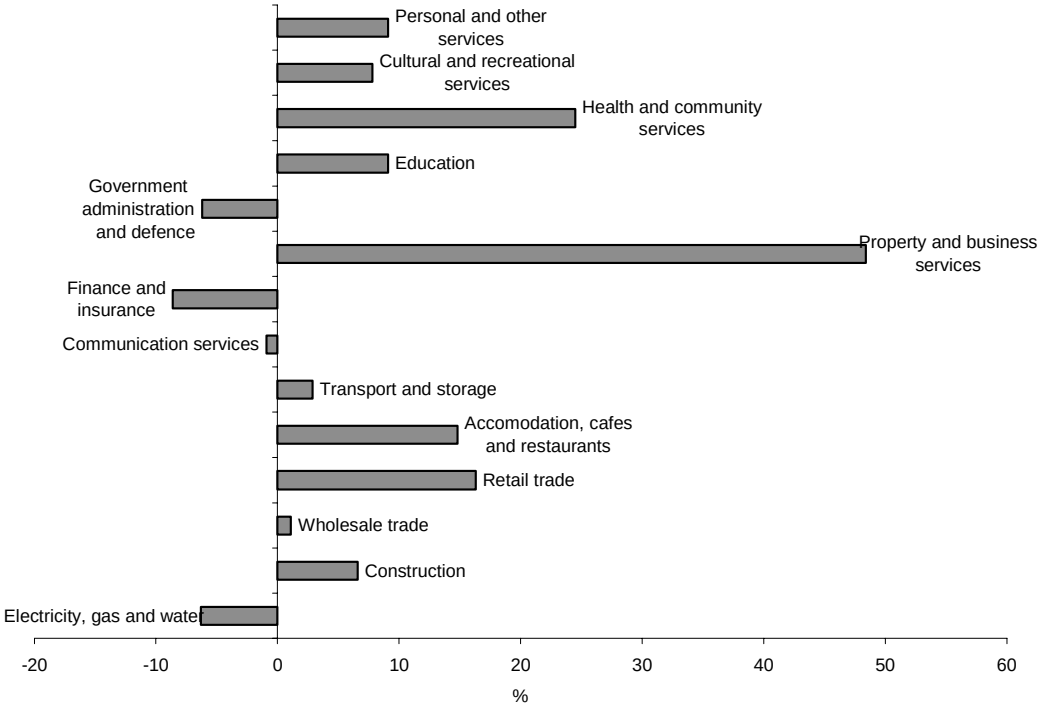
10. Austrian Federal Ministry for Economic Affairs, *Business Services and Employment: Contribution of Five EU Member States on their Situation of Business Services*, 1998.

11. NACE 71-74.

Figure 3. **Contribution of services to employment growth in Australia, 1990-98**



Trade

Services are traded internationally through four main channels, not all of which are measured well in current trade statistics, this is notably the case for the third category below, often referred to as foreign affiliate trade in services (FATS):

- *Cross-border supply* (supply of services from the territory of one country into the territory of another country).
- *Consumption abroad* (supply of services in the territory of one country to a service consumer of another country).
- *Commercial presence* (supply of services by a services supplier of one country through commercial presence in the territory of another country).
- *Presence of natural persons* (supply of services by a service supplier of one country through the presence of natural persons of that country in the territory of another country).

Trade in commercial services is considerably less than merchandise trade. In 1997, world exports of all commercial services were valued at USD 1.3 trillion, amounting to only 20% of merchandise and commercial services exports combined (WTO, 1998). This compares with an average share of services in GDP for most countries in the region of 60%-70%. What explains this shortfall? Local presence is one reason. The nature of services provision is such that services have a large component of person-to-person interaction, often involving tacit information, which can only be provided through local

presence. Small firm size is another. Service suppliers are predominantly small firms, and are therefore less globalised and less disposed than large-scale manufacturing or agricultural operations to export high-volume homogeneous products. Product differentiation and cultural preferences are other reasons. Because of the customised nature of services, the geographical proximity of suppliers and clients is often important. Finally, there are barriers to the supply of services by foreign firms, such as restrictions on local establishment and operations in some areas.

However, trade in commercial services has been growing faster than merchandise trade, with exports of commercial services growing at 8% a year in the 1990-97 period while merchandise exports grew at 7%. Within commercial services, "other commercial services" were the most dynamic, and within this group, strategic business services such as computer and information services appear to have had the highest growth in trade. This high growth can be explained by a number of factors including: very rapid growth in demand for these services; the growth of international outsourcing, particularly by manufacturing firms; the rapid globalisation of manufacturing, often resulting in services providers establishing an international presence abroad alongside major manufacturing clients; and the growing size of some strategic business service suppliers in consulting, personnel supply and advertising, increasingly the result of mergers and acquisitions, which facilitates their globalisation. The liberalisation of trade and investment in services also serves to encourage the international expansion of services supply.

Cross-border outsourcing is becoming a significant source of international trade in strategic services via a number of different models of outsourcing of services provision: through "out-tasking" of functions to a foreign enterprise for performance offshore or through the adoption of worldwide services outsourcing strategies such as accelerated design through "7x24" design operations using interdependent teams in different time zones; reliance on a foreign external enterprise to support a foreign subsidiary, often based on global outsourcing strategies; establishment of a jointly owned subsidiary to provide shared services to affiliates; use of a multinational services enterprise to support a multinational customer's operations in multiple countries (including the provision of "private label" services to facilitate the rapid creation of foreign business support infrastructures).[12]

Given that detailed trade data for business services are not available for the vast majority of countries, this study has relied to a great extent on US trade data. The United States is the largest international supplier of business services and US exports have been growing faster than domestic demand in recent years. In 1997, the United States reported more than USD 6.6 billion in exports of strategic business services, of which 46% were computer services. In recent years, an increasing number of service providers have been delivering their services via multinational operations. The United States is a leading player in this respect, and US firms dominate the top ten global service suppliers list in the activities for which such lists are compiled. To appreciate the internationalisation of US strategic business services, it is important to consider sales of US majority-owned foreign affiliates, which clearly dwarf US export figures. For example, sales by US majority-owned foreign affiliates of computer services amounted to USD 28.3 billion in 1996, and sales of advertising services amounted to USD 4.9 billion in 1995. In addition, the foreign direct investment position of the United States in these business services worldwide amounted to approximately USD 11 billion in 1994.

The European market was increasingly the principal destination for US exports: 47% of advertising exports, 42% of exports of computer services and management consultancy services and 39% of R&D and technical services exports. These shares were considerably higher in 1997 than in 1992 when they ranged between 28% and 34%. Similarly, the United States sourced a significant amount of business

12. *Infoserver, The Journal for Strategic Outsourcing Information,* May 1999, http://www.outsourcing-journal.com/issues/may1999/html/legal.html.

services imports from European countries: USD 1.2 billion in 1997. Japan accounted for less than 10% of US imports and exports of computer services and management consultancy. However, the Japanese market was the destination of one-quarter of US exports of R&D and testing services and was also the source of almost one-third of US advertising imports.

The United Kingdom had exports of these strategic business services totalling GBP 4.6 billion in 1997 compared with imports valued at GBP 2.2 billion and it enjoyed a healthy trade surplus in each activity, with exports in most cases a multiple of imports. Computer services were by far the most important activity, accounting for 47% of exports of these strategic business services, while imports of computer services represented 63% of imports of the same services. The United States is an important trading partner but large and growing deficits in the 1990s were experienced in trade with the United States in computer services, management consulting and public relations. In contrast, the United Kingdom enjoyed a healthy, although fluctuating, trade surplus with the United States in advertising services.

Trade data available for Canada for the 1988-97 period reflect strong growth in exports and imports of the individual business services categories. Computer services and R&D services have earned healthy surpluses since the early 1980s. In the case of computer and information services, exports were roughly double imports during the last decade. Similarly for R&D services, exports vastly exceeded imports during the same period. In contrast, trade in advertising services recorded deficits, with imports three times the level of exports in 1997.

Norway benefited from a strong trade surplus in strategic business services in recent years, as indicated by trade data for 1995. In that year, exports were multiples of imports for all the principal categories of business services with the exception of computer services. Exports of R&D and technical testing services were seven times the level of imports in 1995, while the ratio was approximately three-to-one for marketing and business organisation services.

Comprehensive trade data are not readily available for most OECD countries and the US-sourced trade data permit only a partial view of trade in business services. The collection of detailed information and data relating to trading patterns between the different OECD and non-OECD countries and geographical zones would be valuable for determining current trends and trade prospects for these strategic business services.

The next section deals with the impact of policies on the development and international spread of strategic business services, and draws some policy implications from likely developments in these services.

GOVERNMENT POLICIES

Business services are growing for a variety of strategic reasons, including the drive by firms to increase productive efficiency in an increasingly knowledge-intensive world, the growing trend towards outsourcing and contracting out of services by firms and governments, downsizing of firms in some industries, and the increasing need for small firms to improve their economic performance through the use of external resources, knowledge and skills to supplement internal resources. Increased efficiency in business services will not only benefit business services themselves, but will also have positive spillover effects in a wide range of other service and manufacturing sectors, and lead to improved overall economic welfare. For these reasons, business services are of increasing policy interest.

Government policies have two different kinds of effect on business services (Table 1):

- A direct effect through promotion of the *supply* of business services (for example, support for R&D in services, support for strategic services supplied to SMEs, incentives for international trade and investment services) available either to the entire business sector or through promotion specific to services.

- An indirect effect, owing to increased *demand* for services by other businesses (for example, demand for consulting and training services), or to changes in regulations or the business framework which encourage firms to use more externally supplied business services.

Table 1. **Typology of policies**

	Incidence of policies X = relatively common	
	Supply	**Demand**
R&D and technical testing	X	X
Marketing		
Business organisation		X
Human resource development	X	X
Information technology related		X
Services to SMEs	X	X
Liberalisation and competition	X	X

Source: OECD.

Strengthening the policy framework for business services

Governments now generally profess to having few or no sector-specific policies, preferring economy-wide policies which support a stable, growth-promoting macroeconomic environment. Such policies usually include fiscal and regulatory reform, educational policies to promote the supply of a highly skilled workforce and efforts to assist the business sector in international as well as domestic markets. Government initiatives to support business services directly mainly consist of provision of training and

educational services in and by the government sector, and considerable funding for R&D and technological services in some countries (see below).

Box 3. **The European Commission's policy framework for business services**

The Industry Council of the European Commission has endorsed a broad approach to business services policy. Business services and, indirectly, industry are covered in a comprehensive policy framework with the following objectives: *i)* productivity improvement; *ii)* promotion of employment possibilities; *iii)* improved competition (outsourcing); *iv)* promotion of industrial co-operation; *v)* promotion of the supply of and the demand for business services; *vi)* modernisation of public administration.

The implementation of these objectives will be undertaken by three main policy actions and a number of concrete measures:

- Facilitate decision making by creating a comprehensive theoretical and analytical basis for continuous monitoring of the situation of business services in order to ensure the necessary background for decision makers at the enterprise, public administration and political level. To this end, there is a strong need to improve statistical data on business services and information on how they contribute to competitiveness and job creation. Important measures undertaken include: together with Eurostat, statistical pilot projects on the supply of various services; working towards creating an organisational framework or observatory for the continuous collection of data; monitoring and analysis of all services adding value to industry complemented by a quantitative, statistical project by Eurostat on the demand for business services; a project to gain better knowledge of the productivity and competitiveness of the business services sector. In the short to medium term, these actions will gradually lead to a better balance between data and information collection in manufacturing and in services.

- To create an internal market for business services. Any business service lawfully provided in the country of establishment should be freely available to clients in other member states, without the need to verify in each instance whether it is compatible with regulatory, administrative, professional provisions or other barriers in the client country. However, many national barriers still exist; their removal would lead to reduced compliance costs and increased competition within and outside the internal market, stimulating more efficient provision of business services. In order to bring this about, a review of existing national barriers is under way with a view to assessing their justifiability or proportionality. Mutual recognition of provisions will be sought and new EU legislation proposed.

- To improve the environment in which business services and their clients work, by using existing Community policy instruments to enhance competitiveness. Policy instruments due to be further developed include standardisation and certification of qualifications, SME policy, R&D, training, public procurement, competition policy, structural policy, GATS, and the Information Society and electronic commerce.

Source: Commission of the European Communities, 1998a, 1998b.
Web site: http://europa.eu.int/comm/dg03/comms.htm.

With regard to improving framework conditions, a number of governments have implemented regulatory measures to deal with quality and certification/accreditation issues. There have been some recent French policies in this domain and the UK Government has been active in engaging dialogue with sectoral organisations, companies and stakeholders to develop projects to improve quality standards within the market research area, encourage continuous professional development of management consultants, and identify the support required by smaller companies. Germany has policies which include measures for specialised training for service-sector employees, including adjustment of the apprenticeship system. Finland attaches great importance to the role of the telecommunications industry as well as information technologies and has focused deregulation and educational reforms on these activities. In the Netherlands, the Supplying and Outsourcing programme aims at improving co-operation in R&D with the ultimate goal of strengthening the international market position of Dutch suppliers; it is expected to have demand as well as supply impacts with respect to business services, and in particular R&D services.

The European Commission has developed a broad approach to business services policy, and presented a comprehensive policy framework for business services covering: productivity improvement, employment, competition, industrial co-operation, promotion of services and modernisation of public administration (Box 3).

*C*ompetition policy is another framework condition affecting the supply of business services. There is considerable concentration in some strategic business services, despite the small average size of establishments and enterprises. For example, in advertising, business consultancy and computer-related services, the ten largest firms in many countries account for a considerable share of total turnover. Furthermore, they tend to operate internationally and have large shares in the world market. In light of recent concerns surrounding the proposed mergers of large global accountancy businesses, the same issues may well arise in strategic business services.

Governmental competition and regulatory policy have two kinds of effect on the demand for business services. First, increasing competition will in many cases increase pressures on firms to reorganise their activities to use assets more productively and increase productivity and performance. To the extent that this is accompanied by decreased size and increased outsourcing, it will increase demand for marketed business services. Similarly, liberalisation, and elimination or limitation of monopoly power in areas such as utilities and infrastructure provision, may also lead to greater demand for such services. As unit size diminishes, former monopolies are obliged to shed non-core functions, outsource various business services and undertake extensive training in the new competitive environment. A further source of demand for strategic business services, for example, for marketing and advertising services, is likely to come from the liberalisation of broadcasting and the media associated with the advent of new technologies.

Promoting supply of business services

Research and development and technical services. Many countries, including Canada, Finland, France and the Netherlands, emphasise the importance of R&D in the business services sector and its contribution to the dynamism of business services. In OECD countries, a considerable share of national R&D is carried out in the services sector (especially in the R&D services industry, computer services and other business services, including design and engineering) and a significant share is supported by government funding (Young, 1996). Furthermore, in most countries, a higher proportion of R&D is financed by government in services than in manufacturing. Over 20% of services R&D is funded by government in Austria, Germany, Italy, Norway and Spain (Table 2). In the United States, one-quarter of computer services R&D is funded by government. Government funding includes both direct support (*i.e.* to expand the supply of computer services R&D), and government contracts and procurement (*e.g.* defence and space contracts contracted by government).

Table 2. **Relative share of services R&D financed by government**

	Computer & related activities		Research & development		Other business activity n.e.c.	
	1987*	**1995***	**1987***	**1995***	**1987***	**1995***
Australia (1991)	0.02	0.02	0.19[2]	0.17	0.05	0.02
Austria (1989-93)		0.14	0.49	0.41	0.43	0.27
Belgium			0.12			
Canada	0.10	0.07	0.20	0.10	0.32	0.13
Czech Republic (1995-96)		0.13	0.08	0.11	0.02	0.12
Denmark (1989-93)	0.09	0.01		0.08	0.36	0.27
Finland		0.10	0.18	0.17		0.11
France (1992-94)	0.10	0.08			0.22	0.27
Germany (1993)	0.59	0.51				
Greece (1988)				0.03		
Iceland			0.27			
Ireland (1993)		0.11	0.13	0.24		
Italy (1991)			0.52	0.49		
Korea (1997)						0.01
Mexico (1994-95)				0.01		
Norway	0.02[3]	0.05	0.39	0.36	0.07	0.13
Poland (1994-95)	0.14		0.40	0.39		
Portugal (1995)				0.11	0.10	0.04
Spain (1989)	0.14	0.10	0.33	0.45	0.30	0.19
Sweden		0.01		0.13		0.09
Turkey (1993)		0.01				
United States (1993-94)	0.23	0.19	0.45	0.52		

* Or nearest years, see parentheses. 1. 1992. 2. 1988. 3. 1991. 4. 1993.

Source: OECD.

Similarly, public sector financial flows to intermediary R&D institutions aimed at generating a supply of R&D and related services are also significant in many OECD countries. Total support to these institutions increased from around USD 850 million to over USD 1 billion for the period 1989-93 (OECD, 1996b, 1998e), thereby expanding the supply of R&D, testing, consulting, provision of specialist staff and training services. Although it would appear that most such institutions priced services at market rates or to cover costs of supply, it can be argued that there is a large element of government support in the services supplied to businesses by such intermediary institutions.

Such institutions often play an important role in providing strategic R&D and other services to small businesses. Although they potentially compete with private sector business services providers, they usually operate in areas which are somewhat different from those serviced by business sector providers. Furthermore, they may expand the total supply of R&D and technical services by: *i)* developing new R&D and technical services which are then licensed or franchised to the R&D and technical services industry; *ii)* spinning off commercial R&D service providers; or *iii)* being privatised.

Marketing services. In all OECD countries, government agencies directly or indirectly provide services to firms to promote exports, usually by providing market information and other advice (often focused on SMEs) on export expansion, export training, risk assessment, organising trade fairs, etc. To the extent that these services are provided by, or in conjunction with, the business sector, they expand the supply of commercial marketing services.

Business organisation services. Many governments have programmes to expand the provision of consultancy services to business. These programmes aim at increasing the use of such services (*i.e.* increasing demand) in the business sector, by raising awareness of the benefits of such services, and to some extent, by lowering costs. To the extent that some programmes are also aimed at raising the quality of consultancy services, particularly to smaller firms, then they are likely to affect the supply side and expand higher-quality supply. Efforts by the governments of Austria, France, Norway and the United Kingdom have demonstrated the importance they attach to these issues.

Human resource development services. Governments in most countries play a major role in providing or subsidising not only compulsory primary- and secondary-level education and a considerable share of tertiary education, but also initial institution-based vocational education and training. Government-financed non-profit and intermediary institutions are active in providing services in the area of training and employment programmes to industry (OECD, 1995a, 1996b, 1998e). Through a variety of tax incentives and fiscal measures, most governments also directly support the cost of firm-based training. Reforms in many countries and growing demand for continuing skill formation by firms and individuals may also mean that some government training and skill formation services will be transferred to the business sector or operate along commercial lines, and become part of the business services supply industry.

Information technology-related services. Apart from government financing of computer services R&D (see above), there is little evidence of government direct support to the information technology services and computer services industry through government resource transfers. In the past, however, computer-related hardware and software development programmes were of major importance in all countries, and some of these programmes continue in various applications. Of particular importance to this sector have been the advances in intellectual property protection of computer programs, and trade liberalisation. The GATT Uruguay Round (finalised in December 1993): *i)* extended copyright protection to computer programs as literary works under the Berne Convention; *ii)* laid down the basis for copyright protection of original compilations of data and databases; and *iii)* added new provisions on authors' rights to authorise or prohibit commercial rental. This followed considerable efforts in individual countries to update and adapt intellectual property protection of software. Enforcement of intellectual property protection has been stepped up. This international framework for software protection potentially expands the supply side by providing supplying firms greater certainty to benefit from the development of software for sale. The Information Technology Agreement (March 1997), a commitment to eliminate tariffs on an agreed broad range of IT products, including software, by the year 2000, will also undoubtedly expand the market for IT-related services.

Small and medium-sized enterprises. Many of the activities and initiatives described above are aimed at improving the supply of strategic services to small firms. Government-financed non-profit and intermediary institutions are active in providing services to small and medium-sized enterprises (OECD, 1995a, 1996b, 1998e). To the extent that government policy initiatives directly increase the supply of these services to small firms and improve their quality, they will potentially expand the supply side.

Promoting demand for business services

Research and development and technical services. Most OECD governments have increased their emphasis on R&D and technology in the business sector, either directly, through R&D and technology policies, or indirectly, by encouraging innovative solutions to environmental problems, for example, as can be seen in the shift towards greater support for R&D and technology in government support programmes and in the widespread interest in supporting technology development and transfer

involving SMEs. For the period 1989-93, R&D and technological innovation support to industry increased from about USD 6 billion (net cost to government) to around USD 9 billion and the share in total net transfers to industry increased from around 16% to 18% of total outlays (OECD, 1996b, 1998e). Similarly, OECD data show that government defence-related R&D procurement remained stable at around USD 30 billion, despite historical geopolitical changes and expected run-downs in expenditures; space procurement and contracting has been growing (from USD 4.9 billion in 1989 to USD 6.4 billion in 1993). Although most of these transfers were to individual and usually hardware-producing firms, to the extent that this has increased R&D activity and that services contractors are involved, such policies boost demand for R&D and technological services.

Marketing services. Direct government policy effects on marketing (including advertising) are probably fairly limited. In some countries, general concern with supporting innovation and improving competitiveness in SMEs has extended to support for marketing, which has been seen to be weak. Schemes range from improving marketing performance in large numbers of individual firms (for example, the UK Consultancy Initiatives of the early 1990s) to support for joint marketing efforts (network promotion schemes in Denmark) (OECD, 1995a).

Business organisation services. Two different kinds of policy interventions are likely to increase demand for organisation-related business services. The first is increasing government policy interest in promoting organisational and technological change in enterprises to improve efficiency, raise productivity and enhance aggregate growth. A number of governments (for example in Denmark, Finland and Norway), have introduced reasonably comprehensive approaches to promoting diffusion of organisational innovation or extended technology diffusion support to include organisational change. This has followed the realisation that investments in organisational change and upskilling are necessary to ensure productivity and efficiency gains (OECD, 1998c). To the extent that such initiatives increase demand for specialised consultancy services, they will boost this activity. An example is the UK Consultancy Initiatives of the early 1990s aimed at increasing the use of consultants to tackle SMEs' lack of management and technical skills, and their relatively poor use of outside expertise. Similar schemes have operated in Norway (the BUNT scheme), Australia, Canada, France, Germany, the Netherlands, some states of the United States, in Japan through the prefecture-level assistance networks, and in Portugal and Spain (OECD, 1995a).

The second kind of policy intervention is the move in most countries towards reducing impediments to the use of non-standard forms of employment, including the removal of barriers to the provision of temporary employees and other forms of agency work (OECD, 1998a, 1998c). Non-standard employment includes part-time employment, temporary, short-term and contract employment, annualising and averaging of working time, and unusual working hours. Such liberalisation has increased demand for specialised employment services, which provide temporary employees but may also provide other employees working under other kinds of non-standard arrangements. This area of business services has grown particularly rapidly and in some countries (for example in the Netherlands), there have been policy initiatives to underpin this trend by improving job security within flexible employment. Structural change in the provision of employment services (*e.g.* in Australia where government employment services have been contracted to the private sector), have also directly stimulated the supply of business organisation-related services.

Human resource development services. Growing policy interest in all aspects of the development of the knowledge-based economy and the promotion of lifelong learning strategies for individuals suggests that the training and education services sector is likely to grow rapidly. More importantly, the

structure of the supply side is likely to change.[13] Some of this work-related training and education will always come from traditional sources of training and skills development: vocational and technical training institutions, universities and the like, which are in most countries largely state-funded.

The requirements for more just-in-time training and the need for specialised and more frequent training suggest that an increasing share will be provided by specialised business services providers, as can be seen, for example, in areas such as information technology-related and office skills training. One large sample of firms in the United States showed that training companies and independent consultants were cited as a training source by almost 90% of firms, more than double the use of community colleges as sources of training (Bassi and van Buren, 1998). This indicates the widespread use of private sources to provide training needs. The same pattern is seen for individuals participating in adult learning and training. In most of the countries for which data are available, employers provide financial support to between 20% and 40% of adult education participants, compared with government financial support to less than 10% of participants (OECD, 1997a). A considerable share of support by employers for adult education is likely to go to specialised training providers.

In terms of government policies, skills can be raised through government-funded training or through incentives for employers and individuals to train, as well as through unaided efforts by employers and individuals (OECD, 1998c). Work-related and labour market training shows a mixed pattern of expenditure in the 1990s. Most money goes to labour market training for unemployed adults and those at risk. Expenditures tend to be cyclical and follow unemployment rates, although some may be more strategic and aimed at overcoming well-known training gaps in services occupations, in small enterprises, and for those in precarious employment or in disadvantaged groups. To the extent that some of this training, and possibly an increasing share, is carried out by private sector providers, such efforts will increase the demand for training and education services providers.

As measured by training expenditures and the proportion of participating employees, firm-based training seems to be increasing. Most countries provide incentives through tax deductibility of training expenditures, although eligibility criteria are often tight. Few countries provide other incentives, for example through broad-based levies (France and Hungary are exceptions). For individuals, there are even fewer across-the-board incentives to train and pursue lifelong learning strategies, although there are many piecemeal schemes, and in the United States and the United Kingdom there are efforts to strengthen incentives for individuals' training. Analysis of current systems of training support suggests that there are unlikely to be dramatic effects on the supply of training and education services that can be directly attributed to government incentives. Nevertheless, the continuing interest of governments in fostering the knowledge-based economy, and the exploration by some countries of new incentive schemes, suggest that such efforts are likely to be favourable to private sector provision of firm-centred training services in future.

Information technology-related services. Information technology, computers and software have received much attention in all countries for several decades now.[14] A large number of schemes have been designed, first to develop new, faster, higher-capacity computers and computer components, then to develop computer-based applications, subsequently to diffuse information technology applications throughout the economy, and currently to develop Internet applications and electronic commerce and new communications applications. Tools used ranged from support to individual firms developing hardware and components and improving the infrastructure for diffusion to, at the present time, the

13. This, despite widespread evidence of disincentives that discourage enterprises from providing adequate training, or the right kind of training. See OECD (1996c) and (1998c).

14. See OECD, *Information Technology Outlook* (1995b, 1997d).

development of a regulatory framework which will encourage rapid technological development and diffusion while encouraging broad-based competition. Such programmes have doubtless affected the demand for and structure of information technology and particularly, software-related services. Examples include major efforts to improve the diffusion of applications of information technology and microelectronics widely across industry and services, which will most likely increase demand for specialised software services designed to increase the efficiency of applications.

Small and medium-sized enterprises. The high level of policy interest in SMEs is also likely to increase demand for strategic business services. It is generally argued that SMEs have major deficiencies in the intangible assets that drive business competitiveness in terms of technology, management and skills, organisation marketing and information technology. In all of these areas, SMEs are likely to lag larger firms, and this has long been a major argument for policy discrimination in their favour.[15] Market failures are often cited to justify special support or favourable conditions for technology-based start-ups or provision of information to enable small firms to enter global markets. To the extent that such policies increase demand for external inputs to improve SME competitiveness, they increase demand for strategic business services.

International issues

Overall, services are not traded to the same extent as goods.[16] Trade in services has only recently become a focus of attention. Nevertheless, services trade has been expanding rapidly and the liberalisation and reduction of barriers to services trade have high priority. Business services require highly qualified labour, and highly developed countries probably have a competitive edge in international markets. Furthermore, trade in services is less exposed to price competition than trade in goods. For business services, further liberalisation of international trade and investment will potentially expand supply and improve the competitiveness of services providers. Globally, cross-border provision of services continues to be subject to considerable restrictions, and the General Agreement on Trade in Services (GATS) overseen by the World Trade Organization (WTO), is only beginning the work of trade liberalisation.

Business services are not as highly regulated as other areas of services, and market access conditions tend to be fairly liberal. Often, there are no specific government regulations, and the opportunities to supply services abroad depend on the general foreign investment regime and regulations in the target market. However, restrictions have been identified in some markets, notably in the areas of engineering services (and government procurement), advertising, employee recruitment, and education services, mainly in non-OECD countries, but also in a few OECD countries. An illustrative list of barriers to international expansion is given in Table 3. To the extent that restrictions exist, it has been suggested that these services may need more attention, for example in the next round of GATS negotiations.

15. For a summary of the role of SMEs and the issues confronting them see OECD (1996c), particularly Chapter 7.

16. Export values in 1997 for commercial services USD 1.3 trillion; merchandise USD 5 3 trillion (WTO, 1998).

Table 3. **Examples of trade and investment access issues in selected business services**

Business services	Limits on operations
R&D and technical: Engineering	***Brazil:*** local partnership and performance requirements, non-transparent registration. ***China:*** restrictions on rights of establishment and practice, joint ventures treated favourably. ***Colombia:*** restrictions on foreign employees per firm. ***Costa Rica:*** restrictive recognition. ***India:*** limits on foreign establishment and practice, market access restrictions. ***Indonesia:*** market access restrictions, limits on foreign equity, must operate in joint venture with local partner, limits on foreign workers. ***Japan:*** market access issues. ***Korea:*** restrictions on establishment, restrictive registration requirements. ***Malaysia:*** local joint venture necessary, professional requirements, cross-border supply impediments. ***Philippines:*** limits on practice by foreigners. ***Chinese Taipei:*** restrictions on right to establish and practice. ***Thailand:*** restrictions on foreign majority share. ***Venezuela:*** restrictive certification requirements.
Government procurement, including technical and engineering services	Many countries: continuing non-transparency of procurement practices.
Marketing: Advertising	***Brazil:*** restrictions on foreign-produced advertising. ***China:*** restrictions on investment. ***Indonesia:*** ban on foreign investment. ***Korea:*** highly regulated TV and radio advertising. ***Malaysia:*** limits on maximum investment, limits on foreign advertising. ***Philippines:*** limits on foreign ownership of advertising agencies to 30%. ***Saudi Arabia:*** restrictions on investment in joint ventures for advertising and marketing.
Business organisation: Recruitment	***Indonesia:*** restrictions on consultancy market access, limits on foreign equity, foreign workers ***Japan:*** limits on staff categories handled by recruitment and interim employment agencies but recent progress.
Human resource development: Education	***China:*** restrictions on investment, only non-profit education and training joint ventures permitted.

Source: OECD, compiled and adapted from the following trade reports: Australia http://www.dfat.gov.au/search. Canada http://www.infoexport.gc.ca/section4/mktx-e.asp. Japan http://www.miti.go.jp/report-e/g400001e.html. United States http://www.ustr.gov/reports/nte/1998/contents.html. European Commission http://mkaccdb.eu.int/.

In advertising, most countries have decreasing restrictions on marketing and advertising scope and penetration. A major remaining issue is the very diverse range of regulations in all countries on the kinds of marketing and advertising allowed, which include controls designed to protect health, uphold decency, and protect privacy. A recent WTO report suggests that, in advertising, an important concern regarding barriers to international expansion is trade impediments caused by domestic regulation.[17]

In comparison, professional services (legal, accountancy and auditing, engineering and architectural, medical and paramedical services) have their own particular characteristics, and are typically regulated more stringently than other business services.[18] Professional services are the subject of numerous domestic regulations at national and sub-national level, as well as by professional bodies and associations, aimed at setting qualification and experience standards and the organisation of the profession. These services have received more attention than other business services in terms of liberalisation requirements, but to the extent that there are similarities between strategic business services and professional services (for example, engineering is in both groups), the kinds of restrictions applying to professional services also hinder expansion of business services. A major conclusion of the OECD study on engineering and accountancy, legal, and architectural services was that a regulatory regime open to entry of new firms and professionals and able to ensure high standards will contribute most to market development (OECD, 1996a). Nevertheless, restrictions on market entry and on competition remain, including:

- Local presence and nationality requirements which prevent cross-border trading.
- Restrictions on foreign investment and ownership of firms and requirements for local partners.
- Restrictions due to lack of recognition of foreign qualifications and expertise.

Considerable progress has been achieved through national efforts[19] and the Working Party on Professional Services under the WTO General Agreement on Trade in Services (GATS, already requiring Most-Favoured Nation Treatment, National Treatment, and Market Access) in ensuring that domestic qualification regulations, technical standards, and licensing requirements do not constitute unnecessary barriers to trade. New work has also been undertaken by the OECD on barriers to international trade in services.[20] Further liberalisation efforts will undoubtedly improve efficiency and expand the supply of business services.

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17. WTO document S/C/W/47, "Advertising Services". As part of the trade in services exchange of information programme, the WTO Council has started a series of sectoral discussions focusing on the manner in which different services are traded and regulated. Services are being taken up in the order in which they appear in the services Sectoral Classification List, and background papers are being prepared by the WTO. Of the strategic business services included in the OECD report, the following have been covered in this exercise: Construction and engineering services, Architecture and engineering services, Computer and related services, Advertising services (WTO, 1998).

18. See European Commission, *Market Access Database*, Opening world markets for services, Business services, including Professional services: http://mkaccdb.eu.int/.

19. For example, by enhancing possibilities for mobility of personnel through assessing competence and skills as well as educational qualifications, with noteworthy work in Australia, the United Kingdom and the United States; temporary licensing efforts within NAFTA; and attempts to improve mobility within the European Union.

20. The OECD Trade Directorate is undertaking a pilot project to assess the incidence and relative restrictiveness of barriers to international trade in services, ahead of the expected launch of

To the extent that there are restrictions on the international operations of strategic business services providers, such restraints are anti-competitive and ultimately restrict the supply of these services. If these restrictions are not addressed and reform does not progress, the expansion and internationalisation of strategic business services will be slowed, with potentially negative effects on business efficiency and competitiveness.

It is foreseen that liberalisation of communications services, combined with rapid growth of Internet penetration and the potential for widespread use of electronic commerce, will affect demand for business services. Much Internet/e-commerce expansion is driven by software developments and this directly increases demand for software services of all kinds. Furthermore, electronic commerce has great potential and is likely to expand demand for all business services (OECD, 1999). Examples of potential expansion of demand include:

- *Education, training and skill formation services*. Expanded use of all kinds of interactive and distance learning, often combined with increased international supply of education and training services.

- *Technology and consultancy services*. Where the main activity of these services is transmission and sale of information and knowledge, client interaction can be improved and service provider "reach" extended.

- *Advertising and marketing services*. These are likely to undergo major changes, particularly as more suppliers sell directly to consumers ("disintermediation"), in many cases via electronic versions of established catalogue shopping, and as electronic databases containing information on shoppers and subscribers enable more personalised, electronic-based consumer marketing.

To the extent that these developments reduce the costs of service supply, demand will increase and markets will expand, but to the extent that there are also major efficiency gains from new services delivery methods, there will be considerable turbulence in most areas of business services.

Further liberalisation of trade and investment is likely to have positive effects on the demand for business services. To the extent that these business services provide strategic inputs that determine firm competitive advantages and that these inputs are of increasing importance for long-term competitiveness in the liberalised environment of competitive national markets, demand for such services is likely to be boosted. Furthermore, demand for marketing information and marketing services is likely to be directly increased by trade and investment liberalisation, as many firms, particularly small ones, seek to expand into foreign markets through trade and investment, and/or seek to enlarge the scope of their domestic markets.

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comprehensive WTO services negotiations in 2000. Studying both OECD and selected non-OECD countries, the project aims to develop an inventory of barriers across most service sectors. Sectors examined include environmental services, financial information services, distribution services and air-cargo services. Barriers to trade in these sectors may arise from general investment, business licensing, land use and temporary immigration restrictions, and from sector- specific requirements. Technological and competition policy developments (and regulatory approaches to each) are also relevant to the tradability of these services.

REFERENCES

Austrian Federal Ministry for Economic Affairs (1998), *Business Services and Employment: Contributions of Five EU Member States on their Situation of Business Services*, Austrian Federal Ministry for Economic Affairs, Vienna.

Bassi, Laurie J. and Mark E. van Buren, (1998), "The 1998 ASTD State of the Industry Report", January.

Cleveland, Douglas B. (1996), *"European Markets and U.S. Services: An Overview of Recent Trends in Transatlantic Commerce*", Office of Services Industries, US Department of Commerce, June.

Commission of the European Communities (CEC) (1997), *Panorama of EU Industry '97*, Luxembourg.

Commission of the European Communities (CEC) (1998a), *Report to the Industry Council, Industrial Competitiveness and Business Services*, SEC(1998)735, Brussels.

Commission of the European Communities (CEC) (1998b), *Communication. The Contribution of Business Services to Industrial Performance: A Common Policy Framework*, COM(1998)534, Brussels.

DRI/McGraw-Hill and Standard & Poor's and the US Department of Commerce/International Trade Administration (1998), *US Industry and Trade Outlook 1998*, McGraw-Hill/The University Press of Ohio.

Fujitsu Research Institute (1998), "The Cost Reduction Effect of Outsourcing", mimeo.

Hales, M. (1997), "Producer Services and Manufacturing Production", mimeo, prepared for the OECD.

Infoserver, The Journal for Strategic Outsourcing Information, various issues, http://www.outsourcing-journal.com/issues/.

Ministry of International Trade and Industry (MITI) (Japan) (1995), *Service Sector Statistics*, Tokyo.

Ministry of International Trade and Industry (MITI) (Japan) (1997), *Research on the Outsourcing Industry*, Services Division, March, Tokyo.

OECD (1995a), *Boosting Businesses: Advisory Services*, OECD, Paris.

OECD (1995b), *Information Technology Outlook*, OECD, Paris.

OECD (1996a), *International Trade in Professional Services: Assessing Barriers and Encouraging Reform*, OECD, Paris.

OECD (1996b), "Public Support to Industry", OCDE/GD(96)82, OECD, Paris.

OECD (1996c), *Technology, Productivity and Job Creation, Vol. 2, Analytical Report*, OECD, Paris.

OECD (1997a), *Literacy Skills for the Knowledge Society*, Table 4.7, OECD, Paris.

OECD (1997b), *Historical Statistics*, OECD, Paris.

OECD (1997c), *Industrial Structure Statistics*, OECD, Paris.

OECD (1997d), *Information Technology Outlook*, OECD, Paris.

OECD (1998a), *Employment Outlook, June 1998*, Chapter 5, "Working Hours: Latest Trends and Policy Initiatives", OECD, Paris.

OECD (1998b), *Public Support to Industry in OECD Countries*, OECD, Paris.

OECD (1998c), *Technology, Productivity and Job Creation: Best Policy Practices*, OECD, Paris.

OECD (1998d), *Labour Force Statistics*, OECD, Paris.

OECD (1998e), *Spotlight on Public Support to Industry*, OECD, Paris.

OECD (1999), *The Economic and Social Impact of Electronic Commerce: Preliminary Findings and Research Agenda*, OECD, Paris.

Scott, Mark C. (1998), *The Intellect Industry*, John Wiley & Sons, Chichester.

Statistics Canada (1997), *System of National Accounts: Canada's International Transactions in Services 1961 to 1996*, Balance of Payments Division, Ottawa.

The Outsourcing Institute (1997), "The Outsourcing Index", http://www.outsourcing.com/news/dnb/, December 1997.

The Outsourcing Institute (1998), "Survey of Current and Potential Outsourcing End-Users, The Outsourcing Institute Membership", http://www.outsourcing.com/howandwhy/surveyresults/.

US Department of Commerce (1987), *1987 Census of Services Industries*, Economics and Statistics Administration, Bureau of the Census, US Government Printing Office, Washington, DC.

US Department of Commerce (1992), *1992 Census of Services Industries*, Economics and Statistics Administration, Bureau of the Census, US Government Printing Office, Washington, DC.

US Department of Commerce (1998), *Survey of Current Business*, various issues.

World Trade Organisation (WTO) (1998), *Annual Report 1998*.

Young, Alison (1996), "Measuring R&D in the Services", *STI Working Paper 1996/7*, OECD, Paris.

Part 2

COUNTRY REVIEWS

AUSTRALIA

Trends in strategic business services

Australia's services sector accounted for 71.3% of GDP in 1997 and 81.3% of total employment in 1998.[1] If growth rates in the 1990s are maintained into the coming decade, it is expected that, by 2010, the services sector's share of GDP will be 75%, and its share of employment 86%. During the 1990s, 695 000 new jobs were created: the services sector contributed 782 000, while other sectors experienced a decline. Property and business services accounted for nearly half of the increase in employment.

Partial data available for the strategic business services activities[2] reviewed here indicate that at least AUD 5.7 billion in total income[3] was generated by these activities in financial year 1992-93 and would have been at least AUD 9.7 billion in 1995-96. These figures do not include income generated by R&D and technical testing services, labour recruitment services or human resource development services, for which activities data are not available. While figures for computer services are available for 1992-93 and 1995-96, figures for the other activities are only available for 1992-93. It is therefore very likely that 1995-96 income levels vastly exceeded AUD 10 billion. The most important category was computer services, for which total income was AUD 8.1 billion in 1995-96 and was a multiple of income of the other activities for which data were available. Total income for computer services expanded by 97% between 1992-93 and 1995-96. A special section on computer services is presented below. Advertising income amounted to AUD 861 million in 1992-93 and the other branch of marketing, market research services, generated a further AUD 255 million in the same year. Total income for business management services within the business organisation category was AUD 521 million in 1992-93.

Information on the gross product of business services firms is also incomplete. The information available shows that computer services dominate all other activities, with a gross product value for

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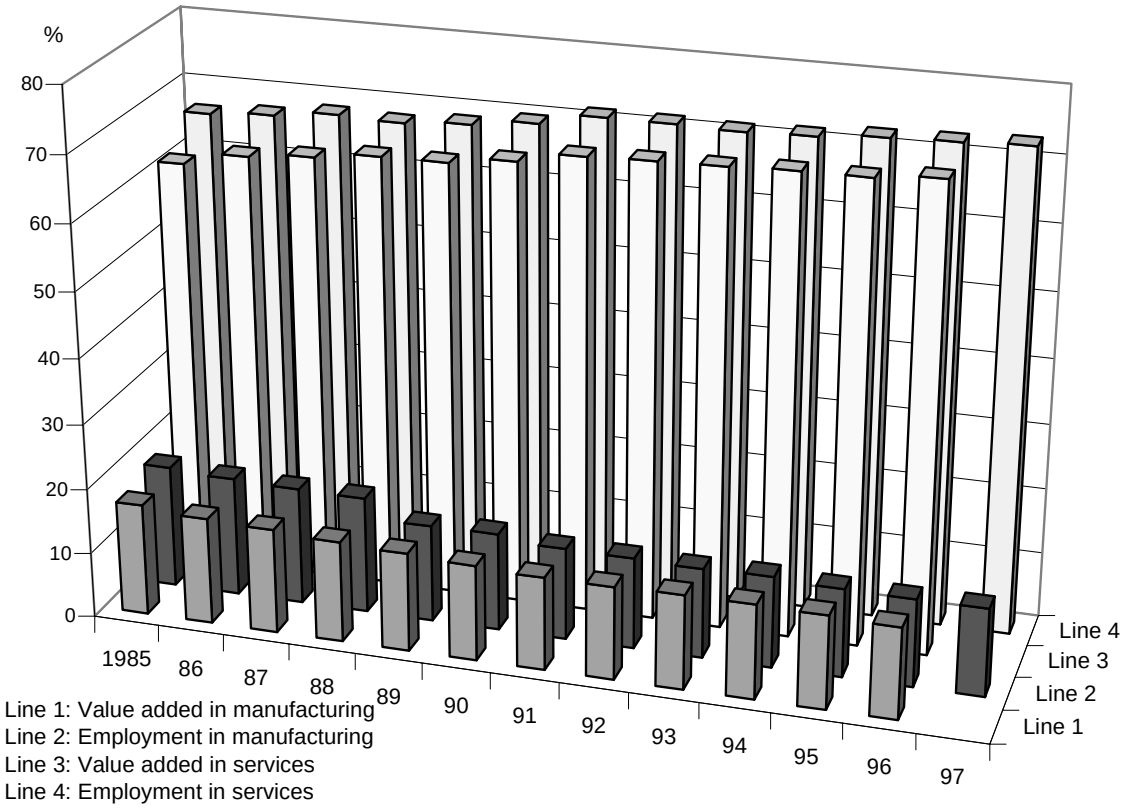
1. ABS special data collection. See *The Australian Service Sector Review 1998*, commissioned by Australian Coalition of Service Industries and prepared by Allen Consulting Group Pty Ltd.

2. The five business services activities included in this study are: computer software and data processing services; research and development and technical services; marketing services; business organisation services; and human resource development services. Data were not available for: R&D and technical services; personnel recruitment/placement; human resource development services. Data available for this study are for 1992-93 and for 1995-96 for computing services and 1995-96 data for other categories. Note that computing services data reported also include minor categories, computer maintenance and repair services, which are beyond the scope of this study. Data are presented according to the ANZSIC classification. Source is the Australian Bureau of Statistics.

3. Total income differs from turnover insofar as non-operating income (usually a very small component including interest and income from government such as subsidies, for example) is included.

industry of AUD 3.5 billion in 1995-96, an increase of 94% over the previous three-year period. For other activities, figures are only available for 1992-93 and show that industry gross product for advertising, at AUD 503 million, exceeded that of business management services and market research services, which recorded AUD 256 million and AUD 137 million, respectively.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Note: Between 1968 and 1996, the value added of services in Australia grew from 53% to 70.6% of GDP while the share of value added of manufacturing declined from 24.8% to 14.0% of GDP. From 1968 to 1997 the share of services in total employment in Australia expanded from 54.1% to 73.0%.

Source: OECD, National Accounts, Labour Force Statistics and Historical Statistics.

Employment

In the mid-1990s, computing services, marketing and management consultancy services employed at least 80 000. According to a survey of private training providers, a further 13 000 were employed to deliver commercial training courses. In addition, private training providers reported having recourse to a total of 31 491 external trainers in the course of 1994.[4] Employment figures are not available for either R&D or personnel recruitment/placement services (see below for sections on computer and

4. An external trainer may be reported by more than one private training provider.

human resource development services). It is reasonable to assume that employment for the five strategic business services under review here would have easily exceeded 100 000 in the mid-1990s. Of the 80 000 mentioned above, 55 000 were engaged in computer services, an increase of 83% over three years, and over 17 000 were employed in marketing services, of which 8 000 in market research and 9 000 in advertising. Almost 5 000 were employed in business management services. Overall, a conservative estimate based on the limited data available would put employment for these activities at between 1% and 1.5% of total employment and between 1.5% and 2% of services employment.

Enterprises

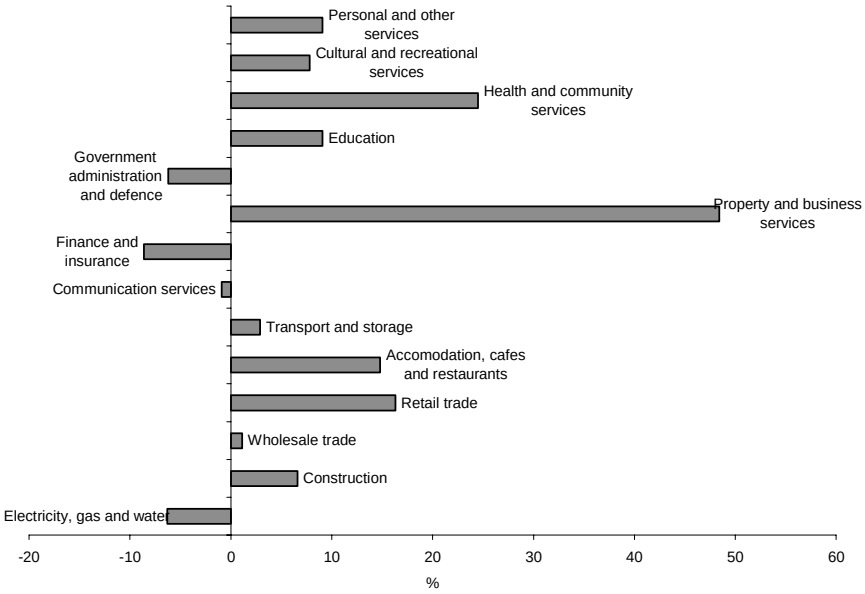
The number of firms supplying computing services and marketing and management consultancy totalled approximately 11 500 in the mid-1990s (excluding R&D and technical services as well as personnel recruitment/placement services). To this figure should be added 3 200 companies supplying commercial training courses. The majority of businesses (9 679 in 1995-96) were engaged in the supply of computer services, up 98% from financial year 1992-93. There were 858 advertising agencies in 1992-93, and in the same year 686 businesses were engaged in the supply of management consultancy services. Market research companies numbered 174.

In Australia, the management consulting industry is dominated by global management consulting firms, in particular, Andersen Consulting and Pricewaterhouse Coopers. Other leading players also present in the Australian market are McKinsey and Co. and the Boston Consulting Group. In addition, there are a large number of small consulting firms which usually operate in highly specialised niche markets. The concept of a one-stop shop has developed in relation to the provision of business services. Large professional groups nowadays offer integrated services. The current “big five” all have developed consulting practices to take advantage of their market position.

The contribution of business services to employment growth

Business services made a substantial contribution to growth in employment in Australia in the 1990s as illustrated in Figure 1. Property and business services contributed 48.4% of total growth in employment in services in the period February 1990-May 1998 and accounted for a net increase of 318 700 jobs. Overall, services employment grew by 782 000 jobs in contrast to the non-services sector which experienced a decline of 123 000 jobs. In terms of value added, the services sector has also grown faster than the goods-producing sector. Data for the period 1989-90 to 1996-97 show that the average annual growth for services during this period was 3.6%, with 3.5% for property and business services and 3.3% for the entire economy.

Figure 1. **Services industries' contribution to employment growth, 1990-98**



Source: Australian Bureau of Statistics, cited in The Australian Service Sector Review 1998.

Computer services

Following earlier surveys, the Australian Bureau of Statistics (ABS) conducted a survey of computer services for the financial year 1995-96.[5] The coverage was somewhat broader than that of the present study as computer maintenance and repair services were also included. The survey revealed that turnover for businesses classified as computer services amounted to AUD 8.1 billion in the financial year 1995-96 (up from AUD 4.1 billion in 1992-93), of which AUD 6.3 billion accrued from the supply of computer services and AUD 1.8 billion from other activities. In 1995-96, labour costs were the major item of expense for businesses, totalling AUD 2.7 billion and accounting for 36% of the total, a share almost identical to that in 1992-93. Payments to subcontractors and consultants amounted to AUD 892 million or 12% of total expenses compared with 8% in 1992-93.

Employment in computer services grew by 83% in the period 1993-96, rising from 30 056 to 55 046. Full-time workers accounted for 87% of the total in 1996 as in 1993. Exactly 50% of those employed were computer and technical staff, 94% of whom were full-time workers. Of the 6 922 persons employed on a part-time basis, 68% were female. In 1996, 94% of males worked full-time compared with 75% of females. Of the total employed, 55 548 were employees and 497 were working proprietors and partners.

5. The ABS survey included businesses classified in group 783 of the 1993 edition of the ANZIC. This group comprises four classes: 7831 Data processing services; 7832 Information storage and retrieval services; 7833 Computer maintenance services; and 7834 Computer consultancy services which includes all businesses mainly engaged in providing computer consultancy services, computer systems analysis or computer programming services.

Firms employing fewer than five people accounted for 88% of the total number of computer services firms and 27% of employment in computer services and contributed 14% of total income. The larger the firm, the greater the average income and expense per person employed. Average business income per person employed was highest for firms with 100 or more employees (AUD 204 900) and lowest for firms with fewer than five employees (AUD 77 100). Similarly, the average business expense per person employed was highest for businesses with 100 or more employees (AUD 196 000) and lowest for firms with fewer than five employees (AUD 68 700).

For financial year 1995-96, 76% of computer services businesses made an operating profit before tax or broke even. One-third of all companies were in the AUD 0-4 999 profit category and 30% were in the AUD 5 000-19 999 category, while 1% reported a profit of more than AUD 1 million. Although 24% of firms incurred a loss in 1995-96, more than half of such firms incurred losses of less than AUD 5 000.

Table 1. **Computer services in Australia: business size, end June 1996**

Employment size category	Number of businesses	Employment	Total income AUD million	Total expenses AUD million
0-4 persons	8 502	15 006	1 157.0	1 031.1
5-9 persons	577	3 545	363.8	325.1
10-19 persons	297	3 818	491.8	451.1
Sub-total	*9 377*	*22 369*	*2 012.6*	*1 807.3*
20-49 persons	199	5 641	752.8	766.1
50-99 persons	53	3 930	589.6	534.0
100 or more persons	51	23 105	4 733.3	4 534.0
Sub-total	*302*	*32 676*	*6075.7*	*5 834.1*
Total	**9 679**	**55 046**	**8088.3**	**7 641.5**

Source: Australian Bureau of Statistics.

Special focus: commercial training services in Australia

The important role of vocational education and training in improving Australia's economic performance and international competitiveness is widely recognised by business and policy makers alike. Australia is a rare case in that a comprehensive survey of commercial training services has been undertaken in recent years. The survey of commercial training providers (CTP) carried out by ABS in 1994 covered providers of private training.[6] The principal results are summarised below.

It was estimated that approximately 3 200 private sector organisations were providing training on a commercial basis in Australia in 1994. Almost 1 500 of these businesses were primarily training providers while a further 1 700 conducted training on a commercial basis but not as their main

6. The survey covered private sector training providers in Australia having conducted vocational training for which a fee was charged. As well as organisations whose primary business activity was conducting training on a commercial basis, the survey also included other training providers who charged fees for conducting vocational training. There is some uncertainty regarding the completeness of the coverage of organisations which undertake commercial training as a secondary activity, such as equipment manufacturers and suppliers.

business activity (professional associations, industry associations, equipment manufacturers and suppliers, etc.). As in the case of computer services, the states of New South Wales and Victoria together accounted for 58% of Australia's training businesses. Significantly, almost 60% of commercial training businesses had been in operation for less than eight years. Approximately 28% of businesses commenced operations during the period 1990-92; response to the introduction of the Training Guarantee Scheme in 1990 (the Scheme ran from 1990 to1994) was considered to be one explanation for the significant increase at that time.

Driving forces for training

Three-quarters of training suppliers reported that increased employer awareness of the importance of training contributed to growth in training services levels. Changes in employers' work practices were cited as the second most important reason (67%). Changes in technology (63%) and multi-skilling or cross-occupational training (62%) were ranked in third and fourth positions. Shortages of skilled labour in the workforce were cited by 46% of respondents.

Barriers and impediments to growth

Lack of investment capital was cited by 48% of respondents and competition from the public training sector by 38% as factors leading to a decline in their level of training services. Some 32% cited costs or difficulties with accreditation procedures, and 24% claimed that a lack of national accreditation standards was responsible for declines in their levels of activity in 1994. One-quarter of training suppliers complained of the lack of credit transfer and the lack of course articulation.

Manufacturing industry and finance, insurance, property and business services were important clients for private training services and had greater recourse to private training suppliers than all other sectors. Almost half of such firms were estimated to have undertaken training in 1994, and approximately 45% of that training was outsourced to suppliers whose main function was the supply of training services.

Participants attending courses conducted by private training providers received more than 58 million hours of training in 1994. The two most important fields of training in terms of training hours were management and administration courses, and sales and personnel courses, each accounting for more than 8 million hours of training. Of the participants in private training courses, 62% were male.

As was mentioned earlier, private training providers delivering commercial training courses were estimated to be 13 000 in 1994, and this activity had recourse to a further 31 491 external trainers during the year. Approximately half of all training suppliers were classified as small, *i.e.* total course participation for 1994 was fewer than 4 000 participant hours. Course participation was considered to range from 4 000 to up to 40 000 participant hours for medium-sized training suppliers and 40 000 or more for large training providers. Over two-thirds of large training providers conducted commercial training as their principal activity, a higher share than medium or small training providers (51% and 37%, respectively). Almost a quarter of private training suppliers provided courses under the various government labour market programmes. The large training providers were more likely to provide such courses than their smaller counterparts. Service suppliers whose main activity was training usually provided courses which were on average of longer duration (42 hours). Trade courses and apprenticeships were of the longest duration (433 and 319 hours, respectively) while courses on general computing skills tended to be of short duration (9 hours). Among training suppliers, 19%

reported having training participants from overseas (English language schools were excluded from the survey), while 11% of providers marketed their courses overseas. In 1994, 22 500 course participants from overseas were registered.

Each Australian state/territory government has an accreditation body which recognises training courses that meet certain standards, although private training providers are not required to have their courses fully accredited. Overall, 6% of private training courses offered in 1994 were accredited. The size of firms is an important factor: 45% of large training suppliers offered at least one accredited course compared with 14% of medium-sized businesses and 5% of small businesses.

Table 2. **Fields of training delivered by size of private training provider, 1994**

Based on total hours of training received by participants in each field
Size based on total hours of training received by participants at courses

Field of training	Small training provider (%)	Medium training provider (%)	Large training provider (%)
Supervisory	6.8	58.3	35.0
General computing skills	2.8	28.7	68.5
Health and safety			83.5
Management and administration	5.7	40.7	53.6
Professional	8.3	40	51.7
Technical and para-professional	6.5	30.5	63.1
Trade and apprenticeship	1.2		83.6
Sales and personnel services	1.8	24.1	74.1
Clerical, office	0.6	6.1	93.3
Plant operating, and labour	2.4	38.3	59.3
Other vocational training	7.1	34.4	58.5
All fields of training	3.8	27.6	68.6

Source: Australian Bureau of Statistics.

Table 3. **Private training providers in Australia, 1994**

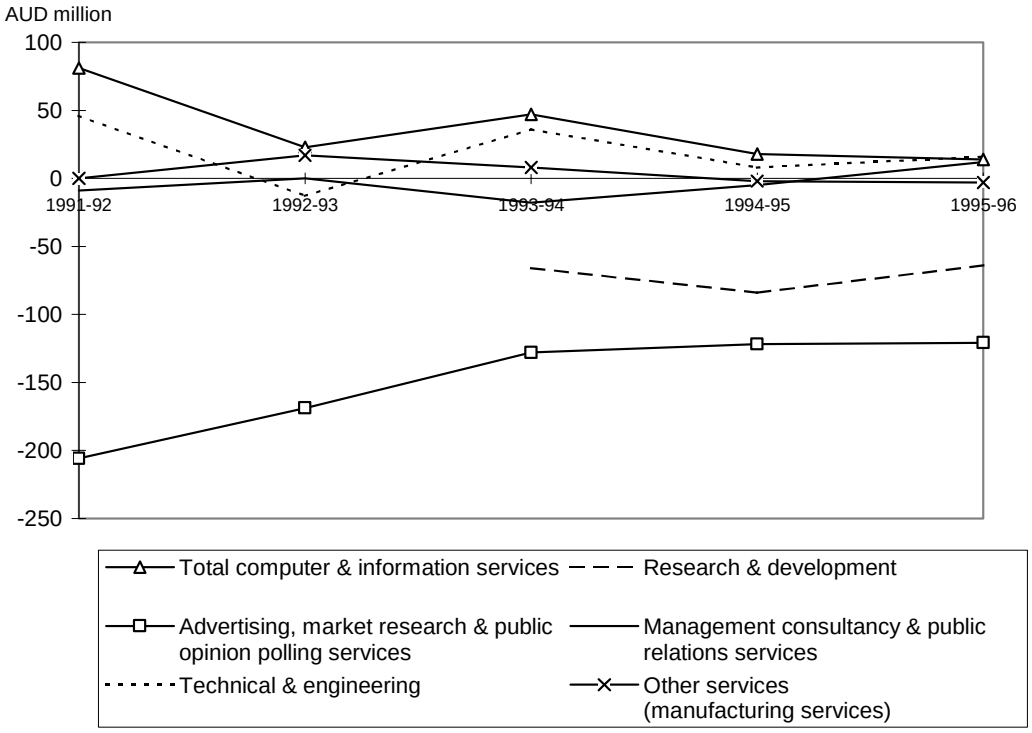
Type of training provider	Number	%
Primarily training provider	1 462	46.1
Other training provider:		
Professional association	*398*	*12.6*
Industry association	*247*	*7.8*
In-house trainer	*85*	*2.7*
Equipment manufacturer/supplier	*238*	*7.5*
Other	*743*	*23.4*
Total	*1 712*	*53.9*
Total	**3 174**	**100.0**

Source: Australian Bureau of Statistics.

Trade in strategic business services

Of the different business services categories under review here, and given the available data, computer services was the only activity for which Australia enjoyed a trade surplus throughout the 1990s (Figure 2).[7] However, by 1996, the surplus in computer services trade had declined to only 17% of the 1992 level, partly owing to a growing deficit in certain component activities, such as computer training, education, and other computer and information services, and partly owing to a declining surplus in data processing, consultancy, software- and hardware-related services. Imports of advertising, market research and public opinion polling services declined regularly over the period 1992-96, from AUD 279 million in 1992 to AUD 165 million in 1996. Exports of these marketing services also decreased from AUD 73 million to AUD 44 million. Combined, these developments led to a significant reduction in Australia's deficit in marketing services. Australia's trade in R&D services recorded deficits exceeding AUD 60 million between 1994 and 1996, and reached AUD 84 million in financial year 1994-95. Trade in management consultancy and public relations services was in surplus only in 1995-96, at AUD 12 million, and was exactly in balance in 1992-93.

Figure 2. **Trade balance for selected business services, 1991-96**



Source: Australian Bureau of Statistics.

The major share of Australia's trade in business services is conducted with other OECD countries. Data for the early 1990s show that, in the case of transactions in computer services, 75% of exports and 98% of imports were accounted for by OECD countries. The United States was the most important trading partner for computer services, accounting for 68% of Australia's imports and 43%

7. Australian Bureau of Statistics, *Foreign Trade in Services, 1995-96* and *International Trade in Services: Australia, 1992-93*.

of Australia's exports. The United Kingdom was the second most important trading partner, accounting for 11% of Australia's exports and 12% of Australia's imports. New Zealand accounted for 11% of Australia's exports of computer services.

Exports of computer services were mostly attributable to the services sectors (48% in finance, property and business services, 38% to the wholesale and retail sector, and 13% to the manufacturing sector). Likewise, 55% of computer services imports were attributable to the wholesale and retail sector, with 36% attributable to the finance, property and business services sector.

Challenges and opportunities for Australian business services: *The Australian Service Sector Review*

A recent review of the Australian services sector[1] recently addressed the challenges and opportunities facing business and professional services. The report noted the increased competition, globalisation and technological change associated with business services and the intense competition for high-skilled staff in these knowledge-based services. Globalisation has been changing the nature of the business services firm and the firm-client relationship, and regulatory reform has been contributing to increased competition among the professions while at the same time creating opportunities for synergy. The uptake of technological change has driven and facilitated all of these changes.

The report also highlighted the need for liberalisation of international trade in professional services and noted the existence of barriers which, because of individual countries' regulations, restrain the movement of professionals. Such barriers included investment, ownership and nationality restrictions and various restrictions relating to standards, professional practice and qualifications.

A polarisation of services suppliers into global firms and niche firms has been a recent development. Because geographical proximity to corporate clients is no longer necessary to deliver services, owing, among other things, to developments in information and communication technology (ICT), firms can now have a global reach without needing to go offshore. Small as well as large firms have the opportunity to globalise. Typically, the larger global firms have been evolving into one-stop shops, such as the "big five" professional services firms, and have developed consulting arms to take advantage of their market position. These globalised firms can offer integrated services spanning management, ICT and strategic consulting, legal advice, and accounting and commercial advice. According to the authors of the report, this kind of development challenges Australian professionals to develop multi-disciplinary businesses. However, niche firms are not deemed to be in jeopardy, as they retain a certain comparative advantage with respect to their specialisation and local knowledge.

There is also some concern over the apparent shortfall of skilled staff being experienced by all professional services firms and the implications for future growth. A major globalised multi-disciplinary professional services firm recently indicated the need for Australian business schools to produce graduates who are on a par with the best in the United States and Europe and the need for Australia to retain them.[8] The tendency for some of Australia's highly skilled and highly educated young people to seek careers in the United States and Europe in preference to Australia was noted, as were the difficulties experienced in attracting graduates from the northern hemisphere to Australia because of exchange rates and professional income levels.

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8. View stated by Mr. Fergus Ryan of Arthur Andersen, in *The Australian Service Sector Review 1998*.

ANNEX

Selected business services in Australia

Classification ANZSIC		Year	Employment	Management units	Total income, AUD million	Industry gross product AUD million
7831-7834	Computing services	1995-96 1992-93	55 046 30 056	9 679 4894	8 088 4100	3 543 1 826
	R&D and technical testing					
	Marketing services		1 7 147	1 032	1 116	640
7853	Market research services	1992-93	8 064	174	255	137
7851	Advertising	1992-93	9 083	858	861	503
	Business organisation services					
7855	Business management services	1992-93	4 933	686	521	256

Source: Australian Bureau of Statistics.

Trade in strategic business services
AUD million

	Imports					Exports				
	1991-92	1992-93	1993-94	1994-95	1995-96	1991-92	1992-93	1993-94	1994-95	1995-96
Data processing, consultancy, software & hardware related services	-140	-149	-138	-138	-132	230	182	216	183	178
Database services	-1	-1	-3	-4	-5	5	2	2	8	6
News agency services	-22	-11	-13	-8	-8	n.p.	n.p.	n.p.	n.p.	n.p.
Computer training, education & other computer & information services	-41	-31	-40	-50	-59	49	31	25	27	34
Total computer & information services	-203	-192	-195	-200	-204	284	215	242	218	218
Research & development	n.p.	-133	-169	-157	-169	n.p.	n.p.	103	73	105
Advertising, market research & public opinion polling services	-279	-222	-181	-170	-165	73	53	53	48	44
Management consultancy & public relations services	-39	-37	-54	-34	-40	30	37	36	29	52
Engineering services	-109	-154	-114	-166	-170	143	141	182	206	209
Technical services	-121	-73	-89	-80	-74	133	73	57	48	51
Other services, *Of which:* manufacturing services	n.p.	-13	-9	-6	-6	26	30	17	4	3

n.p. = not for publication.

AUSTRIA

Trends in strategic business services

The Austrian Government chose business services as one of its industry-specific themes for the Austrian EU presidency in the second half of 1998, and commissioned a special study from the Austrian Institute for Industrial Research (IWI).[1] The aim of the study was to analyse existing data and scrutinise national and European developments in the business services sector and to indicate actions and measures required at European level to raise the competitiveness of European industry by focusing on business services.

In Austria, as in other OECD economies, services have been expanding constantly in recent decades, becoming the most important sector in terms of both value added and employment. They have continued to record important gains in employment in recent years, especially in intermediary services[2] where employment expanded by over 50% in the 1987-97 period. An intra-sectoral change has occurred, with industry becoming increasingly service-oriented; this is reflected in the increase in industry output as services rendered. There has therefore been a decline in industry's use of tangible inputs and an increase in intangible inputs, with industry's offer of services to customers gaining in importance. This development, combined with growing demand (particularly by large industrial firms) and supply-side factors such as technological developments and new products, is considered to be the force driving business services. In the current macroeconomic context of relatively high unemployment, the Austrian Government considers business services to be the most promising and dynamic branch of the services sector and to have the potential to bring about sustainable improvement in employment.

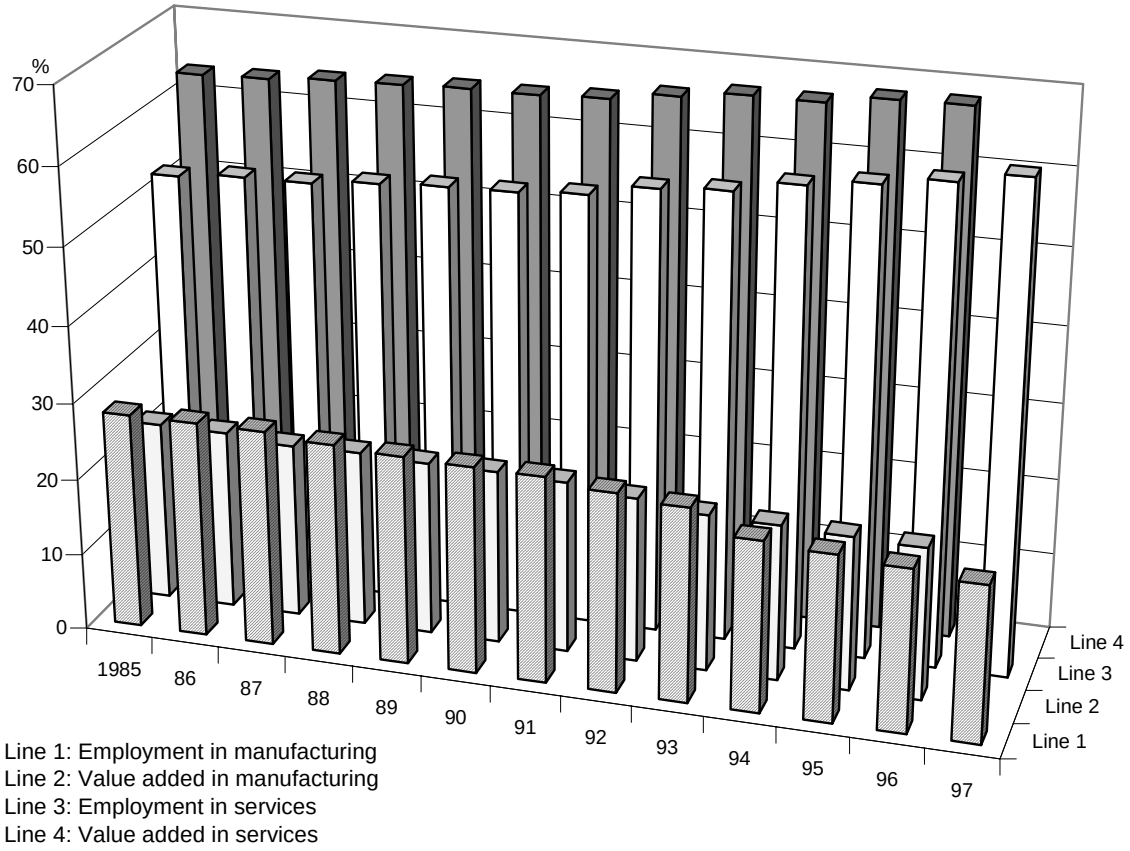
A survey of companies conducted by IWI revealed that the market for business consultancy in Austria is highly segmented. While the vast majority of domestic firms are medium-sized firms which interact principally with other medium-sized firms, the Austrian subsidiaries of multinational companies use, without exception, the services of subsidiaries of international consultancy firms. Thus, domestic suppliers of business services do not have access to the large companies. In addition, owing to the increasing numbers of consultants, competition has increased for small suppliers. The small size of their operations makes it difficult for them to act in international markets. Exported services go to other German-speaking areas as well as to Eastern Europe, and the latter region is

1. Austrian Federal Ministry for Economic Affairs, *Business Services and Employment*, 1998.

2. Intermediary services here correspond to NACE 64, J, K (excluding 73): communications, banks and insurance, real estate, renting and leasing services, and other business activities. Business services in the Austrian study use the Eurostat definition and are defined as including: computer and related services; legal activities, tax consultancy, business and management consultancy; marketing services; technical services; labour recruitment and provision of personnel; investigation and security activities, industrial cleaning; other business activities.

viewed as offering significant potential for the export of consultancy services. However, this possibility may have been somewhat undermined by the recent establishment by large international consultancy firms of their base for eastern European activities in Austria. It was felt that a more intensive public relations exercise could help to highlight the value and necessity of qualified consultancy.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Note: Between 1960 and 1996 value added in services grew from 42% to 68% of GDP, while the share of manufacturing declined from 35.3% to 20%. The share of services employment in total employment in Austria expanded from 37% to 63% in the 1960-97 period, while the share of manufacturing employment declined from 31% to 20%.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

The IWI survey also looked at data processing. It concluded that this area experienced very high growth rates and so far does not show signs of saturation in the medium term. Due to their small size, the vast majority of Austrian companies take niche positions and have achieved some international success. In addition, because Austria is a small market there is little competition from abroad. Skilled labour is essential, and there have been some bottlenecks in this respect. Technical infrastructure is

important, especially in telecommunications, and some catching-up is required. Employee protection laws were also found to be in need of review as they no longer correspond to the nature of work.

The available Austrian data do not allow for calculating trends or growth rates before 1995 for the specific strategic business services[3] under review. The data used here come from the *Leistungs und Strukturerhebung*, conducted annually since Austria's accession to the EU in 1995. These data cannot be compared with data for previous years. In addition, a change of classification from the *Betriebssystematik* (which had no explicit definition of business services) to the NACE classification also took place at this time.

Value added

Data on value added in the business services area cover a broad definition of business services. In general, the index of value added for GDP increased from 100 in 1986 to 168.3 in 1996, while the index for business services (combined NACE 71, 72 and 74) reached 289 in 1996. The most spectacular performance occurred in computer services (NACE 72), where the index reached 539. These performances vastly exceeded those of other sectors. However, prices in the services industry rose faster than those for physical goods. Nevertheless, even in real terms, the growth rate of value added in business services far surpassed that of the economy in general (Figures 1a and 1b).

Figure 1a. **Index of value added in 1996, Nominal, 1986 = 100**

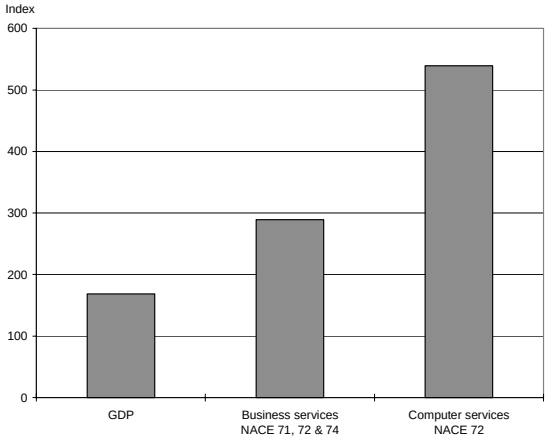
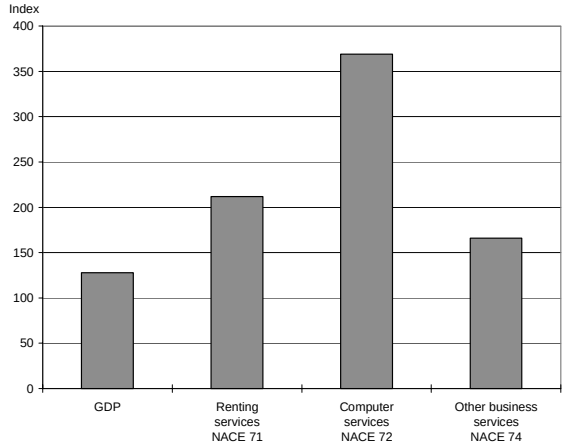


Figure 1b**. Index of value added in 1996 Real 1983 prices, 1986 = 100**



Source: Austrian Statistical Office.

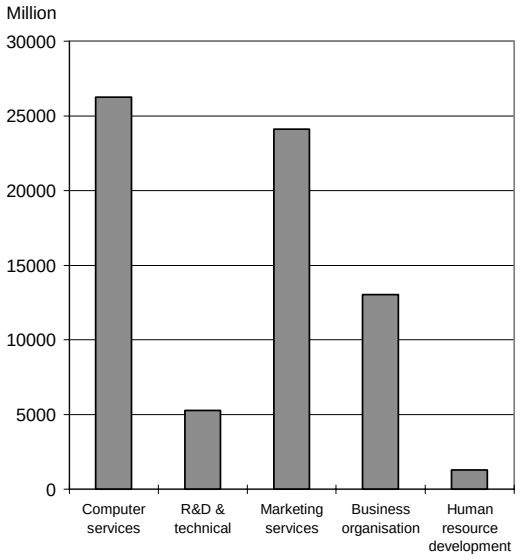
Turnover

While time series for turnover for this period are not available for the selected strategic business services, it is widely thought that these strategic services grew even faster than services in general in

3. The five strategic business services activities included in this exercise are: computer software and data processing services; research and development and technical services; marketing services; business organisation services; and human resource development services. Data were reported only for the adult and vocational education component of human resource development services. Data were not available for job training and vocational rehabilitation activities.

Austria, as evidenced also by employment growth rates. Turnover for the selected business services was estimated to be equivalent to 6.1% of manufacturing turnover (Figure 2).[4] The importance of computer-related services relative to other strategic services is illustrated by turnover data for 1995 (Figure 2). This category alone generated ATS 26.2 billion in turnover, with data processing activities making up almost 70% of that total. Indeed, data processing services generated higher turnover than any other individual activity apart from advertising which generated ATS 23.5 billion. Research undertaken elsewhere[5] indicates that, among EU countries (excluding Luxembourg), Austria had the eighth highest advertising expenditure (ECU 1.25 billion) and the fifth highest per capita expenditure in 1994. For the same year, the same source ranks Austrian expenditure on advertising and direct marketing as a percentage of GDP in the fourth lowest position among EU countries (excluding Luxembourg).

Figure 2. **Turnover in strategic business services, 1995**
ATS million



Source: Austrian Statistical Office.

Employment

It is estimated that business services employment grew at an annual average rate of 6% between 1981 and 1991. These business services were estimated to amount to 7% of manufacturing employment levels and 2% of total employment in the mid-1990s. In 1995, the strategic business services employed 46 000 persons in Austria. Among the business services categories reviewed here,[6] business organisation services were the largest employer (15 841 or 34% of the total), mainly owing to the strength of labour recruitment/personnel activities which employed 10 796, an indication of the

4. Austrian Statistical Office.

5. Commission of the European Communities, *Panorama of EU Industry '97*.

6. Note that for human resource development services, data were reported only for adult and vocational education services; data were not available for job training and vocational rehabilitation activities.

importance of labour market flexibility in recent years. Marketing services occupied 9 558 persons or just over 20% of the total. Overall, computer-related services were responsible for the employment of almost 14 000, with data processing (8 609) the biggest employer, followed by software consultancy and supply (5 329 jobs). Employment in the management consultancy component of business organisation services (5 045) was almost on a par with R&D and technical services (5 259), while technical testing services employment in the latter category was four times higher than that for R&D and experimental development services. A survey commissioned by the European Commission, although conducted on a different basis,[5] found that Austria had 2 000 public relations consultants and officers in 1994, an increase of a third over 1992.

The highest employment growth for any category was recorded by computer services, where employment surged by 37% between January 1995 and December 1997. This growth is explained principally by the increasing importance of intangible investment, such as standard software and databases for business management and operations. Within business organisation services, employment associated with labour recruitment/provision of personnel services expanded by over 44% during the same period and grew by 120% since 1991. Industry was responsible for hiring 58% of these persons while a further 30% were employed in trade and commerce.

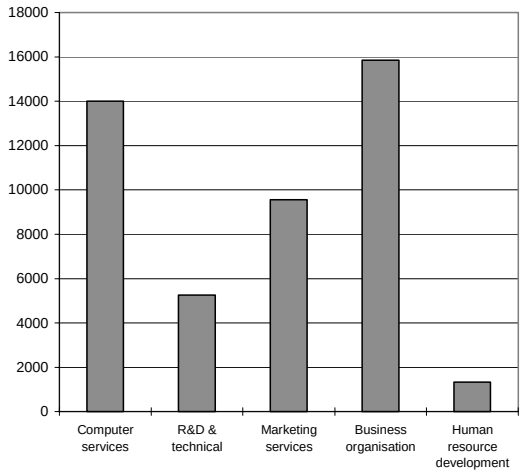
Table 1. **Employment growth rates**
Percentages

Period	Computer services	Business services	Services	Industry
1989-94	n.a.	32.2	11.6	-3.9
1995-97	23.2	12.9	1.0	-2.5

Source: Main Association of the Austrian Social Security Institutions, in Austrian Federal Ministry for Economic Affairs, *Business Services and Employment*, 1998.

An interesting feature of Austrian employment in business services is the rather high share of low-wage earners (defined as those who earn less than ATS 3 830 a month and are therefore not obliged to contribute to the social security system). While the data source uses a wider definition for business services than the one used here, there is evidence that activities such as computer-related services include a high percentage of low-wage earners – approximately 10% in the case of computer services. In addition, growth rates for this category of personnel are higher than those for contributing employees. Part-time employment is also a feature of business services employment. The number of hours normally worked per week in the wider business services sector is the lowest for any sector.

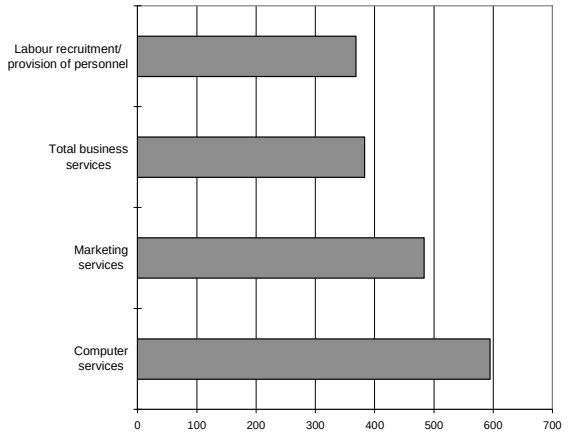
Figure 3a. **Employment in strategic business services, 1995**



Source: Austrian Statistical Office, *Leistungs-und Strukturerhebung*, 1995.

Figure 3b. **Average personnel costs per employee, 1995**

ATS thousand



Source: Austrian Central Statistical Office, Economic Census 1995 in Austrian Federal Ministry for Economic Affairs, *Business Services and Employment*, 1998.

At 14.3%, the percentage share of self-employed (self-employed and unpaid family members) is higher in business services than in the economy as a whole. Labour recruitment agencies help to dampen this figure. Labour recruitment services include only 1% of self-employed while advertising includes a much higher share, 23%.

Average employee costs vary greatly within business services. Business services have high- and low-wage segments; average personnel costs in computer services are more than 50% higher than the average for business services and are attributable mainly to an insufficient supply of qualified personnel.

Value added, productivity and investment

Austrian studies show that computer-related services account for a much higher share of value added than their share in employment would suggest. In contrast, labour recruitment services account for a lower share of value added than their corresponding employment share. This suggests significant differences in productivity among the categories of business services. When productivity per employee is examined (gross value added per employee at factor cost), the computer services category rates first among the different business services examined in this study and productivity per employee in this category represents 46% more than the average for business services and more than twice the level for labour recruitment services which is at the bottom of the table. Productivity per employee for marketing services ranks second at 123% of the average for business services. The correlation between per capita personnel costs and productivity per employee is clear (Figures 4a and 4b).

Figure 4a. **Productivity per employee, 1995**
Gross value added per employee at factor cost
ATS thousand

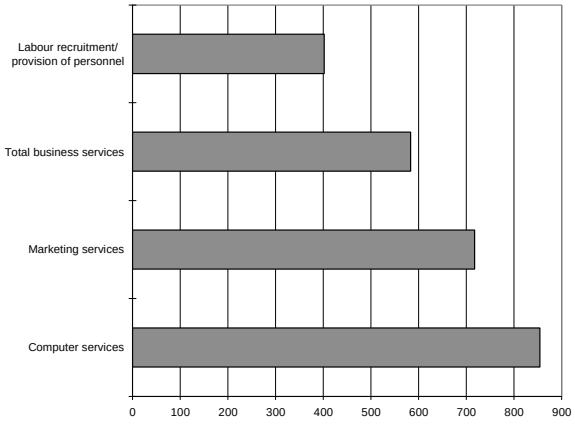
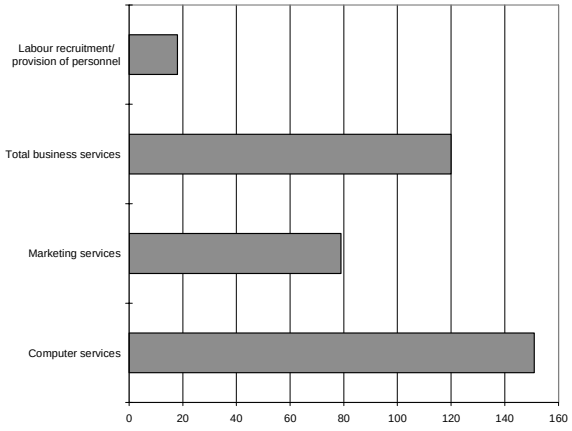


Figure 4b**. Gross investment per employee, 1995**
ATS thousand



Source: Austrian Central Statistical Office, *Economic Census* 1995; in Austrian Federal Ministry for Economic Affairs, *Business Services and Employment*, 1998.

When gross investment per employee is calculated, a similar ranking is found: computer-related services top the list and labour recruitment services lie at the bottom. The average for total business services is relatively high due to the importance of investment in leasing services, which are included in the scope of that study.

Enterprises

The number of enterprises engaged in business services grew at an average annual rate of 5.4% between 1981 and 1991. By 1995, the number of enterprises engaged in the provision of these services amounted to 34.9% of the number engaged in manufacturing and 4.2% of the total economy.[3] Data available for 1995 indicate that 9 258 enterprises were engaged in these activities in that year, one-third of which provided computer services. Firms providing data processing services accounted for 60%. Advertising firms numbered 2 501 in 1995 and 1 717 firms undertook management consultancy. 195 firms provided adult and other vocational education services.

When average firm size (ratio of employees to number of firms) is calculated, it is apparent that very small firms (averaging 5.1 persons per firm) predominate in the strategic business services for 1995, a fraction of average firm size in manufacturing (24.6) and in the economy as a whole (10.4).[7] As calculated by the social security institutions and in terms of the findings of the 1995 economic census, the average size of firms in the wider business services sector is close (6.0 employees) to the estimate of 5.1 employees made here for the strategic business services. The wider business services group includes services such as security and cleaning and therefore tends to have larger average employee numbers; part-time workers can be responsible for inflating these figures. Business management and public relations consultancies were found to have the fewest employees, averaging 2.9 per firm. In contrast, with 44.1 employees per firm, recruitment and provision of personnel have higher numbers

7. Austrian Statistical Office, *Leistungs-und Strukturerhebung, 1995*.

of employees. In general, services businesses in Austria have fewer employees than businesses in other sectors.

Another feature of the structure of business services is the large number of firms with very few employees and the small number of firms with a large number of employees. For broader Austrian business services activities, 63% of firms employ only one person as against 39% for the entire economy. Just 9.7% had two employees compared with 14.1% for the entire economy.

One advantage of operating a smaller firm is the flexibility that enables the enterprise to specialise in a niche area; a disadvantage is that smaller firms face obstacles to further development, especially in relation to international expansion.

Recommended policies for Austrian business services

Policy makers have been interested in the business services sector for some years because the dynamism of these activities leads to important employment gains. While government action stimulated the supply side of business services in the past, it is now considered necessary (for the medium term) to spur the demand side as well, owing, for example, to the need to increase possibilities for depreciating intangible investments. Above all, there is an urgent need to develop adequate statistics on business services in order to target policies to identified needs. One example of a recently implemented supply-side measure is a 1998 regulation which liberalises access to the profession of "management consultant".

Employment generated by these activities is, in the main, research-intensive and highly qualified; it tends to be lasting and not subject to delocalisation. Policy makers are aware of how business services contribute to the competitiveness of the whole economy, particularly given the tendency for industry in highly developed economies to concentrate on core competencies and to outsource services to the specialised business services. Also, business services represent the first important link in the export value chain to the extent that they make their contribution at the stages of feasibility studies, standards setting, technical consultancy, etc., which constitute decisive steps in the path ultimately leading to exports.

An IWI[8] report recommends a number of policy measures to improve the competitiveness of Austrian business services. As the limited size of Austrian companies might constitute a handicap in that only large firms might be able to bear the fixed costs associated with expansion abroad, the following measures were proposed as being appropriate to addressing the issue of firm size:

- Launch of an information campaign on the importance of co-operation among firms.
- Removal of legal barriers to co-operation (especially among business service companies of different sectors) as a criterion for subsidies.
- Installation of a data bank for companies open to co-operation.

8. Gerhard Hammerer, Martin Putschek, "Business Services", *Fachberrich Industriepolitik*, Institute for Industrial Research, 1997.

The absence of an equity capital base was considered to underlie the lack of international competitiveness and the limited internationalisation of domestic business services. The IWI proposed the adoption of the following measures to address this issue:

- Development of guarantee instruments and share models for company finance (especially for SMEs).
- Redirection of funds currently used to promote interest in risk capital investments.
- Creation of an SME fund on the Vienna Stock Exchange and participation in EASDAQ.

An increased level of public relations was recommended to improve the image of business services with business and the general public as well as improved co-operation with industry and banks. Increased public relations should lead to an improved institutional image of business services.

Given the limited degree of internationalisation, to put the business services sectors in a position to act as a spearhead of industry on international markets, it was suggested that Austria should undertake:

- Intensified lobbying of international organisations.
- Increased use of funds for international promotion (possibly as part of development aid).
- Revision of residency laws.
- Concentration on regions of importance (Eastern Europe, Germany, EU, Southeast Asia).

To benefit from public sector stimuli, it was suggested that government efforts should include:

- Development of a new direction for promotional policy.
- Standardisation and simplification of administrative law.
- Outsourcing of services from the public sector to the specialised business services sector.
- Establishment of quality as the main criterion in awarding government contracts.

The quality of education is an important determinant of progress in business services. Although the Austrian educational system is internationally recognised, certain improvements were suggested, *e.g.* promotion of interdisciplinary studies and reform of examinations as internationally recognised certificates of quality. Concrete examples of the former would be: increasing the incorporation of technical and business knowledge, especially marketing, and improving foreign-language competencies.

Improvements in infrastructure are also desirable, particularly in telecommunications and transportation, in order to catch up with other western countries and to secure an advantage with respect to Eastern European competitors.

ANNEX

Selected business services in Austria, 1995

Classification NACE	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover ATS million
72	**721-726**	**Computer and related services**	**15 047**	**3 264**	**28 212.2**
	721-724	**Computer software and information processing**	**13 998**	**3 129**	**26 256.4**
	721	Hardware consultancy	0	0	0.0
	722	Software consultancy and supply	5 328	1 229	8 028.4
	723	Data processing	8 609	1 895	18 173.3
	724	Database services	61	5	54.6
		Research and development and technical	**5 259**	**1 242**	**5 261.0**
	731	Research and experimental development	1 052	41	948.5
74.3	7422	Technical testing and analysis	4 207	1 201	4 312.5
		Marketing services	**9 558**	**2 595**	**24 118.3**
74.13	7413	Market research and public opinion polls	559	94	621.2
74.4	743	Advertising	8 999	2501	23 496.8
		Business organisation services	**15 841**	**1 962**	**13 031.3**
74.14	7414	Management consultancy	5 045	1 717	7 469.2
74.5	7491	Labour recruitment / Provision of personnel	10 796	245	5 562.1
	809	**Human resource development services**	**1 345**	**195**	**1 285.1**
		Adult and other vocational education	1 345	195	1 285.1
		Job training and vocational rehabilitation	n.a.	n.a.	n.a.

Source: Austrian Statistical Office, *Leistungs-und Strukturerhebung 1995*.

CANADA

Trends in strategic business services

The services sector is an important part of Canada's economy and the Canadian services sector accounts for a higher percentage share of value added in GDP, and a higher percentage share in total employment than either the EU or OECD averages. Business services in Canada, as elsewhere, are a diverse set of activities and the sector is made up of a very large number of small firms that produce services to be used chiefly as intermediate inputs by other industries. The business services sector (in the wider sense) is the fastest growing sector of the economy and has consistently outpaced overall economic performance by a wide margin.

The strong role played by business services in employment growth reflects its dominant role in new business formation, where it has contributed about one-third of the total increase in new businesses in recent years. The growth of business services is said to explain much of the overall trend to greater self-employment.

Figure 1a. **Contribution of advertising and computer services to GDP (factor cost) 1991-97**
CAD million, 1992 prices

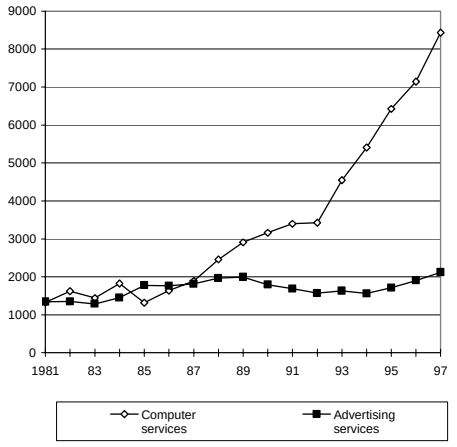
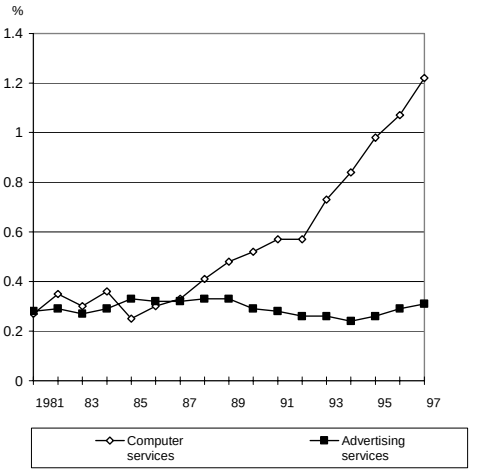
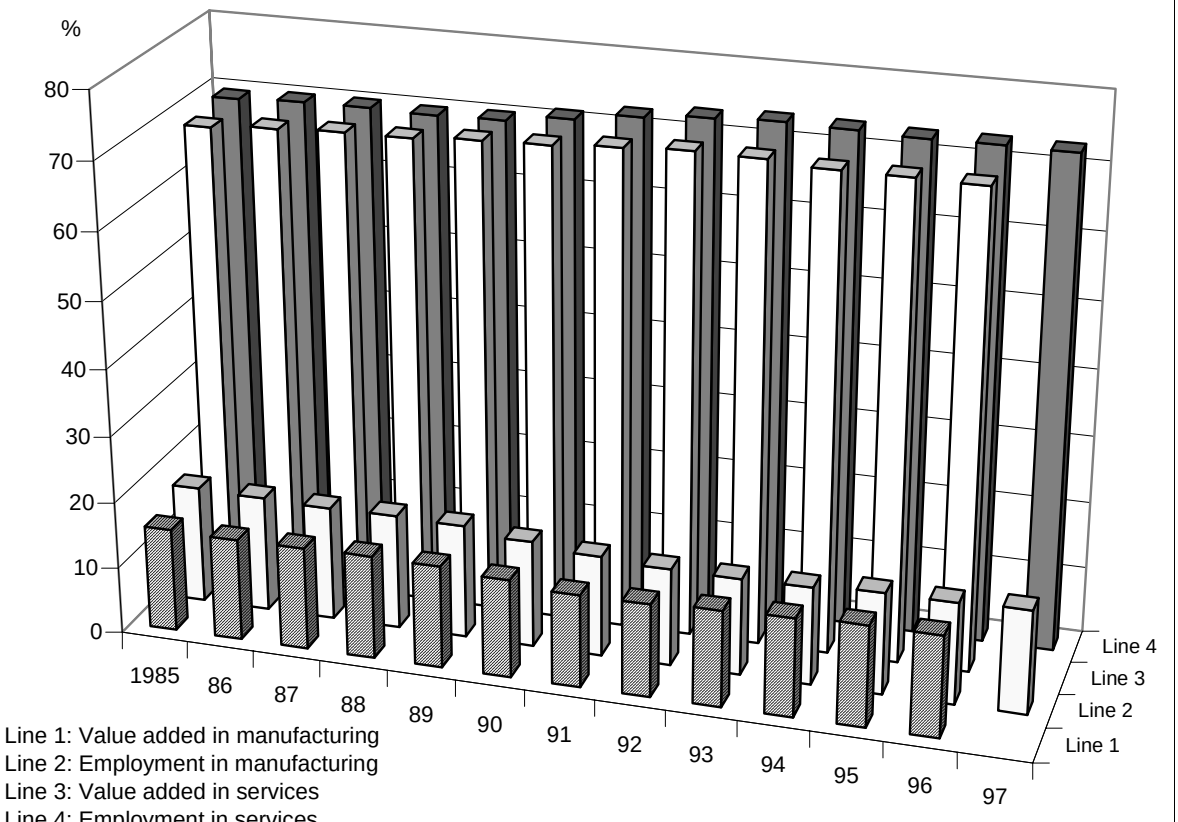


Figure 1b. **Percentage share of computer services and advertising in GDP, 1981-97**



Source: Statistics Canada, *Services Indicators,* 1st Quarter 1998.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Line 1: Value added in manufacturing
Line 2: Employment in manufacturing
Line 3: Value added in services
Line 4: Employment in services

Note: Value added shares based on GDP data in 1992 prices

Note: Between 1968 and 1996 the share of services value added in GDP in Canada increased from 62.1% to 70.7%, while the share of manufacturing value added in GDP declined from 21.5% to 15.2%. Employment in services in 1997 accounted for 73%, while the manufacturing share of employment in Canada declined from 24.6% to 15.5% of the workforce.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics.*

The growth rate for business services in Canada was three times higher than that for the overall economy in the period 1992-97. Among business services, computer services have experienced the fastest growth. Growth in computer services (measured in constant 1992 prices) amounted to 146% for the period 1992-97 (Figure 1a). The value added of this activity in GDP was six times higher in 1997 than in 1981 and accounted for 1.2% of Canada's output in 1997 compared with 0.3% in 1981(Figure 1b)[1]. The value of real advertising output increased by almost 35% in the period 1992-97 and the share of advertising in GDP increased only slightly, from 0.28% in 1981 to 0.31% in 1997.

1. Statistics Canada, *Services Indicators*, 1st Quarter 1998.

In addition to their important contribution to GDP growth, business services are highly skilled and relatively well-paid. The business services sector has a high level of educational attainment, with almost 40% of employees having university degrees. The proportion of managerial and professional jobs has been rising relative to clerical jobs.

Knowledge-intensive services represent one of the fastest growing components of world trade and are increasingly important for the success of advanced economies in the international marketplace. The business services sector in Canada exports a significant proportion of its output. Firms have been turning increasingly to the international marketplace because of the opportunities it presents and also because of the relatively small size of the domestic market.

Canadian business services are considered to have the following major strengths and weaknesses:

- *Strengths:* Business services are well developed, competitive and diversified, and benefit from an open domestic marketplace with easy entry; they are responsive to rapidly changing market conditions; they have recorded strong growth and make a leading contribution to economic performance.

- *Weaknesses:* The business services sector comprises a large number of SMEs and is therefore fragmented; a small market limits growth opportunities; there is a lack of standards in several areas; there is a need to develop a brand image for business services; firms can experience difficulties in obtaining information due to long distances from many of the key export markets.

Policies currently implemented to address the strengths and weaknesses of these activities are dealt with below.

Trends in the software and computer services industry

Computer services are some of the fastest growing activities in Canada. In 1997, GDP for this activity was more than six times higher than in 1981. In each of the past twelve years, the computer services activity grew more rapidly than the overall economy and for many recent years this activity has achieved double-digit growth rates annually. The industry is composed largely of SMEs. Approximately 30% of those employed in this activity were self-employed in 1996 and only about 4% of firms in the sector had revenues exceeding CAD 2 million. The largest Canadian-owned computer services corporation is the CGI Group, with revenue around CAD 1 billion.

The top 100 independent Canadian software companies reported export revenues of CAD 2.2 billion in 1997 (up from CAD 1.7 billion in 1996) and export revenues corresponded to 85% of their total revenues in that year (up from 83% in 1996). Rapid obsolescence and developments in computer technologies contributing to the outsourcing of previously in-house manufacturing functions are seen as the likely explanation for such high growth rates in computer-related services. Canadian firms have captured leading positions in a number of important market niches, such as computer graphics, document management and cryptography. Federal policies and programmes that benefit the computer services sector are dealt with below.

Trends in management consulting services

Management consultancy is both a fast-growing and mature activity in Canada. Management consultancy in Canada is characterised by the diversity of its sectorial applications and by its public/private client mix. Unfortunately, because of definitional difficulties and the lack of survey data, it is impossible to estimate the size or growth patterns of the industry. However, revenue has been estimated by the industry to have been between CAD 2.3 billion and CAD 3.0 billion in 1995. Nominal growth is expected to be approximately 10% annually until 2001, down from a level of more than 15% annually in the years prior to the 1992-93 recession. In addition, it was estimated that more than 20 000 consultants were working in this industry in 1995. Overall, developments in the Canadian market tend to parallel those in the global market.

Most of the major international consulting firms are present in Canada, as well as a strong presence of highly specialised sole practitioners and SME niche operations. There is an important market for services related to information technologies, human resources, operations and corporate strategy. Future developments in management consultancy in Canada are expected to be determined by: the accelerating pace of change in organisations and markets; the evolution towards a knowledge-based economy; developments in information technology which enable change; continued corporate downsizing; the growing maturity of buyers of consulting services and the growing maturity of consulting firms.

Outsourcing of non-core competencies and government privatisation are emerging as major growth areas for consultants, particularly for those in larger firms. Market opportunities are arising from the privatisation and reform programmes underway in parts of Asia, Latin America and Eastern Europe. The trend to increased public/private partnerships and outsourcing contributes to opportunities both in domestic markets and overseas. Management consultancy has also become involved in managing outsourced operations.

Through the Canadian Association of Management Consultants of Canada (CAMC), Canada is the leader in the movement towards professional accreditation in consulting, and was the first jurisdiction to legally recognise the international professional designation which is now accepted by many countries. The CAMC has also been active internationally in helping many countries to establish their own institutes and certification programmes.

Trends in education and training services

Canada's education and training sector is a dynamic, growing and innovative knowledge-based industry, for which, however, very little data exist. It is a comparatively young sector, more than 55% of firms having been established since 1984. The sector comprises many specialised SMEs, training arms of companies in other sectors (such as equipment suppliers and consulting engineering firms) and training supplied by public educational institutions on a contractual basis. Expertise in the provision of second-language training to corporate and student markets worldwide is a prominent feature of Canadian educational services. Canada attracts significant numbers of international students to its institutions. The success of this sector is helped by its focus on job-related training and skills upgrading. The main areas of expertise associated with these services include: executive and management development training; computer-related training and supervisory communications; sales and marketing; and professional technical training. It is believed that a strong and vibrant training sector will play a key role in the transfer of knowledge and expertise to Canadian industry and, by exporting its services, it will make a contribution to meeting the skill needs of emerging economies.

There are no reliable estimates of overall industry revenue but is believed that almost half of the private suppliers export their services, mainly to the United States and Europe.

R&D services – the commercial contract R&D industry in Canada

Industry Canada considers the R&D services sector to have the ability to play a significant role in a growing, competitive, knowledge-based economy. In addition, this particular sector is highly export-oriented and competitive in the international marketplace. However, better data and information concerning the industry and the forces driving its growth and development are needed. In 1998 the Service Industries and Capital Projects Branch (SICP), collaborating with Statistics Canada and based on an analysis of data from the 1995 Research and Development in Canadian Industry Survey, conducted research on the provision of contract R&D by the business enterprise sector, the main findings of which are presented below.

The rationale for firms to outsource R&D work was deemed to include: a changing organisational focus; a lack of resources; and a recognition of the increasing specialisation and expertise available outside the firm. It has become extremely difficult and costly for firms to develop and maintain in-house expertise in more than a very few technologies as the level of knowledge embodied in these technologies has increased dramatically. Focusing on core competencies has meant that firms have looked for expertise in domains like R&D outside the firm. The R&D services industry comprises the following: *i)* private firms whose primary business operation is the provision of R&D services for a fee; *ii)* private firms that provide these same services only as a complement to their core competencies; *iii)* universities and their related organisations that undertake R&D for a fee; *iv)* revenue-dependent publicly funded organisations and not-for-profit organisations performing R&D on a fee-for-service basis; and *v)* testing laboratories.

The 1995 Statistics Canada Survey (covering R&D contract work done by the business enterprise sector for non-affiliated Canadian or foreign firms, or the federal government) found that 441 firms and non-revenue organisations representing 97 different SIC codes were identified as performing some level of contract research in Canada in 1995. The majority of these (60%) were classified under business services (major group SIC 77) and nearly 30% of them under SIC 7759, Other scientific and technical services. In 1995, the total value of this research amounted to CAD 631 million, of which firms performed CAD 607 million-worth, with non-revenue organisations accomplishing work to the value of CAD 23.4 million. In general, firms that derive 50% or more of their revenues from R&D contract work tend to be small, with over half having revenues of less than CAD 1 million. The majority of R&D contract work is done either by large firms which derive only a small share of their income from R&D contracts, or by relatively small firms that specialise in R&D contracts. Only six firms generated revenue of CAD 10 million or more; however, their total revenues were more than six times greater than that of all other firms specialising in contract research taken together.

Small firms tend to rely on federal government contracts for the bulk of their revenues and as firms' revenues increase, their dependence on federal government contracts diminish. Large firms are responsible for the bulk of employment – of 4 707 persons employed by firms specialised in contract R&D, 67% worked for firms with revenue equal to or greater than CAD 10 million. In contrast, the 83 firms with revenues of less than CAD 1 million employed only 605 people. Employees are generally highly skilled, approximately half are scientists or engineers. The vast majority of the workforce (84%) is engaged in some form of research.

Traditional sources of data are inadequate to illustrate the recent development of R&D services. Using various official data for the mid-1990s, the total Canadian supply of R&D services was estimated to be worth approximately CAD 2.35 billion annually. According to Revenue Canada data, total expenditures on the outsourcing of R&D activities by Canadian firms to other firms/organisations in Canada almost tripled in real terms to CAD 1.621 billion from 1987 to 1992.[2]

Turnover for the strategic business services

Using the available data for strategic business services,[3] the combined turnover for computer services, advertising and labour recruitment services amounted to CAD 17.2 billion in 1995. Given the data gaps, it is reasonable to assume that turnover for the five categories of strategic business services would have been well over CAD 20 billion. Computer services had turnover of CAD 11 billion in 1995 and this was a high growth area, showing an increase of almost 35% in the 1993-95 period. The highest growth within this category in 1993-95 was experienced by hardware services, where turnover increased by 50%. Turnover in data processing services expanded by 38% while other activities, *e.g.* software, also benefited from strong growth. Labour recruitment services generated turnover of CAD 2.5 billion in 1995, corresponding to an increase of 31% on 1993 levels. Turnover by the advertising business expanded by 13.4% in 1993-95. Generally, all of these activities have been characterised by high growth during the previous 15 years or so. Since the mid-1980s high growth was experienced by all categories and was most marked in computer-related services where turnover increased more than four-fold between 1983 and 1995.

Table 1. **Turnover in the software development and computer services industry, 1993-95**
CAD million

	1993	**1994**	**1995**
Development of software products	1 575	1 834	1 887
Professional services	3 192	4 317	4 049
Processing services	1 627	1 602	2 247
Hardware services	692	811	1 043

Source: Statistics Canada.

2. Caution is urged with regard to these data as they derive from original claims filed by firms/organisations and not actual approved expenditures, thereby representing a risk of an inflated estimate of actual demand. Source: Industry Canada.

3. With respect to the five selected business services (computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resources development services), the following data constraints should be noted: computer-related services include leasing and maintenance services; data for the following are not available: – detail at the appropriate breakdown level for R&D and technical testing services; employment data for labour recruitment / provision of personnel services; data for management consultancy; data for human resource development services.

Figure 2a. **Turnover for selected business services, 1982-95**
CAD million

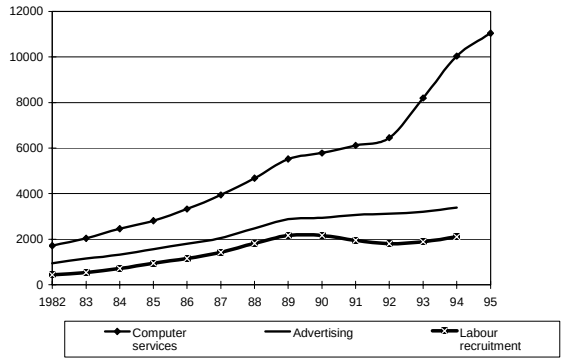
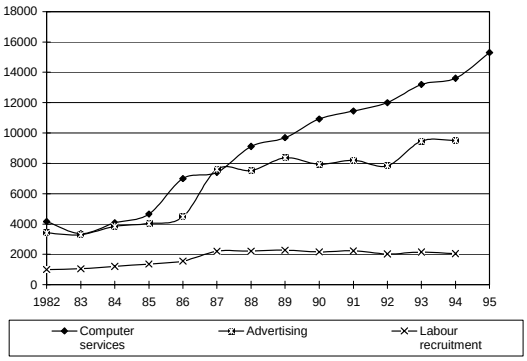


Figure 2b. **Number of businesses in selected business services**



Source: Statistics Canada.

Employment

It is noteworthy that in 1996, at a time when full-time jobs were being lost even in service industries, business services were responsible for substantial job creation, especially computer services and advertising. Job growth in business services surpassed the economy-wide average in recent years and data for 1995-96 testify to a continuation of that trend.[4] Employment in computer services grew by 70% between 1982 and 1987 and more than trebled between 1987 and 1996, reaching 137 000 in the latter year.[5] Advertising services employed 89 000 persons in 1996, an increase of 14% on 1995 levels and advertising agencies made the highest employment gains in this period among the different business services activities considered here.

Official data[4] indicate that salaries in strategic business services performed better than in other areas of the economy during the 1990s and in particular, salaried employees in computer services, in engineering and other scientific and technical services were among the best paid employees in business services. With regard to salaried employees in computer services, salaries increased by 17.8% when the fourth quarters of 1996 and 1995 are compared. The corresponding increase for salaried employees in advertising was 5.9%. In general, in the mid-1990s, while salaries of professional services (*e.g.* lawyers, notaries and accountants) declined, salaries in strategic services increased.[4]

Enterprises

The number of firms engaged in the provision of business services increased sharply during the recent period (Figure 2b). Firms engaged in labour recruitment doubled in numbers between 1982 and 1993.

4. Statistics Canada, various monographs.

5. Employment data are not readily available for the following: research and development and technical testing; business organisation services; human resource development services.

The number of firms in this activity peaked at 2 279 in 1989 and fluctuated thereafter, numbering 2 055 in 1994 and 2 126 in 1995. Firms providing advertising services saw their numbers jump almost three-fold between 1982 and 1993, and grew by 26% between 1994 and 1995, numbering 12 004 in 1995. The number of firms supplying computer-related services grew by 216% during the same period.

Trade

Canada has consistently recorded trade deficits in business services (according to the wider definition, *i.e.* including finance, insurance, etc.) exceeding CAD 2 billion annually since 1980 and reaching a peak of CAD 4.1 billion in 1994. However, detailed trade data available[5] for some of the strategic business services examined in this report reveal that computer services and R&D services have earned healthy surpluses since the early 1980s. In the case of computer and information services, exports were roughly double the level of imports during the last decade. Similarly, for R&D services, exports vastly exceeded imports over the same period. In contrast, trade in advertising services recorded deficits during this period and imports were almost triple the level of exports by 1997, which represented a deterioration in the trade performance compared with 1988 when imports were double export levels.

Table 2. **Trade in selected strategic services, 1988-97**
CAD million

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Advertising and related services										
Receipts	79	132	124	128	147	160	181	179	221	212
Payments	145	184	211	238	246	329	407	482	547	623
Computer and information services										
Receipts	441	454	546	636	826	1 043	1 129	1 387	1 681	1 721
Payments	213	269	344	488	527	650	739	823	802	942
R&D services										
Receipts	652	640	700	803	741	997	1 332	1 463	1 678	1 774
Payments	383	450	483	496	549	615	769	856	781	802

Source: Statistics Canada, *Canada's International Transactions in Services by Category*.

Trade with foreign-affiliated companies accounts for a large part of Canada's international trade in business services. Working with a wider definition of business services, it is estimated that 55% of "payments" in the mid-1990s represented purchases from parent companies, subsidiaries or affiliates located abroad. Almost 70% of Canada's imports of business services were purchases from the United States and the strong presence of US foreign direct investment in Canada is seen to explain this pattern.[6] On the other hand, "receipts" from foreign affiliates represented 37% of total business services exported. Also, almost 60% of Canadian business services exports go to the United States and 45% of these are trade with affiliate companies. EU countries accounted for 15% of receipts, with just 30% of this coming from affiliates. Trade with affiliate firms has been even more pronounced

6. Statistics Canada, *Canada's International Transactions in Services*, 1993, 1994 and 1997.

when the firms in Canada conducting the trade are controlled from abroad. In 1993 foreign-controlled firms exported less than 40% of total business services, but 70% of their exports was sold to foreign affiliates.

Policies for business services

In the view of the Canadian authorities, the principal products of business services – information and knowledge – lie at the core of the economy's ability to compete in global markets. The focus of industrial policy in Canada has changed since the 1980s from direct intervention and trying to set the directions for trade and technology to creating the conditions for private sector growth and accepting and adapting to globalisation and technological change. New industrial policy initiatives have moved away from direct subsidies to emphasising joint private/public initiatives in high-growth sectors (repayable forms of assistance and risk sharing), framework policies and the provision of strategic information and advice. The Canadian Government's approach is to maintain a foundation of macroeconomic stability augmented by a microeconomic strategy focused on enhancing competitive advantage and productivity growth through innovation, trade, investment, human capital, marketplace framework laws, and a world class information infrastructure. Canada does not have any programmes specifically targeted to the business services sector, but rather has several national initiatives which are beneficial to this sector.

The i*nformation product* is an important concept and tool in the approach adopted by the Canadian Government. In an effort to provide easily accessible strategic information and advice to business, the following are examples of the information products that have been developed:

- *Strategis:* is an Internet site developed by Industry Canada, and is Canada's largest business information Web site with close to 2 million electronic documents. It provides firms with access to expertise and strategic information to help them become more competitive, and provides hot links to Canadian and international business information databases.

- *Export information:* Industry Canada has developed a number of Internet tools such as *Take a World View*, *Steps to Competitiveness*, *ISO Handbook for Services Industries*, and *Stakeholders' Analysis*, to improve the export readiness of services firms. In addition, it has assisted firms in improving their exporting skills through workshops, "how-to" guides and structured training courses.

- *Sector competitiveness frameworks (SCFs):* Industry Canada has developed, or is developing, SCFs for 29 industrial sectors. SCFs focus on opportunities, both domestic and international, and challenges facing the industry sectors in Canada. Industry Canada has produced SCFs on several services industries (these are available electronically on the Strategis Internet site).

- *Statistics:* Government policy and private sector business decisions require reliable and reasonably detailed statistical data. The quality and coverage problems associated with services sector data are well-documented. Statistics Canada is leading efforts to address this situation at both the domestic and international levels.

Innovation is a fundamental determinant of success and a key to creating jobs and growth in the knowledge-based economy. Over the past several years, the Canadian Government has reinforced the

innovation system through a number of key initiatives which are beneficial to the business services sector, including:

- *Scientific Research and Experimental Development (SR&ED):* a programme which provides tax incentives to Canadian businesses that conduct scientific research and experimental development in Canada (including software developers).

- *Technology Partnerships Canada (TPC):* created in 1996 to invest in enabling technologies (including information technology) in projects that foster international competitiveness, innovation and commercialisation. TPC provides a particular focus on the needs of small businesses.

- *Technology Roadmaps*: mechanisms to identify and develop new, critical technologies required by specific sectors to meet future market demands.

- *Industrial Research Assistance Programme (IRAP):* a service of Canada's National Research Council (NRC) which helps small and medium-sized enterprises (SMEs) create and adopt innovative technologies that yield new products, create high-quality jobs, and make industry more competitive.

Human resources. In the global knowledge-based economy, the quality of people's skills and ideas is an increasingly important source of competitive advantage. The Canadian Government recognises that the acquisition of basic and specialised skills through formal education and lifelong learning is key to success in the knowledge-based economy. Examples of some initiatives include:

- *Youth Employment Strategy (YES):* a national programme to provide Canadian youth with employment opportunities through internships with public and private sector organisations, including SMEs.

- *Sectoral Partnerships Initiative:* a national programme to create sectoral alliances among management, labour, government and educators, to develop comprehensive strategies that deal with the human resource strategies facing industry. An example of such an alliance is the *Software Human Resource Council (SHRC),* formed in 1992, which was mandated to act as a national catalyst in addressing the software human resource issue.

- *Software Development Worker Pilot Project:* a project implemented in May 1997 to address the concern of a shortage of skilled software workers in Canada. The project expedites the procedures for authorising foreign software workers in seven designated job categories to work in Canada on a temporary basis.

Financing. The federal Government of Canada recognises the importance of improving access to capital and information for small and medium-sized enterprises, many of which are in the services sector. Examples of some of the activities to address this are:

- *Canada Small Business Financing Act (CSBFA):* this programme was created to help small businesses reach their potential by making it easier for them to receive term business improvement loans to finance the purchase or improvement of fixed assets for new or expanded operations.

- *Business Development Bank of Canada (BDC):* provides a wide range of financing alternatives to respond to the unique financial needs of every type of SME and also offers a wide range of business counselling and mentoring services.

- *Export Development Corporation (EDC):* helps Canadian exporters compete and succeed in foreign markets by providing a wide range of financial and risk management services.

Trade. Increased access to international trade and investment opportunities for Canadian service companies not only results in jobs for the companies involved but should also create business opportunities in other services sectors. An important objective is to increase the number of Canadian exporters, particularly among SMEs. Examples of initiatives in this area include:

- *Trade liberalisation:* this is a key objective for all industry sectors including business services. Canada is currently preparing for the next round of the comprehensive General Agreement on Trade in Services (GATS) negotiations in 2000 and expects to focus on various services industries including engineering services, computer and related services, management consulting services.

- *Trade Team Canada Inc.*: represents a partnership of Canadian governments and the private sector to help Canadian firms succeed in world markets. The most visible aspect is the Team Canada trade missions. The federal Government and industry are also working together in key services sectors to plan trade promotion initiatives.

- *International Business Opportunities Centres (IBOC):* Canada provides services firms with better access to foreign market opportunities through IBOC which attempts to match Canadian expertise with requests from potential foreign customers.

- *Regional Trade Networks (RTNs):* Federal-provincial partnerships to help prepare small businesses to export, and provide them with training, counselling, market information and intelligence, and international financing information.

- *ExportSource (http://exportsource.gc.ca):* an Internet site which provides information to both export-ready and new-to-export Canadian businesses. The site allows Canadian businesses to simultaneously search across multiple government sites to access needed trade- and export-related information.

ANNEX

Selected business services in Canada, 1993-94

Classification		1994 Number of enterprises	1994 Turnover CAD million	1993 Number of enterprises	1993 Turnover CAD million
D656350	**Computer & related services**	**13 611**	**10 039**	**13 203**	**8 194**
	Computer software & information processing				
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
	Research & development & technical				
	Research & experimental development				
	Technical testing and analysis				
	Marketing services				
	Market research & public opinion polls				
	Advertising	9 509	3 387	9 465	3 206
	Business organisation services				
	Management consultancy				
771	Labour recruitment / Provision of personnel	2 055	2 102	2 163	1 893
	Human resource development services				
	Adult & other vocational education				
	Job training & vocational rehabilitation				

Source: Statistics Canada, Survey data.

Selected business services in Canada, 1995

Classification		Employment	Number of enterprises	Turnover CAD million
D656350	**Computer & related services**	**123 000 ('96 137 000)**	**15 307**	**11 045**
	Computer software & information processing			
	Hardware consultancy			
	Software consult. & supply			
	Data processing			
	Database services			
	Research & development & technical			
	Research & experimental development (offices of engineers)			
	Technical testing and analysis (other scientific & technical services)			
	Marketing services			
	Market research & public opinion polls			
	Advertising	78 000 ('96 89 000)	12 004	3 636
	Business organisation services			
	Management consultancy			
771	Labour recruitment / Provision of personnel		2 126	2 479
	Human resource development services			
	Adult & other vocational education			
	Job training & vocational rehabilitation			

Source: Statistics Canada, Survey data; 1996 employment data were collected through a separate labour survey programme.

GDP at factor cost: contribution of computer services and advertising
CAD million, 1992 prices

	1981	1982	1983	1984	1985	1986	1987	1988	1989
Computer services	1 325	1 623	1 442	1 824	1 321	1 636	1 896	2 460	2 909
% share in GDP	*0.27*	*0.35*	*0.3*	*0.36*	*0.25*	*0.3*	*0.33*	*0.41*	*0.48*
Advertising services	1 345	1 351	1 291	1 456	1 778	1 762	1 816	1 969	1 993
% share in GDP	*0.28*	*0.29*	*0.27*	*0.29*	*0.33*	*0.32*	*0.32*	*0.33*	*0.33*

	1990	1991	1992	1993	1994	1995	1996	1997
Computer services	3 160	3 396	3 425	4 544	5 404	6 421	7 146	8 429
% share in GDP	*0.52*	*0.57*	*0.57*	*0.73*	*0.84*	*0.98*	*1.07*	*1.22*
Advertising services	1 795	1 691	1 574	1 634	1 558	1 709	1 902	2 121
% share in GDP	*0.29*	*0.28*	*0.26*	*0.26*	*0.24*	*0.26*	*0.29*	*0.31*

Source: Statistics Canada.

DENMARK

Trends in strategic business services

Turnover

In 1995, turnover in the selected business services activities[1] totalled DKK 34.5 billion, an increase of 8% on 1994 turnover levels. Of the different categories of business services reviewed here, computer software and information processing services was the largest, accounting for approximately half of the total, and turnover grew by 11.5% during the previous twelve months. Within computer services, the fastest growing activities in 1994-95 were database services (170% growth) and hardware consultancy (64%). Software consultancy and supply expanded by 13.5%, while data processing activities shrank by 11%.

Turnover for marketing services amounted to DKK 12.7 billion in 1995, up 14% on 1994 levels and advertising accounted for the quasi-totality of this figure, with market research and opinion poll activities representing less than 3% of the total. Business organisation services generated turnover of DKK 4.4 billion, a decline of almost 9% on 1994 levels, due to a drop of 14% in management consultancy revenue. Turnover in technical testing and analysis experienced a decline of 27.2%. Within these activities, turnover per employee was at its highest at DKK 1.27 million in advertising and DKK 0.87 million in computer-related services and was lowest in labour recruitment/personnel provision (DKK 0.08 million) and market research and public opinion polling (DKK 0.17 million).

Turnover data available for computer services for 1996 and 1997, while not strictly comparable to the data for 1994 and 1995, nevertheless indicate continuing strong and balanced growth among the different component activities in this category. For example, overall, computer services expanded by 28% between 1996 and 1997, while hardware consultancy showed the fastest turnover growth at 101%. Turnover for data processing services and software consultancy and supply services expanded by 37%, and 24%, respectively.

Research undertaken elsewhere[2] indicate that Denmark had the second largest per capita expenditure on advertising and direct marketing in EU countries in 1993 and 1994, and has been ranked in the top five countries in this respect consistently during the recent decade. However, advertising expenditure expressed as a percentage of GDP places Denmark in fifth position from the bottom in 1994 for the same group of countries. The same source indicates a 48% growth rate in turnover for management

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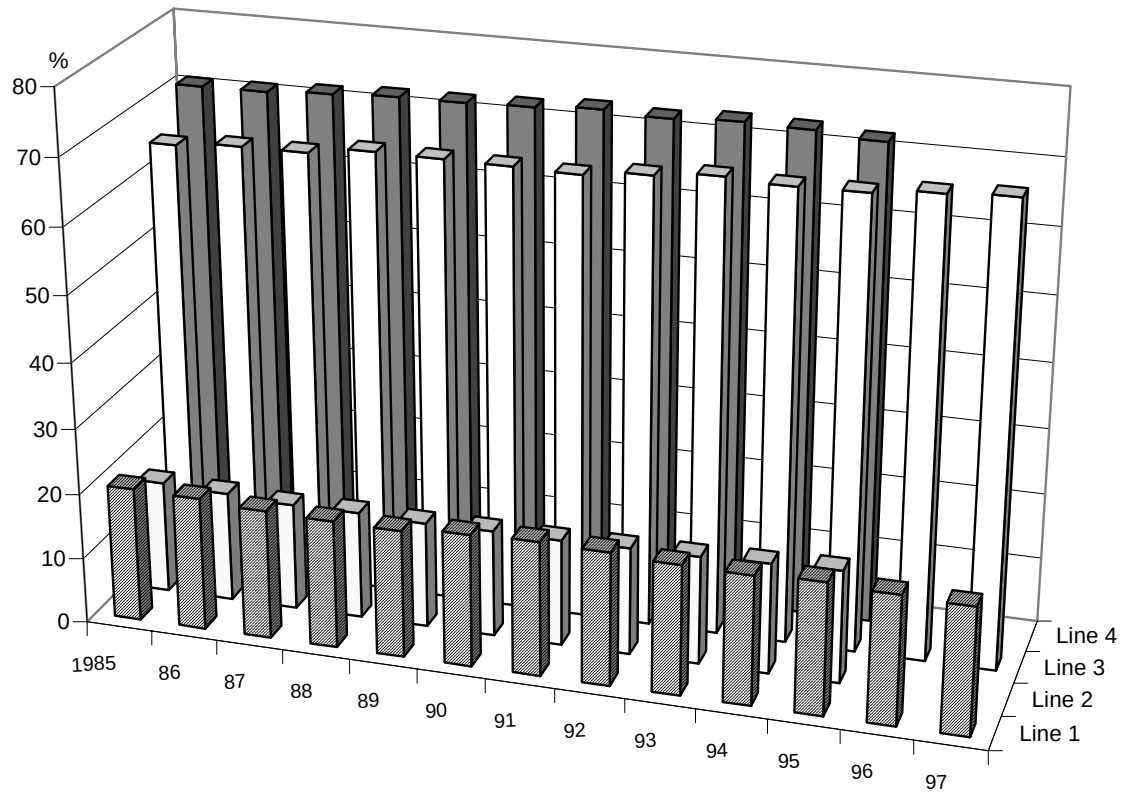
1. The five business services activities included in this study are: computer software and data processing services; research and development and technical services; marketing services; business organisation services; and human resource development services. No data has been reported for either research and experimental development services or for human resource development services.

2. Commission of the European Communities, *Panorama of EU Industry '97.*

consultancy in Denmark for the period 1989-94, compared with 18% growth for the EU-15 countries. With regard to the public relations activity, turnover was estimated to have more than doubled in Denmark between 1991 and 1994 compared with 44% growth for the EU-12. The market value of computer software grew by 24.5% between 1993 and 1997 while that of computer services progressed by 23% during the same period.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Line 1: Employment in manufacturing
Line 2: Value added in manufacturing
Line 3: Employment in services
Line 4: Value added in services

Note: In Denmark, between 1960 and 1995 the share of services value added in GDP increased from 47% to 72%, while the manufacturing share of value added in GDP amounted to just 17.2% in 1995. Employment in services in 1997 accounted for 69.5% of the workforce, while the share of manufacturing employment in total employment amounted to 19.4% in the same year.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

Employment

In 1995, employment in the selected business services[1] totalled 49 100, representing 2.8% of services employment and 1.9% of total employment. However, employment in the same activities had been higher by 3 980 in 1994, the decline in the intervening twelve months being due to large declines in business organisation services employment (in management consultancy and to a lesser extent in labour recruitment/personnel provision services). Employment also declined dramatically in technical

testing and analysis services, from 2 516 in 1994 to 1 549 in 1995. Employment increased by 2% overall in computer services, but the individual component activities in this category had very different experiences in this respect – hardware consultancy (+32%), database services (+15%), software consultancy and supply services (+11%), and data processing services (-23%).

Employment data available for computer services and advertising for 1996 indicate that employment grew for these activities between 1995 and 1996, probably at a rate close to 15% in the case of computer services and likely at a much higher rate in the case of advertising. In 1996, 78% of employees in computer services were full-time employees while for 96% of employees their employment in this sector was their principal occupation. In the case of advertising, 53% of employees were full-time employees while for 91% this represented their principal occupation.

Figure 1a. **Turnover of selected business services, 1994-95**
DKK billion

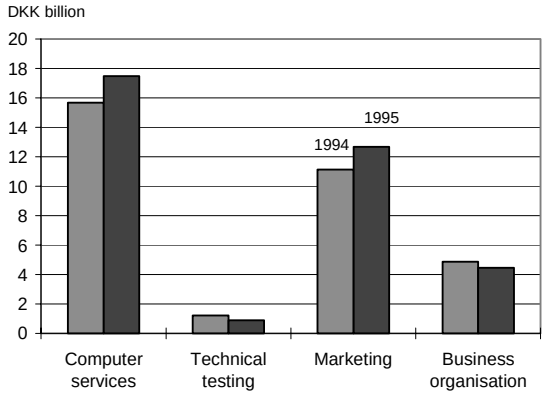
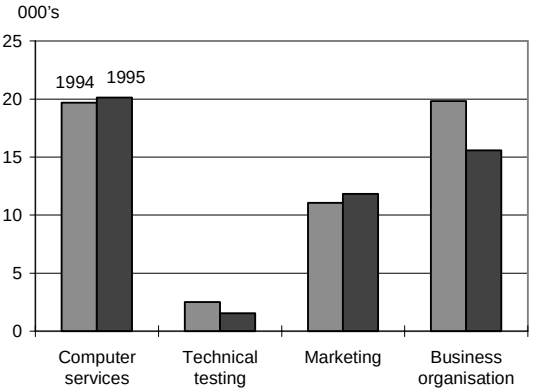
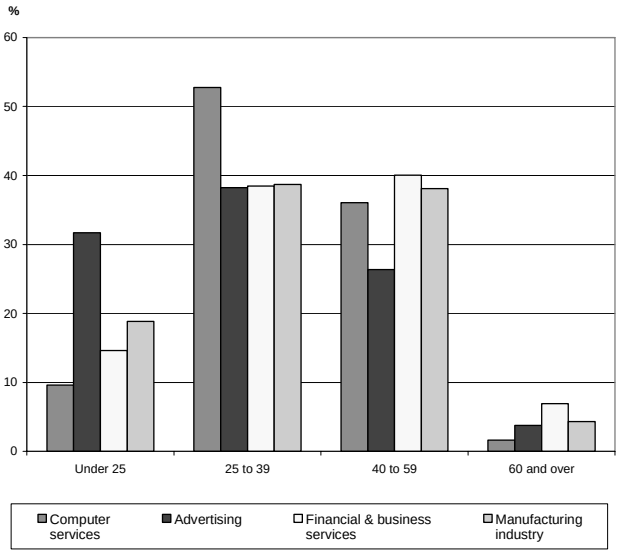


Figure 1b. **Employment in selected business services, 1994-95**
Thousands



Source: Danmarks Statistik, May 1998.

Figure 2. **Age structure of employees, 1996**
Age groups in percentage of total



Source: Danmarks Statistik, May 1998.

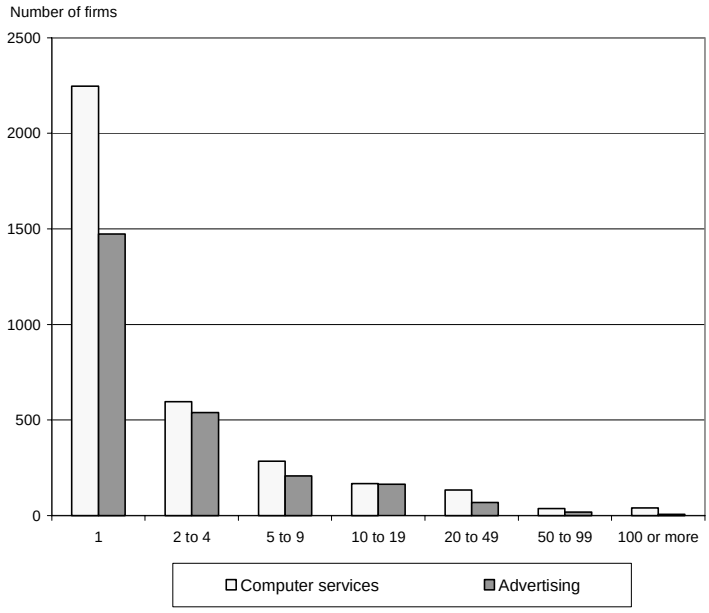
The age distribution of employees in business services is biased towards the younger age groups (Figure 2). For example, in 1996, 62% of employees in computer services and 70% in advertising were less than 40 years old compared with 53% for the overall financial and business services category and 58% in manufacturing industry. However, a very small share of computer services employees were aged under 25 (9.6%) compared with other categories: advertising (31.7%), manufacturing industry (18.9%). Only 1.6% of computer services employees were aged 60 or older, compared with 3.7% in advertising and 4.3% in manufacturing.

Men comprised 73.7% of computer services employees and 57.5% of advertising employees, compared with 54% in financial and business services, in general, and 68.5% in manufacturing industry.

Enterprises

The number of firms engaged in the provision of these business services grew by 0.7% in 1994-95, reaching 15 088 in the latter year, of which 42.5% of these firms provided computer-related services while the remainder was distributed almost evenly between marketing and business organisation activities. Reporting of data on enterprises in R&D and technical testing services was incomplete. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), it is apparent that very small firms predominate in the business services market, averaging 3.3 persons per firm for 1995 – a fraction of both the average firm size in manufacturing (19.2) and that in the economy as a whole (8.9).[3]

Figure 3. **Firm size by number of employees: computer services and advertising, 1996**



Source: Danmarks Statistik, May 1998.

3. 1992 data used for both the manufacturing and total average firm size, OECD, *Industrial Structure Statistics.*

Data on the size distribution of firms in computer services and advertising show that very small firms comprise the vast majority of firms engaged in the supply of these services (Figure 3). In 1996 in the case of computer services, 64% of firms had only one employee while a further 17% of firms operated with two to four employees. Only 1% of firms had over 100 employees and a further 1% had 50 to 99 employees. In advertising, 59% of firms functioned with a single employee, while an additional 22% of firms had only two employees.

ANNEX

Selected business services in Denmark, 1995

Classification NACE	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover DKK million
72	**721-726**	**Computer & related services**			
	721-724	**Computer software & information processing**	**20 133**	**6 418**	**17 474**
	721	Hardware consultancy	316	275	279
	722	Software consultancy and supply	15 537	5 665	12 032
	723	Data processing	3 940	449	3 972
	724	Database services	340	29	1 192
		Research & development & technical			
	731	Research & experimental development			
74.3	7422	Technical testing and analysis	1 549	350	882
		Marketing services	**11 826**	**3 978**	**12 662**
74.13	7413	Market research & public opinion polls	2 200	168	373
74.4	743	Advertising	9 626	3 810	12 289
		Business organisation services	**15 592**	**4 342**	**4 440**
74.14	7414	Management consultancy	5 319	4 000	3 580
74.5	7491	Labour recruitment / Provision of personnel	10 273	342	860
	809	**Human resource development services**			
8041		Adult & other vocational education			
8042		Job training & vocational rehabilitation			

Source: Danmarks Statistik, May 1998.

Selected business services in Denmark, 1994

Classification NACE	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover DKK million
72	**721-726**	**Computer & related services**			
	721-724	**Computer software & information processing**	**19 699**	**6 284**	**15 675**
	721	Hardware consultancy	240	212	170
	722	Software consultancy and supply	14 019	5 704	10 600
	723	Data processing	5 143	343	4 463
	724	Database services	297	25	442
		Research & development & technical			
	731	Research & experimental development			
74.3	7422	Technical testing and analysis	2 516	337	1 211
		Marketing services	**11 051**	**4262**	**11 132**
74.13	7413	Market research & public opinion polls	1 727	160	314
74.4	743	Advertising	9 324	4 102	10 818
		Business organisation services	**19 814**	**4 094**	**4 859**
74.14	7414	Management consultancy	8 517	3 797	4 177
74.5	7491	Labour recruitment / Provision of personnel	11 297	297	682
	809	**Human resource development services**			
8041		Adult & other vocational education			
8042		Job training & vocational rehabilitation			

Source: Danmarks Statistik, May 1998.

FINLAND

Trends in strategic business services

According to the Finnish authorities, increasing specialisation in production processes and in business organisation are the driving forces behind the growth of business services. Recent strong growth in these services has been attributed to an expansion in demand for them as well as to outsourcing by firms. Outsourcing of business services has taken place in all industries: in manufacturing, in service industries and, gradually, in the public sector as well. Data processing services are a good example of an outsourced activity. Organisational restructuring within firms as well as new kinds of business activities, such as services based on growing demand related to the information society, have fuelled this growth. The internationalisation of and demand for technological developments, including information technologies, are other contributing factors.

Finland considers that the following constitute, in some respects, barriers to the further development of business services at the national and international level:

- Small domestic markets; modest demand.
- Difficulties related to international expansion by services firms in finance, marketing and management.
- Shortage of qualified personnel (particularly in computer-related services).
- Insufficient flexibility in labour and commodity markets affecting both supply and demand for these services.

Value added and turnover

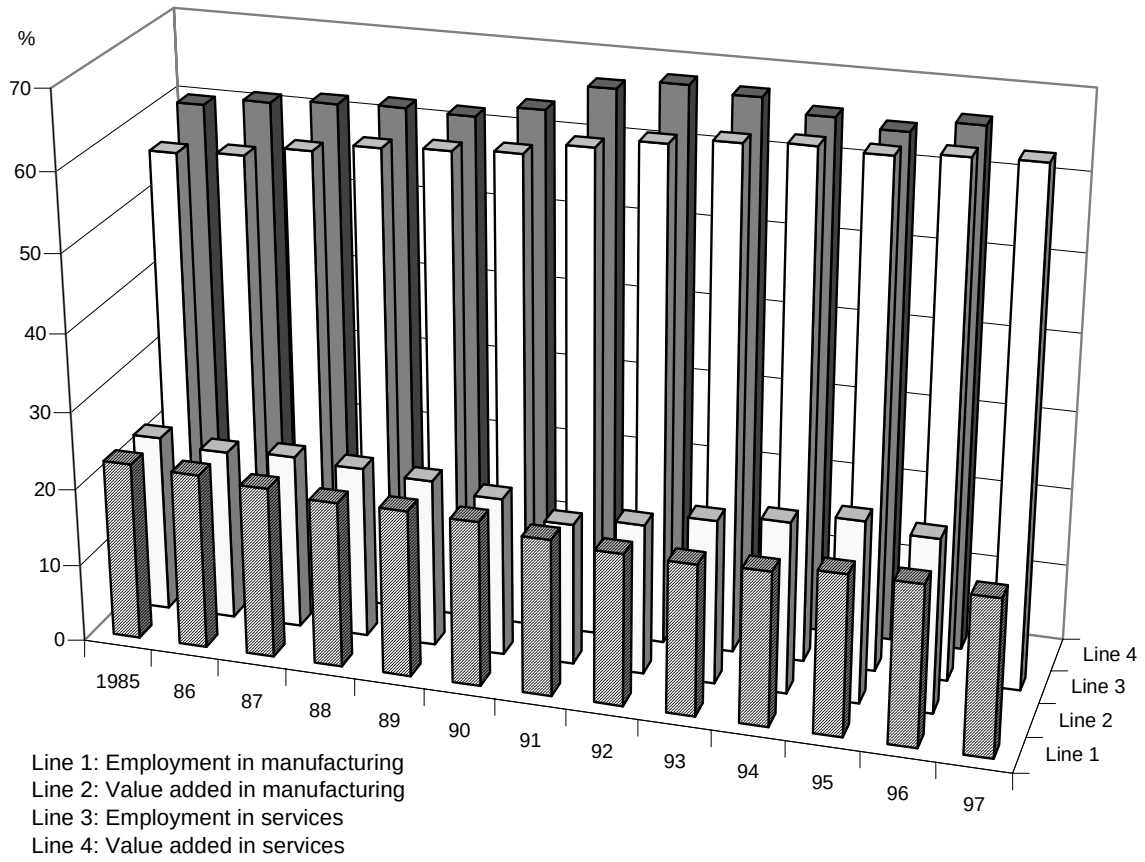
Value added in business services[1] grew, on average, by 9% annually during the period 1985-95. In 1985, business services accounted for 3.5% of GDP and by 1995 had reached 4.8% of GDP. Gross output of these activities represented 4.2% of total output in 1985 and 4.7% in 1995. Taking the narrower definition used for this OECD study,[2] turnover for the selected strategic business services amounted to FIM 4.9 billion in 1995, an increase of 36% over 1993.

---

1. Statistics Finland, National accounts comprising Category K (real estate, leasing and research activities, business services activities).

2. The five business services areas included in this study are: computer software and information processing services; research and development and technical testing; marketing services; business

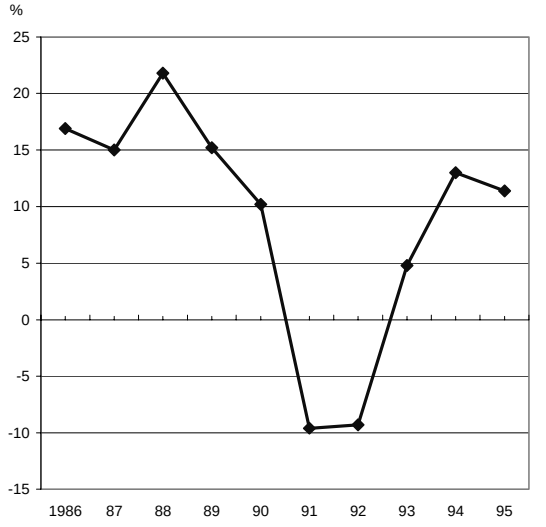
Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Note: In Finland, value added in services in GDP in the period 1960-96 increased from 48.8% to 66.3%. Manufacturing value added in GDP in the period 1960-96 declined to 22.4%. Employment in services grew steadily from 32.2% of total employment in 1960 to 65.5% in 1997, while employment in manufacturing declined over the same period from 27.9% to 20.2% of the total workforce.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

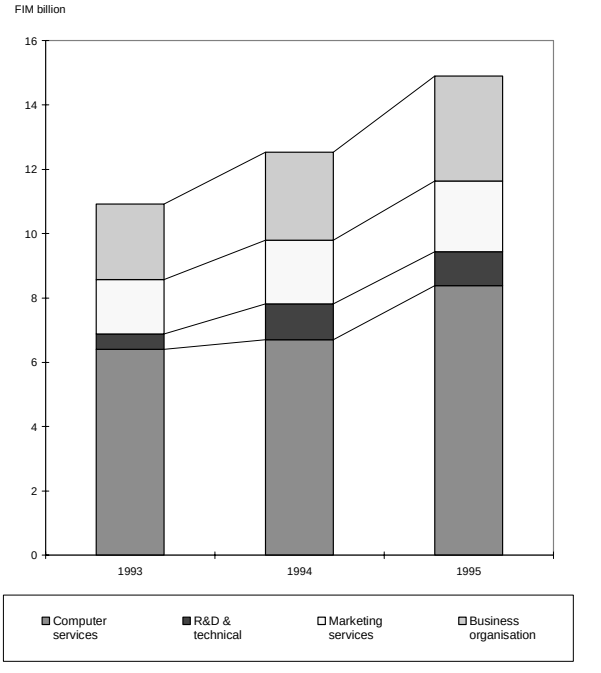
organisation services; and human resource development services. For the latter category, no information was available for Finland.

Figure 1a. **Annual growth in value added of business services, 1986-95**
Percentages



Source: Statistics Finland, National accounts comprising Category K (real estate, leasing and research activities, business services activities).

Figure 1b. **Turnover for selected strategic services, 1993-95**
FIM billion



Source: Statistics Finland.

In the 1993-95 period, growth in turnover was strong for all categories of these strategic business services, especially for R&D and technical testing services. Computer-related services had the largest turnover of any category, averaging 56% of the total in 1993-95, and grew by 31% during that period. Software represented over 60% of this category and grew by 46% during the same period. Small database services was the only other component in this category that experienced very strong growth, with an almost four-fold increase in turnover. Otherwise, turnover for data processing services remained stable and that for hardware consultancy declined. Turnover in R&D and technical testing services progressed by 120% between 1993 and 1995, with very strong growth in both components of the latter category. This activity was, however, a relatively minor category of business services, as turnover for R&D and technical services amounted to 7% of the total for the four categories for which data are available.

Turnover in marketing services expanded by 30% during this period, with the advertising branch growing by 25% and market research and opinion poll activities progressing by 87%. Finland was ranked seventh among EU countries in 1994 for both per capita expenditure on advertising and advertising as a share of GDP.[3]

Turnover for business organisation services expanded by almost 40% during the period; management consultancy, by far the larger of the two components, grew by 30%, while turnover for labour recruitment/personnel provision services increased by 155%.

3. Commission of the European Communities, *Panorama of EU Industry '97*.

Figure 2a. **Employment in selected strategic business services, 1993-95**

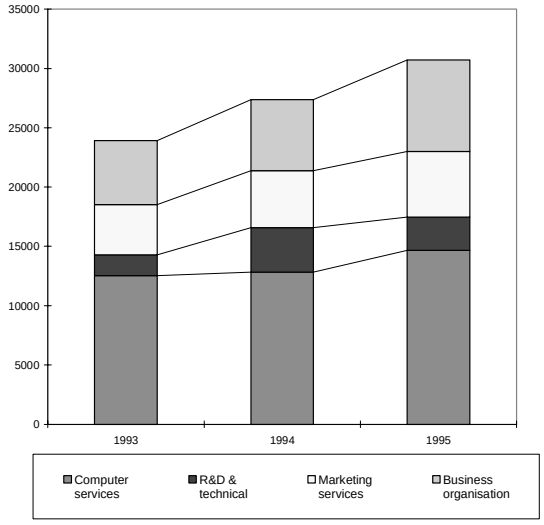
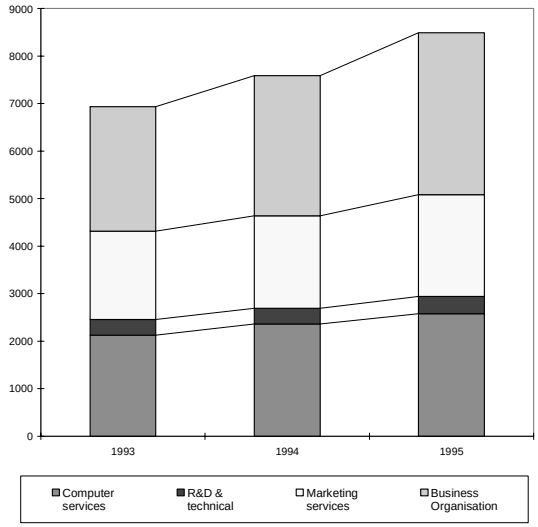


Figure 2b. **Number of enterprises in selected strategic business services, 1993-95**



Source: Statistics Finland.

Employment

Employment in strategic selected business services represented 2.3% of services employment and 1.5% of total employment in 1995. These activities generated significant employment in recent years. For example, between 1993 and 1995, employment for the four categories for which data are available expanded by 29%. Of the 31 000 employed in strategic business services in 1995, 48% were employed in computer software and information processing services, and almost 70% of the latter category was employed in software consultancy and supply services. The growth in computer-related services over the 1993-95 period occurred in software, where employment expanded by 27%. Employment in hardware consultancy and database services actually declined, while data processing activities recorded a marginal increase.

Business organisation services were the second largest employer among the four categories, employing 7 718 in 1995, an increase of 43% over 1993 levels. Employment in management consultancy (5 353 in 1995), and in labour recruitment/provision of personnel activities (2 365 in 1995) progressed by 26% and 36% over 1993 figures, respectively. Marketing services employed 5 542 in 1995, 30% more than in 1993. Employment in the minor activity, market research and public opinion polling, almost doubled, while employment in advertising expanded by nearly 26%.

However, the technical testing component of R&D and technical testing services experienced the highest employment growth at 115% between 1993 and 1995, while employment in the R&D and experimental development component expanded by a mere 4%.

Enterprises

Almost 8 500 firms were engaged in supplying the four business services selected in 1995, an increase of 22.5% over 1993. Over 40% of firms were engaged in supplying business organisation services, while more than a quarter of firms supplied computer-related services and another quarter supplied marketing services. Of firms engaged in the provision of business organisation services in 1995, the vast majority were suppliers of management consultancy services; their numbers increased by 30% between 1993 and 1995.

Firm numbers for the various activities included in computer-related services are not available for 1993 and 1994, but the number of firms in the larger computer services category (NACE 721-726) expanded by 21% in the 1993-95 period. In 1995, firms engaged in software supply and consultancy comprised 85% of computer software and information processing firms. The number of marketing enterprises was also significant, accounting for 25% of the total for the four main categories; 95% were in advertising. Over 300 firms were engaged in R&D and technical services (approximately 4% of the total).

When average firm size (the ratio of employment to number of firms) is calculated, the preponderance of small firms is apparent. Business services firms averaged 3.7 persons per firm for 1995, a fraction both of the average firm size in manufacturing (64.1) and in the economy as a whole (61.4).[4] The distribution across size bands is also quite even, with relatively few large firms. In 1995, the ten largest firms in computer and related activities (SIC95 72) accounted for one-quarter of employment and almost one-third of turnover in that category and for 10% of employment and 13% of turnover for R&D and other business activities (SIC95 73-74).

Trade in business services

International trade statistics for business services are not systematically collected in Finland. The most recent data relate to 1993 and involve a wider coverage than the activities reviewed in this study. Nevertheless, some interesting findings emerge. Exports of technical consultancy in 1993 amounted to FIM 2.1 billion or nearly 90% of the total. Western Europe constituted the largest market for Finnish technical consultancy exports, although the highest potential was considered to lie in Russia, the eastern European countries and Asia. Exports of computer services were valued at FIM 90 million, of which software represented almost 80%. In addition, sales of Finnish business services subsidiaries abroad exceeded the value of business services exports from Finland. When compared to the results of a previous study undertaken in 1992, it is clear that exports of business services had grown very strongly, with exports of technical consultancy services the fastest growing area. Given the relatively low level of imported inputs associated with the production of such services, Finland considers the exports of business services to be highly desirable from a balance of payments viewpoint.

Policies for business services

Finland's overall industrial policy is not sector-specific, so no policies specifically target business services, although these have recently received special attention. Future action programmes may be

4. Calculated by the OECD from OECD, *Industrial Structure Statistics*.

designed with a view to developing such policy measures. Finland attaches great importance to guaranteeing favourable framework conditions for the entire business sector. Efforts to diminish the regulatory burden on firms and lower barriers for labour recruitment are examples of ongoing policies to achieve an overall improvement in framework conditions.

The services sector has recently received attention in Finnish industrial policy, and studies relating to its development prospects have been commissioned by the Ministry of Trade and Industry. These studies view the knowledge-based and internationally competitive sectors as including engineering, information technology, and other services. They conclude that, in terms of employment, the medium- and long-term effects of developing knowledge-based services are new, permanent, well-paid jobs. Consequently, development strategies and action programmes are expected to be initiated for such services. The principal aims of these programmes will be to improve export competitiveness, competition, education, and technology development and diffusion.

Finland attaches vital importance to education. The principal objective is to reform the education and vocational education systems in order to raise education levels to meet the needs of the changing working environment and make it possible to upgrade skills continuously (lifelong learning). Efforts in this domain include increased provision of education through telecommunications and increased training within firms.

The progress being made in deregulation and liberalisation, particularly in telecommunications is likely to be beneficial to the supply side of business services.

In addition, Finnish policy focuses strongly on the development and application of information technologies, paying special attention to ensuring that favourable conditions prevail for services based on high technology.

Finland invests heavily in scientific research and technological development. The share of national R&D investments was expected to reach some 2.9% of GDP at the end of 1998, placing Finland among the top investors in R&D. Approximately 15% of both public and private investment in R&D is devoted to services, 80% of which is undertaken in the private sector. Additional investments are deemed justified as the social returns to R&D investments in the services sector are above average.

ANNEX

Selected business services in Finland, 1993

Classification NACE	Classification SIC95		Employment	Number of enterprises	Turnover FIM million
72	**721-726**	**Computer and related services**	**14 173**	**2 125**	**7 788.01**
	721-724	**Computer software & information processing**	**12 523**		**6 400.17**
	721	Hardware consultancy	157		69.06
	722	Software consultancy and supply	7 708		3 564.97
	723	Data processing	4 413		2 660.48
	724	Database services	245		105.65
		Research & development and technical	**1747**	**333**	**481.36**
	731	Research & experimental development	870	112	180.40
74.3	7430	Technical testing and analysis	877	221	300.96
		Marketing services	**4 253**	**1 853**	**1 689.73**
74.13	7413	Market research and public opinion polls	341	68	138.99
74.4	7440	Advertising	3 912	1 785	1 550.74
		Business organisation services	**5 384**	**2 622**	**2 354.24**
74.14	7414	Management consultancy	4 253	2 444	2 188.50
74.5	7450	Labour recruitment / Provision of personnel	1 131	178	165.74
		Human resource development services			
		Adult and other vocational education			
		Job training and vocational rehabilitation			

Source: Statistics Finland.

Selected business services in Finland, 1994

Classification NACE	Classification SIC95		Employment	Number of enterprises	Turnover FIM million
72	**721-726**	**Computer and related services**	**13 858**	**2 359**	**8 243.14**
	721-724	**Computer software & information processing**	**12 818**		**6 671.44**
	721	Hardware consultancy	108		36.23
	722	Software consultancy and supply	8 430		4 068.88
	723	Data processing	4 130		2 473.31
	724	Database services	150		93.02
		Research & development & technical	**3 761**	**332**	**1 124.02**
	731	Research & experimental development	1 634	126	425.40
74.3	7430	Technical testing and analysis	2 127	206	698.63
		Marketing services	**4 802**	**1 949**	**1 982.01**
74.13	7413	Market research and public opinion polls	639	92	280.64
74.4	7440	Advertising	4 163	1 857	1 701.37
		Business organisation services	**5 992**	**2 951**	**2 730.05**
74.14	7414	Management consultancy	4 450	2 748	2 415.53
74.5	7450	Labour recruitment/provision of personnel	1 542	203	314.52
		Human resource development services			
		Adult and other vocational education			
		Job training and vocational rehabilitation			

Source: Statistics Finland.

Selected business services in Finland, 1995

Classification NACE	Classification SIC95		Employment	Number of enterprises	Turnover FIM million
72	**721-726**	**Computer and related services**	**15 511**	**2 579**	**8 942.18**
	721-724	**Computer software & information processing**	**14 669**	**2 361**	**8 382.46**
	721	Hardware consultancy	155	118	51.89
	722	Software consultancy and supply	9 802	2 018	5 205.17
	723	Data processing	4 487	190	2 710.42
	724	Database services	225	35	414.98
		Research & development & technical	**2 799**	**358**	**1 060.11**
	731	Research & experimental development	908	123	353.24
74.3	7430	Technical testing and analysis	1 891	235	706.87
		Marketing services	**5 542**	**2 148**	**2 200.25**
74.13	7413	Market research & public opinion polls	622	106	258.99
74.4	7440	Advertising	4 920	2 042	1 941.27
		Business organisation services	**7 718**	**3 406**	**3 262.94**
74.14	7414	Management consultancy	5 353	3 175	2 840.51
74.5	7450	Labour recruitment/provision of personnel	2 365	231	422.43
		Human resource development services			
		Adult and other vocational education			
		Job training and vocational rehabilitation			

Source: Statistics Finland.

FRANCE

Trends in strategic business services

In France, by the late 1990s, services accounted for a little over 70% of GDP and 70% of the workforce. Strategic business services were among the rapidly growing services over the past two decades. While the growth in services might appear to have been to the detriment of industry *per se*, at least in quantitative terms, in reality this development, and particularly that of business services, represents a redistribution of industry value added across a larger number of key players of which an increasing number are in the services sector. It has been shown that between 1980 and 1996, the share of services in intermediary inputs consumed by French industry increased from 6% to 16% of the total. This increased interdependence between industry and services has fuelled an increasing reciprocal influence in terms of competitiveness.

Some of the factors contributing to this trend in France were the following:

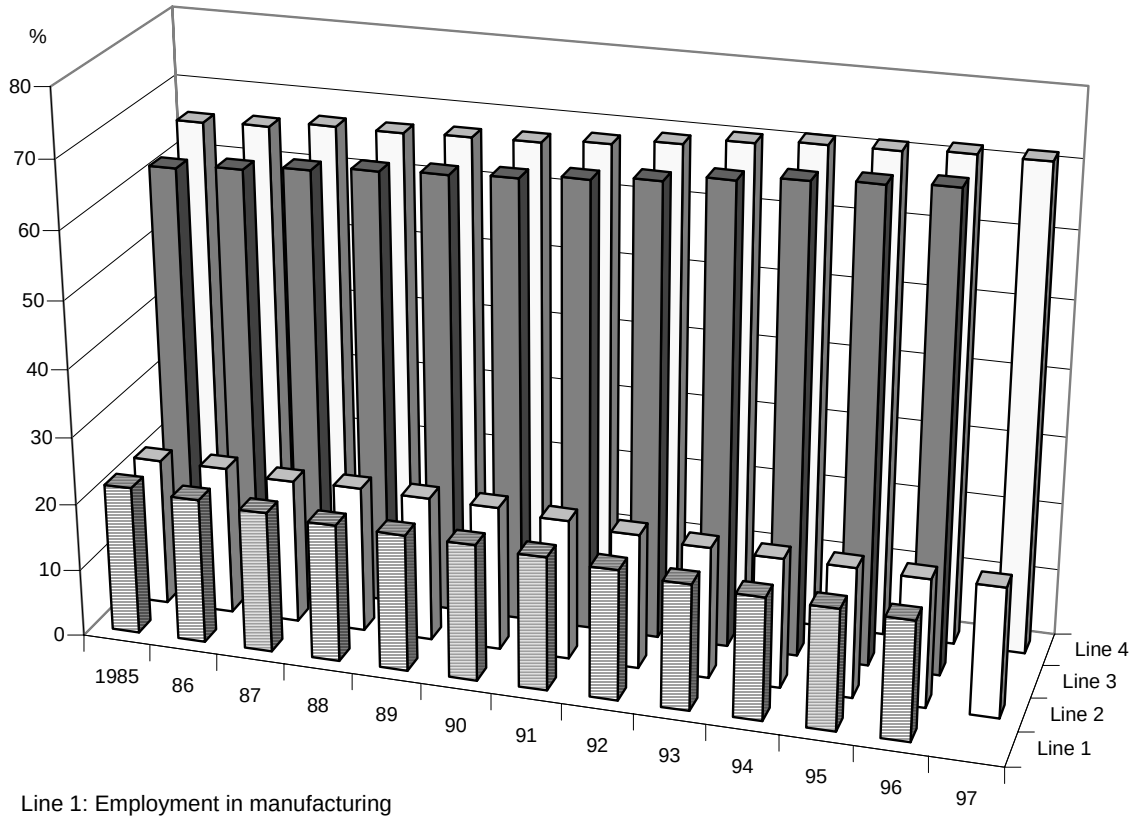
- The outsourcing of upstream and downstream functions previously undertaken by industry.
- The emergence of new services closely related to technological developments having their origin in industry, for example, information and environmental technologies.
- The emergence of key services players and an increased professionalisation of these activities which share with industry similar organisational characteristics with industry.

The relationships between service providers and industry are becoming increasingly interwoven for a variety of reasons. Industry is under constant pressure due to: the need to reduce costs; increasing quality considerations; flexibility with respect to production processes; design and marketing considerations; and the tailoring of services. In response, a multitude of services activities have emerged including some which go beyond the scope of this study of so-called strategic business services[1], many of which are destined to serve as intermediary inputs in industry.

Industry's need to innovate, both in tangible and intangible forms, is well-recognised in France, and both tangible and intangible investments are seen as important sources of competitive advantage. Business services providers in engineering, business organisation services, etc., are viewed to be the most commonly used vehicle for the diffusion of these technologies to SMEs in their role as intermediaries between large and smaller firms.

1. The five business services areas included in this study are: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resource development services.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



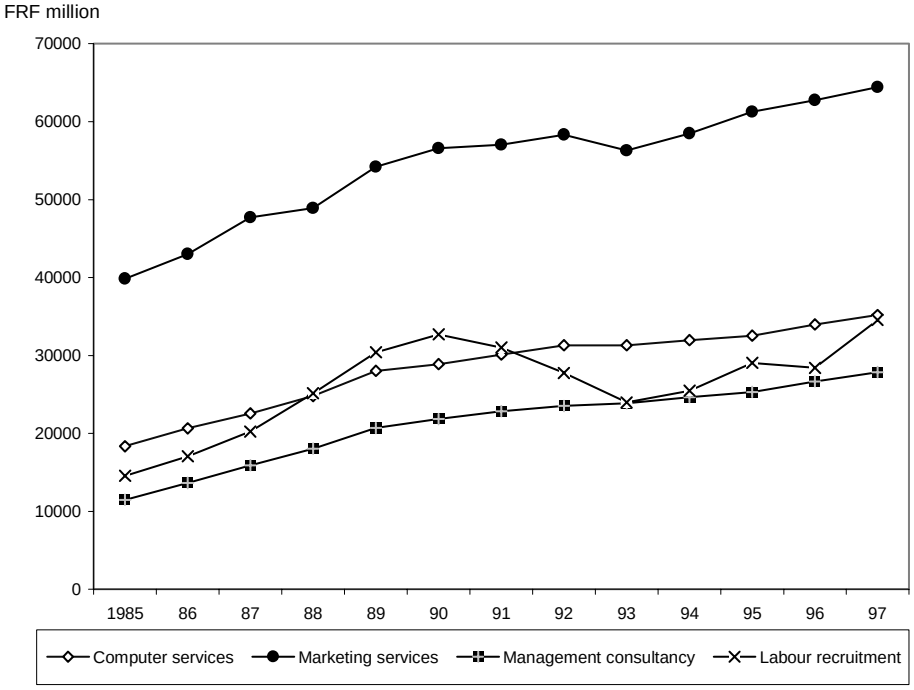
Line 1: Employment in manufacturing
Line 2: Value added in manufacturing
Line 3: Employment in services
Line 4: Value added in services

Note: In France, the share of value added in services in GDP increased from 50.4% to 71.5% between 1960 and 1997. During this period, the share of manufacturing value added declined, from 29.1% to 19.3%. Employment in services experienced rapid growth since 1960, when services accounted for 40% of civilian employment. By 1996 this share had reached 70.2% and the manufacturing share of employment had by then declined to 18%.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

Growth in strategic business services

The value of production of business services, measured in constant 1980 prices, progressed strongly over the 1985-97 period (Figure 1). According to official French statistics, the total value of production for three categories (computer services, marketing and business organisation services) expanded, in real terms by 93% during the period. There were significant variations in growth for the different services: the production volume of computer services expanded by 92%, while that of marketing and business organisation progressed by 62% and 140%, respectively. In the latter category, the contributions of the principal activities, *i.e.* labour recruitment services and management consultancy, were equally large, with growth rates of 138% and 143%, respectively.

Figure 1. **Volume of production of strategic business services,**
FRF million, constant 1980 prices



Source: INSEE/Compte des services.

This study reviews five strategic business services categories[1] and data available for France indicate that between 1993 and 1995 turnover for the five categories grew by 16%, from almost FRF 393 billion to over FRF 455 billion. Data for 1996 and 1997 on turnover and other variables is not comparable with data for earlier years due to changes in data collection methods introduced in 1996.

Value added in the selected strategic business services expanded by 19% between 1993 and 1995. The total value added of these services represented 2.5% of GDP in 1993, rising to 2.9% in 1995. During this period strong growth was experienced in all of these activities.

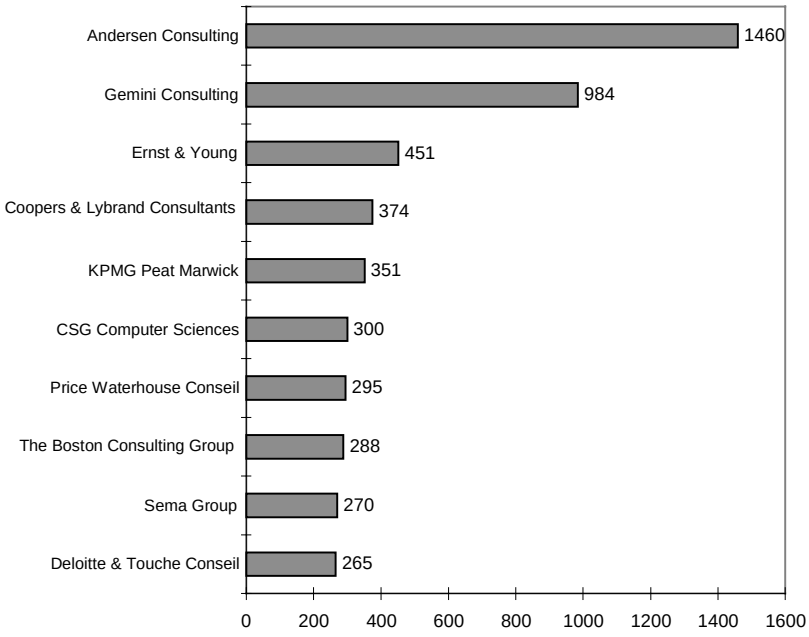
The market value of software and computing services in France, measured in constant 1994 ECUs, progressed during the period 1993-97 by 43% in the case of software and by 14% in the case of computing services.[2] Concentration by the top ten vendors in France declined from 33.4% of market share in 1992 to 18.6% in 1994. In Germany and the United Kingdom, the equivalent shares for 1994 were 10.3% and 27% respectively. A blurring of the boundary lines for the provision of business services has occurred for this category as computer services providers have recently been moving into the provision of certain business organisation services, in particular, management consultancy, due ostensibly to the evolution in information technologies.

2. Commission of the European Communities, *Panorama of EU Industry '98.*

Data for 1990 indicate that 50% of market research revenue in France was sourced in manufacturing. Of the world's top ten market research suppliers in 1994, two were French companies, ranked in fifth and tenth place.

The results of other studies, albeit with a somewhat different coverage, are useful in revealing the broad trends affecting strategic business services. For example, in the case of management consultancy, a CEC study[2] shows that in the period 1989-94 in France the number of enterprises engaged in management consultancy increased by over 30%; the number of consultants increased by 75%; and turnover expanded by 56%. The same study illustrates the strong presence of US multinational firms as leading suppliers of such services in France and in other EU countries. The public relations aspect of business organisation services contracted significantly in employment terms between 1991 and 1994, although the number of public relations agencies expanded strongly until 1993.

Figure 2. **Turnover of the top ten management consultancy firms in France, 1997**
FRF million



Source: Le Figaro, Economie, 23 November 1998.

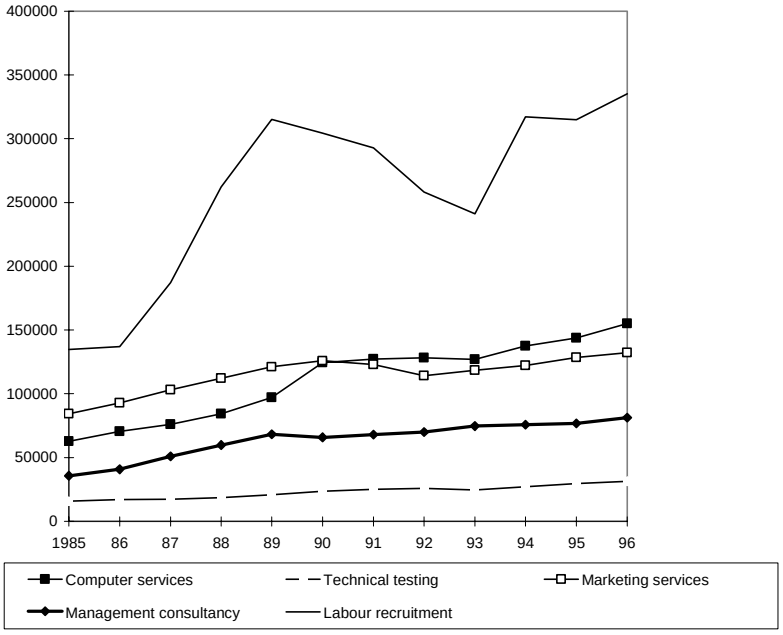
Employment

Between 1993 and 1995, employment in the five strategic business services activities[1] grew from 3.2% to 3.9% of total civilian employment, the difference corresponding to a net gain in employment of 150 000. Overall, 826 000 persons were employed in these activities in 1995. Expressed as a percentage of total services employment, the share of strategic business services progressed by one percentage point, from 5.2% to 6.2%. As an indication of the evolution of employment in these

activities over a longer period, an official study[3] covering a larger range of business services for the period 1989 to 1997 estimates the growth in employment in these services to be 427 100 jobs – an increase of 21.5%, compared with a loss of 623 500 jobs in manufacturing. By 1997, according to the same study, business services accounted for 17.9% of employment in the business sector – an increase of 3.3%, while employment in manufacturing dropped by 4.4% between 1989 and 1997. Employment trends in services and manufacturing are clearly linked. During the recent decade, there is evidence to show that industry in France increasingly concentrated on core production and externalised other functions. Employment in certain strategic business services increased strongly between 1989 and 1997 with employment in management consultancy and marketing growing by 22.9%, together accounting for 170 649 jobs in 1997. However, data which would allow the measurement of the employment effects of outsourcing do not exist.

Data available for the period 1992-97 for salaried employees in these strategic business services reveal the following: overall, employment in these activities (excluding R&D and experimental development services), expanded by 44% between 1992 and 1997, the largest increase occurring in labour recruitment services (66%). The second largest employment increase occurred in computer services where the number of salaried employees grew by 34%. Management consultancy and marketing services experienced increases of 28% and 20%, respectively. However, the number of salaried employees in technical testing services dropped by almost 18% during the same period. These data have certain limitations, as they exclude the non-salaried employment component, which, for example, is estimated to represent 50% of the total in the case of management consultancy.

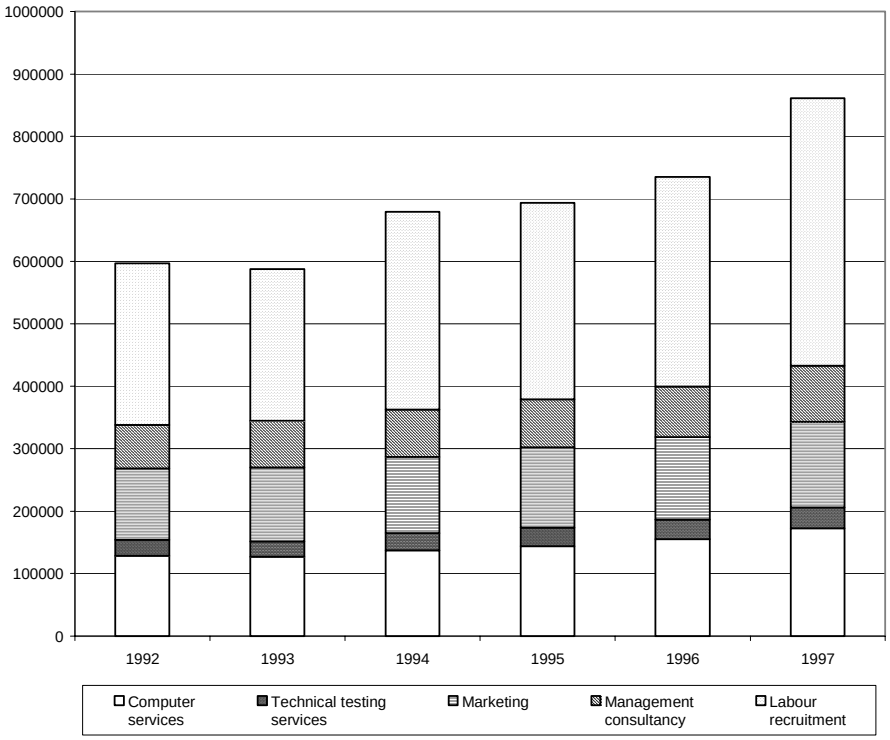
Figure 3. **Employment in strategic business services, 1985-96**



Source: Ministère de l'Économie, des Finances et de l'Industrie, Service des Études et des Statistiques Industrielles.

3. Austrian Federal Ministry for Economic Affairs, 1998, "Industry-oriented Services and Labour" in *Business Services and Employment: Contribution of Five EU Member States on their Situation of Business Services.*

Figure 4. **Salaried employees in strategic business services, 1992-97**



Source: Ministère de l'Économie, des Finances et de l'Industrie, Service des Études et des Statistiques Industrielles.

The recent growth in intangible investment together with the information technology revolution were important factors in the 25% employment growth experienced between 1989 and 1996 in computer software and information processing services. This contrasts with stable employment levels in office machinery and equipment manufacturing.

Increased flexibility in human resource management, as evidenced by the 6.9% increase in temporary employment, generated 337 035 full-time equivalent jobs in the 1989-96 period, with particularly strong growth occurring in 1988 and 1989. The industry sector was a particularly intensive user of such services, accounting for more than half of the total. It is logical that industry had increasing recourse to various forms of temporary employment services at a time when industrial employment was generally in crisis. While the link between industrial employment *per se* and temporary employment via recruitment agencies is evident, it has not been possible to measure the amplitude of the outsourcing phenomenon. Temporary employment agencies have been perceived as a vehicle for the transformation of the French economy into a largely services economy. These agencies permit flexibility in working practices, especially in times of economic downturn. In addition, they serve as a market-adjustment mechanism for employers who hire temporary employees from these agencies, some of whom eventually integrate the established permanent payroll. Since 1995 a return to growth, starting at a modest level and accelerating in 1997, has been experienced, as industry has turned increasingly to such services; the share of temporary workers sourced in this manner currently represents 7% to 8% in some industries. Another recent feature has been the tendency for the number of contracts to increase faster than the volume of new work, demonstrating a tendency to a shortening

of the duration of work contracts, but also perhaps reflecting the influence of part-time working. In France, as far as placement in industry is concerned, temporary work agencies concentrate on the supply of the industry-operative category (85%).

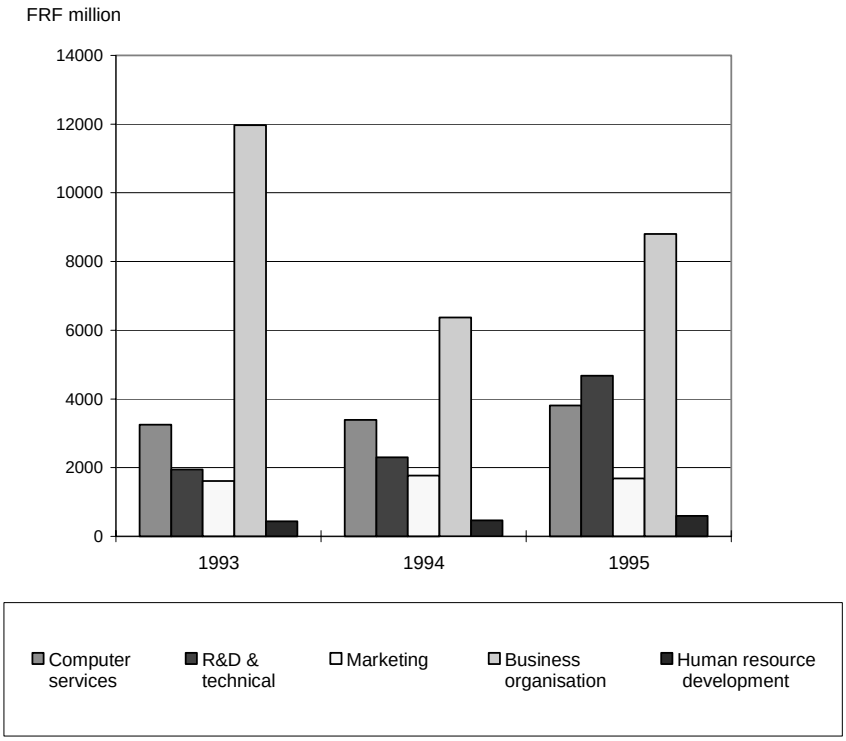
Enterprises

The number of enterprises engaged in the provision of strategic business services increased during the 1993-95 period. There were large variations in the evolution of the number of firms in the different activities. For example, the number of firms providing business organisation services grew by 22% – representing an expansion of 25% in management consultancy firms and a contraction of 11% in labour recruitment firms. Human resource development firms grew by 18%, while the number of marketing firms remained stable. Within marketing services, the number of advertising firms expanded by 8%, while market research companies contracted by one-third. Computer services firms increased their numbers by 2% overall, although this masks significant differences between the component activities. For example, firm numbers in the 1993-95 period varied as follows: hardware consultancy (1.6%), software consultancy and supply (18%), data processing (-15%), and database services (-11%). Data for 1996 and 1997 are not comparable with data for earlier years due to changes in data collection methods. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), the significant role of small firms in these services activities is apparent, with business services firms averaging nine persons per firm for 1995. Nonetheless, the presence of large firms in business services is apparent as it has been estimated that more than 50% of value added is generated by firms with 100 or more employees, notably in data processing and personnel recruitment activities. In contrast, management consultancy is characterised by smaller firms; 63% of operations are single-employment units. However, management consultancy is also characterised by the presence of large multinational firms (Figure 4). Some of these multinational firms have been the subject of recent mergers, leading to an increase in the size of their operations. Engineering and technical services comprise a majority of small firms; more than 85% currently have less than five employees. The larger firms in this group are essentially industrial engineering services.

Investment

Investment in strategic business services amounted to FRF 19.21 billion in 1993 and grew by 1.85% in the period 1993-95. Business organisation services accounted for over 60% of this total in each year. While investment in individual categories grew in most cases between 1993 and 1995, investment was stagnant in 1996. This was true for both computer services and marketing services. Otherwise, investment in business organisation services, following a drastic reduction in 1994, had by 1996 almost recovered to its 1993 level. Investment in research and experimental development services increased almost four-fold between 1993 and 1995, with most of the growth occurring in 1994-95 (data for 1996 is not yet available). On the other hand, the other component of this category – technical testing services – recorded lower investment in the three-year period, with a drop of 31%; the decline occurring principally in 1994.

Figure 5. **Investment in strategic business services, 1993-95**
FRF million



Source: INSEE/Compte des Services.

Trade

While comprehensive trade data for France are not readily available, there are, however, other data sources, particularly US trade data, which illustrate the importance of France's trade in these strategic business services. France is an important trading partner for the United States with regard to business services. For example, between 1994 and in 1996 (Table 1), France experienced a growing deficit with the United States in these services, the deficit going from FF 322 million in 1994 to FF 706 million in 1996. Within the selected strategic business services, only in advertising did France have a trade surplus and that surplus diminished between 1994 and 1997 as advertising imports from the United States more than doubled and exports to the United States declined by 16%. Otherwise, the largest deficit was experienced in computer services where exports represented approximately 10% of imports in 1996. The trade deficit with the United States in R&D and technical services widened during these years from 15% of exports in 1994 to 68% of exports in 1997. Similarly the trade deficit in management consultancy and public relations doubled in this time in spite of a trebling of both imports and exports during this time. However, it should be noted that consulting engineering, which is the source of important export revenues for France, is not included in the scope of this study.

Table 1. **US-France trade in strategic business services: Imports from the United States and exports to the United States**
FRF million

		1994	1995	1996	1997
Advertising services	Imports from the United States	72.2	84.8	138.1	163.4
	Exports to the United States	299.8	239.6	276.3	251.0
Computer services	Imports from the United States	549.6	569.0	787.9	828.9
	Exports to the United States	61.1	84.8	76.7	n.a.
R&D & testing	Imports from the United States	83.3	139.7	153.5	216.0
	Exports to the United States	72.2	69.9	56.3	128.4
Management consulting & public relations	Imports from the United States	99.9	99.8	158.6	274.3
	Exports to the United States	50.0	44.9	122.8	175.1

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

Table 2. **US foreign direct investment in France, 1994**
Historical-cost basis, by industry of affiliate
FRF million

Computer & data processing services	1 826.6
R&D and testing services	-27.8
Advertising	521.9
Management consulting & public relations services	-105.5
Personnel supply services	n.a.

Source: US Department of Commerce.

These trade figures are dwarfed by the volume of business services sold by US affiliates located in France. For example, for computer and data processing services alone, FRF 8.7 billion of sales were generated in 1993, (data concerning US trade with France in this activity in 1995 and 1996 remain confidential to avoid disclosure of individual companies.) Sales of advertising by US affiliates in France amounted to FRF 2.1 billion in 1995 and FRF 2.4 billion in 1996. The important role played by US multinationals in the provision of strategic business services in France is further illustrated by the magnitude of US foreign direct investment (Table 2). Again, among the different business services studied and for those for which data are available, computer-related services predominate. In 1994, US direct investment in France for these services amounted to FRF 1.8 billion, while advertising represented over FRF 500 million in that year.

Future prospects for business services in France

A recent survey conducted by BIPE (*Bureau d'Informations et de Prévisions Économiques*) covering prospects for business services in France through 2001 had the following conclusions.

Assuming a scenario of a return to steady growth in France, BIPE forecasts renewed recourse to outsourcing by manufacturing industry, resulting in a significant increase in demand for such services. This growth corresponds to increased demand, due to the internationalisation of activities of European firms and also to a general tendency for European national and international administrations to turn to private sector players for information research and policy appraisal.

A return to stable growth with associated increased investment and, logically, increased strategic outlays, should lead industry to use services providers such as those engaged in consultancy, and engineering services. Business organisation services, including management consultancy, should experience increased demand for their services from a range of clients: industry, tradable and non-tradable services and public works. In the case of management consultancy, which is quite dispersed in France and is characterised by a large share of single-employment units, development in this sector is expected to tend towards larger units and greater concentration. As quality control services have gained in importance, management consultancy providers have entered this market, including for the more scientific and technical aspects, directly rivalling the traditional providers of technical services.

Outsourcing of computer-related services is expected to be remarkably strong. An increasing number of computer services firms have been developing their activities in this field, contributing to the dynamism of this activity. Overall annual growth averaging between 4.5% and 5% is foreseen for the years 1996-2002.

Between 1985 and 1995 employment provided through temporary employment agencies increased in France from 135 000 (full-time equivalent) to over 300 000. It is expected that with the return to growth currently being experienced, industry will turn increasingly to such services and the share of workers recruited in this manner should normally continue to grow.

1995 marked a return to growth – although still low at 2.5% – for engineering and technical services, and average annual growth for the years 1996-2001 is expected to remain modest and to benefit large firms more than small ones. These services had experienced a severe slowdown in the early 1990s (in contrast, the 1980s were marked by strong growth). The domestic market is expected to generate the quasi-totality of this growth as French engineering companies continue to experience a decline in their exports due both to growing competition from larger multinational companies (US for the most part) and to the sluggish European market.

In the medium term, the development of business services is expected to be characterised by: *i)* intensified concentration of activities in the hands of the leading international players; and *ii)* increased competitive pressures in services in general. The following factors are expected to contribute decisively to this pattern: the evolution of information technologies and, in the case of the European Union, the liberalisation of the telecommunications sector and a progressive harmonisation of regulations.

Policies for business services

Recent policies for business services adopted by France have focused on the regulatory aspects of these activities and in particular on certification/ accreditation and quality issues. Recognising the need for consumer confidence and given the emergence and development of certain services occupations urgently requiring formal standards and certification, the French Government decided to encourage the implementation of a system of occupational references to deal with accreditation and functional references for those services where problems existed. In addition, the certification of quality systems for services firms was promoted as well as the certification of services, *per se*. For qualifications relating to the various occupations, a promotion exercise of the "*Offices Professionnels de Qualification*" was undertaken; this body has as its mission the accreditation of firm competence in various service activities, *e.g*. consultancy, engineering services, etc. On the quality issue, a number of measures were taken in favour of quality management and the promotion of specific instruments of quality management.

Broader policy measures affecting business services include: regional funding measures for advisory services, the principal objective of which is to enable SMEs to access external advisory or technical services, actions by the Ministry of Industry in support of business sector initiatives in quality standard and certification and an annual award system in recognition of specific quality improvements, open to industry and services sectors alike.

Business services in France also stand to gain from the recently announced Government Action Plan for the Information Society, which relies for its success on initiatives undertaken in the business sector. This action plan was designed to facilitate the emergence of new technologies, through the creation of research networks and the stimulation of diffusion of innovation. One objective of the plan is to encourage entrepreneurship through investment support for new firms and the simplification of administrative procedures. EU-level participation is envisaged through the European Investment Bank. Business services suppliers are expected to benefit form this measure.

France is fully committed to promoting technological progress through the development of innovative firms in new technologies. This will require developing: electronic commerce; online information concerning public and administrative services available to all economic actors, and in particular to SMEs; easy Internet access; liberalisation of the use of encryption software; modernisation of the public services; assistance to firms in the use of appropriate information technologies; and efficient regulations and a secure framework for new information networks. Business services should logically benefit from progress made in all these domains.

ANNEX

Selected business services in France, 1993

Classification NACE	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover FRF million	Value added FRF million	Investment FRF million	Production 1980 prices FRF million
72	**721-726**	**Computer & related services**						
	721-724	**Computer software & information processing**	**171 719**	**20 083**	**107 354**	**56 558**	**3 252**	**31 327**
	721	Hardware consultancy	55 993	8 231	33 035	17 748	731	17 451
	722	Software consultancy and supply	53 796	6 070	32 869	18 078	701	(incl. in 721)
	723	Data processing	59 274	4 971	39 793	19 999	1 770	12 772
	724	Database services	2 656	811	1 656	733	50	1 104
		Research & development & technical	**43 879**	**3 766**	**26 995**	**13 266**	**1 944**	
731	731	Research & experimental development	15 815	650	14 888	6 534	1 121	n.a.
74.3	7422	Technical testing and analysis	28 064	3 116	12 107	6 732	823	n.a.
		Marketing services	**113 241**	**16 906**	**103 828**	**30 084**	**1 605**	**56 298**
74.13	7413	Market research & public opinion polls	17 697	3 177	9 340	4 498	226	7 009
74.4	743	Advertising	95 544	13 729	94 488	25 586	1 379	49 289
		Business organisation services	**353 723**	**33 152**	**144 200**	**80 375**	**11 975**	**47 951**
74.14	7414	Management consultancy	112 774	30 722	99 401	39 814	11 767	23 862
74.5	7491	Labour recruitment / Provision of personnel	240 949	2 430	44 799	40 561	208	23 989
	809	**Human resource development services**	**24 648**	**4 268**	**10 759**	5 544	436	n.a.

Note: Before 1996 all firms employing at least 20 employees were surveyed; below this threshold, only a sample of firms were surveyed. Since 1996, all firms employing at least 30 employees or having turnover of at least FRF 30 million are surveyed; below this threshold, only a sample for firms are surveyed.
Source: INSEE/Compte des Services.

Selected business services in France, 1994

Classification NACE	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover FRF million	Value added FRF million	Investment FRF million	Production 1980 prices FRF million
72	**721-726**	**Computer & related services**						
	721-724	**Computer software & information processing**	**173 437**	**19 849**	**109 007**	**59 475**	**3392**	**31 953**
	721	Hardware consultancy	61 079	8 517	35 301	20 212	834	18 429
	722	Software consultancy and supply	55 708	6 427	34 860	20 017	760	(incl. in 721)
	723	Data processing	53 753	4 145	36 088	18 310	1 689	12 456
	724	Database services	2 897	760	2 758	936	109	1 068
		Research & development & technical	**54 860**	**3 888**	**30 778**	**17 944**	**2 298**	
731	731	Research & experimental development	23 816	723	18 696	10 136	1 818	n.a.
74.3	7422	Technical testing and analysis	31 044	3 165	12 082	7 808	480	n.a.
		Marketing services	**112 821**	**15 566**	**106 802**	**31 894**	**1 773**	**58 504**
74.13	7413	Market research & public opinion polls	18 211	2 698	9 690	4 669	277	6 946
74.4	743	Advertising	94 610	12 868	97 112	27 225	1 496	51 558
		Business organisation services	**432 818**	**38 712**	**171 189**	**94 922**	**6 371**	**50 141**
74.14	7414	Management consultancy	127 729	36 162	115 481	43 659	6 161	24 673
74.5	7491	Labour recruitment / Provision of personnel	305 089	2 550	55 708	51 263	210	25 468
	809	**Human resource development services**	**25 285**	**4 607**	**10 371**	5 450	463	n.a.

Note: Before 1996 all firms employing at least 20 employees were surveyed; below this threshold, only a sample of firms were surveyed. Since 1996, all firms employing at least 30 employees or having turnover of at least FRF 30 million are surveyed; below this threshold, only a sample for firms are surveyed.
Source: INSEE/Compte des Services.

Selected business services in France, 1995

Classification NACE	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover FRF million	Value added FRF million	Investment FRF million	Production 1980 prices FRF million
72	**721-726**	**Computer & related services**						
	721-724	**Computer software & information processing**	**176 907**	**20 493**	**114 191**	**61 587**	**3 805**	**32 667**
	721	Hardware consultancy	61 202	8 366	36 873	21 019	695	19 064
	722	Software consultancy and supply	60 052	7 183	37 376	21 162	871	(incl. in 721)
	723	Data processing	52 363	4 220	37 512	18 318	2 172	12 518
	724	Database services	3 291	724	2 430	1 088	67	1 085
		Research & development & technical	**51 508**	**3 977**	**31 251**	**16 804**	**4 680**	
731	731	Research & experimental development	20 444	784	18 586	8 872	4 151	n.a.
74.3	7422	Technical testing and analysis	31 064	3 193	12 665	7 932	529	n.a.
		Marketing services	**111 261**	**16 936**	**107 185**	**32 265**	**1 688**	**61 282**
74.13	7413	Market research & public opinion polls	17 886	2 107	8 992	4 475	259	6 964
74.4	743	Advertising	93 375	14 829	98 193	27 790	1 429	54 318
		Business organisation services	**487 117**	**40 520**	**190 908**	**104 330**	**8 807**	**54 375**
74.14	7414	Management consultancy	136 589	38 351	124 475	42 846	8 471	25 313
74.5	7491	Labour recruitment / Provision of personnel	350 528	2 169	66 433	61 484	336	29 062
	809	**Human resource development services**	**26 895**	**5 037**	**11 964**	6 236	589	n.a.
8041		Adult and other vocational education						
8042		Job training and vocational rehabilitation						

Note: Before 1996 all firms employing at least 20 employees were surveyed; below this threshold, only a sample of firms were surveyed. Since 1996, all firms employing at least 30 employees or having turnover of at least FRF 30 million are surveyed; below this threshold, only a sample for firms are surveyed.
Source: INSEE/Compte des Services.

GERMANY

Trends in strategic business services

Germany, like other OECD Member countries, has experienced the growing importance of services in the economy during the last two decades. By the mid-1990s, the share of services in GDP amounted to 66%, while 60% of the workforce were employed in services. Analyses based on sectoral data frequently argue that the German services sector is underdeveloped relative to that of other OECD countries.[1] If types of employment rather than economic sectors are taken into account, however, the hypothesis of a German "services gap" is less convincing.[2]

As far as business services are concerned, the apparently low level of employment can be explained by the fact that manufacturing companies in Germany tend to use more "in-house" services than do manufacturers in other countries. A recent study for the Ministry of Economics concluded that a significant percentage of employees in the manufacturing sector were actually engaged in the provision of services. Concrete examples of such types of employment include maintenance services by machine manufacturers or internal services within manufacturing companies.[3]

The favourable framework conditions which exist in Germany should encourage the development of business services: a good infrastructure endowment, a well-trained workforce and also the country's large and internationally competitive industrial base.

So why are German manufacturers reluctant to use outsourcing? Reasons advanced include the following: *i)* the scope and quality of external services supplied on the German market is insufficient; and *ii)* the existence of a "do-it-yourself" mentality among German entrepreneurs.[4] In practice, these two reasons cannot be separated. The quality of external services clearly has an impact on outsourcing decisions, but the degree to which outsourcing is used also affects the business services sector, for example, by reducing the potential for economies of scale.

In addition, other factors which might limit the development of business services in Germany include: certain types of services face a high level of regulations such as entry barriers, price and quality controls; some of the skills required for the new types of services and in particular those required for the export of services – especially language skills – may be in short supply.

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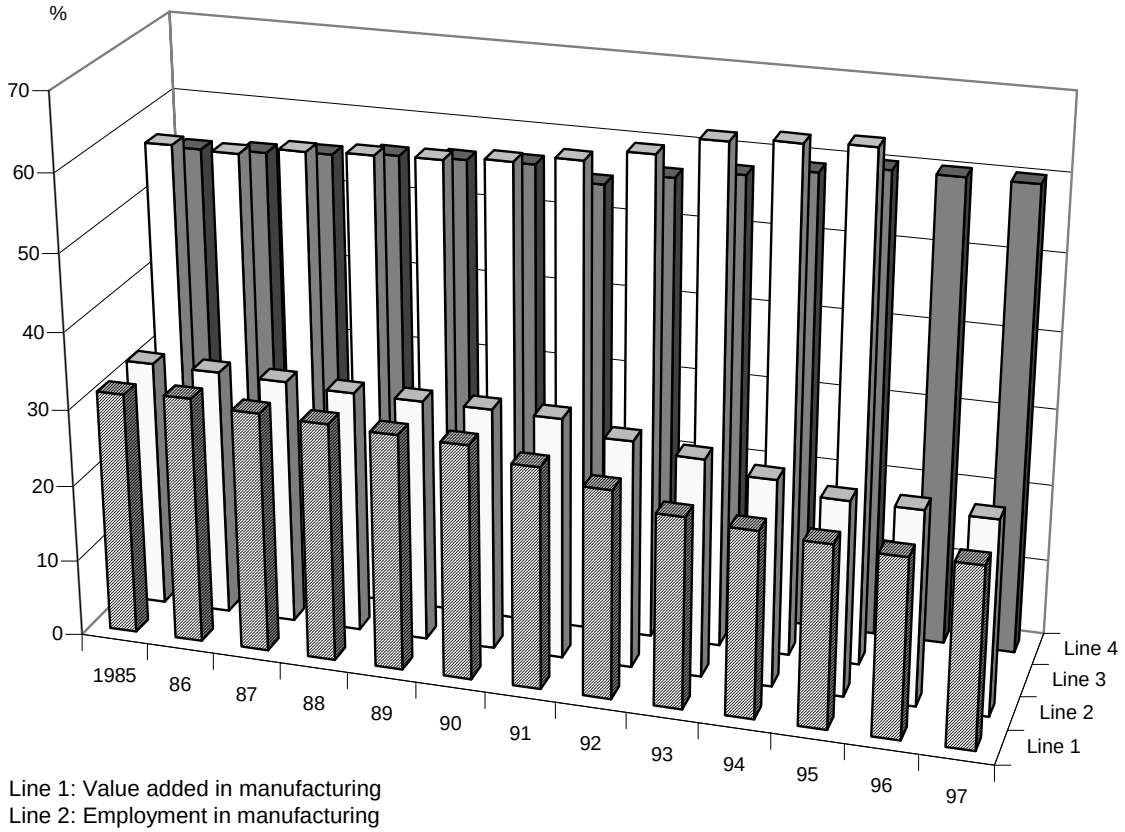
1. Commission of the European Communities (1997), *Employment in Europe*, Luxembourg.

2. DIW (1998), "Das Dienstleistungs-Puzzle – Ein aktualisierter deutsch-amerikanischer Vergleich", in DIW *Wochenbericht 35/98*.

3. BMWi (1997), *Deutschland in der globalen Dienstleistungsgesellschaft*, Cologne.

4. Behme (1993), "ZP-Stichwort: Outsourcing", in *Zeitschrift für Planung*, Heidelberg.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Line 1: Value added in manufacturing
Line 2: Employment in manufacturing
Line 3: Value added in services
Line 4: Employment in services

Note: In Germany, between 1960 and 1995, the share of value added in services in GDP increased from 41% to 65%, while the share of manufacturing value added in GDP declined from 40.3% in 1960 to 23.8% in 1995. Employment in services increased consistently in the period 1960-97 from 39.1% to 60.3%, while employment in manufacturing declined during the same period from 34.3% to 25.5% in 1995.
Source: OECD, National Accounts, Labour Force Statistics and *Historical Statistics*.

Turnover

According to available data, turnover of strategic business services[5] amounted to DEM 107.7 billion in 1994, peaking at DEM 124.8 billion in 1996 (an increase of almost 16%). In 1994, marketing services accounted for 41% of this total, while computer software and information processing services generated a further 28%. Within the computer-related services category, data processing

5. The five business services areas selected were: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resources development services. No information was reported for the latter category.

generated 72% of turnover in 1994, with software consultancy and supply responsible for 23%. Turnover for management consultancy services was four times higher than turnover for the other business organisation activity, labour recruitment/personnel provision services.

However, by 1996, these relative shares had shifted somewhat in the interim and strong growth in turnover had occurred in R&D services (28%), computer-related services (24%) and business organisation services (24%). Marketing services recorded negative growth – 4% overall, the combined result of a contraction of 10% in the market research and opinion poll arm of the activity and a 6% increase in advertising revenues. Within computer services, hardware consultancy and software consultancy and supply both progressed by over 65% while growth was also strong in individual activities in other categories – 44% in technical testing and analysis and 42% in labour recruitment/personnel provision. In fact, double-digit growth in turnover was experienced in every individual activity between 1994 and 1996, with the exception of data processing and marketing activities.

Turnover per employee averaged DEM 218 200 in 1996 for the four services categories for which data are available. However, this figure varies significantly among the different activities. Computer-related services averaged DEM 237 600 although this figure was influenced substantially by one single activity within that group – data processing, which generated DEM 344 700 per employee, the highest for any service activity reviewed here. Other computer-related services, *e.g.* hardware consultancy and software consultancy and supply, generated DEM 162 500 and DEM 151 200 per employee, respectively. Advertising turnover per employee was the second highest of all activities at DEM 288 700.

Advertising expenditure in Germany (expressed in current ECUs) was ECU 15.5 billion in 1994 (almost DEM 30 billion), the highest of any EU country, and represented 31% of total EU expenditure on these marketing services in that year.[6] Per capita expenditure on advertising in Germany was a close second to that of Denmark, both countries approximately 15% higher than the United Kingdom (ranked third). Advertising in Germany, expressed as a percentage of GDP, was 0.9% and ranked third among the EU countries higher than the EU average (0.8) but lower than the United States (1.24). With regard to market research, Germany had the largest share of any country in the EU, both in terms of expenditure (27%) and value added (30%). It is noteworthy that manufacturing constituted 67% of the revenue source for this activity in Germany in 1994, well above both the EU average (51%) and the second-ranked country, Austria (60%). In the world's top ten market research companies, two German companies, GfK and Infratest/Burke, ranked fourth and eighth, respectively.

6. Commission of the European Communities, *Panorama of EU Industry '97*.

Figure 1a. **Turnover in strategic business services, 1994**
DEM million

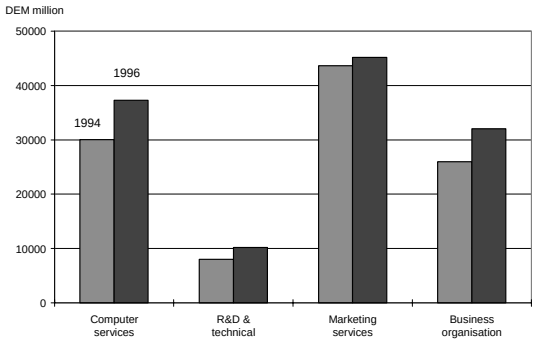
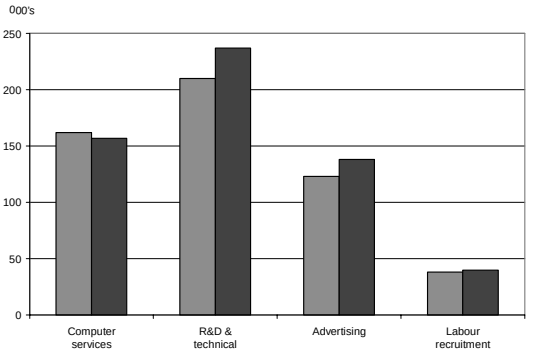


Figure 1b. **Employment in strategic business services, 1995 and 1996**



Source: Industry Classification; detailed breakdown for the microcensus.

Management consultancy in Germany expanded on all fronts in recent years, and turnover grew by almost 50% between 1989 and 1993[6] and accounted for 49% of the EU-15 total in 1993, having progressed continuously since 1989 (representing 38% in that year). As in other countries, this activity benefited from ongoing restructuring in industry as well as outsourcing and increased demand from multinational corporations for services supporting their operations in Germany. The increased globalisation of this strategic service is reflected in the list of ten leading consultancy firms providing management consultancy in Germany, with large international firms predominating (Table 1). It is noteworthy that since 1995 mergers among members of this list have occurred.

Table 1. **Leading firms providing management consultancy services in Germany, 1995**

Andersen Consulting
Arthur D. Little
Boston Consulting
Coopers & Lybrand
Ernst & Young
Gemini Consulting
KPMG
McKinsey
Mummert & Partner
Roland Berger

Note: Firms are listed in alphabetical order.
Source: European Commission, *Panorama of EU Industry '97.*

Employment

Employment in Germany in these strategic business services totalled 530 000 in 1995, and increased by 40 000 in 1996.[7] In this twelve-month period, employment had grown in all categories with the exception of computer software and information processing where a net decline of 5 000 employees was recorded. A significant drop in employment occurred in data processing services, which for Germany was the largest source of employment within computer services (57%) in 1994. This activity employed 68 000 in 1996 compared with 92 000 in 1994. On the other hand, hardware services and software consultancy and supply provided 33% and 26% more jobs respectively in 1996 than in 1994. R&D and technical analysis was the largest employer of all categories, increasing its payroll by 27 000 to reach 237 000 in 1996. Employment in advertising and market research almost doubled in Germany between 1989 and 1994[6] and the German advertising and market research industry was by far the largest employer for that industry in any EU country in 1992, employing approximately one-third more than France which ranked in second position. According to data collected by the Commission of the European Communities, management consultants in Germany numbered 12 867 in 1993, an increase of 84% since 1989. Concerning the public relations aspect of this activity, 36% of consultants employed in the EU-12 countries were in Germany.

Enterprises

Over 104 000 enterprises were engaged in these four strategic business services activities[5] in 1994 and their numbers had grown by almost 6% to 110 407 in 1996. In 1994, 37% of these firms were in marketing services, 30% in business organisation, 27% in computer-related services and 6% in R&D and technical services. By 1996, there was a certain shift in these shares as the number of enterprises operating in the different service activities expanded or contracted. For example, within computer services, the number of firms engaged in hardware consultancy and database services more than doubled in the two-year period. Software firms grew by 86%, while firms providing data processing services declined by 17%. Firms supplying R&D services grew by 16% overall, although growth in the technical testing and analysis firms was five times higher than that for firms supplying R&D and experimental development services. Within business organisation services, management consultancy firms grew by 9% while personnel recruitment firms expanded by almost 30%. In contrast, the number of firms engaged in marketing services declined by 3% overall, the market research and opinion polls branch declining by 15% and the advertising branch by 1.5%.

7. Employment figures were reported for 1995 and 1996 only. Employment data were not available for: management consultancy; market research and public opinion poll services; and human resource development services.

Table 2. **US-Germany trade in strategic business services: Imports from the United States and exports to the United States**
DEM million

		1994	1995	1996	1997
Advertising services	Imports from the United States	37.3	33.0	54.2	59.0
	Exports to the United States	94.1	103.2	150.5	130.1
Computer services	Imports from the United States	232.1	232.1	281.4	315.6
	Exports to the United States	14.6	20.1	28.6	41.6
R&D & testing	Imports from the United States	51.9	41.6	60.2	107.5
	Exports to the United States	22.7	40.1	52.7	59.0
Management consulting & public relations	Imports from the United States	76.3	98.9	103.8	152.6
	Exports to the United States	29.2	34.4	58.7	97.1

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

Trade

While comprehensive trade data for specific strategic services are not readily available, other data sources illustrate the importance of Germany's global position in this area, in particular with respect to trade with the United States. For the various business services reviewed here and for which data are available, it is clear that Germany enjoyed a trade surplus with the United States in only one field of activity – advertising – in the years 1994-97 (Table 2). Elsewhere, and especially in computer services, sizeable deficits with the United States were incurred. In the case of computer services, imports exceeded exports by a factor of 16 in 1994 and by a factor of eight in 1997 (the deficit increased from USD 218 million to USD 274 million in absolute terms). Similarly, in the cases of R&D and technical testing services, and management consulting and public relations, the respective deficits in trade with the United States were larger in 1997 than in 1994. To appreciate the strength of the presence in Germany of service providers of US origin, the sales of US majority-owned foreign affiliates (MOFAs) are noteworthy: from data available for 1995 and 1996, it appears that such companies earned revenue amounting to DEM 1.106 billion in 1994 and DEM 1.288 billion in 1996 for advertising services. Figures for computer services sales for 1995 and 1996 cannot be disclosed for confidentiality reasons. However, data for 1993 reveal that sales of computer services in Germany by MOFAs amounted to DEM 2.4 billion in that year alone. Direct investment by US companies in Germany in 1994 in computer services, advertising and R&D and testing services amounted to DEM 553.3 million (Table 3), concentrated for the most part in computer-related services and advertising.

Table 3. **US foreign direct investment in Germany, 1994**
Historical cost basis
DEM million

Computer & data processing	324.6
R&D and testing services	21.1
Advertising	165.5

Source: US Department of Commerce.

Future prospects for business services in Germany

While it is difficult to forecast developments in Germany for the group of strategic business services reviewed here, the trend is nevertheless clear. First, outsourcing by manufacturing industry is expected to increase as the externalisation of strategic business services progresses. This increase is expected to benefit both affiliates and third parties. In time, it is expected that services suppliers will tend to include large and very large firms as they will need to attain a certain critical mass in terms of size in order to offer a competitive alternative to in-house provision of such services. Recent studies[8] forecast a high-growth market, benefiting in particular the larger suppliers. However, given the diversity and complexity of services and the possibilities for specialisation, abundant opportunities should exist for new and small firms to enter the market. In addition, while little information exists on obstacles, it is believed that no particular obstacles exist to outsourcing.[8]

Assuming that the relationship between industry and business services is complementary rather than substitutive, and given the relatively developed German industrial sector, it is expected that German business services will benefit from ongoing structural change in industry. Although Germany is favoured with a high-skilled workforce and an excellent educational infrastructure, there is a question as to whether future supply will continue to match the increasing demand for high-skilled workers.

Continued growth could be affected by the regulatory environment relating to the exercise of certain occupations and also to qualifications/accreditation issues. Quality control and pricing practices are other factors which could affect future growth.

In summary, while services should experience continued strong growth in the coming years, the individual activities expected to grow most rapidly are management consultancy, data processing services and personnel recruitment services.

Policies for business services

The German authorities believe that a stable, growth-promoting macroeconomic environment provides the best support for business services. Services in Germany benefit from a good infrastructure endowment, a well-trained workforce and the country's large and internationally competitive base. Specifically, the German authorities have taken a number of policy measures which have a direct impact on business services. These policies are implemented both at the national level (Action Programme "Dienstleistungswirtschaft 2000") as well as at the regional level. Measures

8. Austrian Federal Ministry of Economic Affairs, 1998, *Business Services and Employment: Contributions of Five EU Member States on their Situation of Business Services.*

include specialised training for services sector employees, adjustment of the apprenticeship system, improved information on services for manufacturers, easier access to risk finance, deregulation of domestic markets, political support for liberalisation of trade in services and a range of export promotion activities. Limited market access and associated regulations have been suggested as possible reasons why the share of externally provided services remains comparatively small in Germany.

The context for policies for business services

To increase the efficiency of policy measures specific to business services, the German government considers that a thorough review of business services needs to be undertaken with a view to determining the scope and coverage of such activities from a statistical measurement perspective. Although a number of national and international research activities have been carried out on this subject, Germany is concerned at the lack of clarity with regard to definitions of business services and poses two fundamental questions: *i)* Who renders the service? Is it an industrial firm or a service provider? and *ii)* Is the service rendered for the firm that provides the service or for a client external to the company? (see table below). Addressing these issues will clarify the different aspects of the interrelation between industry and services. Germany acknowledges the current statistical limitations which restrict the scope of research in national or international bodies (Commission of the European Communities, OECD) to a subset of services activities, corresponding to subset (2) in the table below. In order to design specific policy recommendations, Germany subscribes to the view that systematic collection of data, and ongoing analysis and research must be undertaken.

Services rendered by industrial firms for external clients (1)	Services rendered by service providers for external clients (2)
Services rendered by industrial firms for internal purposes (3)	Services rendered by service providers for internal purposes (4)

A number of questions might usefully be posed in the context of surveys to investigate the interrelationship between industry and services. The separation of questions relating to the distinction between industry and services from those relating to economic impacts is recommended. The following questions could usefully highlight the distinction between industry and services:

- What is the share of services in the value added of industrial firms? What is, for example, the share of consultancy and training services in the total revenue accruing from the sale of a machine?

- What share of the services used by industrial firms is rendered by the firms themselves and what share is provided externally? Germany notes that in this context, the term “outsourcing” is often used. This is also the area where surveys are most frequently conducted.

- What share of the services offered by the services sector (of the industrial sector) responds to demand by the industrial sector (services sector)? This will shed light on the

interrelationship between the two largest economic sectors and this is of course closely linked with the preceding question.

Questions pertaining to the economic impact of the interrelationship between industry and services providers might include the following:

- It is generally assumed that "package solutions" for the sale of, for example, machine tools, are a competitive advantage for industrial firms. However, the question arises whether and if so to what extent it makes sense for companies to offer the services included in the package themselves, or whether they should offer the package through an external service providers.

- In addition to the external dimension of the co-operation between industry and the services sector, the question arises as to what extent outsourcing enhances the productivity of industrial companies.

- At the overall economic level, the impact of the above-mentioned strategies on economic factors such as growth and employment needs to be examined. This is, of course, largely based on the aggregation of microeconomic effects such as the improvement of firm competitiveness arising from the combination of industrial products and services.

In conclusion, Germany holds that the systematic analysis of industry-related services or services rendered by industry should be undertaken before the elaboration of economic policy action programmes. An improved and extended database could enable an answer to the question of whether market failure exists in industry-related services and, if so, how it might be removed.

ANNEX

Selected business services in Germany, 1994/95

1994 classification NACE	ISIC Rev 3		Employment 1995	Number of enterprises 1994	Turnover 1994 DEM million
72	**721-726**	**Computer & related services**		**29 271**	**32 828.80**
	721-724	**Computer software & information processing**	**162 000**	**28 259**	**30 067.32**
	721	Hardware consultancy	9 000	1 228	1 177.23
	722	Software consultancy & supply	61 000	5 716	6 928.14
	723	Data processing	92 000	21 286	21 754.29
	724	Database services		29	207.67
		Research & development & technical	**210 000**	**6 426**	**7 989.14**
731	731	Research & experimental development	173 000	4 588	4 144.94
74.3	7422	Technical testing and analysis	37 000	1 838	3 844.20
		Marketing services		**38 100**	**43 641.49**
74.13	7413	Market research & public opinion polls		3 318	5 969.91
74.4	743	Advertising	123 000	34 782	37 671.58
		Business organisation services		**31 598**	**25 968.33**
74.14	7414	Management consultancy		29 802	20 592.59
74.5	7491	Labour recruitment / Provision of personnel	38 000	1 796	5 375.73
	809	**Human resource development services**			
8041		Adult & other vocational education			
8042		Job training & vocational rehabilitation			

Source: Industry Classification, detailed breakdown for the microcensus.

Selected business services in Germany, 1996

Classification NACE	Classification ISIC Rev 3		Employment 1996	Number of enterprises 1996 (taxable)	Turnover 1996 DEM million
72	**721-726**	**Computer & related services**	**186 000**	**33 914**	**41 853.9**
	721-724	**Computer software & information processing**	**157 000**	**31 087**	**37 300.8**
	721	Hardware consultancy	12 000	2 678	1 949.5
	722	Software consultancy and supply	77 000	10 661	11 640.6
	723	Data processing	68 000	17 679	23 438.6
	724	Database services		69	272.1
		Research & development & technical	**237 000**	**7 454**	**10 220.6**
731	731	Research & experimental development	197 000	4 926	4 683.1
74.3	7422	Technical testing and analysis	40 000	2 528	5 537.5
		Marketing services		**37 053**	**45 208.7**
74.13	7413	Market research & public opinion polls		2 830	5 369.4
74.4	743	Advertising	138 000	34 223	39 839.3
		Business organisation services		**34 813**	**32 072.2**
74.14	7414	Management consultancy		32 488	24 422.7
74.5	7491	Labour recruitment / Provision of personnel	40 000	2 325	7 649.5
	809	**Human resource development services**			
8041		Adult & other vocational education			
8042		Job training & vocational rehabilitation			

Source: Industry Classification, detailed breakdown for the microcensus.

IRELAND

Trends in strategic business services

The growing role of the computer software

The Irish economy is often described as the "Celtic Tiger" in testimony to the vigorous economic growth of recent years, having its origins partly in the dramatic expansion of, among others, the information technology sector and internationally traded services. Computer software experienced very strong growth over the past decade and Ireland has now a thriving indigenous software industry, as well as the presence of a strong overseas sector which has established operations locally. The success of this sector in Ireland has been extraordinary: after the United States, Ireland exports more software than any other country in the world, in absolute terms. And today, over 40% of all PC packaged software (including 60% of business application software) sold in Europe is produced in Ireland.[1]

Figure 1a. **Turnover in strategic business services, 1995-96**
IEP million

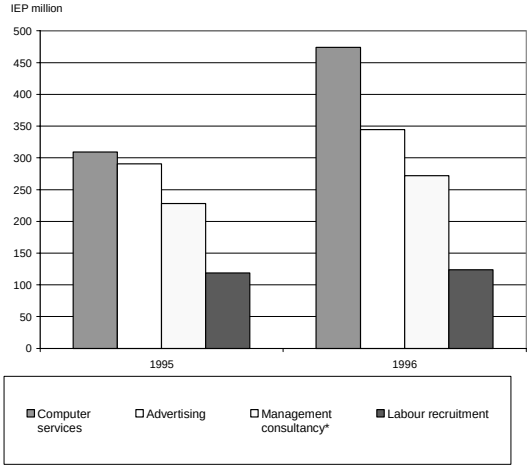
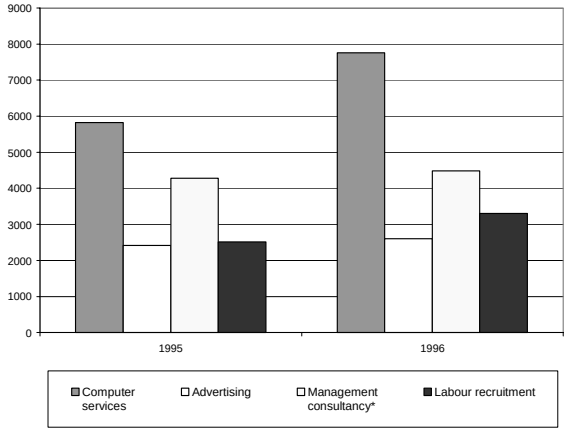


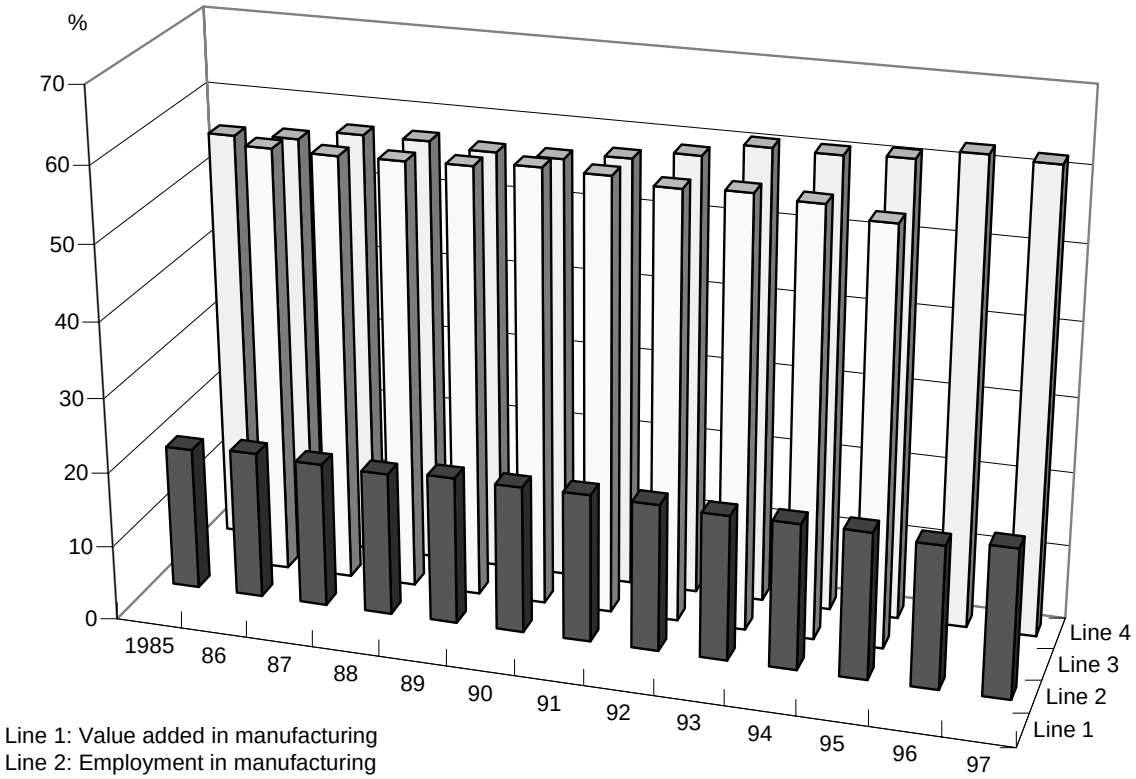
Figure 1b. **Employment in strategic business services, 1995-96**



Note: Management consultancy includes NACE 74.13, 74.14 and 74.15.
Source: Central Statistics Office, Ireland.

1. National Software Directorate, Ireland. Web site: http://www.nsd.ie.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Line 1: Value added in manufacturing
Line 2: Employment in manufacturing
Line 3: Value added in services
Line 4: Employment in services

Note: Data for value added in manufacturing are not available

Note: In Ireland, between 1960 and 1995 the share of value added in services in GDP increased from 52.4% to 55.5%. Although services sector output has increased by over 60% since 1992, services sector output as a percentage of GDP actually declined by 2 percentage points between 1992 and 1997. The share of employment in services progressed from 39% to 61.7% between 1960 and 1997 while the share of manufacturing employment in the total increased from 17.2% to 20%. Services have made a significant contribution to GDP growth: since 1993, the lowest contribution in any year by the services sector to GDP growth has been 30% and was as high as 52% in 1996 according to the Department of Enterprise, Trade and Employment.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

Driving forces

The driving forces behind the current boom in software development and other strategic business services are considered to be the following: the availability of a young, well-educated workforce with strong business and technological skills; an efficient and cost-effective communications infrastructure using state-of-the-art technology; and active government support in terms of financial and non-financial incentives to both the indigenous and overseas companies wishing to set up, expand or site their operations in Ireland.

Currently, more than 700 software companies currently operate in Ireland, over 80% of which are Irish-owned.[1] Some of these are small, specialised firms operating at the forefront of software development technologies, while others are larger firms which have successfully targeted niche markets internationally and have established offices overseas**.**

Data sources for business services

A number of data sources exist, all of which illustrate the rapid development of business services in Ireland during the recent decade. Different classification practices are likely responsible, in large part, for the significant differences between the Central Statistics Office (CSO) data and data emanating from other sources, such as survey data for grant-assisted companies. Furthermore, these latter surveys of grant-assisted firms would also, in any case, understate the size of these business services sector as many business services providers would not be eligible for grant assistance. Since 1995, the annual survey by the CSO covers renting and business services, as well as the retail, wholesale, and real estate sectors. A second source of data is the aforementioned database of those enterprises having received grant assistance from public development agencies. The National Software Directorate was established in 1991, and has conducted a survey of the entire software industry every second year, increasing the frequency to an annual basis since 1997. The different criteria, methods, objectives and coverage used in these different data collections yield different results. However, in all cases these data provide evidence of strong growth trends in this domain in recent years.

Turnover

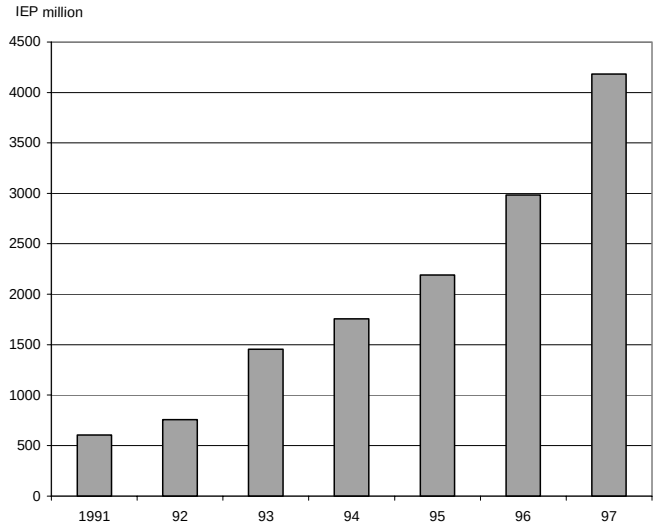
Turnover for the four strategic business services for which data are available[2] totalled IEP 1 214 million in 1996, an increase of 8% with respect to 1995 turnover, according to the CSO survey data (which provides grossed estimates based on samples drawn from the CSO's Business Register) (Figure 1a). Computer services represented the most important and most dynamic activity, generating IEP 309 million in 1995, and expanding by 53% in the following twelve months to reach IEP 474 million in 1996. Turnover for advertising amounted to IEP 291 million in 1995 and increased by 18.6% to reach almost IEP 345 million in 1996. Business organisation services generated turnover amounting to IEP 396 million in 1996, an increase of 14% on 1995 levels. Within business organisation services, turnover for management consultancy (including, market research and opinion polling as well as management activities of holding companies) totalled IEP 272 million in 1996, up from IEP 228 million in 1995. The other branch of business organisation services, labour recruitment services, generated IEP 123.8 million in 1996 compared with IEP 118.9 million in 1995.

Table 1 shows sales data drawn from the database of enterprises which have received grant-assistance from development agencies, and demonstrates the growing pre-eminence of computer services among those business services in receipt of public support. According to this database (which by definition reflects only the grant-assisted industries and therefore understates the overall size of the strategic business services sector while overstating the relative shares of certain activities, *e.g*. software, *vis-à-*

2. The five strategic business services areas originally selected were: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resource development services. Data for market research activities were included in management consultancy. Data were not available for: R&D and technical testing services; human resource development services.

vis other less "assisted" activities), computer services (mainly software) grew seven-fold between 1991 and 1997, and sales amounted to IEP 4 183 million in 1997. Computer services sales accounted for well over 90% of the total for sales of these strategic business services (collected for that particular database), both in 1991 and 1997. Advertising sales doubled during the same period but sales for grant-assisted management consultancy firms stagnated.

Figure 2. **Sales of computer services by grant-assisted firms employing 19 or more persons, 1991-97**
IEP million



Source: Database of firms which employ 19 or more persons and which are grant-assisted by development agencies; Forfás, *Irish Economy Expenditure Survey*.

Table 1. **Sales of computer software and other strategic services by grant-assisted companies, 1991-97**
IEP million

SIC		1991	1992	1993	1994	1995	1996	1997
7316	Advertising	9.80	7.86	7.61	9.52	11.07	12.58	20.11
7370,2,4	Computer services	604.4	755.16	1 456.1	1 754.99	2 190.3	2 982.9	4 182.8
7392	Business and management consultancy	8.40	8.65	7.50	0	8.70	8.70	8.70
7394	Leasing and rental	0	11.35	7.52	4.58	0	0	0
7397	Testing laboratories	0.88	39.64	61.11	61.11	0	0	0

Source: Database of enterprises which employ 19 or more persons and which are grant-assisted by development agencies; Forfás, *Irish Economy Expenditure Survey*.

The National Software Directorate (NSD) provides different data for computer software sales but which, however, confirm the strong growth for this activity (Table 2). According to this data source, between 1993 and 1995, revenue in this sector increased by 50% and between 1995 and 1997, revenue increased by 49%. The indigenous sector experienced highest growth in the initial period (64%), while the overseas sector located in Ireland experienced the highest growth in the second period (51%).

Table 2. **Revenue of computer software companies in Ireland**
IEP million

	1993	**1995**	***Growth 1993-95 (%)***	**1997**	***Growth 1995-97 (%)***
Indigenous sector	236	386	*63.56*	528	*37*
Overseas sector	1 756	2 611	*48.69*	3 933	*51*
Total	**1 992**	**2 997**	***50.45***	**4 461**	***49***

Source: National Software Directorate, 1999.

Employment

Different data sources yield different employment figures for strategic business services. According to the CSO survey information based on a narrow definition, 14 000 persons were employed in the selected strategic business services in 1992; and this grew to over 18 000 in 1996. Of the 18 000 persons employed in the three categories of business services in 1996 (computer services, advertising and business organisation services), computer services and business organisation services, each accounted for 43% of the total, with advertising making up the remainder.

Surveys of companies in receipt of government grant assistance reveal somewhat different data[3] for the period 1991-97. Above all, these data indicate much higher levels of employment in computer software showing an employment figure of 15 112 in 1997. These data, in line with the sales figures, indicate the overriding importance of computer software in strategic business services employment. Employment in the other grant-assisted strategic business services, according to this particular database amounted to a mere fraction of computer software employment. In addition, the large employment gains for this period were attributable principally to the computer software sector. The NSD survey results yield even higher employment figures for the software sector in 1997 (Table 3), with faster employment growth rates in the 1995-97 period than in the 1993-95 period, and with indigenous sector employment growing faster in the second period.

3. Data sourced from the Forfás Employment Survey include all enterprises involved in manufacturing and internationally traded services which are clients of Forbairt, IDA Ireland, Shannon Development and Udarás na Gaeltachta – the principle enterprise support agencies.

Table 3. **Employment in computer software companies in Ireland**

	1993	1995	*Growth 1993-95 %*	1997	*Growth 1995-97 %*
Indigenous sector	4 495	5 773	*28.43*	9 200	*59*
Overseas sector	4 448	6 011	*35.14*	9 100	*51*
Total	**8 943**	**11 784**	***31.77***	**18 300**	***55***

Source: National Software Directorate, 1999.

Employment in strategic business services is expected to continue to grow rapidly, especially in computer-related services. In the computer software business, an annual growth rate in excess of 12% has been achieved since the beginning of the 1990s. Employment in this area is expected to exceed 21 000 by the year 2000. Electronic commerce is frequently cited as a likely source of employment creation in the near future and employment in tele-services (another example of a flourishing service activity in Ireland) is expected to expand from 6 000 to 12 000 during the period 1998-2000.

Enterprises

In 1996, according to the CSO survey data, a total of 2 612 companies were engaged in the provision of these strategic business services, up from 2 118 in 1995. Half of these firms were engaged in business organisation services, while one-third were supplying computer services. Of the remainder, advertising firms outnumbered labour recruitment agencies. The database covering grant-assisted firms indicates that such firms engaged in business services expanded in number by over 97% between 1991 and 1997 and such computer software firms doubled during this time. Forty per cent of computer software firms had more than 19 employees in 1997 and accounted for 89% of computer software employment (in grant-assisted firms). When the average firm size is calculated (taken to be the ratio of employment to the number of firms), the preponderance of small firms is apparent: business services firms averaged seven persons per firm in the 1990s compared with 42.3 for total manufacturing.[4]

The NSD survey results illustrate the weight of indigenous software companies in the total, over 80% in 1997 (Table 4). This, too, was the fastest growing part of the industry, recording 44% growth in company numbers between 1995 and 1997, compared with 16% in the overseas sector during the same period.

Table 4. **Computer software companies in Ireland**

	1993	1995	*Growth 1993-95 %*	1997	*Growth 1995-97 %*
Indigenous sector	336	390	*16.07*	561	*44*
Overseas sector	81	93	*14.81*	108	*16*
Total	**417**	**483**	***15.83***	**679**	***40***

Source: National Software Directorate.

4. The manufacturing average relates to 1990. Estimate based on the OECD's *Industrial Structure Statistics*.

Trade and foreign direct investment in computer software

The small size of the domestic market means that the bulk of computer software produced in Ireland is exported. Table 5 shows the respective shares exported by indigenous and overseas companies. Exports of software produced by overseas companies in Ireland reached 98%, while a growing share (41% in 1991, 58% in 1995 and 62% in 1997) of the revenue of indigenous firms is accounted for by exports.

According to the NSD, Ireland has won 40% of all US new inward investment in electronics in Europe since 1980. Seven of the world's top ten independent software companies (Microsoft, Computer Associates, Oracle, Informix, Novell, SAP, and Symantec) have offshore facilities located in Ireland and over 110 foreign software companies use their operations in Ireland to develop, customise, manufacture and market their products and services internationally. An increasing number provide technical support to customers worldwide via support centres located in Ireland.

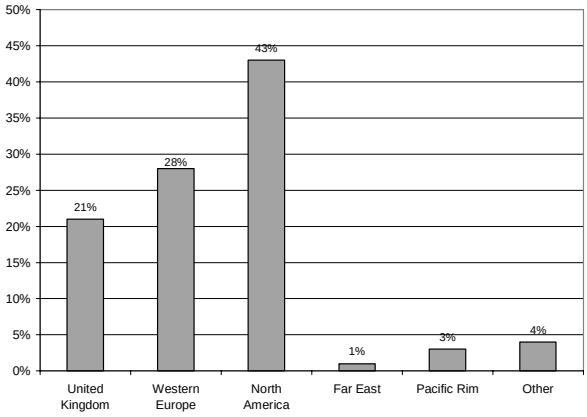
Table 5. **Exports of computer software**
IEP million

	1991	1993	1995	Growth 1993-95 (%)	1997	Growth 1995-97 (%)
Indigenous sector		116	226		365	
(% of total revenue)	(41)	(49)	(58)	95%	(69)	62%
Overseas sector		1 726	2 585		3 845	
(% of total revenue)	(98)	(98)	(99)	50%	(98)	49%

Source: National Software Directorate, 1999.

Exports by the indigenous software sector increased by 214% between 1993 and 1997, from IEP 116 million to IEP 365 million. During the same period, exports by the overseas software sector increased by 122%, from IEP 1 726 million in 1993 to IEP 3 845 million in 1997. The principal export market for software produced in Ireland is North America, which accounts for 43% of total exports. Western Europe (excluding the United Kingdom) is the second most important market, taking 28% of exports, while the UK market accounts for 21% of exports.

Figure 3. **Exports of software produced in Ireland, destination by geographic region, 1990s**
Percentages



Source: National Software Directorate.

International software companies that have chosen to set up in Ireland justify their decision for a variety of reasons, among which:

- *Ready availability of skilled staff*: in the computing, technological and linguistic fields.
- *Low corporate tax and generous incentives*: the tax rate applicable to profits is 10% until at least the year 2010, and grants are available towards start-up costs.
- *Low operating costs*: international surveys have shown that wage costs can be up to 50% lower in Ireland than in other EU countries. Non-wage employment costs were also found to be low.
- *Ireland's support structure*: Highest international standards, *e.g.* ISO 9000, in the companies comprising the support structure servicing the needs of international firms.
- *Quality telecommunications*: a full range of modern, state-of-the-art services is available; the investment of USD 5 billion by Telecom Eireann in the development of a fully integrated digital network has meant more cost-effective, flexible and reliable services.

Government policies for the computer software industry and for other strategic business services

The Irish Government through Enterprise Ireland, the State agency responsible for the development of indigenous Irish industry, together with IDA Ireland and various regional organisations and the different county enterprise boards, provide a range of financial and non-financial support instruments for a number of industry sectors as well as software. The funding is provided partly by the European Union and partly by the Irish Exchequer. The NSD, a government-backed agency set up to support and nurture the rapidly growing software industry, also provides monetary support.

The mission of the NSD is to act as a facilitator and a catalyst for change: working with other State agencies, with government departments and various interest groups on behalf of the industry to help improve the business environment for software developers; promoting the sector; designing and supporting initiatives to assist the growth and development of the sector; working to ensure an adequate supply of computing graduates to meet the sector's needs. Direct support by the NSD is contained in the Application Development Initiative (ADI) and indirect support is provided via the Software Programme in Advanced Technology (Software PAT).

The first of these programmes, the ADI scheme, is intended to accelerate the entry of Irish-based software SMEs into new geographic or product markets by providing support for the development of software products and market entry preparation. Support is focused on facilitating the internationalisation or further commercialisation of existing software. Various production costs, investment costs, and applied R&D costs are eligible for support, with a maximum ceiling of IEP 250 000 per project.

Outside of these specific and focused measures, overall government policy is geared to creating a favourable economic, legal and fiscal environment which supports the development of international business. Continuing to invest heavily in education and expanding and re-focusing third-level institutions with a greater emphasis on science and technology is a priority in order to respond to the needs of the business sector.

ANNEX

Selected business services in Ireland, 1996
Central Statistics Office, Annual Services Enquiry

NACE Rev1		Employment	Number of enterprises	Turnover (excluding VAT) IEP million	Gross value added
721-726	**Computer & related services**	**7 758**	**956**	**473.9**	**265.1**
721-724	**Computer software & information processing**				
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
	Research & development & technical				
	Research & experimental development				
	Technical testing and analysis				
	Marketing services				
	Market research & public opinion polls[1]				
74.4	Advertising	2 601	225	344.5	74.737
	Business organisation services	**7 794**	**1 431**	**395.8**	**178.1**
74.13, 74.14, 74.15	Management consultancy[2]	4 485	1 254	272.0	126.2
74.5	Labour recruitment / Provision of personnel	3 309	177	123.8	51.9
	Human resource development services				
8041	Adult & other vocational education				
8042	Job training & vocational rehabilitation				

1. Included in management consultancy.
2. Includes market research and holding companies.
Source: Central Statistics Office, *Annual Services Enquiry 1996*.

Selected business services in Ireland, 1995
Central Statistics Office, Annual Services Enquiry

NACE Rev1		Employment	Number of enterprises	Turnover (excluding VAT) IEP million	Gross value added
7210-7260	**Computer & related services**	**5 823**	**703**	**309.3**	**156.4**
7210-7240	**Computer software & information processing**				
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
	Research & development & technical				
	Research & experimental development				
	Technical testing and analysis				
	Marketing services				
	Market research & public opinion polls[1]				
74.4	Advertising	2 412	190	290.5	70.3
	Business organisation services	**6 788**	**1 225**	**346.8**	**140.1**
74.13, 74.14, 74.15	Management consultancy[2]	4 276	1 054	227.9	95.6
74.5	Labour recruitment / Provision of personnel	2 512	171	118.9	44.5
	Human resource development services				
8041	Adult & other vocational education				
8042	Job training & vocational rehabilitation				

1. Included in management consultancy.
2. Includes market research and holding companies.
Source: Central Statistics Office, *Annual Services Enquiry 1995*.

Selected business services in Ireland: number of plants, 1991-97
Survey of grant-assisted plants

SIC	Classification	1991	1992	1993	1994	1995	1996	1997
	Total for:	209	232	257	288	323	377	413
	Computer services, technical testing services, advertising and management consultancy							

Note: Data refer to grant-assisted plants surveyed by the main grant-aiding agencies.
Source: Department of Enterprise, Trade and Employment, 1999.

Selected business services in Ireland: employment, 1991-97
Survey of grant-assisted plants

SIC	Classification	1991	1992	1993	1994	1995	1996	1997
	Computer & related services	**6 885**	**7 543**	**8 192**	**8 980**	**10 584**	**13 127**	**15 860**
	Computer software & information processing							
7371	Hardware consultancy	12	14	14	17	18	19	20
7372	Software consultancy and supply	5 841	6 650	7 251	8 303	9 907	12 529	15 112
	Data processing							
7374	Database services	72	64	89	61	41	22	24
	Research & development & technical							
7377	Research & experimental development				3			
7397	Technical testing and analysis	81	56	73	50	53	59	69
	Marketing services							
	Market research & public opinion polls							
7316, 7331	Advertising: direct mail	106	66	83	118	120	125	141
	Business organisation services							
7392	Management consultancy	212	240	213	166	166	153	153
	Labour recruitment / Provision of personnel							
	Human resource development services							
	Adult & other vocational education							
	Job training & vocational rehabilitation							

Note: Data refer to grant-assisted plants surveyed by the main grant-aiding agencies.
Source: Department of Enterprise, Trade and Employment, 1999.

ITALY

Trends in strategic business services

Turnover

Turnover in the selected strategic business services[1] amounted to approximately ITL 50 000 billion in 1996. Half of this figure was accounted for by computer software and information services with marketing services and business organisation services, each representing almost a quarter of the total. Turnover for R&D services (using the NACE 73 classification) was ITL 3 000 billion.

Within computer software and information processing services, software consultancy and supply accounted for 63% of the total, with data processing services making up a further 32%. The remaining 5% comprised hardware consultancy services and database services.

Figure 1a. **Turnover in selected business services, 1996**
ITL billion

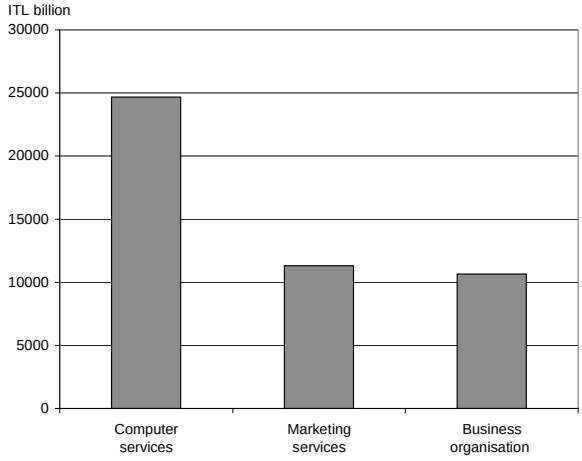
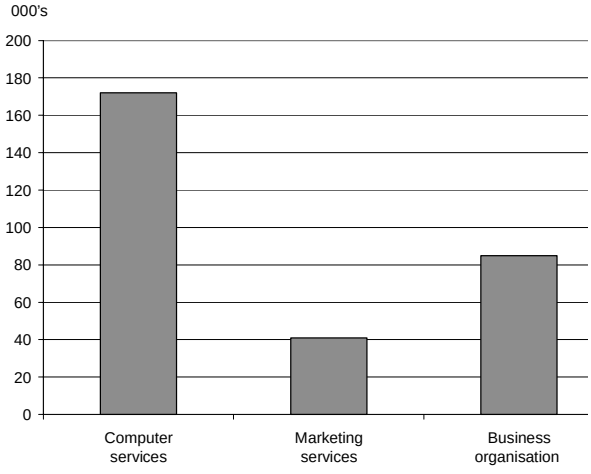


Figure 1b. **Employment in selected business services, 1996**



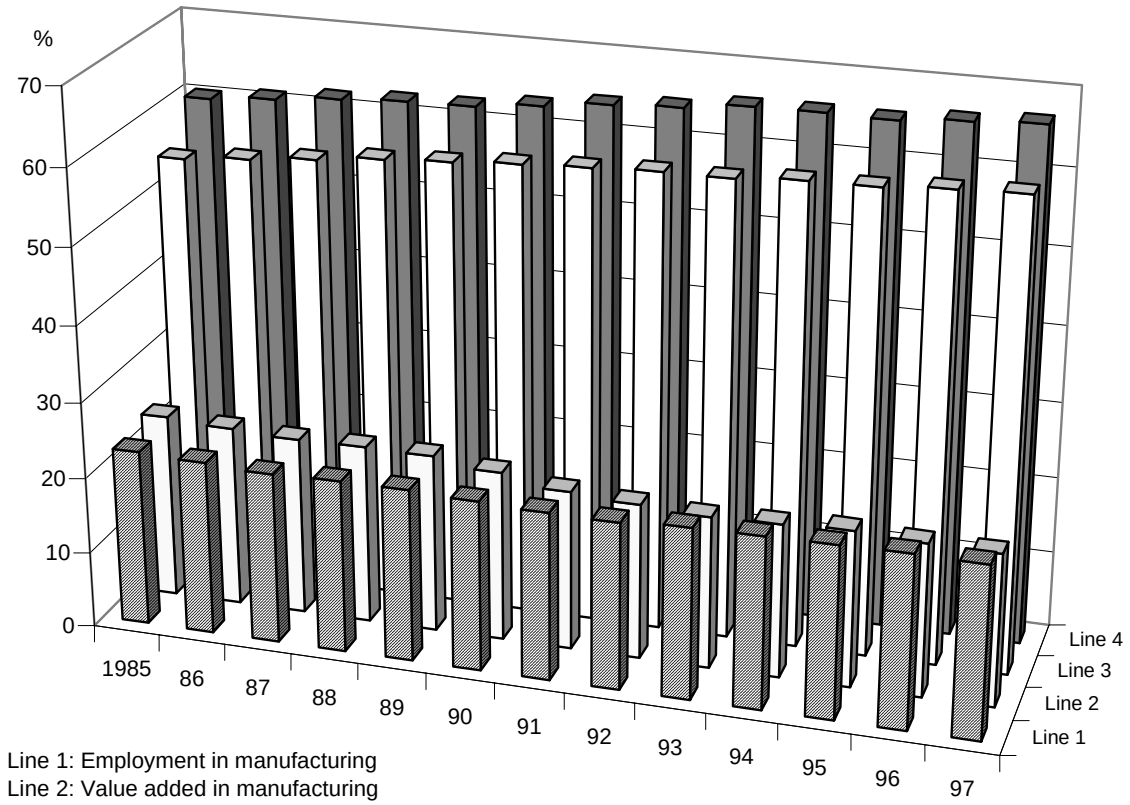
Source: SCI survey (enterprises with at least 20 employees) and PI survey (enterprises with less than 20 employees).

1. The five strategic business services selected were: computer software and information processing services; research and development and technical testing services; marketing services; business organisation services; and human resource development services. No information was reported for the latter category. Figures for NACE 73 were reported for R&D services.

Turnover per capita in market research services was ITL 277 million in 1996, and was in both 1995 and 1996 highest for any strategic business service for which data are available (Table 1). Turnover per capita in marketing grew by a quarter between 1995 and 1996. In the case of computer services, turnover per capita progressed by 15% in the twelve-month period. In contrast, turnover per capita declined by 6% in management consultancy. In all cases in 1995 turnover per capita fell well short of the average turnover per capita in manufacturing industry (1996 figures for manufacturing are not available).

Productivity varied by activity and, as in turnover per capita, was highest in market research services, followed by advertising. Productivity both in computer services and in management consultancy fell short of the manufacturing average in 1995. Between 1995 and 1996 productivity increased by 24% in advertising services, 17% in management consultancy and 6% in computer services, and declined by 20% in market research services.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Line 1: Employment in manufacturing
Line 2: Value added in manufacturing
Line 3: Employment in services
Line 4: Value added in services

Note: In Italy, between 1960 and 1997, the share of value added in services in GDP increased from 46.4% to 66.9%. The share of manufacturing value added stood at 20% in 1997. Employment in services in 1997 accounted for 61.2% of the workforce, having increased its share from 33.5% in 1960. The manufacturing share of employment declined from 24.2% to 22.7% of the workforce in the period 1960-97.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics.*

Investment per capita was highest in market research services in 1995 and in spite of a 45% drop in the following twelve months was still ITL 12 million, higher than all other components with the exception of labour recruitment services.

Market research activities were also the most profitable in 1995, with 66% of activities being profitable although this rate declined to 53% by 1996. The profitability of management consultancy activities increased by 2 percentage points between 1995 and 1996, while computer services experienced a drop of 2 percentage points. In Italy the market value of software services and computing services expanded by 27% and 23%, respectively between 1993 and 1997.[2] In general, the market for computer-related services in Italy was fragmented in the 1990s relative to other European countries. The top ten vendors of software in Italy slightly increased their share, from 13.2% to 15.2% between 1992 and 1994, although it remained below that of most other European countries (where shares ranged between 14% and 24% in 1992 and between 20% and 30% for many of them in 1994). The market share of the top ten vendors of computer services dropped dramatically from 40.1% in 1992 to 17.8% in 1994, following the trend towards de-concentration occurring in other countries.

Advertising expenditure in Italy accounted for 8.4% of the EU-15 total in 1994, down from 11.4% in 1990. Italy's per capita expenditure on advertising ranked thirteenth in EU countries (excluding Luxembourg) in 1994 and it ranked in eleventh position in 1990 compared with tenth position in 1985. Advertising made a lower contribution to GDP in Italy than in other countries. Combined advertising and direct marketing, measured in ECUs, accounted for 0.49% of GDP in 1994 which was lower than for any other EU country in either that year or earlier years during the 1990s.

Table 1. **Main indicators for strategic business services, 1995-96**
ITL billion

NACE	Economic activity	Turnover per capita		Productivity		Investment per capita		Profitability (%)	
		1995	1996	1995	1996	1995	1996	1995	1996
72	Computer services	138	159	66	70	8	7	39	37
	Marketing services	221	276	84	93	14	10	55	56
7440	Advertising	218	275	78	97	12	8	51	58
7413	Market research	230	277	104	83	22	12	66	53
	Business organisation		125		74		6		66
7414	Management consultancy	130	122	64	75	8	6	64	66
7450	Labour recruitment		235		60		12		61
D	Manufacturing industry	269		75		15		40	

Source: SCI survey (for enterprises with at least 20 employees) and PI survey (for enterprises with less than 20 employees).

2. Commission of the European Communities, *Panorama of EU Industry '98.*

In contrast to many other countries, management consultancy in Italy declined during the recent decade, with turnover plunging by almost 50% between 1989 and 1994. The presence of large multinational firms providing management consultancy services was significant but a strong presence of domestic firms is also noteworthy (Table 2). According to research carried out elsewhere,[2] turnover in the public relations branch of business organisation activities amounted to ECU 1.3 million in 1994 an increase of more than 40% in two years. However, whether for accounting or classification reasons or other, turnover for this activity is extremely low compared with other EU countries, and represented a mere 0.2% of the EU12 total in 1994.

Table 2. **Leading firms providing management consultancy in Italy, 1995**

Andersen Consulting
Bain Cuneo
Consiel
Ernst & Young
IBM
McKinsey
Praxi
Soges
Telos Group
Tesi

Note: Firms are listed in alphabetical order.
Source: Commission of the European Communities, *Panorama of EU Industry* '98.

Employment

Employment in the selected strategic business services[1] stood at 317 682 in 1996, of which 172 222 were employed in computer software and information processing services. Services employment, in general, made significant gains in Italy during 1996, in contrast to industrial employment. Within the strategic business services under review, only computer services employment increased while marketing employment and management consultancy employment declined during 1996. Within marketing services, advertising employment declined by 6% while employment in market research increased by 9%.

Software consultancy and supply services and data processing services together accounted for the quasi-totality of computer services employment, the former employing slightly more than the latter. Management consultancy services, too, employed over 80 000 in 1996, while the other branch of business organisation services, labour recruitment services, employed just over 2 000. Overall, employment in business services accounted for 1.6% of total employment in both years and approximately 2.6% of services employment.

Enterprises

The provision of business services in 1996 was undertaken by 95 246 enterprises, this figure probably exceeded 100 000 if more complete data for R&D and technical testing services were available. Business organisation services (principally management consultancy firms) accounted for 40 714 of the total while 38 645 firms were engaged in the supply of computer services (NACE 721-4). Almost 11 000 firms supplied advertising services, with a further 4 000 providing market research services.

Table 3. **Balance of trade with the United States in strategic business services, 1994-97**
ITL billion

	1994	**1995**	**1996**	**1997**
Advertising	8.1	-1.6	6.2	-1.7
Computer and information processing services	-101.6	-128.7	-145.0	-190.7
R&D and testing	-17.7	-6.5	-12.3	-44.3
Management consulting & public relations	-27.4	-8.1	-17.0	-25.5

Source: Based on data from US Department of Commerce, *Survey of Current Business*, October 1998.

Trade

While comprehensive data for Italy's trade in strategic business services were not readily available, it was nonetheless possible to obtain a picture of Italy's trade in some of these services with the United States. Data available for the period 1994-97 show that Italy experienced a large and growing trade deficit with the United States in these strategic business services, with the exception of advertising in 1994 and 1996 (Table 3). Computer software and information processing services and, in particular, the database and information processing branch of this group were responsible for the bulk of this deficit. Italy's imports from the United States in this latter activity rose from ITL 75.8 billion in 1994 to ITL 160.0 billion in 1997. The US foreign direct investment position (calculated on a historical cost basis) amounted to ITL 58.1 billion for advertising and ITL 221 billion for computer-related services. Conversely, the foreign direct investment position in the same years was negative for management and public relations services amounting to ITL -40 billion.[3]

3. US Department of Commerce.

ANNEX

Selected business services in Italy, 1996

NACE		Employment	Number of enterprises	Turnover ITL billion
72	**Computer & related services**	**200 051**	**47 261**	**31 805.5**
721-724	**Computer software & information processing**	**172 222**	**38 645**	**24 667.2**
721	Hardware consultancy	4 821	1 055	700.0
722	Software consultancy and supply	85 686	16 548	15 631.8
723	Data processing	80 575	20 739	7 887.6
724	Database services	1 140	303	447.7
	Research & development & technical	**18 941**	**6 205**	**3 009.7**
*	Research & experimental development			
74.3	Technical testing and analysis	n.a.	n.a.	n.a.
	Marketing services	**41 039**	**14 847**	**11 320.6**
74.13	Market research & public opinion polls	10 961	3 988	3 038.0
74.40	Advertising	30 078	10 859	8 282.6
	Business organisation services	85 480	41 754	10 643.1
74.14	Management consultancy	83 454	40 714	10 168.0
74.50	Labour recruitment / Provision of personnel	2 026	1 040	475.1
	Human resource development services			
	Adult & other vocational education			
	Job training & vocational rehabilitation			

Note: Data for NACE 73 reported.
Source: SCI survey (for enterprises with at least 20 employees) and PI survey (for enterprises with less than 20 employees).

JAPAN

Trends in strategic business services

Turnover

In Japan, turnover for the selected strategic business services[1] under review grew by 28% in the period 1989-94 from JPY 16 097 billion in 1989 to JPY 20 635 billion in 1994. Of the strategic business services activities for which data are available, marketing services was the largest activity in terms of turnover in both 1989 and 1994, accounting for 44.6% and 36.9% of the total, respectively. However, growth in turnover for marketing services for the period was not as high as growth of other categories of business services. Within marketing services, turnover in market research/opinion poll activities increased eight-fold while advertising services actually experienced a drop of approximately 4% in turnover over the period. Turnover in R&D services grew by 52.6%, and both component activities of this category progressed strongly, the larger activity, R&D services, by 53% and the smaller, technical testing services, by 42%. Turnover in computer software and information processing services expanded by 42%. As separate data are not available for management consultancy, only figures relating to labour recruitment/personnel provision are included for the business organisation category. Turnover for these temporary employment services increased by 13% between 1989 and 1994.

Figure 1a. **Turnover of strategic business services, 1989 and 1994**
JPY billion

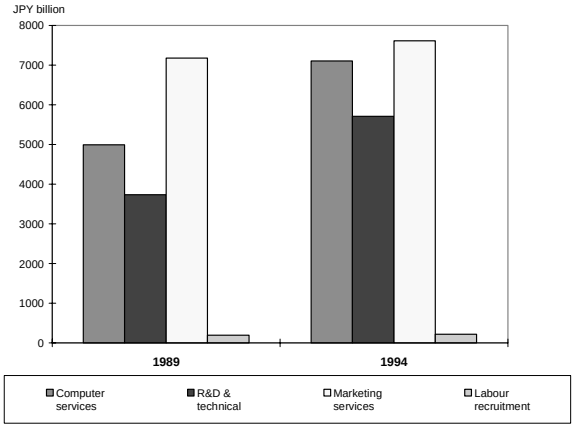
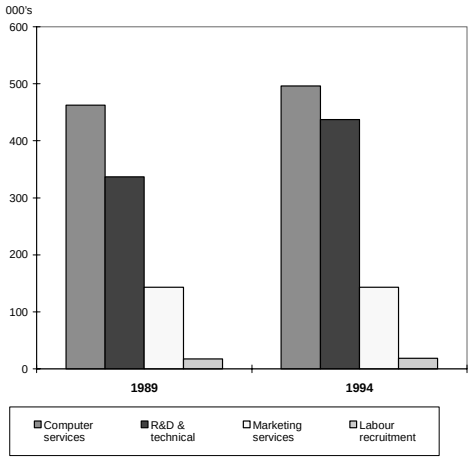


Figure 1b. **Employment in strategic business services, 1989 and 1994**

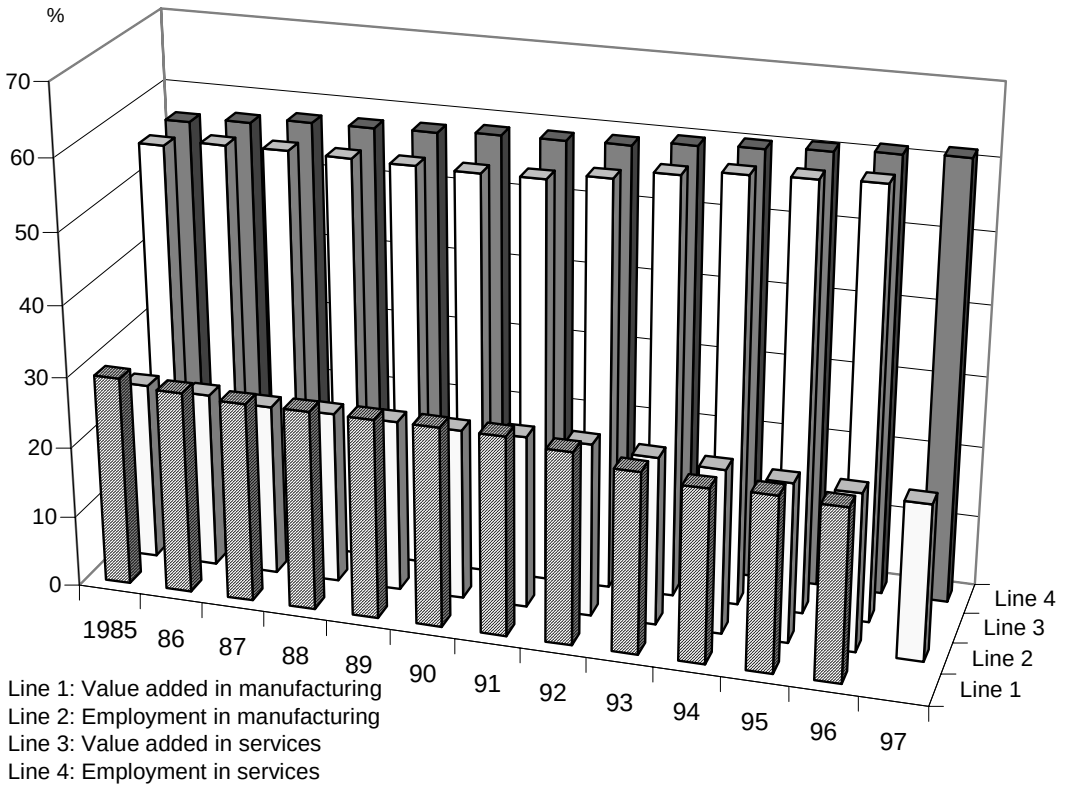


Source: Statistics Bureau, Management and Co-ordination Agency, Japan, *Survey on Service Industries.*

1. The five strategic business services areas selected are: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resources development services. Data were not available either for management consultancy or for human resources development services.

Two of the world's top ten advertising firms are Japanese, ranked in fourth and tenth position in 1996.[2] Their combined worldwide revenues amounted to JPY 307.6 billion in 1996; both firms registered declines in revenue in 1995-96.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Note: Between 1960 and 1996, the share of services value added in GDP increased steadily from 42.7% to 60.2%. During the same period, the share of manufacturing value added in GDP declined from 34.6% to 24.3%. Services employment increased from 41.3% to 61.6% of total employment in the period 1960-97, while employment in manufacturing increased from 21.3% in 1960 to 27.2% in 1974, before declining to 22.0% in 1997.

Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics.*

Employment

Employment in these strategic business services stood at just under 1 million in 1989 (1.6% of total employment and 2.8% of services employment) and had grown by 134 715 jobs in 1994 (1.8% of total employment and 3% of services employment). No data were available for management

2. *Advertising Age, US Industry and Trade Outlook 1998.*

consultancy or for labour recruitment services. Employment in computer software and information processing was the highest for all categories in both years (0.5 million in 1994) and had progressed by 7% in the previous five-year interval, although, within this category, employment in data-processing activities declined 17% during that time. The highest employment growth was recorded in R&D and technical services, which expanded by 30% over five years to reach 0.44 million in 1994. Strong performances in both R&D and experimental development as well as in technical services contributed to this high rate of growth. While overall employment in marketing services remained stable over the period, there was a threefold increase in employment in market research and public opinion poll activities. Finally, employment in labour recruitment services increased from 17 377 in 1989 to 18 301 in 1994, a growth rate of 5.3%.

Enterprises

Almost 90 000 firms in Japan were engaged in the provision of these business services in 1994, an increase of 27% over 1989. Of this number, 67% provided R&D services in 1994 and their numbers had grown by 34% since 1989. The number of computer-related service firms increased by 30%, from 11 595 in 1989 to 15 114 in 1994. While the number of marketing firms grew by a mere 0.5%, there was a significant increase (87%) in the number of firms engaged in market research and opinion poll activities. This was in line with turnover and employment performance for this activity. The number of labour recruitment firms expanded by 7%. When average firm size is calculated (the ratio of employment to number of firms),[3] the predominance of small firms in these service activities is evident, as the strategic business services firms averaged 12.2 persons per firm for 1994, less than half that of the average firm size in manufacturing (26.3) in 1993.

Trade

Japan is the second largest producer of information technology products and services and Japanese firms play an important global role. Japan is also the largest single importer of US-produced information and computer services. The recent decade and a half has been characterised by growing numbers of strategic information technology alliances between global players, and Japanese firms have been particularly present, *e.g.* in Japan-US and especially Japan-Europe alliances. Such alliances have in turn influenced the market for associated business services. Of these, global sales of software services have surged in the 1990s; Japan is the world's second largest single-country software market, estimated by International Data Corporation to have been worth USD 11.4 billion in 1996 and USD 13.3 billion in 1997, and forecast to grow by 10% annually to USD 22.3 billion in 2003. In the Japanese market in 1994, US majority-owned foreign affiliates earned revenue amounting to JPY 135 billion for sales of computer and data processing services, increasing to JPY 164.7 billion in 1995. Japanese firms play a global role in software, and two Japanese firms ranked seventh and eighth in 1997 among the world's top ten software suppliers (Table 1). In addition, Japan represented the third largest market for CAD/CAM/CAE software (25% of the total) after the United States and Europe.[4]

While detailed trade data on Japan's exports and imports of strategic business services with the rest of the world are not readily available, US data relating to trade in such services between the two

3. Estimate based on OECD, *Industrial Structure Statistics*.

4. *US Industry and Trade Outlook 1998*.

countries are instructive. While Japan has consistently experienced trade deficits in advertising averaging approximately JPY 200 billion annually in the 1990s, Japan did enjoy a surplus in advertising services with the United States between 1994 and 1997[5] (Table 2). During this time, Japan's advertising exports to the United States strengthened considerably. However, in each of the other three categories for which data are available, Japan experienced worsening deficits with the United States throughout this period. The largest deficit occurred in computer services, where exports doubled and where imports grew by almost 60% in the period 1994-97, leading to a deficit of JPY 24.7 billion in 1997. Similarly, in R&D and testing services, the deficit widened from JPY 16 billion in 1994 to JPY 23.4 billion in 1997, but in this case exports fell by 60% while imports rose by 68%. The trade deficit with the United States in management consultancy and public relations doubled despite an increase of 194% in exports, as imports progressed by 125%.

Table 1. **Japan's software suppliers in world's top ten, 1997**

	Rank	**Revenue 1997 JPY billion**
Hitachi	7	231.7
Fujitsu	8	181.4

Source: International Data Corporation.

Sales of business services by US majority-owned foreign affiliates (MOFAs) in Japan in the 1990s were considerable. As mentioned earlier, such sales in computer and data processing services, they amounted to JPY 164.7 billion in 1995. In the same year, sales of advertising services by MOFAs in Japan amounted to JPY 18.5 billion.

Table 2. **US-Japan trade in strategic business services: Imports from the United States and exports to the United States**
JPY billion

		1994	**1995**	**1996**	**1997**
Advertising services	Imports from the United States	4.0	3.7	4.6	6.7
	Exports to the United States	23.6	27.6	33.2	34.0
Computer services	Imports from the United States	18.1	17.7	29.0	28.8
	Exports to the United States	2.0	2.2	2.7	4.1
R&D & testing	Imports from the United States	15.3	14.6	19.4	25.7
	Exports to the United States	5.5	2.2	1.3	2.3
Management consulting & public relations	Imports from the United States	6.2	6.8	10.0	14.0
	Exports to the United States	1.7	2.8	3.5	5.0

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

5. US Department of Commerce, *Survey of Current Business*, October 1998.

Outsourcing in Japan

In 1997, the Services Industries Division of MITI undertook a study of outsourcing. The purpose of this research was to examine the state of outsourcing, identify its effects and possible barriers to its development, and consider policies for promoting its further development.

In the context of this study, the concept of strategic outsourcing covers the functions or activities (extending from design to operational functions) normally carried out by firms and which are shifted outwards for specific and strategic purposes, such as concentrating firm and management activities on core functions, ensuring continuing specialisation of outsourced functions, and efforts to reduce costs.

Since the early 1990s, outsourcing has increased in information services (hardware and software supply, systems operation and maintenance) and in expert services (legal, accountancy, etc.). Among the fields in which outsourcing is expected to grow are personnel management and human resources services, management consultancy, and marketing.

Driving forces

The growth in outsourcing can be explained by a number of factors: the recent growing share of services in the economy; changes in the business environment affecting firm management, including recessionary conditions leading to efforts to increase efficiency and reduce costs; intensified global industrial competition; the increasing complexity of business undertakings and the need to maximise the benefits of new technological developments, especially information technologies; firms' decisions to concentrate management resources on core activities; emulation of other countries' apparently successful experience (particularly that of the United States); and evidence that outsourcing suppliers are highly diversified, highly skilled and specialised.

1997 survey on outsourcing: results

A survey conducted in January 1997 revealed the following distribution of outsourced functions and activities: job training (20.1%); information systems (19.7%); production processes (17.4%); accountancy and tax affairs (14%); R&D (13.7%). The survey found that more than 70% of firms that had outsourced, with an aim to increase specialisation in order to maximise efficiency and reduce costs, had achieved their objective. For firms that outsource activities, the following beneficial effects are expected:

- Improvement in management efficiency in the area of cost reduction, response to business fluctuations, restructuring and re-engineering.
- More efficient use of external specialised resources: expanded information networks, improvement in employment-related benefits for employees, possibility of performance assessment by external objective actors.
- Concentration of management resources on core activities.

Future prospects for outsourcing in Japan

Outsourcing is expected to continue to grow in Japan, owing to the benefits of outsourcing and the emergence of new business services. The key factors in the development of outsourcing in Japan are:

- Introduction of a so-called "company system" into business management (*i.e.* a system in which each department in a company is considered an independent company).
- Removal of the ban on the strict holding company and introduction of consolidated financial statements.

A particular direction in which outsourcing is expected to develop in Japan is "co-sourcing", whereby two or more firms use their complementary resources for maximum efficiency and mutual benefit.

The development of outsourcing is expected to affect Japan's economy through the growth of new outsourcing-related sectors, improvement in the quality of services and a reductions in their price. In the long term, outsourcing is expected to revitalise Japan's economy and promote industrial restructuring in various ways:

- Increased specialisation in order to maximise the efficiency of Japanese industry.
- Restructuring of firms to remove management and resource inefficiencies.
- Enhancement of Japan's international competitiveness.
- Fostering of venture businesses.
- Territorial revitalisation.
- Job creation.

Outsourcing is expected to flourish for business services, including R&D services, marketing, labour recruitment/provision of personnel, vocational education and job training, information and communication services. Concerning the last of these, it is expected to outsource entire processes, including planning, designing, developing and maintaining information and communication systems.

Both the public and private sectors are expected to use outsourcing, especially firms in the private sector that wish to avail themselves of services which they cannot provide.

Obstacles to the development of outsourcing in Japan

Obstacles to the development of outsourcing may relate to the user, the supplier, or the underlying market conditions. From the point of view of the user the obstacles and drawbacks are:

- Potential loss of control and potential leaking of confidential information, including know-how.
- Isolation from the outsourced business and functions.

- Diminished involvement in quality control.

Users may also be slow to outsource due to lack of intra-firm internal communication and conservative management and employment philosophies.

From the point of view of the supplier, outsourcing can mean a shift of business risks from the user to the supplier. Also, burdensome regulations, insufficient support systems for new outsourcing-related businesses and lack of appropriate human resources can constitute obstacles.

Market inefficiencies and immaturity are also obstacles. There may be a shortage of information relating to the market and a lack of criteria or measures to evaluate the success of outsourcing. Also, lack of transparency on an outsourcing contract or a lack of employment mobility can constitute obstacles.

Policies for promoting the development of outsourcing

According to the MITI study, various measures, if undertaken, would encourage the development of outsourcing in Japan. Some of these measures concern government alone, while others require joint action by government and industry. Still other actions need to be taken by industry alone. Generally, outsourcing can be promoted by improving the overall climate for services in the following ways:

- Promoting employment mobility and ensuring diffusion by industry of information about outsourcing services (requires actions by government and industry).

- Establishing industry statistics on outsourcing (joint government-industry initiatives).

- Improving the information infrastructure to facilitate communication between the different actors (joint government-industry initiatives).

- Standardising information systems (all actors).

- Replacing unclear business customs/practices with clearly defined terms and conditions of contract (all actors).

- Promoting the growth of new and venture businesses that use outsourcing can be achieved by government policies which improve firms' ability to obtain finance. The establishment of a system to measure the value of know-how so that it can serve as collateral is also recommended (this would involve efforts by both government and industry).

- Outsourcing of public services such as education and welfare services (government action).

- Undertaking market-related efforts such as regulatory reform, establishment of quality standards, continued development of suppliers' human resources, and establishment of industry associations to facilitate development of human resources, provision of information, etc. (involves action by all actors).

- Promoting the growth of the market for outsourcing by abandoning traditional management methods and reviewing lifetime employment practices (industry action).

ANNEX

Selected business services in Japan, 1994

Classification JSIC	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover JPY million
821+82A		**Computer software and information processing**	**495 899**	**15 114**	**7 101 749**
		Hardware consultancy			
		Software consultancy and supply			
		Data processing			
		Database services			
		Research & development and technical	**437 062**	**60 143**	**5 703 019**
845		Research and experimental development	417 002	58 976	5 527 142
862		Technical testing and analysis	20 060	1 167	175 877
		Technical testing and analysis			
83		**Marketing services**	**143 078**	**11 231**	**7 610 666**
839		Market research and public opinion polls	22 933	2 021	832 241
831		Advertising	120 145	9 210	6 778 425
		Business organisation services			
841		Management consultancy			
865		Labour recruitment / Provision of personnel	18 301	3 457	219 727
		Human resource development services			
		Adult and other vocational education			
		Job training and vocational rehabilitation			

Source: Statistics Bureau, Management and Co-ordination Agency, Japan, *Survey on Service Industries.*

Selected business services in Japan, 1989

Classification JSIC	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover JPY million
821 +82A		**Computer software and information processing**	**462 430**	**11 595**	**4 989 397**
		Hardware consultancy			
		Software consultancy and supply			
		Data processing			
		Database services			
		Research & development and technical	**336 605**	**44 932**	**3 738 130**
845		Research and experimental development	320 301	44 003	3 614 428
862		Technical testing and analysis	16 304	929	123 702
83		**Marketing services**	**143 213**	**11 174**	**7 174 991**
839		Market research and public opinion polls	7 720	1 078	99 651
831		Advertising	135 493	10 096	7 075 340
841, 843 865		**Business organisation services**			
841		Management consultancy			
865		Labour recruitment / Provision of personnel	17 377	3 231	194 210
		Human resource development services			
		Adult and other vocational education			
		Job training and vocational rehabilitation			

Source: Statistics Bureau, Management and Co-ordination Agency, Japan, *Survey on Service Industries.*

MEXICO

Trends in strategic business services

Turnover and value added

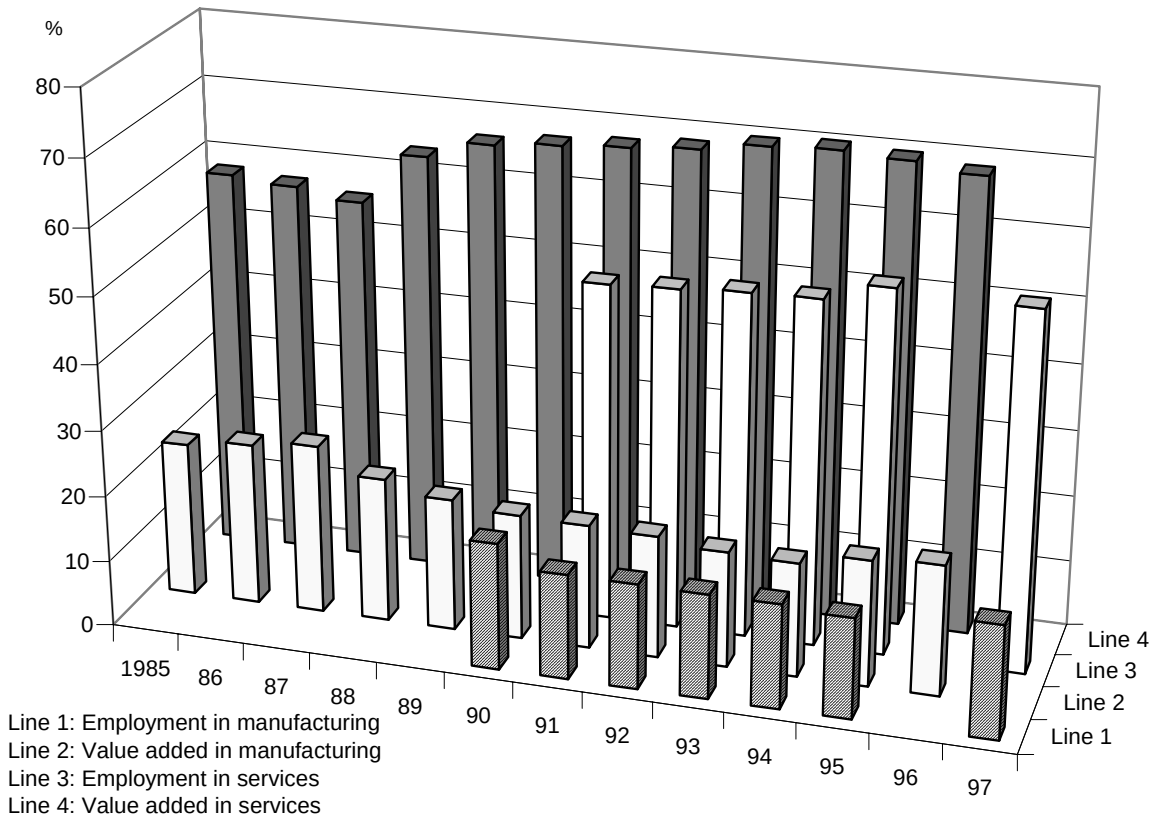
Both value added and turnover for strategic business services[1] in Mexico recorded very strong growth in the period 1988-94, years for which data were available for this study. Data for R&D and testing services were not available.

Value added, measured in 1988 prices, increased by 273% in this six-year period. Value added for the total of these services activities amounted to MXN 5.8 billion in 1994, with business organisation services accounting for 85% of this total (of which 84% was generated by management consultancy services alone). The value added of management consultancy services increased by almost 230% over the period. The second most important strategic business service in value-added terms was the other branch of business organisation services, personnel recruitment services, amounting to MXN 800 million in 1994, a sixteen-fold expansion between 1988 and 1994. The value added of advertising services amounted to just over MXN 600 million in 1994, an increase of 242% over the same period. Computer services in Mexico, as elsewhere, enjoyed very strong growth, as the value added figures show: MXN 61 million in 1988 and MXN 260 million in 1994. In fact, very high levels of growth were enjoyed by all categories, with the exception of human resource development services which recorded an increase in value added of 34% in six years.

Growth rates in turnover for these strategic services are equally impressive. Overall turnover, measured in constant 1988 prices, increased by 272% between 1988 and 1994, and in 1994 stood at MXN 10.5 billion. Turnover growth patterns mirror those of value added, with very high growth being recorded by business organisation services, computer services and advertising. Turnover for business organisation services grew by 303% and for computer services by 252%. Within business organisation services, turnover for personnel recruitment/placement services increased sixteen-fold, while management consultancy recorded a growth rate of 262%. That of advertising services was 144%. Only in human resource development services was turnover unchanged in both years.

1. The five business services areas are: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resources development services. No data was available for the following: research and development and technical testing services; market research and public opinion polls.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Note: In Mexico, between 1974 and 1996, value added in services in GDP increased from 55.1% to 68.3%, while the manufacturing share of value added in GDP declined from 24% to 19.8%. Employment in services increased in the period 1991 to 1997 from 50.9% to 54.1% of the total, while employment in manufacturing increased during the same period from 15.9% to 17.1% of the total.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics.*

Employment

These strategic business services were the source of important employment gains during the 1988-94 period. Almost 200 000 persons were employed in these activities[1] in 1994, an increase of 159% on 1988 employment levels. In 1994, employment in these business activities represented 0.6% of total employment. All four categories for which data are available show significant employment gains during the period. Employment growth for the period 1988-94 was highest in computer related services, amounting to an increase of 313% and employment in this activity was 13 272 in 1994. However, business organisation services provided the highest employment, 153 481 in 1994, up 157% on 1988 figures. Management consultancy accounted for 80% of employment in this activity in 1994. Employment in personnel recruitment services and in advertising were of a comparable

magnitude in 1994, approximately 30 000 and their growth rates for the 1988-94 period were 257% and 143%, respectively. Employment in human resource development services expanded by 55% to reach 2 651 in 1994.

Figure 1a. **Turnover of strategic business services, 1988 and 1994**
New MXN million

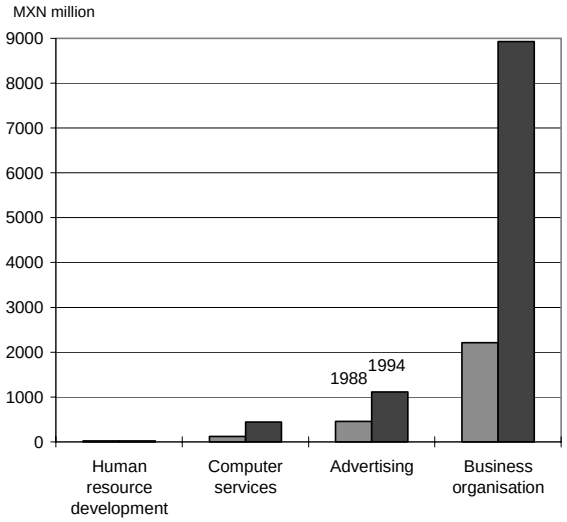
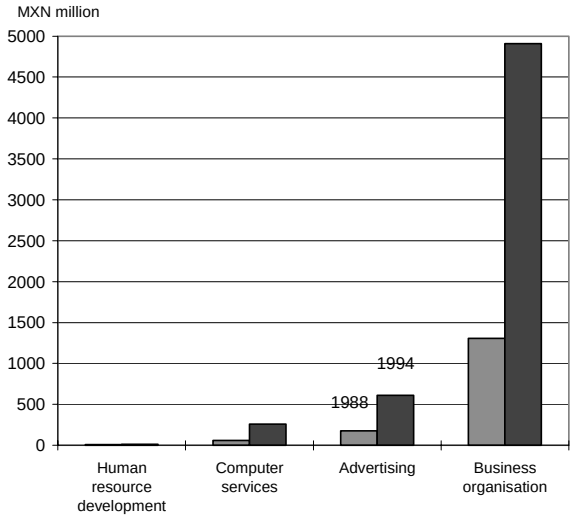


Figure 1b. **Value added of strategic business services, 1988 and 1994**
New MXN million



Source: Estimations based on statistics provided by INEGI (Instituto Nacional de Estadistica, Geografia e Informatica); X Censo de Servicios.

Enterprises

The number of firms engaged in these activities in 1994 was 8 716 having grown by 85% between 1988 and 1994. The bulk of these firms supplied advertising services (47%) and business organisation services (40%) while computer services firms and human resource development firms accounted for 7% and 6%, respectively. Labour recruitment firms and advertising firms increased their numbers by almost 150% during the same period while the number of computer services more than doubled. The number of firms supplying human resource development services grew by 84% between 1988 and 1994 and totalled 495 in the latter year. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), the prevalence of small firms is apparent although the average size of these selected business services firms appears to be growing, progressing from 16.3 employees in 1988 to 22.9 in 1994.

Figure 2a. **Employment in strategic business services, 1988 and 1994**

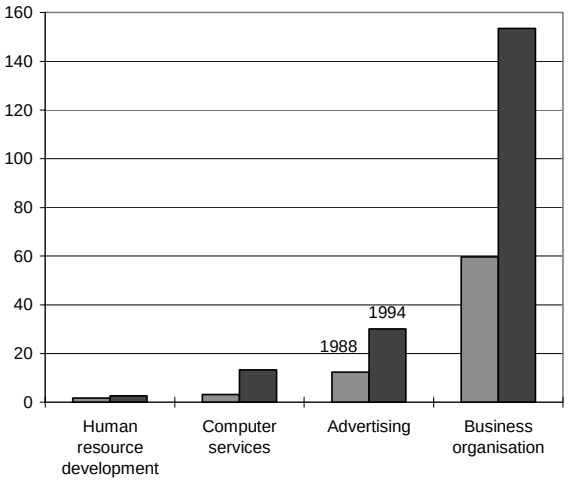
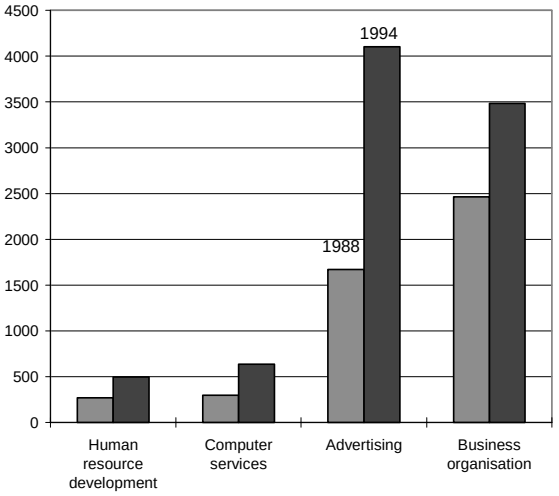


Figure 2b. **Number of enterprises supplying strategic business services, 1988 and 1994**



Source: Estimations based on statistics provided by INEGI (Instituto Nacional de Estadistica, Geografia e Informatica); X Censo de Servicios.

ANNEX

Selected business services in Mexico, 1988
Turnover and value added, in 1988 prices

SIC		Employment	Number of enterprises	Turnover MXN billion	Value added MXN billion
	Computer & related services				
7374	**Computer software & information processing**	**3 213**	**298**	**125.2**	**61.2**
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
	Research & development & technical				
	Research & experimental development				
	Technical testing and analysis				
	Marketing services				
	Market research & public opinion polls				
7311	Advertising	12 357	1 670	456.7	178.2
	Business organisation services	**59 698**	**2 465**	**2 214.5**	**1 303.3**
8741	Management consultancy	50 914	2 237	2 142.2	1 254.2
7361 + 7363	Labour recruitment / Provision of personnel	8 784	228	72.3	49.1
	Human resource development services	**1 712**	**269**	**21.4**	**9.8**
8299pt*	Adult & other vocational education	76	36	0.8	0.6
8331	Job training & vocational rehabilitation	1 636	233	20.6	9.2

***** Professional and management development training.
Source: Estimations based on statistics provided by INEGI (Instituto Nacional de Estadistica, Geografia e Informatica); X Censo de Servicios.

Selected business services in Mexico, 1994
Turnover and value added, in 1988 prices

SIC		Employment	Number of enterprises	Turnover MXN billion	Value added MXN billion
	Computer & related services				
7374	**Computer software & information processing**	**13 272**	**636**	**440.6**	**260.2**
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
	Research & development & technical				
	Research & experimental development				
	Technical testing and analysis				
	Marketing services				
	Market research & public opinion polls				
7311	Advertising	30 084	4 101	11 15.3	609.6
	Business organisation services	**153 481**	**3 484**	**8 928.7**	**4 909.7**
8741	Management consultancy	122 130	2 916	7 757.2	4 108.3
7361 + 7363	Labour recruitment / Provision of personnel	31 351	568	1 171.5	801.4
	Human resource development services	**2 651**	**495**	**21.4**	**13.1**
8299pt*	Adult and other vocational education	76	112	0.8	0.6
8331	Job training and vocational rehabilitation	2 575	383	20.5	12.5

* Professional and management development training.

Source: Estimations based on statistics provided by INEGI (Instituto Nacional de Estadistica, Geografia e Informatica); X Censo de Servicios.

NETHERLANDS

Trends in strategic business services

As in other OECD countries, business services in the Netherlands have made a considerable contribution to overall growth and employment during the past decade. Research undertaken elsewhere[1] confirms that business services have grown strongly. Figure 1a shows the growth in the value of production of the different business services activities between 1993 and 1995.

Driving forces

The computer services sector is characterised by high growth in all areas except computer hardware services. Growth in this sector is fuelled by rising demand for standard software, by demand for personal computers and more generally by developments in information technology. In addition, a favourable macroeconomic climate and appropriate government policies benefit this sector. Moreover, the advent of the single currency and the Y2K problem are considered to have contributed to demand for these services. Certain barriers to the development of computer services have, however, been perceived. These include: a labour shortage in the information technologies market, difficulties in obtaining credit and venture capital, and finally the small average size of services firms, which complicates expansion into foreign markets.

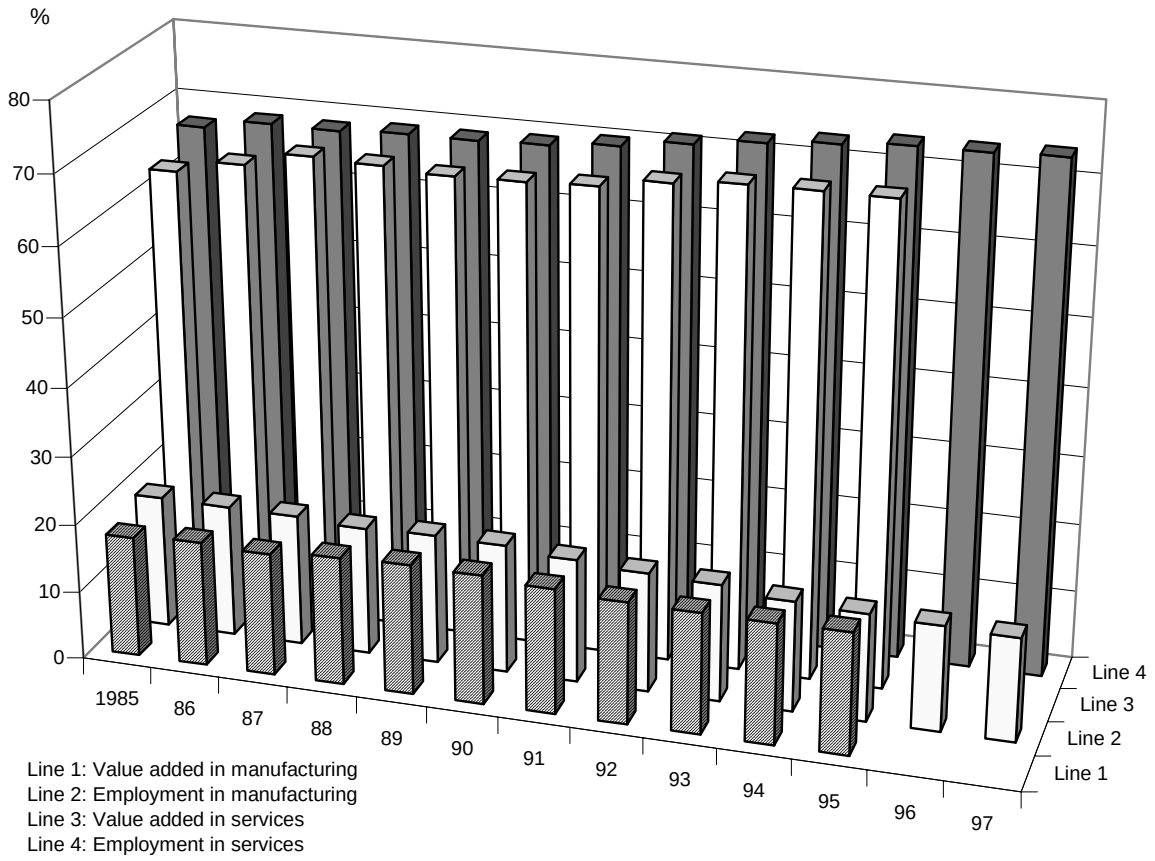
With respect to marketing services, competition in advertising has intensified and technological developments have offered increasing design and conceptualisation opportunities as well as electronic delivery of inputs and products. Prohibitions on advertising of certain products, such as tobacco and alcohol, are thought to limit the development of advertising. Developments in market research and opinion polls generally lag behind developments in overall economic performance. Demand for customer surveys is also stimulated by the growing importance of quality issues. However, regulations related to privacy protection and a growing intolerance of telephone surveys among the public are believed to constitute barriers to the development of market research and associated activities.

As in the United States and the United Kingdom, management consultancy in the Netherlands is the most important consultancy activity, and its growth has consistently outpaced overall economic growth. Dutch consultancy firms tend to internationalise their activities in response to the activities of their major clients. As barriers to entry are low, the number of independent unqualified business

1. Austrian Federal Ministry of Economic Affairs, *Business Services and Employment: Contributions of Five EU Member States on their Situation of Business Services*, 1998.

consultants is growing, leading to some concern that the quality and effectiveness of strategic business decisions may deteriorate.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Note: Value added in services in GDP increased from 46.7% to 69.8% in the period 1960-95. During the same period, the manufacturing share of value added in GDP declined regularly from 33.6% in 1960, stabilising at 17.8% for the years 1992-95. In parallel, the share of services employment in the total increased from 49.7% in 1960 to 74.1% in 1995, while the decline in manufacturing's share in total employment declined from 29.7% in 1960 to 15.2% in 1997.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics 1997*.

Labour recruitment and personnel provision have enjoyed growth rates higher than those of the overall economy. This reflects the growing need for increased flexibility among employers and employees alike. As a result, the share of permanent personnel in total employment has been declining. This sector acts increasingly in partnership with government and firms. Private employment agencies are estimated to account for over 3% of total employment and legislation was introduced in 1997 to improve job security for those temporary employees under contract for at least

six months and, at the same time, to improve work force flexibility for employers. This sector has also assumed an important function in the context of the current reorganisation of large companies. The market for high-skilled temporary workers is expanding rapidly, and there is a clear trend towards the internationalisation of these activities, as suppliers of temporary workers tend to move with their major clients. It remains to be seen whether recently introduced government regulations to improve the job security of temporary workers will, in time, pose a threat to these placement agencies.

Turnover

Turnover for the categories of strategic business services for which data are available – computer-related services, marketing services, and business organisation services[2] – amounted to NLG 36 billion in 1995 and increased by 20% over in the following twelve months to reach NLG 43.3 billion. In 1995 and in 1996, 42.7% and 44.4%, respectively, of this total was generated by business organisation services, and personnel recruitment/placement services accounted for the bulk (76%) of these business organisation services receipts in each year. Personnel recruitment/placement was the largest single activity in terms of turnover in both years and expanded by 25% in twelve months. Detailed data for personnel recruitment/placement services reveal a doubling in turnover for "placement services" and 25% growth in turnover for "personnel provision".

Figure 1a. **Production value of strategic business services**
Index 1993 = 100

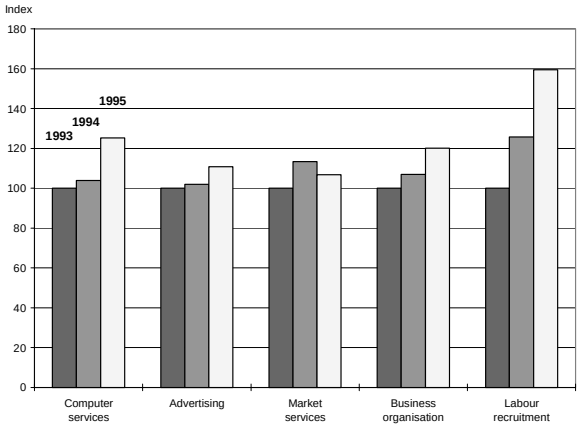
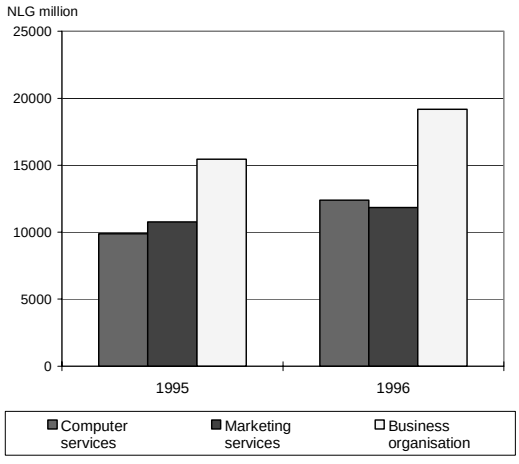


Figure 1b. **Turnover in strategic business services, 1995 and 1996**
NLG million



Source: CBS/EIM in *Business Services and Employment in the Netherlands*, Arnoud Muizer, 1998.

Marketing services and computer-related services were broadly comparable in volume terms, each category accounting for almost 30% of the aggregate turnover. Computer services was the more dynamic, growing by 25% in 1995-96, overtaking marketing which expanded by almost 10%. Within

2. The five business services areas selected were: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resource development services. No data was available for R&D and technical testing or for human resource development services.

computer-related services, turnover in hardware consultancy grew faster (32%) than software consultancy and supply (25%). Within marketing, turnover for advertising represented approximately 91% of the total in both years, and increased, like the other minor branch, market research, by approximately 10% in the twelve-month period.

Research undertaken elsewhere, in spite of somewhat different coverage and objectives, makes a valuable contribution to understanding the evolution of these strategic business services. According to a European Commission study,[3] the Netherlands ranked in fifth position among the EU-15 countries with regard to the market value of both software and computing services. For software, in 1997, the Netherlands accounted for 7.1% of the market value (in constant 1994 ECUs) of software in EU-15 countries and 6.1% of computing services.

Table 1. **Growth in selected business services activities, 1995-96**
Percentages

	Employment	**Number of enterprises**	**Turnover**
Hardware consultancy	36.9	14.3	32.3
Software consultancy and supply	37.9	7.0	25.5
Data processing	41.1	0.0	13.9
Market research & public opinion polls	-4.9	8.7	11.4
Advertising	15.5	8.2	9.7
Management consultancy	18.6	16.1	20.2
Labour recruitment / Provision of personnel	17.1	35.7	25.4
Of which: Placement services	98.3	0	104.4

Source: CBS/EIM in *Business Services and Employment in the Netherlands*, Arnoud Muizer, 1998.

Among EU countries, and with the exception of Belgium/Luxembourg, industry concentration of the top ten vendors in the Netherlands was lowest in 1994 for software (14.4%) in 1994 and was the highest among EU countries for computing services (27.9%). It is significant that concentration of the top ten vendors in computing services had been 67.7% two years earlier, well above Denmark, which was in second position (44.8%) and France (32.3%) in third position. The decline in the concentration of the top ten vendors of computing services in the Netherlands followed the trend observed in other countries.

According to the same source, turnover in the advertising industry in the Netherlands grew by 27.7% (in ECUs at current prices) between 1990 and 1994; when per capita expenditure is measured for EU-15 countries, the Netherlands stands in fourth position in 1994, up from sixth in 1990. The same study estimates that the Dutch advertising industry represents 0.9% of GDP, above the EU-15 average of 0.82 but below that of the United States (1.24). For market research, the other branch of marketing services, turnover was more dynamic between 1990 and 1994, increasing by 40%. Similarly, data for 1989-94 for management consultancy in the Netherlands reveal growth of 19% in turnover and 20% in the number of consultants employed by the end of the period. While the coverage is not exactly

3. Commission of the European Communities, *Panorama of EU Industry '97*.

that of the present study, the results highlight the general trend of robust growth in these strategic services in the last decade.

Figure 2a. **Employment in strategic business services, 1995 and 1996**
Thousands

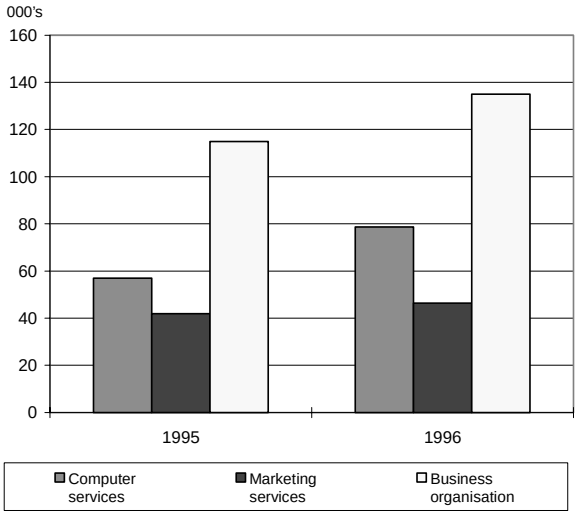
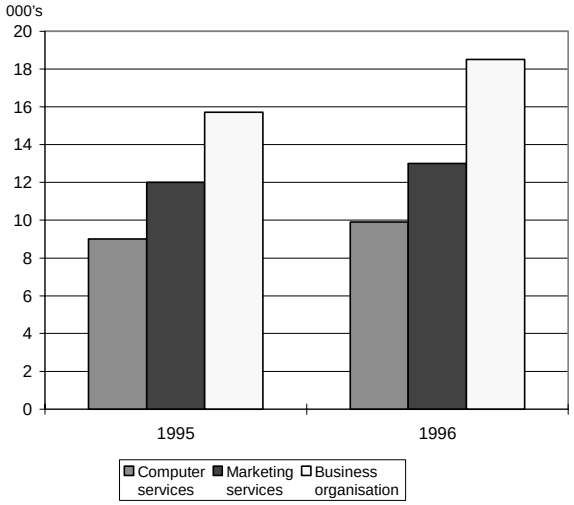


Figure 2b. **Number of enterprises in strategic business services, 1995 and 1996**
Thousands



Source: CBS/EIM in *Business Services and Employment in the Netherlands*, Arnoud Muizeir, 1998.

Employment

Employment in the three categories of strategic business services for which data are available amounted to 213 800 in 1995 and expanded by 21.6% in the following twelve months to reach 260 000. These employment levels represent for 1995, 3.1% of total employment and 4.4% of services employment, while in 1996 their share had progressed to 3.7% of total employment and 5.2% of services employment. By category, the highest employment gains in these strategic business services, both in growth terms and in numbers, were made in the computer-related services, increasing from 57 000 to 78 700 in one year. Within this category, strong employment growth occurred in software consultancy and supply (38%), data processing (41%) and hardware consultancy (37%). In terms of numbers employed, business organisation services was the largest category, employing 114 900 in 1995, increasing to 135 000 in 1996, almost matching net employment gains made in computer services. Personnel recruitment/placement was responsible for approximately three-quarters of business organisation employment in both years and employment almost doubled in the individual activity “placement services” in 1995-96. Management consultancy, the other branch of business organisation services, also experienced strong growth in the twelve-month period. Employment in marketing services increased overall by 10.5% but this figure masks employment gains of 15.5% in advertising and a decline of 4.9% in market research employment.

Enterprises

The number of enterprises engaged in the provision of these business services stood at 36 700 in 1995 and 4 700 additional firms were engaged in the provision of these three categories of business services by the following year. The largest increase in firm numbers was due to the increase in firms supplying management consultancy services – up from 14 300 in 1995 to 16 600 in 1996. Five hundred new firms were created in the personnel recruitment/placement services, corresponding to a 36% growth rate for the year. Firm start-ups were very dynamic in marketing services, with 1 000 net additional firms in one year, of which 800 were involved in advertising. In 1996, 10 300 firms were engaged in the provision of computer software and information processing services, 10% more than in 1995, the difference being due mainly to a net increase of 600 firms in hardware consultancy and 300 additional firms in software consultancy and supply. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), it is apparent that very small firms predominate in the business services market, averaging 5.8 persons per firm for 1995.

Trade

The United States is an important trading partner for the Netherlands in the area of business services. Data available for the period 1994 to 1997 show that only in advertising did the Netherlands experience a trade surplus and this was for the years 1994 to 1997, although in 1997 a deficit in advertising trade was recorded (Table 2). While imports of computer services dwarfed all other items and the deficit in this category represented five times export levels, exports grew by 160% while imports grew by almost 19% during the 1994-97 period. By 1997, the deficit in computer services was roughly double export levels of these services.[4] Concerning trade in R&D and technical testing services, a relatively small deficit for the years 1994 to 1996 turned to a surplus in 1997 when exports surged by 130% compared to the level in the previous year. In the case of management consultancy and public relations services, although the level of exports in 1997 was 257% of the 1994 level and imports had grown by only 35%, nevertheless the deficit with the United States in this activity remained at 1994 levels, at approximately NLG 33 million.

However, to better appreciate the role of US business service providers with regard to the Netherlands, it is important to look also at the sales of US majority-owned foreign affiliates (MOFAs). In the Netherlands, sales by US MOFAs of computer and data processing services amounted to NLG 1.55 billion in 1993 (figures for 1995 and 1996 remain confidential to avoid disclosure of data concerning individual companies). In 1995, sales of advertising by US MOFAs amounted to NLG 520 million and this had increased to NLG 585 million by 1996. Furthermore, US foreign direct investment in the Netherlands involved all of the categories of strategic business services reviewed here. Altogether (and excluding business organisation services for which data remains confidential) the US direct investment position relating to the other three categories amounted to NLG 968 million in 1994 (Table 3). US-sourced direct investment in computer and data processing in the Netherlands amounted to almost half of this sum while that for R&D and testing services represented a third. The share of the Netherlands in the worldwide direct investment position of the US in 1994 amounted to 28.5% for R&D and testing services, 5% for advertising, and 4% for computer and data processing services.

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4. *Source:* US Department of Commerce.

Table 2. **US-Netherlands trade in strategic business services: Imports from the United States and exports to the United States**
NLG million

		1994	1995	1996	1997
Advertising services	Imports from the United States	3.6	3.2	6.7	13.7
	Exports to the United States	14.6	12.8	10.1	11.7
Computer services	Imports from the United States	132.9	149.3	219.2	158.0
	Exports to the United States	21.8	40.1	43.8	56.6
R&D & testing	Imports from the United States	16.4	20.9	21.9	17.6
	Exports to the United States	12.7	16.1	16.9	39.0
Management consulting & public relations	Imports from the United States	41.9	32.1	50.6	56.6
	Exports to the United States	9.1	8.0	11.8	23.4

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

Table 3. **US direct investment in Dutch business services,1994**
Historical cost basis, by industry of affiliate
NLG million

Advertising	215
Computer & data processing services	439
R&D and testing services	315
Management & public relations services	*
Personnel supply services	*

* Confidential.
Source: US Department of Commerce.

Policies for business services

No sector-specific policies are implemented in the Netherlands, and while particular importance is attached to information technologies and the information superhighway and to the economy-wide applications of these technologies, the Dutch Government does not have a sector-specific policy in this regard.

However, a number of economy-wide policies have been implemented which favour the supply side of business services. In general, the Dutch Government places strong emphasis on creating a favourable economic climate for firms with associated beneficial fiscal and regulatory conditions. Reductions in tax rates, increases in tax credits and efforts to reduce the administrative burden of regulation on firms have recently been undertaken. In December, 1994, the Functioning of Markets, Deregulation and Quality of the Regulatory Environment programme was initiated. The effects of this programme have already been noted in other services, such as accountancy and legal services. A more focused programme which should normally have both positive demand and supply impacts on

business services and in particular, on R&D services, is the Supplying and Outsourcing programme which aims to improve co-operation in the field of R&D with the ultimate aim of strengthening the international market position of Dutch suppliers. Financial support is offered within the framework of this programme. These co-operation projects usually involve a number of designated product/market combinations to which proposals should correspond. The main players are industrial firms, business services suppliers would not normally have a major role in this programme except as a supplier in the R&D process or as a supplier in the business chain.

Other government measures which can be expected to affect the range of business services and influence supply and demand for these services include those programmes which are geared to facilitating start-ups, through the simplification of start-up procedures or through fiscal measures. Co-ordination of regional structures for information and advice have received special attention and the government actively supports young entrepreneurs in the area of bank loan security. Also, given the tendency for bottlenecks to occur in innovating firms, government measures are focused on the stimulation and facilitation of technological development and innovation.

Current labour market policies are important for business services, as these are usually labour-intensive activities. In addition, labour recruitment and personnel provision services are an important category of strategic business services and are a significant supplier of labour. Due to the greater flexibility demanded by both employers and employees, the Dutch government attaches great importance to this issue as well as to the containment of labour costs and has therefore made efforts to stimulate balanced and productive flexibility and differentiation of labour patterns. Examples are the various Acts which have recently been enacted, one of which deals with flexibility in working hours, and the Act on Flexibility and Security which addresses issues relating to the duration of temporary work contracts and social and job security for the temporary workforce.

The Dutch Government attaches importance to the emerging concept of “employability” and in consequence has implemented the ADAPT programme to assist companies, and especially SMEs, to offer training programmes to employees, thus increasing demand for human resource development services.

Government regulations in various domains are considered to constitute barriers or threats to the development of some activities, *e.g.* regulation related to privacy protection is perceived to be a constraint to the development of market research activities. Another example is the recently introduced labour market legislation aimed, in part, at improving job security for certain temporary workers, but which might ultimately constitute a threat to the activities of employment agencies.

ANNEX

Selected business services in the Netherlands, 1995

Classification NACE	Classification ISIC Rev 3		Employment (000s)	Number of enterprises (000s)	Turnover NLG million
72	**721-726**	**Computer & related services**	**61.5**	**9.4**	**10 387**
		Computer software & information processing	**57**	**9**	**9 880**
	721	Hardware consultancy	14.9	4.2	2 407
	722	Software consultancy and supply	35.9	4.3	6 224
	723	Data processing	5.6	0.4	1 096
	724	Database services	0.6	0.1	153
		Research & development & technical			
731	731	Research & experimental development			
74.3	7422	Technical testing and analysis			
		Marketing services	**41.9**	**12**	**10 765**
74.13	7413	Market research & public opinion polls	10.2	2.3	957
74.4	744	Advertising	31.7	9.7	9 808
		Business organisation services	**114.9**	**15.7**	**15 437**
74.14	7414	Management consultancy	29.5	14.3	3 687
74.5		Labour recruitment / Provision of personnel	85.4	1.4	11 750
	74501	Provision of personnel	14	0.4	7 930
	74502	Placement services	12	0.3	818
	74503	Executive search services	11.5	0.6	1 768
	74504	Placement services of subsidised personnel	47.9	0.1	1 234
	809	**Human resource development services**			
8041		Adult and other vocational education			
8042		Job training and vocational rehabilitation			

Source: CBS/EIM in *Business Services and Employment in the Netherlands*, Arnoud Muizer, 1998.

Selected business services in the Netherlands, 1996

Classification NACE	Classification ISIC Rev 3		Employment (000s)	Number of enterprises (000s)	Turnover NLG million
72	**721-726**	**Computer & related services**	**82**	**10.3**	**12 929**
		Computer software & information processing	**78.7**	**9.9**	**12 404**
	721	Hardware consultancy	20.4	4.8	3 185
	722	Software consultancy and supply	49.5	4.6	7 809
	723	Data processing	7.9	0.4	1 248
	724	Database services	0.9	0.1	162
		Research & development & technical			
731	731	Research & experimental development			
74.3	7422	Technical testing and analysis			
		Marketing services	**46.3**	**13**	**11 829**
74.13	7413	Market research & public opinion polls	9.7	2.5	1 066
74.14	744	Advertising	36.6	10.5	10 763
		Business organisation services	**135**	**18.5**	**19 166**
74.14	7414	Management consultancy	35	16.6	4 431
74.5		Labour recruitment / Provision of personnel	100	1.9	14 735
	74501	Provision of personnel	13.8	0.6	9 882
	74502	Placement services	23.8	0.3	1 672
	74503	Executive search services	11.9	0.9	1 851
	74504	Placement services of subsidised personnel	50.5	0.1	1 330
	809	**Human resource development services**			
8041		Adult and other vocational education			
8042		Job training and vocational rehabilitation			

Source: CBS/EIM in *Business Services and Employment in the Netherlands*, Arnoud Muizer, 1998.

NEW ZEALAND

Trends in strategic business services

Employment

The selected strategic business services[1] which are considered to constitute strategic inputs for manufacturing industry employed 21 277 persons in New Zealand in 1991 and by 1995 employment had grown to 27 438, an increase of 29%. Employment in these services in 1991 represented 1.8% of total employment and 2.6% of total services employment. By 1995 these percentage shares had grown to 2.1% and 3.1%, respectively. In the absence of complete data for all categories (data for R&D and experimental development and labour recruitment were not available), computer-related services represented the largest employer, occupying 8 520 persons in 1995 compared with 7 930 in 1991. Employment in management consultancy services was particularly buoyant, showing an increase of 76% in four years. Total employment for these strategic business services grew by 29% during the 1991-95 period.

Figure 1a. **Employment in strategic business services, 1991 and 1995**

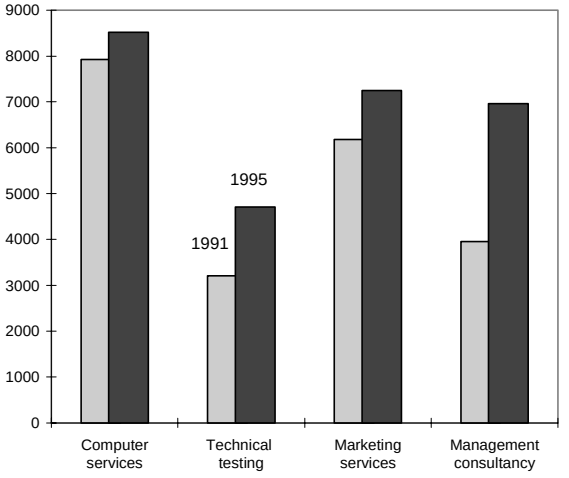
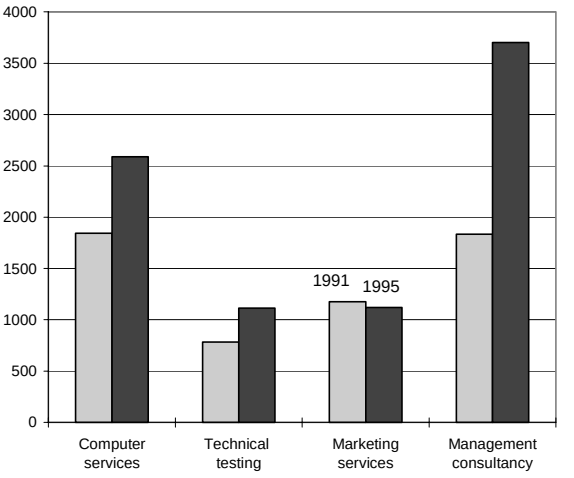


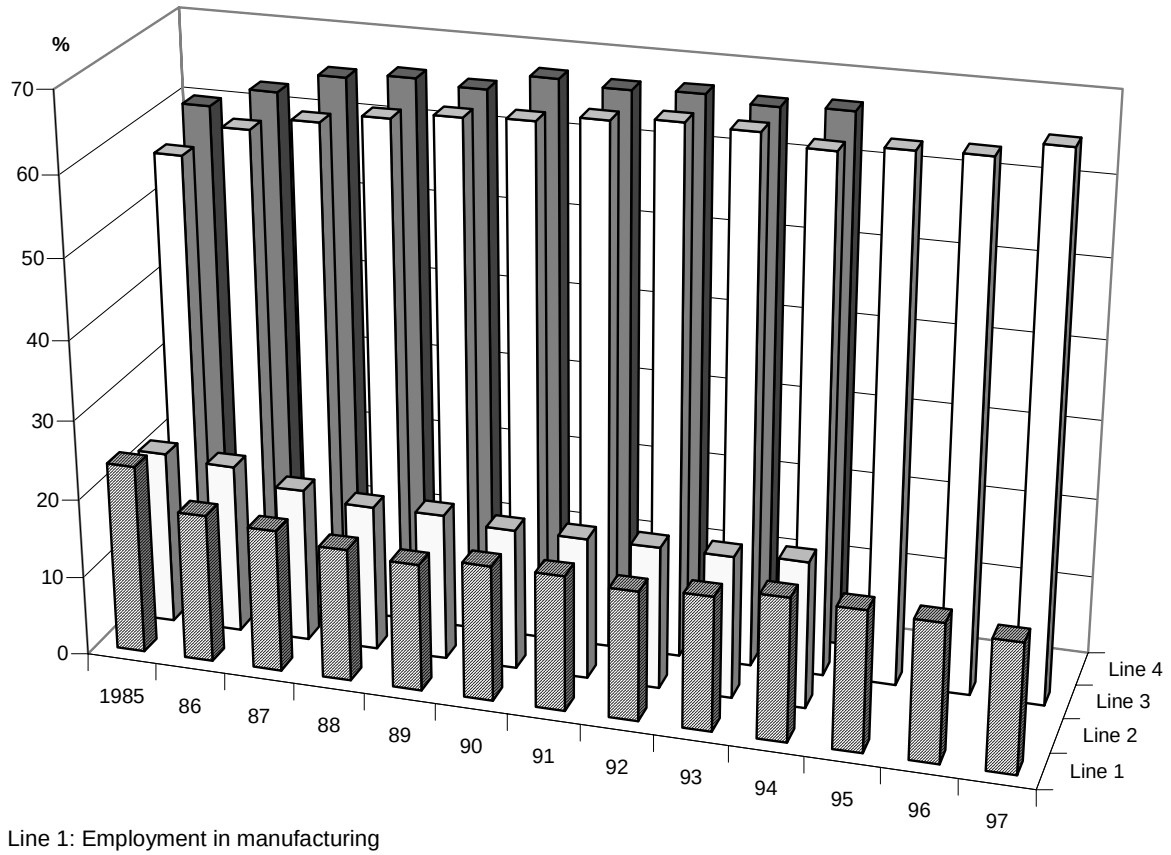
Figure 1b. **Number of enterprises supplying strategic business services, 1991 and 1995**



Source: Statistics New Zealand and Ministry of Commerce.

1. The five business services activities are: computer software and data processing services; research and development and technical testing services; marketing services; business organisation services; and human resource development services. Data are incomplete for R&D and technical analysis and for business organisation services. Data for value added or turnover are not available. Data for 1991 and 1995 are classified according to the New Zealand SIC. New Zealand adopted the Australian and New Zealand Standard Industry Classification System in 1996 and data have been reported for that year. The two systems are not comparable.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Line 1: Employment in manufacturing
Line 2: Value added in manufacturing
Line 3: Employment in services
Line 4: Value added in services

Note: Between 1974 and 1994 the value added of services in New Zealand grew from 57.4% to 66.6% of GDP, while the share of manufacturing value added declined from 24.1% to 18.5% of GDP. By 1997, employment in services represented 67.6% of total employment, while employment in manufacturing amounted to 16.4%.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics.*

Enterprises

The number of enterprises engaged in business services grew by 51% between 1991 and 1995, from 5 638 firms in 1991 to 8 523 in 1995. Again, management consultancy proved to be the most dynamic sector, with the number of firms providing such services doubling in the four-year interval. The numbers of firms engaged in computer-related services grew by 40%; it is noteworthy that the number of firms expanded at a much faster rate than employment growth in this particular activity. Firms engaged in the provision of advertising services grew in numbers by 22% while those involved in the market research and opinion polls activity declined by 40% – which may point to a certain integration of the latter activities in the former during the interval. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), it is apparent that very small firms predominate in the business services market in New Zealand (an average of 3.3 persons per firm for 1995).

ANNEX

Selected business services in New Zealand, 1991

Classification NZSIC		Employment	Number of enterprises
	Computer & related services		
83231-2-3-4	**Computer software & information processing**	**7 930**	**1 843**
	Hardware consultancy		
	Software consultancy and supply		
	Data processing		
	Database services		
	Research & development & technical		
	Research & experimental development		
83242	Technical testing and analysis	3 209	784
	Marketing services	**6 179**	**1 176**
83253	Market research & public opinion polls	1 726	497
83251 & 83259	Advertising	4 453	679
	Business organisation services		
83254 & 83296	Management consultancy	3 959	1 835
	Labour recruitment / Provision of personnel		
	Human resource development services		
	Adult & other vocational education		
	Job training & vocational rehabilitation		

Source: Statistics New Zealand and Ministry of Commerce.

Selected business services in New Zealand, 1995

Classification NZSIC		Employment	Number of enterprises
	Computer & related services		
83231-2-3-4	**Computer software & information processing**	**8 520**	**2 588**
	Hardware consultancy		
	Software consultancy and supply		
	Data processing		
	Database services		
	Research & development & technical		
	Research & experimental development		
83242	Technical testing and analysis	4 710	1 115
	Marketing services	**7 248**	**1 121**
83253	Market research & public opinion polls	1 669	289
83251 & 83259	Advertising	5 579	832
	Business organisation services		
83254 & 83296	Management consultancy	6 960	3 699
	Labour recruitment / Provision of personnel		
	Human resource development services		
	Adult & other vocational education		
	Job training & vocational rehabilitation		

Source: Statistics New Zealand and Ministry of Commerce.

NORWAY

Trends in strategic business services

Value added

Value added for the selected strategic business services[1] amounted to NOK 14.6 billion in 1995, or 1.6% of GDP. Computer-related services largely contributed to this total (Figure 1a), accounting for 0.7% of GDP of which the software consultancy and supply component represented almost 70%. In Norway, the value added of business organisation services is the second most important of the five categories under consideration – helped, in part, by the contribution of the personnel recruitment/placement activities which appear to be well developed relative to other countries, as the employment and value added data testify.

Figure 1a. **Value added in selected business services, 1995**
NOK billion

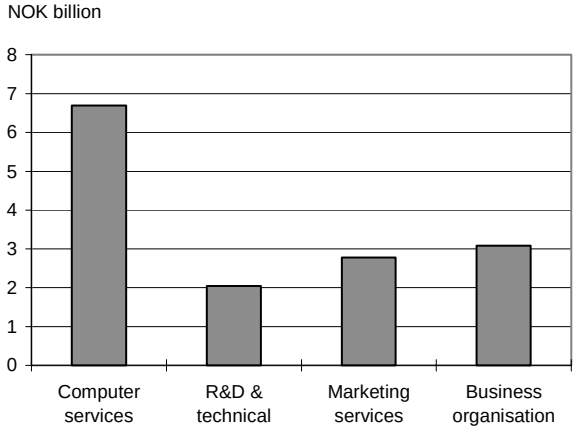
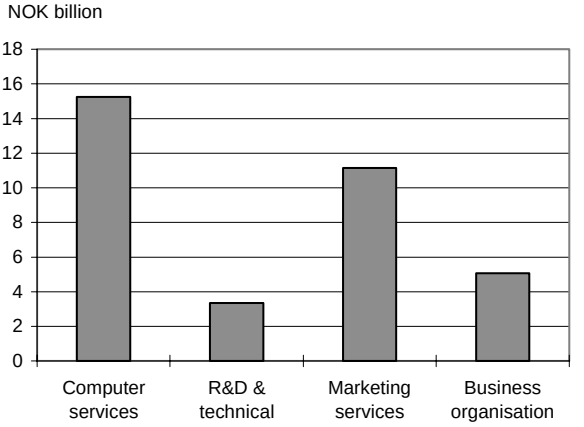


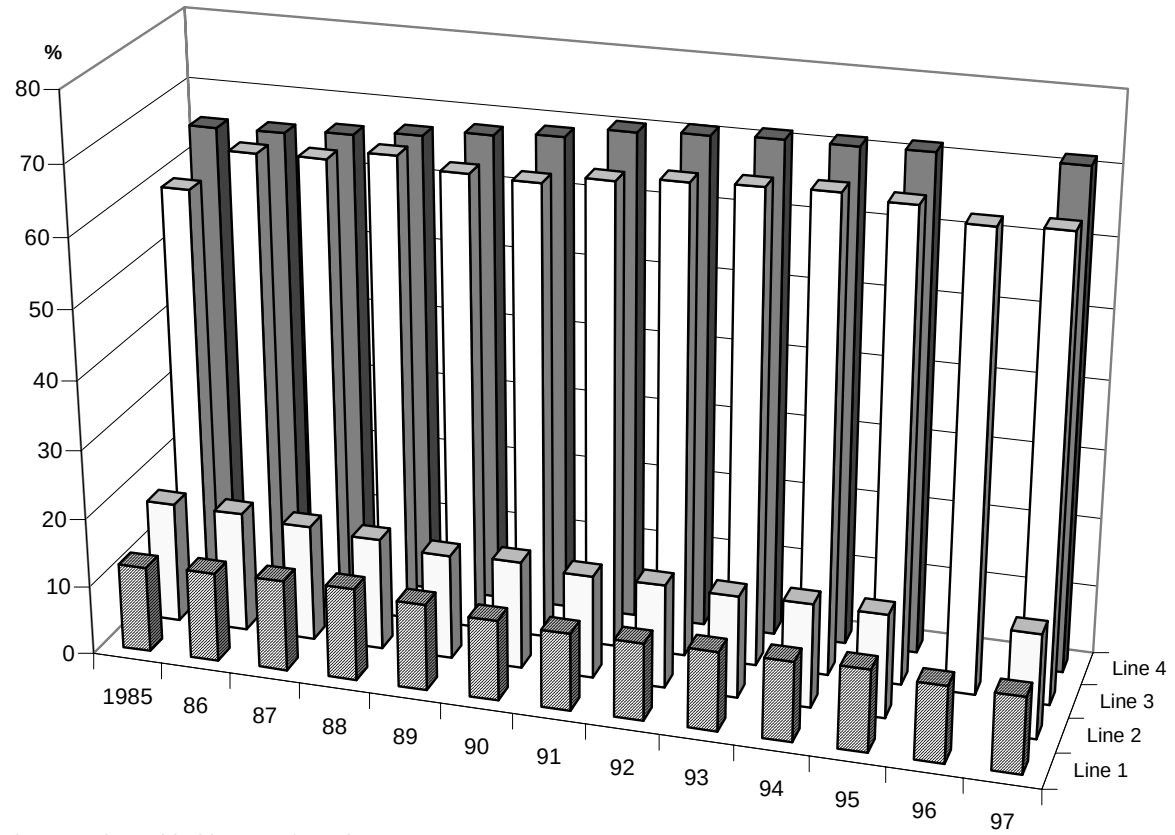
Figure 1b. **Turnover in selected business services, 1995**
NOK billion



Source: Statistisk sentralbyra (Statistics Norway), 1998.

1. The five business services areas are: computer software and information processing services, research and development and technical testing; marketing services; business organisation services, and human resource development services. For the latter category no information was reported.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Line 1: Value added in manufacturing
Line 2: Employment in manufacturing
Line 3: Value added in services
Line 4: Employment in services

Note: In Norway, between 1960 and 1994, value added in services in GDP increased from 62.2% to 68.3% before dipping to 66.2% in 1997. In contrast, manufacturing value added in GDP declined from 19.4% in 1960 to 11.1% in 1997. Between 1960 and 1997, employment in services grew steadily from 42.9% to 71.6% of total employment, while employment in manufacturing declined from 25.6% to 15.1% over the same period.

Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

Turnover

In 1995, turnover for the selected business services was almost NOK 35 billion (Figure 1b). Of this total, 43% was accounted for by computer software and information processing services, an improvement of 32% over the previous year's level. Within computer-related services, over 60% of turnover was generated by software consultancy and supply, which had grown by 37% in 1994-95. Turnover in marketing services was also significant at NOK 11.1 billion. Within business organisation services, turnover for both management consultancy and labour recruitment/provision progressed strongly in 1994-95, growing by 25% and 39%, respectively.

Employment

In 1995, employment in strategic business services totalled 48 410, representing 3.5% of services employment and 2.5% of total employment (Figure 2a). Business organisation services employed, 21 658 people, 43% of the total for the four categories of selected business services for which data were reported. Computer-related services and marketing services employed 13 593 and 9 138, 28% and 19% of the total, respectively. Employment in management consultancy and labour recruitment/provision increased by approximately one-quarter between 1994 and 1995.

Figure 2a. **Employment in selected business services, 1995**
Thousands

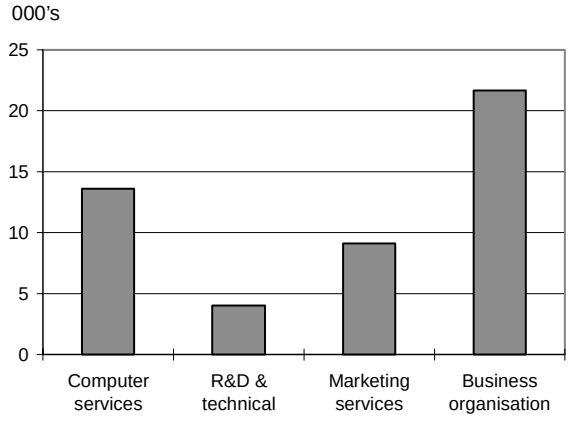
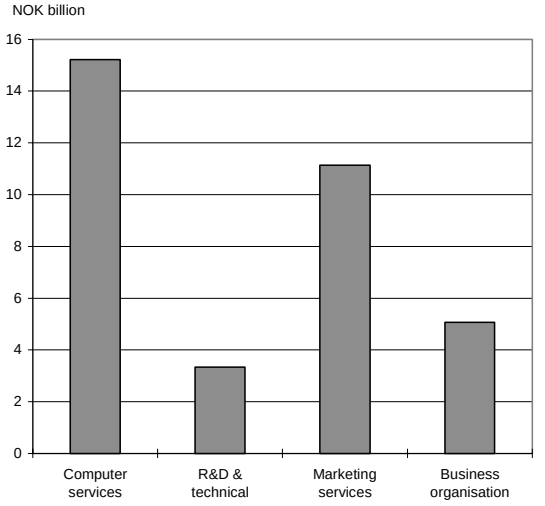


Figure 2b. **Production of selected business services, 1995**
NOK billion



Source : Statistisk sentralbyra (Statistics Norway), 1998.

Enterprises

More than 6 000 firms engaged in these activities in 1995, with the provision of marketing services being the main activity of 40% of these firms. Firms providing computer-related services and those providing business organisation services each accounted for just over one-quarter of firms, with R&D and technical services making up the remaining 7%. Between 1994 and 1995, the growth rate in the number of firms engaged in management consultancy was 96%, while firms providing software consultancy and supply services saw their numbers jump by 88%. The number of computer software and information processing firms increased by 75% for the same one-year period. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), the preponderance of small firms is apparent, with business services firms averaging 8.3 persons per firm for 1995 – a fraction of both the average firm size in manufacturing (60.1) and that in the economy as a whole (54.2).[2] In line with developments in other countries, a certain dilution of industry concentration had commenced in Norway in 1992 where, concerning services in general, the top ten vendors saw their market share decline from 25% to 13.5% of the total.[3] For software services in

2. Estimated from OECD, *Industrial Structure Statistics*.

3. Commission of the European Communities, *Panorama of EU Industry '98*.

Norway, the market share of the top ten vendors amounted to 26.1% in 1992 and 1994, having dipped to 19.1% in 1993.

Production and investment

The value of production of the four categories of business services under review amounted to NOK 34.8 billion in 1998. Computer-related services represented 43% of this total while marketing accounted for one-third (Figure 2b).

Investment data available for 1995 for business services indicate that these services are not capital-intensive (Figure 3a). Despite buoyant performances in the 1990s, investment in these activities amounted to only 0.6% of total annual investment in Norway. Computer-related services alone accounted for 56% of the total for the four service categories. Within computer services, strong investment (NOK 320 million) was undertaken in data processing activities, NOK 70 million more than in software consultancy and supply, while database services recorded a non-negligible NOK 129.2 million. Otherwise, advertising and management consultancy commanded almost NOK 150 million each in investment in that year.

Figure 3a. **Gross fixed capital formation in selected business services, 1995**
NOK million

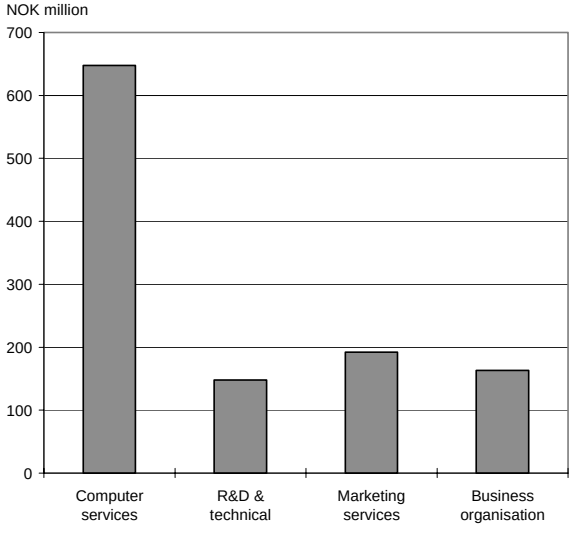
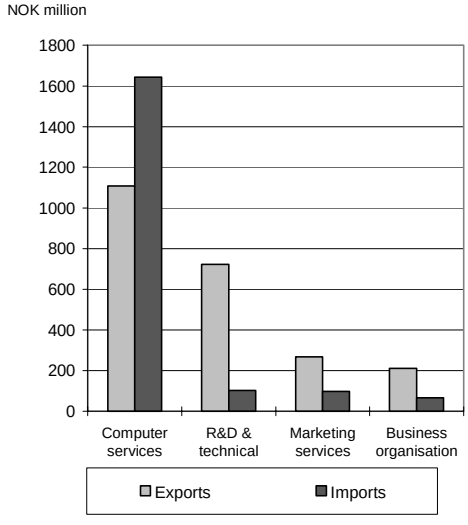


Figure 3b. **Exports and imports of selected business services, 1995**
NOK million



Source: Statistisk sentralbyra (Statistics Norway), 1998.

Trade

Norway, while enjoying a trade surplus in 1995 of almost NOK 400 million for the four business services categories taken together, experienced a deficit in one category, namely, computer-related services. For the latter activity, imports exceeded exports by 48% in that year; in data processing activities, however, exports were double import levels, and imports only slightly exceeded exports in

database services. Exports were multiples of imports for the other three principal categories of business services. Exports of R&D and technical testing services were seven times larger than imports, while the ratio was approximately three-to-one for marketing and business organisation services.

In trade with the United States in 1994, Norway imported approximately NOK 480 million in business, professional and technical services, and exported such services to the United States, valued at NOK 180 million. By 1997, the deficit had widened – imports were approximately NOK 495 million and exports some NOK 140 million. Of the 1994 import total, at least NOK 150 million was spent on imports of computer software and information services, R&D and testing services, and management consulting and public relations (data on imports of advertising cannot be disclosed for confidentiality reasons for that year). By 1997, imports of these business services from the United States still totalled approximately NOK 150 million, although surges in imports of R&D and testing services occurred in 1995 and 1996 and a similar surge occurred in imports of management consultancy in 1995. In both cases, imports in 1997 were back to 1994 levels. In the case of exports, while data for computer services exports remain confidential, data are available for other sectors. Advertising exports remained stable between 1994 and 1997. Exports of R&D and testing services increased by a third when 1997 and 1994 levels are compared; however, exports actually dipped by 40% between 1994 and 1995 and had almost recovered by 1996.

ANNEX

Selected business services in Norway, 1995

Classification NACE	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover NOK million
72	**721-726**	**Computer & related services**	**14 620**	**1 800**	**16 280.02**
	721-724	**Computer software & information processing**	**13 593**	**1 574**	**15 248.59**
	721	Hardware consultancy	396	105	559.44
	722	Software consultancy and supply	9 704	1 287	9 652.54
	723	Data processing	2 612	143	3 596.91
	724	Database services	871	39	1 439.71
		Research & development & technical	**4 021**	**432**	**3 349.13**
731	731	Research & experimental development	1 523	66	1 090.92
74.3	7422	Technical testing and analysis	2498	366	2 258.21
		Marketing services	**9 138**	**2 489**	**11 140.86**
74.13	7413	Market research & public opinion polls	2 163	222	1 012.60
74.4	743	Advertising	6 975	2 267	10 128.26
		Business organisation services	**21 658**	**1 610**	**5 062.19**
74.14	7414	Management consultancy	3 970	1 488	3 121.39
74.5	7491	Labour recruitment / Provision of personnel	17 688	122	1 940.80
	809	**Human resource development services**			
8041		Adult & other vocational education			
8042		Job training & vocational rehabilitation			

Source: Statistisk sentralbyra (Statistics Norway), 1998.

Selected business services in Norway, 1995

Classification NACE	Classification ISIC Rev 3		Production NOK million	Value added NOK million	Investment NOK million
72	**721-726**	**Computer & related services**	**16 254.3**	**7 069.8**	**664.9**
	721-724	**Computer software & information processing**	**15 222.7**	**6 691.1**	**647.5**
	721	Hardware consultancy	563.2	115.2	-48.7
	722	Software consultancy and supply	9 623.1	4503	247.3
	723	Data processing	3 596.8	1 516.6	319.7
	724	Database services	1 439.6	556.3	129.2
		Research & development & technical	**3 329.3**	**2 044.9**	**147.9**
731	731	Research & experimental development	1 091.5	983.3	21.9
74.3	7422	Technical testing and analysis	2 237.8	1 061.6	126
		Marketing services	**11 136.6**	**2 775.7**	**191.9**
74.13	7413	Market research & public opinion polls	1 011.9	458.7	43.6
74.4	743	Advertising	10 124.7	2 317	148.3
		Business organisation services	**5 063**	**3 078.9**	**163.3**
74.14	7414	Management consultancy	3 121.1	1 441.2	147.2
74.5	7491	Labour recruitment / Provision of personnel	1 941.9	1 637.7	16.1
	809	**Human resource development services**			
8041		Adult & other vocational education			
8042		Job training & vocational rehabilitation			

Source: Statistisk sentralbyra (Statistics Norway), 1998.

Selected business services in Norway, 1995

Classification NACE	Classification ISIC Rev 3		Exports NOK million	Imports NOK million
72	**721-726**	**Computer & related services**	**1 193.9**	**1 662.7**
	721-724	**Computer software & information processing**	**1 107.6**	**1 642.5**
	721	Hardware consultancy	15.1	235.7
	722	Software consultancy and supply	952.2	1 304.9
	723	Data processing	74.5	33.9
	724	Database services	65.8	68
		Research & development & technical	**722**	**102.3**
731	731	Research & experimental development	161.4	30.5
74.3	7422	Technical testing and analysis	560.6	71.8
		Marketing services	**268**	**97.8**
74.13	7413	Market research & public opinion polls	50.9	9.3
74.4	743	Advertising	217.1	88.5
		Business organisation services	**210.6**	**67.1**
74.14	7414	Management consultancy	209.7	66.5
74.5	7491	Labour recruitment / Provision of personnel	0.9	0.6
	809	**Human resource development services**		
8041		Adult & other vocational education		
8042		Job training & vocational rehabilitation		

Source: Statistisk sentralbyra (Statistics Norway), 1998.

PORTUGAL

Trends in strategic business services

Turnover

Turnover for the categories of business services[1] under review increased by 180% in Portugal between 1990 and 1995. The fastest growing category was R&D and technical testing, where turnover increased by 360% in the five-year period. Growth in turnover for the other three categories was as follows: 158% in marketing services, 121% in business organisation services and 104% in computer services.

Figure 1a. **Turnover in strategic business services, 1990 and 1995**
PTE million

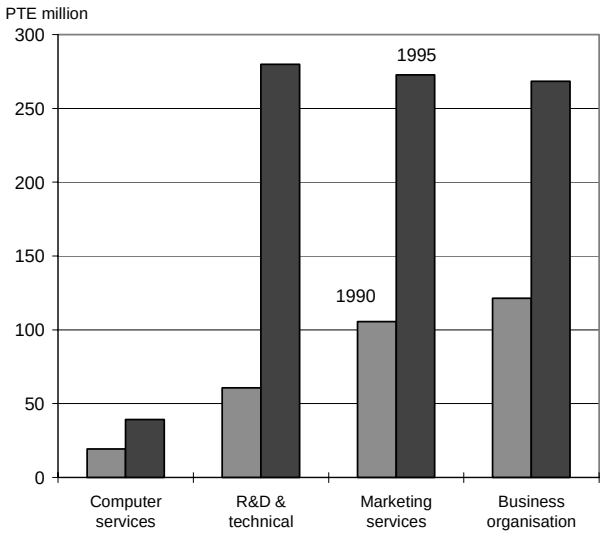
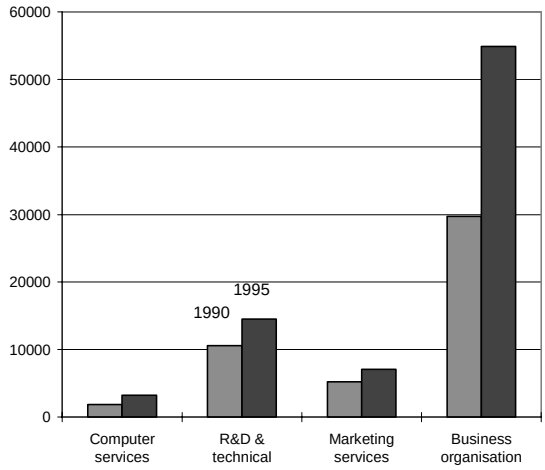


Figure 1b. **Employment in strategic business services, 1990 and 1995**

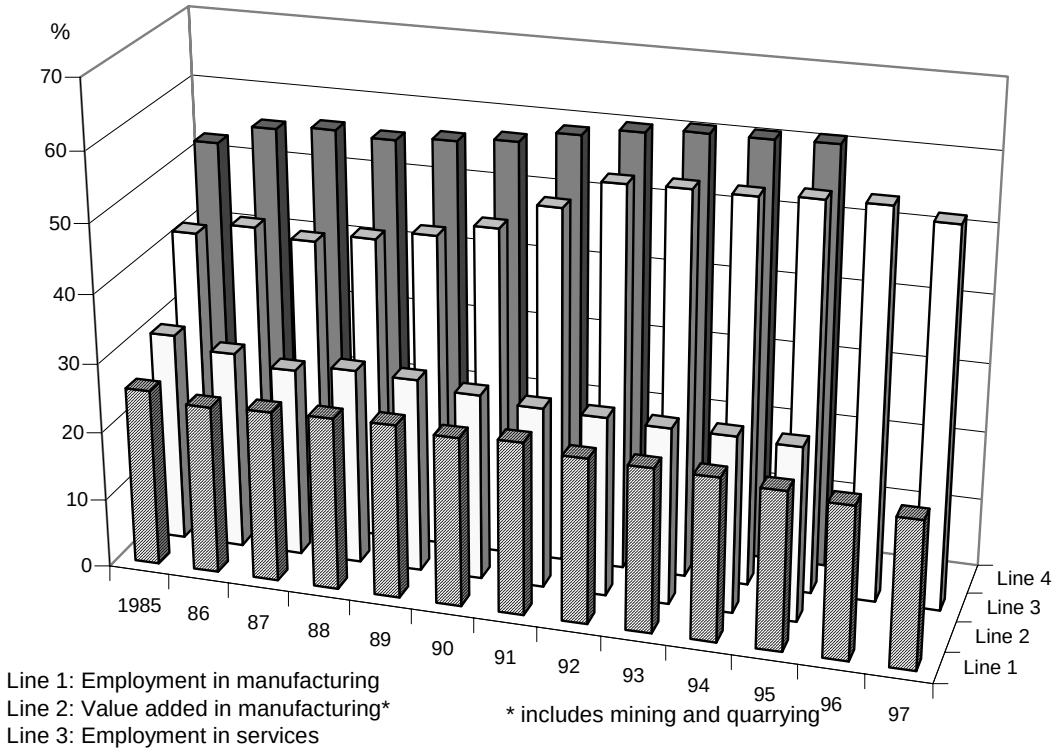


Source: Instituto Nacional de Estatistica, 1998.

1. The five business services were: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resource development services. No information was reported for the latter category. Labour recruitment/personnel placement includes labour placed/recruited by employment agencies.

Per capita expenditure on advertising and direct marketing in Portugal amounted to ECU 57 in 1993, representing 43% of the EU average compared with 26% in 1990.[2] The share of advertising expenditure in GDP was 0.83% in 1993, the sixth highest among EU countries for that year (the EU average was 0.86). Turnover for management consultancy, according to CEC research, amounted to ECU 20 million, a mere 29% of 1990 figures; this decline mirrored a decrease in enterprise numbers for the same period.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Note: The share of value added in services in GDP increased from 42.1% to 60.9% in the period 1960 to 1995, while the manufacturing share of value added had declined to 25.3% by 1995. The share of services employment in total employment increased steadily from 24.8% in 1960 to 54.7% in 1997, while the share of manufacturing employment stood at 21.4% in 1997.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics.*

Employment

Employment in business services increased by 68%, from 47 336 in 1990 to 79 749 in 1995. Employment growth was highest in business organisation services (85%), with employment in this

2. Commission of the European Communities, *Panorama of EU Industry* '97.

activity at 54 921 or 69% of the 1995 total, likely reflecting fast growth in personnel recruitment/placement services. R&D and technical services, together with marketing services, recorded comparable rates of growth (37.5% and 35.8%, respectively), although employment in the former was 14 514 in 1995, double the level of the latter category. Employment in computer services expanded by 72%; this activity occupied 3 233 persons in 1995.

Figure 2a. **Number of enterprises providing strategic business services, 1990 and 1995**

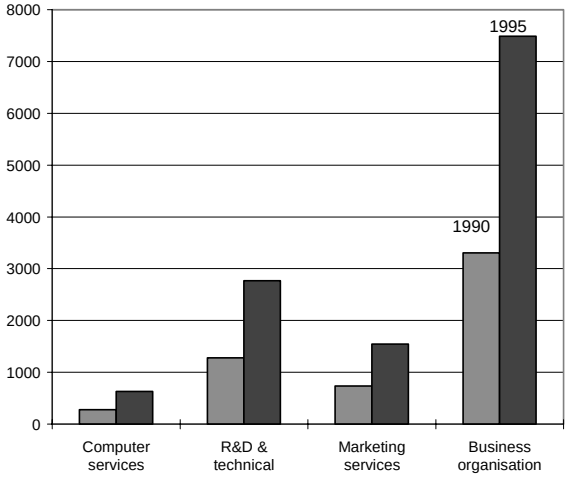
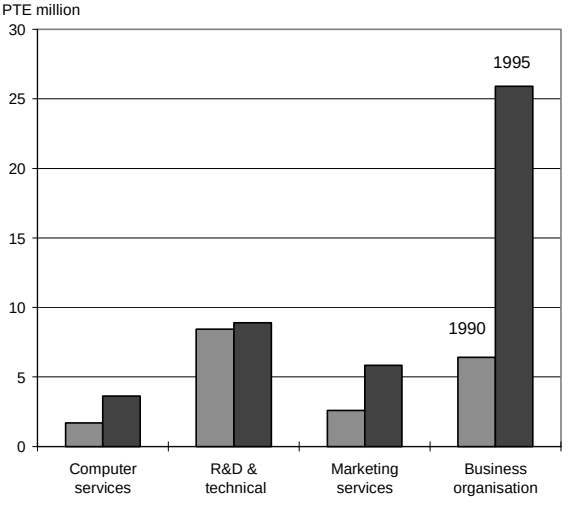


Figure 2b. **Investment in fixed assets in strategic business services, 1990 and 1995**
PTE million



Source: Instituto Nacional de Estatistica.

Enterprises

The number of firms engaged in the provision of these business services progressed strongly between 1990 and 1995. In 1990, 5 607 firms were providing such business services; by 1995, the number had increased to 12 436, a growth rate of 122%. All four business service categories for which data are available contributed to this expansion - the number of businesses in each category more than doubled in the intervening period. Growth in firm numbers ranged from: 109% in marketing, 116% in R&D and technical services, and 126% for computer services and business organisation firms taken together.

Investment

Investment in fixed assets for the strategic business services increased by 136% in 1990-95. This very high growth rate was due in large part to the spectacular growth in investment in business organisation services – from PTE 6.4 million in 1990 to PTE 26.9 million in 1995. This activity accounted for almost 60% of the total in 1995. Investment in marketing services and computer services also progressed strongly – recording 125% growth and 114% growth, respectively, during the five-year period. Surprisingly, investment in R&D and technical services was observed to grow by a mere 5% in spite of exceptionally high growth in turnover, high growth in enterprise numbers and robust growth in employment (see above).

ANNEX

Selected business services in Portugal, 1990

Classification CAEs		Employment	Number of enterprises	Turnover PTE million	Investment in fixed assets PTE million
832300	**Computer & related services**	**1 874**	**280**	**19.33**	**1.70**
	Computer software & information processing				
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
832400	**Research & development & technical**	**10 550**	**1 280**	**60.83**	**8.45**
	Research & experimental development				
	Technical testing and analysis				
832500	**Marketing Services**	**5 198**	**739**	**105.72**	**2.60**
	Market research & public opinion polls				
	Advertising				
832900	**Business organisation services**	**29 714**	**3 308**	**121.32**	**6.42**
	Management consultancy				
	Labour recruitment / Provision of personnel				
	Human resource development services				
	Adult & other vocational education				
	Job training & vocational rehabilitation				

Source: Instituto Nacional de Estatistica, 1998.

Selected business services in Portugal, 1991

Classification CAEs		Employment	Number of enterprises	Turnover PTE million	Investment in fixed assets PTE million
832300	**Computer & related services**	**2 533**	**324**	**28.49**	**1.08**
	Computer software & information processing				
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
832400	**Research & development & technical**	**9 947**	**1 248**	**81.16**	**3.39**
	Research & experimental development				
	Technical testing and analysis				
832500	**Marketing services**	**5 646**	**727**	**145.29**	**2.03**
	Market research & public opinion polls				
	Advertising				
832900	**Business organisation services**	**32 544**	**2 825**	**166.39**	**6.43**
	Management consultancy				
	Labour recruitment / Provision of personnel				
	Human resource development services				
	Adult & other vocational education				
	Job training & vocational rehabilitation				

Source: Instituto Nacional de Estatistica, 1998.

Selected business services in Portugal, 1992

Classification CAEs		Employment	Number of enterprises	Turnover PTE million	Investment in fixed assets PTE million
832300	**Computer & related services**	**2 197**	**355**	**21.02**	**0.72**
	Computer software & information processing				
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
832400	**Research & development & technical**	**9 756**	**1 309**	**80.26**	**0.88**
	Research & experimental development				
	Technical testing and analysis				
832500	**Marketing services**	**5 832**	**795**	**172.58**	**11.59**
	Market research & public opinion polls				
	Advertising				
832900	**Business organisation services**	**34 617**	**4 371**	**179.02**	**1.58**
	Management consultancy				
	Labour recruitment / Provision of personnel				
	Human resource development services				
	Adult & other vocational education				
	Job training & vocational rehabilitation				

Source: Instituto Nacional de Estatistica, 1998.

Selected business services in Portugal, 1993

Classification CAEs		Employment	Number of enterprises	Turnover PTE million	Investment in fixed assets PTE million
832300	**Computer & related services**	**3 345**	**440**	**44.34**	**1.82**
	Computer software & information processing				
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
832400	**Research & development & technical**	**12 083**	**2 384**	**110.55**	**4.65**
	Research & experimental development				
	Technical testing and analysis				
832500	**Marketing services**	**7 176**	**1 415**	**221.95**	**4.72**
	Market research & public opinion polls				
	Advertising				
832900	**Business organisation services**	**44 338**	**5 740**	**245.92**	**17.70**
	Management consultancy				
	Labour recruitment / Provision of personnel				
	Human resource development services				
	Adult & other vocational education				
	Job training & vocational rehabilitation				

Source: Instituto Nacional de Estatistica, 1998.

Selected business services in Portugal, 1994

Classification CAEs		Employment	Number of enterprises	Turnover PTE million	Investment in fixed assets PTE million
832300	**Computer & related services**	**3 311**	**580**	**35.95**	**4.86**
	Computer software & information processing				
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
832400	**Research & development & technical**	**14 896**	**2 912**	**123.23**	**12.81**
	Research & experimental development				
	Technical testing and analysis				
832500	**Marketing services**	**7 134**	**1 563**	**284.60**	**6.80**
	Market research & public opinion polls				
	Advertising				
832900	**Business organisation services**	**47 437**	**7 422**	**237.58**	**23.09**
	Management consultancy				
	Labour recruitment / Provision of personnel				
	Human resource development services				
	Adult and other vocational education				
	Job training & vocational rehabilitation				

Source: Instituto Nacional de Estatistica, 1998.

Selected business services in Portugal, 1995

Classification CAEs		Employment	Number of enterprises	Turnover million PTE	Investment in fixed assets million PTE
832300	**Computer and related services**	**3 232**	**633**	**39.44**	**3.62**
	Computer software and information processing				
	Hardware consultancy				
	Software consultancy and supply				
	Data processing				
	Database services				
832400	**Research & development & technical**	**14 514**	**2 770**	**279.84**	**8.91**
	Research & experimental development				
	Technical testing and analysis				
832500	**Marketing services**	**7 082**	**1 545**	**272.74**	**5.84**
	Market research & public opinion polls				
	Advertising				
832900	**Business organisation services**	**54 921**	**7 488**	**268.41**	**26.89**
	Management consultancy				
	Labour recruitment / Provision of personnel				
	Human resource development services				
	Adult and other vocational education				
	Job training & vocational rehabilitation				

Source: Instituto Nacional de Estatistica, 1998.

SPAIN

Trends in strategic business services

Turnover

For the selected business services activities reviewed here,[1] the data reported for the various categories relate to different years, making it impossible to obtain a total turnover figure for any one year. However, from the available data, it appears that turnover for these selected business services would have totalled at least ESP 2 billion annually in the early 1990s. Within this group, marketing services showed the most significant turnover, representing 1.9% of GDP in 1994, while computer-related services accounted for 0.9% in 1995. Business organisation activities and technical testing and analysis made up approximately 0.3% of GDP in 1993.

Employment

Within the selected business services, the share of computer services in employment corresponded to 0.9% of services employment and 0.5% of total employment in 1995. Employment in marketing services amounted to roughly 0.8% of services employment and 0.5% of total employment in 1994, while the respective shares for business organisation services corresponded to 0.4% and 0.2% for the two years.

Enterprises

Approximately 30 000 firms were engaged in the provision of these services in the mid-1990s, over 80% of which were engaged in the supply of computer and advertising services, in roughly equal shares. Almost 3 500 firms, and at least 10% of the total, were engaged in business organisation services. Data for 1997 reveal a decline of 12% since 1995 in the number of computer services firms. In all other categories, firm numbers increased sharply, with a six-fold increase in five years in firms supplying technical testing services, a doubling of firms in four years in labour recruitment services and a 36% increase in advertising firms in three years.

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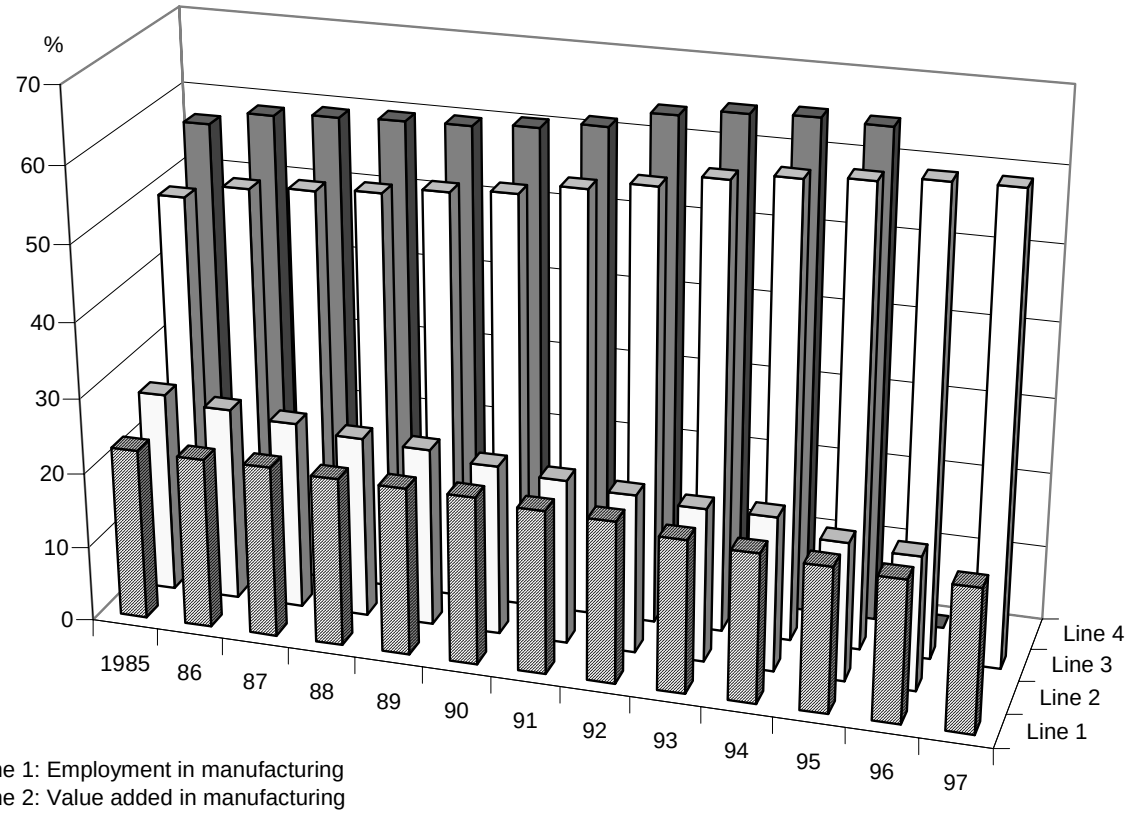
1. The five business services areas selected were: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resources development services. Data for human resource development services and for R&D and experimental development services were not reported. For the various categories the reported data related to various years between 1992 and 1995, therefore the analysis is necessarily restricted.

The percentage share of firms in the business services sector with no salaried employees is fairly high (Table 1). Seventy per cent of firms in computer services have no salaried employees; within this group almost 80% of firms in software consultancy and supply as well as in data processing services are operated by self-employed persons. The exception in this category is the database services activity, where 84% of firms have salaried employees. Approximately half the firms supplying technical testing services and personnel recruitment services have salaried employees, compared with slightly less (44%) in advertising and human resource development services.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Line 1: Employment in manufacturing
Line 2: Value added in manufacturing
Line 3: Employment in services
Line 4: Value added in services

Note: Between 1960 and 1995 the share of services value added in GDP increased from 45.2% to 64.7%. Manufacturing value added in GDP started a gradual decline in 1974, falling from 27.7% to 18.4% in 1995. Employment in services as a percentage of total employment grew steadily from 31% to 61.7% between 1960 and 1997, while the manufacturing share of total employment declined from 26.5% in 1968 to 19.1% in 1997.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

Table 1. **Number of enterprises and local units in selected business services, 1997**

NACE		Enterprises	Enterprises with salaried employees
721-4	Computer software & information processing	6 751	2 051
72.1	Hardware consultancy	172	130
72.2	Software consultancy and supply	5 172	1 453
72.3	Data processing	1281	362
72.4	Database services	126	106
74.3	Technical testing & analysis	3 025	1 554
74.4	Advertising	14 490	6 337
74.5	Labour recruitment / Provision of personnel	1967	1 045
809	Human resource development services	22 524	10 106

Source: INE, *National Business Register,* 1997.

Detailed information on the size distribution of strategic business services firms is available for Spain and it is clear that, in terms of firm numbers, most suppliers of these services are very small firms, and a majority of suppliers are self-employed. Only a very small percentage of firms employ 100 or more workers (Table 2). The exception is labour recruitment services, where almost 10% of firms employ more than 100 persons, while a further 11% of firms in this activity employ between 20 and 99. Otherwise, almost half of personnel employment agencies are operated by self-employed persons. In computer services, only 1% of firms have more than 100 employees and 4% employ between 20 and 99. In this latter activity, 70% of firms are self-employed. The size distribution of firms supplying R&D and technical testing services is very similar to that of computer services, with 80% of firms employing at most two persons. In advertising, 82% of firms have at most two employees and 0.4% of firms have more than 100 employees.

Table 2. **Number of enterprises by employees and activities, 1997**

NACE		Total	0	1 to 2	3 to 19	20 to 99	Over 100
721-4	Computer software & information processing	6 751	4 700	836	878	262	75
72.1	Hardware consultancy	172	42	55	65	9	1
72.2	Software consultancy & supply	5 172	3 719	575	630	187	61
72.3	Data processing	1 281	919	152	140	58	12
72.4	Database services	126	20	54	43	8	1
	R&D and technical testing	4 695	2 817	1 041	640	156	41
73.1	Research & experimental development	1 670	1 346	116	153	45	10
74.3	Technical testing & analysis	3 025	1 471	925	487	111	31
74.4	Advertising	14 490	8 153	3 724	2 293	260	60
74.5	Labour recruitment / Provision of personnel	1 967	922	317	324	216	188

Source: INE, *National Business Register*, 1997.

ANNEX

Selected business services in Spain, various years

Classification			Employment	Number of enterprises	Turnover ESP million
NACE	**ISIC Rev 3**				
72 (1995)	**721-726 (1995)**	**Computer & related services**	**65 554**	**12 634**	**626 372**
	721-724	**Computer software & information processing**			
	721	Hardware consultancy			
	722	Software consultancy and supply			
	723	Data processing			
	724	Database services			
		Research & development & technical			
	731	Research & experimental development			
74.3 (1992)	7422	Technical testing and analysis	6 492	465	39 387
		Marketing services	58 649	11 998	1 239 970
74.13 (1993)	7413	Market research & public opinion polls	11 373	1 314	69 015
74.4 (1994)	743	Advertising	47 276	10 684	1 170 955
		Business organisation services	**25 298**	**3 401**	**137 213**
74.14 (1993)	7414	Management consultancy	11 360	2 789	109 791
74.5 (1993)	7491	Labour recruitment / Provision of personnel	13 938	612	27 422
8041	809	**Human resource development services**			
8042		Adult & other vocational education			
		Job training & vocational rehabilitation			

Source: INE, *National Business Register*, 1997.

SWEDEN

Trends in strategic business services

Value added

Value added in the selected strategic business services[1] totalled SEK 41.1 billion in 1996 or 2.4% of GDP (Figure 1a). By far the most important category was computer software and information processing which accounted for just over 50% of the total. Contributing to this large share was the software consultancy and supply component which alone represented SEK 17 billion. Business organisation services was the second most important activity at SEK 7.8 billion, and the management consultancy component alone accounted for 95% of this sub-total. Value added in advertising amounted to SEK 7 billion or 0.4% of GDP.

Figure 1a. **Value added of selected business services, 1996**
SEK billion

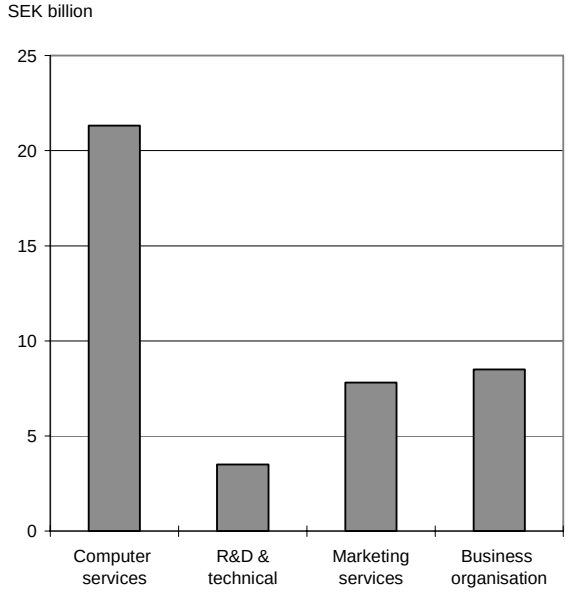
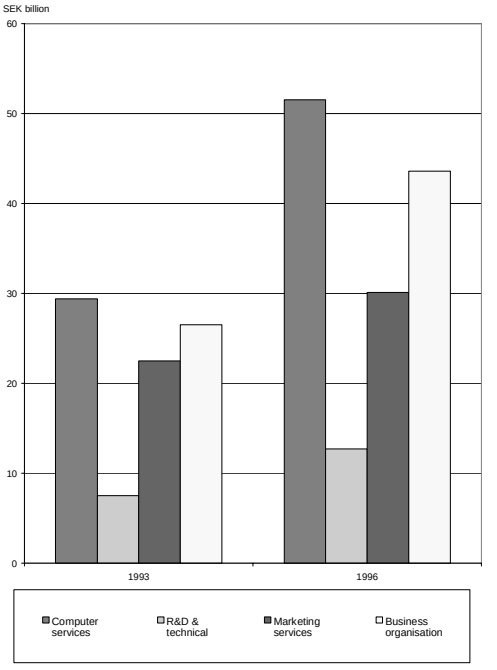


Figure 1b. **Turnover in strategic business services, 1993 and 1996**
SEK billion

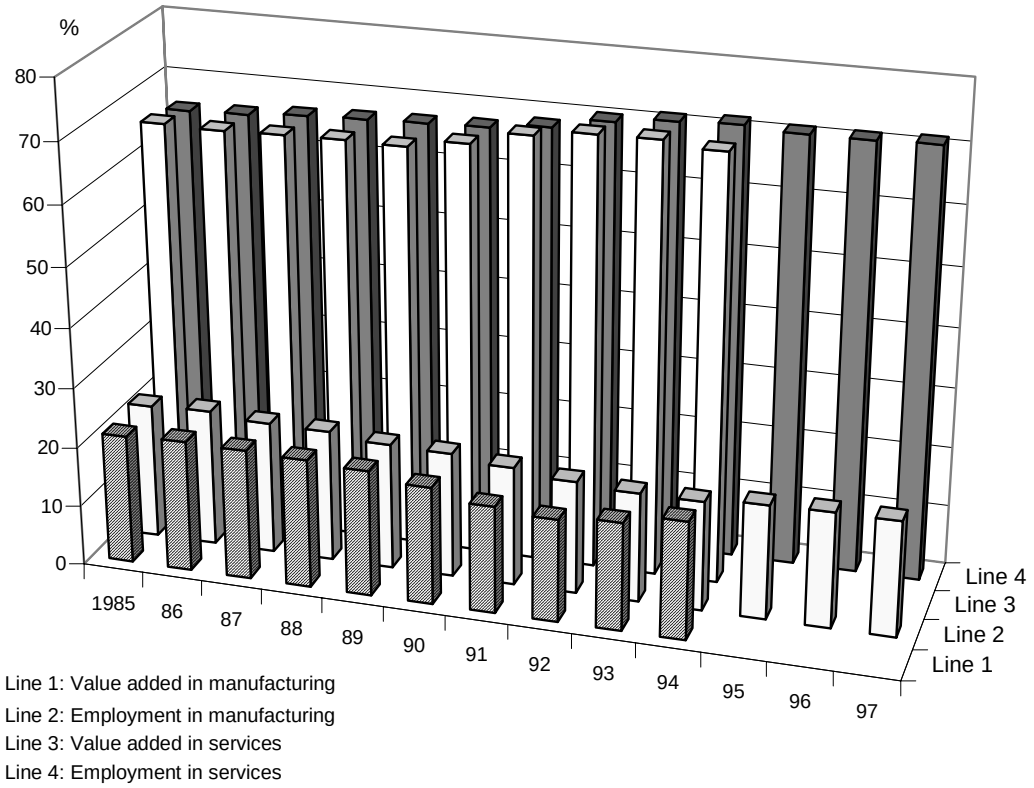


Source: Statistics Sweden.

1. The five business services areas are: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resource development services. For the latter category only educational attainment levels were reported.

Research undertaken elsewhere[2] indicates that the market value of the Swedish software industry was the ninth largest of the EU-15 countries (expressed in constant ECUs of 1994) while the Swedish computer services industry is the sixth largest of the EU-15 countries. According to the same source, Sweden in 1997 had the seventh largest advertising industry (in terms of expenditure) and fourth largest per capita expenditure among the EU countries. However, the management consultancy business in Sweden was found to be relatively small by European standards, having the lowest number of enterprises, the lowest number of consultants (of the twelve countries for which data are available) and ranking ninth in terms of highest turnover.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Note: Between 1968 and 1993, the services share of value added in GDP grew from 57.3% to 71.4% before declining to 70.5% in 1994. Between 1968 and 1994, the manufacturing share of value added in GDP declined from 25.8% to 19.6%. Employment in services increased steadily from 44% to 71.3% in the period 1960 to 1997, while employment in manufacturing declined during the same period from 31.5% to 19.4%.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

2. Commission of the European Communities, *Panorama of EU Industry '97*.

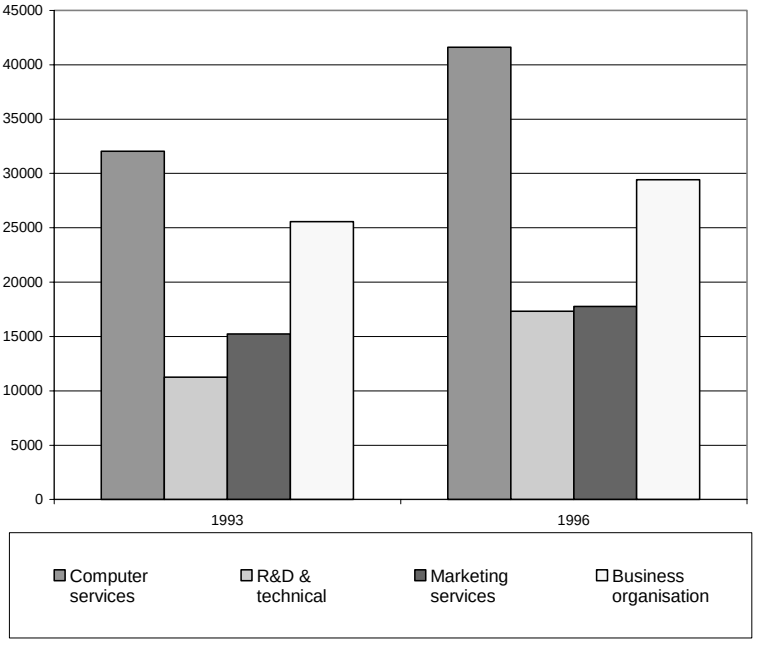
Turnover

The turnover of strategic business services[1] in the period 1993-96 increased, in nominal terms, by 60%, from SEK 86 billion to SEK 141 billion (Figure 1b). Within this group of activities, turnover of computer software and information processing activities increased by 81% during the period, with exceptionally high growth in database services (236%) and hardware consultancy (97%). Turnover in R&D and technical services and in business organisation activities progressed by 79% and 66%, respectively, while marketing turnover expanded by one-third.

Employment

Employment in these strategic business services[1] in the 1993-96 period increased by 29% from 84 000 to 109 000, with all four categories showing significant employment gains during the period (Figure 2). Between 1993 and 1996, employment in these business activities progressed from 3% to 3.9% of services employment and from 2.1% to 2.7% of total employment in Sweden. Of the four categories for which data are available, employment in R&D and technical analysis grew fastest in the three-year period – by 58% overall, with employment in the research and experimental development activities growing by 75%. This latter performance was matched by employment growth in the hardware consultancy component of computer-related services while the increase for the category overall exceeded 30%. Employment growth of 21% in business organisation services can be attributed almost solely to management consultancy activities while within the marketing services category, both market research and advertising employment grew by 17% between 1993 and 1996.

Figure 2. **Employment in strategic business services, 1993 and 1996**



Source: Statistics Sweden.

The number of firms engaged in these activities in 1996 was almost 30 000, their numbers having grown by 17% between 1993 and 1996. The largest increases were in R&D and technical services (28%) and in computer-related services (25%), consistent with their turnover and employment performance. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), the preponderance of small firms is apparent, (this is borne out by detailed data for Sweden) as business services firms averaged 3.8 persons per firm in 1993 compared with 72.5 for total manufacturing.[3]

Education levels in business services

Because of the technical and specialised nature of strategic business services, a significant share of those employed in these services have high levels of educational attainment. One in two persons employed in strategic business services in Sweden in 1996 possessed at least a third-level educational diploma (including technical college degrees).[4] Excluding technical college degrees, the share declines to roughly one in three. As is to be expected, research and experimental development services employed the highest percentage of third-level graduates – 69.9% in both 1993 and 1996, and also had the highest share of employees with postgraduate qualifications (22.4% compared with an average of 3.8% for total strategic business services). Graduates accounted for 61% of the payroll in software services in 1996. Job training and vocational training followed by management consultancy ranked third and fourth in this league with graduates comprising 54.9% and 53.2% of the payroll. Hardware consultancy firms were the only other category where graduates accounted for at least 50% of employees. At the other end of the scale, graduates comprised only 10.3% of adult and other vocational training services and 26.7% of technical testing and analysis services. One in three employees in advertising and 43% in market research were graduates (Table 1). Overall, between 1993 and 1996, the share of third-level graduates increased, going from 50.1% to 52.5% of the total. The areas in which the percentage share of graduates increased were technical testing services (an increase of 6 percentage points), management consultancy, software services, adult and other vocational training (up 4 percentage points in each case). In contrast, during the same period, the share of graduates declined by several percentage points in hardware consultancy, data processing services, and database services.

Investment

Investment (gross fixed capital formation – GFCF) for the selected business services totalled SEK 4.9 billion in 1996, or 2% of total GFCF in Sweden, confirming the relatively low capital-intensity of such services (Figure 3a). Of this amount, 40% was accounted for by investment in computer software and information processing services. Within this sub-group of activities, software accounted for 65% of investment. After computer services, management consultancy services commanded the second largest level of investment, amounting to 31% of the total. Investment in R&D services was more than double that for technical testing services, while investment in market research services was negligible compared with advertising investment.

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3. Secretariat estimate based on OECD, *Industrial Structure Statistics*.

4. NUTEK, Sweden, 1999.

Table 1. **Distribution of educational levels in strategic business services in Sweden, 1996**
Percentages

NACE		Elementary or compulsory school	Upper secondary school	Third-level diploma			
				Total	*Of which:*		
					Technical college degree	University degree	Postgraduate degree
	Computer software & information processing						
721	Hardware consultancy	6.3	43.5	50.2	22.3	27.1	0.8
722	Software consult. & supply	4.5	34.5	61.0	26.3	33.8	0.9
723	Data processing	11.5	46.4	42.1	21.7	20.0	0.4
724	Database services	9.1	49.4	41.5	22.5	19.0	0.0
	Research & development & technical						
731	Research & experimental development	5.6	24.5	69.9	14.7	32.8	22.4
74.3	Technical testing and analysis	13.5	59.8	26.7	11.3	13.3	2.1
	Marketing services						
74.13	Market research & public opinion polls	11.5	45.1	43.4	21.0	21.9	0.6
74.4	Advertising	14.1	51.5	34.4	22.3	11.9	0.2
	Business organisation services						
74.14	Management consultancy	9.1	37.7	53.2	18.8	32.7	1.7
74.5	Labour recruitment / Provision of personnel	8.2	42.8	49.0	26.0	22.8	0.1
804	**Human resource development services**						
	Adult & other vocational education	21.4	68.3	10.3	8.6	1.7	0.0
	Job training & vocational rehabilitation	10.9	34.2	54.9	17.6	36.6	0.7
	Total	**9.0**	**38.5**	**52.5**	**20.0**	**28.7**	**3.8**

Source: NUTEK, Sweden, 1999.

Trade

Swedish trade data for strategic business services are available only for exports (Figure 3b). Exports for the total of the five service activities reviewed here grew by 56%, in nominal terms, between 1993 and 1996. By and large, many individual business services activities recorded spectacular growth in exports: exports in labour recruitment/personnel placement activities soared from SEK 1.3 million in 1993 to SEK 34.5 million in 1996, and 1996 export levels were at least double those of 1993 for the following activities: computer services, and particularly software; R&D and technical testing; market research and public opinion poll services. Advertising exports grew by 20% and those of hardware consultancy and data processing by 91% and 51%, respectively. However, exports declined over the same three-year period for a number of service activities: an 80% decline in database services; and a 13% decline for management consultancy exports.

Imports of business services in 1994 from the United States are shown in Table 2. In that year, Swedish imports of services from the United States amounted to SEK 13.66 billion. Excluding advertising for which no information is available (the data have not been disclosed for confidentiality reasons), computer and data processing was the largest import item among the activities under review.

Figure 3a. **Gross fixed capital formation,1996,** SEK million

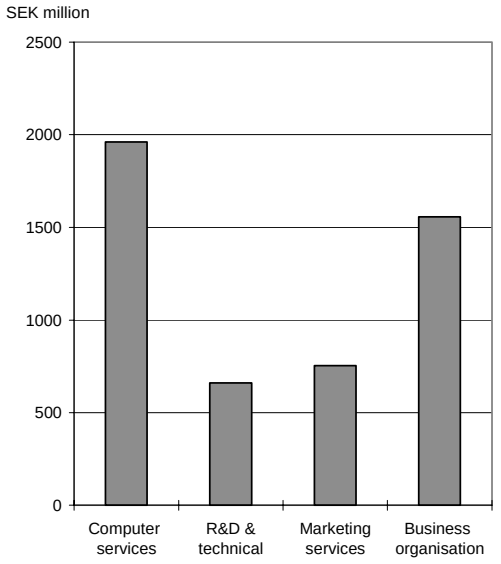
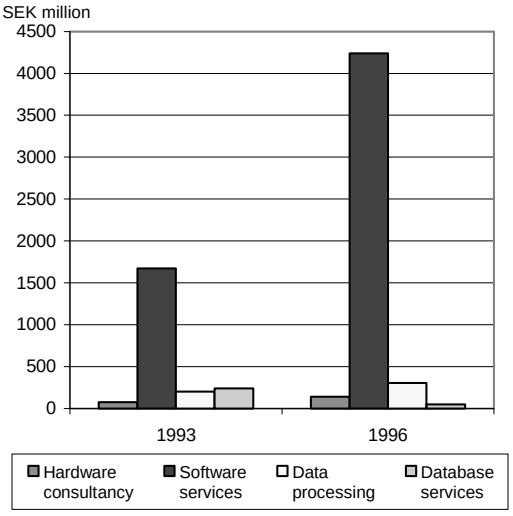


Figure 3b. **Exports of computer software and information processing, 1993-96** SEK million



Source: Statistics Sweden.

Table 2. **Imports by Sweden of business services from the United States, 1994** SEK million

Advertising	n.a.
Computer & data processing	239.2
Database & other information services	92.6
Research, development & testing	61.7
Management, consulting & public relations	77.2
Total private services	**13 680.5**

Source: US Department of Commerce.

ANNEX

Selected business services in Sweden, 1993

Classification NACE	Classification SIC95		Employment	Number of enterprises	Turnover SEK million	Exports SEK million
72	**721-726**	**Computer & related services**	**33 143**	**7 482**	**30 726**	2 207
	721-724	**Computer software & information processing**	**32 035**	**7 167**	**29 429**	**2 187.4**
721	721	Hardware consultancy	1 168	363	1 308.2	73.7
722	722	Software consultancy and supply	24 989	6 279	21 224	1672
723	723	Data processing	4 880	483	5 948.2	201.4
724	724	Database services	998	42	948.7	240.3
		Research & development & technical	**11 247**	**514**	**7 548.5**	**669.6**
731	731	Research & experimental development	6 088	213	4 839.4	374.5
74.3	7422	Technical testing and analysis	5 159	301	2 709.1	295.1
		Marketing services	**15 237**	**7 281**	**22 556**	**1 409.6**
74.13	7413	Market research & public opinion polls	2 074	337	1 036.7	80.7
74.4	743	Advertising	13 163	6 944	21 519	1 328.9
		Business organisation services	**25 585**	**9 403**	**26 511**	**2 472.2**
74.14	7414	Management consultancy	13 572	9 307	26 241	2 471.0
74.5	7491	Labour recruitment / Provision of personnel	12 013	96	269.8	1.2
	809	**Human resource development services**				
8041		Adult & other vocational education				
8042		Job training & vocational rehabilitation				

Source: Statistics Sweden.

Selected business services in Sweden, 1996

Classification NACE	Classification SIC95		Employment	Number of enterprises	Turnover SEK million	Exports SEK million
72	**721-726**	**Computer & related services**	**43 535**	**9 374**	**53 536**	5 070.8
	721-724	**Computer software & information processing**	**41 607**	**8 990**	**51 212**	**4 736.7**
721	721	Hardware consultancy	1 950	580	2 507	141.3
722	722	Software consultancy and supply	33 230	7 837	38 930	4240.4
723	723	Data processing	5 490	497	8 264	305.1
724	724	Database services	937	76	1 510	49.9
		Research & development & technical	**17 341**	**658**	**12 711**	**1803**
731	731	Research & experimental development	10 234	355	7 948	1117.6
74.3	7422	Technical testing and analysis	7 107	303	4 763	685.4
		Marketing services	**17 755**	**7713**	**30 098**	**1 791.7**
74.13	7413	Market research & public opinion polls	2 419	351	1 403	181
74.4	743	Advertising	15 336	7362	28 695	1 610.7
		Business organisation services	**29 441**	**11265**	**43622**	**2160.4**
74.14	7414	Management consultancy	17 302	11 124	42 967	2 125.9
74.5	7491	Labour recruitment / Provision of personnel	12 139	141	655	34.5
	809	**Human resource development services**				
8041		Adult & other vocational education				
8042		Job training & vocational rehabilitation				

Source: Statistics Sweden.

Selected business services in Sweden, 1996

Classification NACE	Classification SIC95		Value added	Net investment SEK million	Gross investment SEK million
72	**721-726**	**Computer & related services**	**22 137**	**1 748**	**2 000**
	721-724	**Computer software & information processing**	**21 305**	**1 719**	**1 961**
721	721	Hardware consultancy	828	167	171
722	722	Software consultancy and supply	16 961	1 096	1 279
723	723	Data processing	3 080	393	446
724	724	Database services	436	63	65
		Research & development & technical	**3 508**	**614**	**660**
***** 731	731	Research & experimental development	1 479	410	451
74.3	7422	Technical testing and analysis	2 029	204	209
		Marketing services	**7 810**	**644**	**754**
74.13	7413	Market research & public opinion polls	767	30	40
74.4	743	Advertising	7 043	614	714
		Business organisation services	**8 500**	**900**	**1 557**
74.14	7414	Management consultancy	8 278	888	1 543
74.5	7491	Labour recruitment / Provision of personnel	222	12	14
	809	**Human resource development services**			
8041		Adult & other vocational education			
8042		Job training & vocational rehabilitation			

Source: Statistics Sweden.

SWITZERLAND

Trends in strategic business services

Employment

Employment in Switzerland in the five strategic business service activities[1] considered to be strategic inputs for manufacturing industry amounted to 89 624 in 1995, corresponding to 2.4% of total employment and 3.5% of total services employment. Business organisation services was the largest category, employing a third of this total (29 880), followed closely by computer software and information processing services which employed a further 28 640 persons. Management consultancy employed 87% of those engaged in business organisation services while software consultancy and supply services accounted for 68% of employees in computer software and information services. Marketing services employed 15 939 persons and human resource development services 10 439, *i.e.* 17.7% and 11.6%, respectively, of the total. R&D and technical testing services employed 4 726 persons. Eighty five per cent of marketing employees were directly engaged in advertising, with the remainder in market research and opinion poll testing. Employment in human resource development services was comprised of approximately 80% in job training and vocational rehabilitation, with the remainder employed in adult and vocational education. Three-quarters of R&D and testing employees worked in research and experimental development while the other 25% worked in technical testing and analysis.

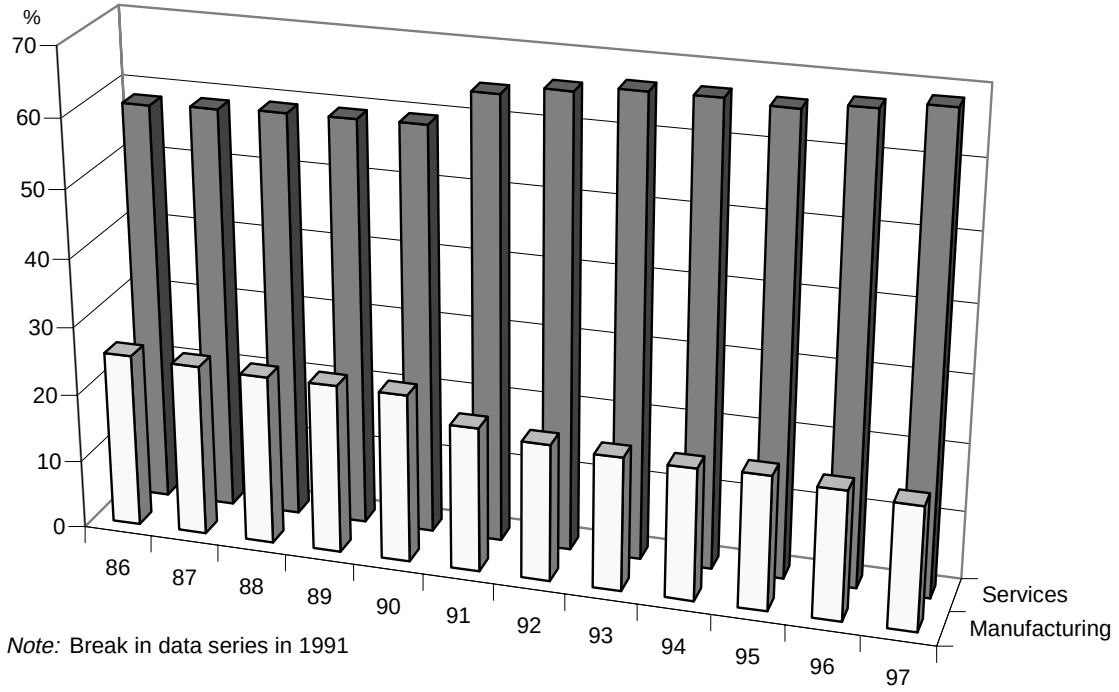
Table 1. **Full-time and part-time employment in strategic business services, 1995**

	Full-time	Part-time
Computer services	24 541	4 099
R&D and technical testing services	3 808	918
Marketing services	11 294	4 645
Business organisation services	23 220	6 660
Human resource development services	5 160	5 279

Source: FSO, *Census of Enterprises 1995.*

1. The five strategic business services selected were: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resource development services. Data for turnover were not available.

Services and manufacturing since 1986
Employment as a percentage of total employment



The share of services employment in total employment was 39.1% in 1960, reaching 68.6% in 1997. The share of manufacturing employment declined from 37.6% in 1960 to 18.2% in 1997.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics.*

Overall, three-quarters of those employed in the selected strategic business services in 1995 were full-time employees. However, the ratio of full-time to part-time employees varied across categories (Table 1). For example, the highest share of full-time employees was in computer-related services (85.7%), with little variation among the component activities, although software consultancy and supply had a marginally higher share than the other activities. A higher than average share of full-time employees was the case for labour recruitment/provision of personnel as well as for research and experimental development while more part-time employees worked in market research and opinion poll testing, and in job training and vocational rehabilitation.

Enterprises

Almost 18 600 firms were engaged in providing strategic business services in Switzerland in 1995. Business organisation service providers were the most important category, accounting for 7 221 firms, 39% of the total. Ninety per cent of these firms were suppliers of management consultancy services while the remaining 739 firms provided personnel recruitment/placement services. The second most important category in numerical terms was computer services with 5 159 firms (27.7% of the total); in this area software consultancy and supply was the vocation of 67% of these firms, with hardware consultancy being the vocation of a further 30%. Firms in human resource

development services represented one-sixth of the total, divided almost equally between adult and vocational education services, and job training and vocational rehabilitation services. Within marketing services firms which made up 15% of the total, advertising firms accounted for 94% with just 168 firms supplying market research services. Numerically, the least important of all categories, R&D and testing services firms amounted to just 2.3% of the total.

Figure 1a. **Employment in strategic business services, 1995**
Full-time and part-time employees

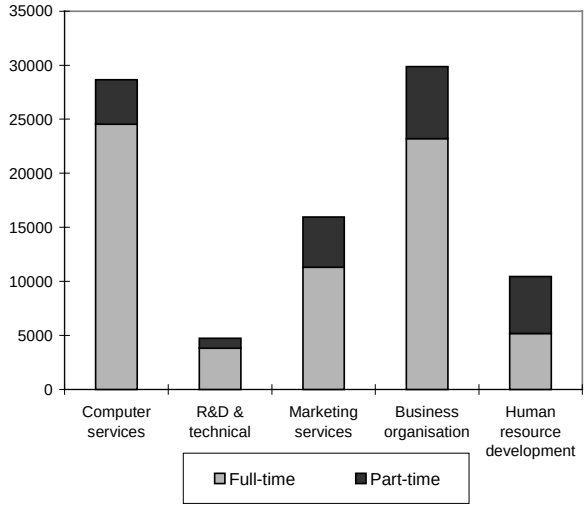
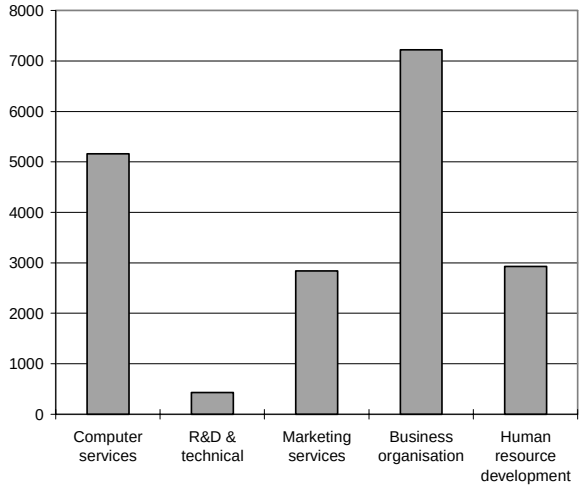


Figure 1b. **Number of enterprises supplying strategic business services, 1995**



Source: FSO, *Census of Enterprises 1995.*

When the average firm size is calculated (taken to be the ratio of employment to the number of firms),[2] it is apparent that very small firms predominate in the business services market, with an average of 4.8 persons per firm for 1995 – ranging from an average of 3.6 persons in human resource development services to 11 for R&D and testing services. Computer services, marketing services, and business organisation services were all close to the average value for the five categories, although values for specific activities ranged from 48.8 for database services, 16.3 for research and experimental development and 1.5 for adult and other vocational education.

Trade

The United States is an important trading partner for Switzerland in the area of strategic business services. Switzerland experienced a growing deficit with the United States in trade in these services during the mid-1990s, with the deficit growing by 75% between 1994 and 1997.[3] Only in advertising services did Switzerland earn a surplus (between 1994 and 1996). However, this surplus was gradually eroded and a deficit in advertising trade occurred in 1997, imports having grown by 129% since 1994 and exports having grown by only 25%. By 1997, imports of R&D and testing services were the largest of the strategic business services imports, amounting to CHF 100 million in that year;

2. Average firm size for manufacturing estimated from OECD, *Industrial Structure Statistics* and OECD, *Labour Force Statistics.*

3. Based on US Department of Commerce, *Survey of Current Business*, October 1998.

and 63% higher than 1994 imports. Exports of these R&D and testing services grew by 285% in the 1994-97 period; however, this did not prevent the trade deficit in this sector from widening. Imports of management consultancy and public relations services expanded by 150%, while exports grew by 75%, leaving a deficit of CHF 29 million in 1997 compared with CHF 7 million in 1994. Trade in computer services was not as dynamic as in other strategic business services; exports during the period fluctuated and imports show an increase of 15% when 1997 and 1994 levels are compared.

Table 2. **US-Switzerland trade in selected business services: Imports from the United States and exports to the United States**
CHF million

		1994	1995	1996	1997
Advertising	Imports from the United States	7	8	16	23
	Exports to the United States	12	11	19	15
Computer software & information processing services	Imports from the United States	81	72	94	93
	Exports to the United States	11	13	5	9
R&D & testing services	Imports from the United States	38	51	61	100
	Exports to the United States	14	13	41	54
Management consultancy and public relations services	Imports from the United States	23	43	40	57
	Exports to the United States	16	9	17	28
Total for the four categories above:					
	Imports from the United States	149	174	210	273
	Exports to the United States	53	46	82	104
Balance		**-96**	**-128**	**-129**	**-168**

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

Table 3. **Sales of advertising and computer-related services by US majority-owned foreign affiliates, in Switzerland, 1995-96**
CHF million

	1995	1996
Advertising	86	119
Computer software & information services	1 441	1 835

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

However, to better appreciate the role of US business service providers with regard to Switzerland, it is important to look also at the sales of US majority-owned foreign affiliates (MOFAs). Data available for 1995 and 1996 reveal that sales by these firms dwarf export figures (Table 3). For example, sales in advertising represented CHF 119 million in 1996, a progression of 38% on the previous twelve months. Sales of computer-related services amounted to CHF 1 835 million in 1996, 27% higher than their level of a year earlier. Furthermore, US foreign direct investment in Switzerland has involved all of the categories of business services under consideration here. Altogether (for those activities for which data is available and excluding personnel supply services for which data remains confidential for disclosure reasons) the US direct investment position amounted to CHF 1 352 million in 1994 (Table 4). Direct investment in management and public relations services by the United States in Switzerland amounted to 56% of this figure while computer and data processing services represented 43%. The share of Switzerland in the worldwide direct investment position of the United States in 1994 amounted to 7.5% for computer and data processing services.

Table 4. **US direct investment position in Swiss business services, 1994**
Historical-cost basis, by industry of affiliate
CHF million

Advertising	4
Computer & data processing services	584
R&D and testing services	4
Management & public relations services	760
Personnel supply services	*

* less than CHF 1 million.
Source: US Department of Commerce.

ANNEX

Selected business services in Switzerland, 1995

Classification			Employment			Number of enterprises
NACE	ISIC Rev 3		Total	Full-time	Part-time	
72	**721-726**	**Computer & related services**	**30 386**	**26 042**	**4 344**	**5 454**
	721-724	**Computer software & information processing**	**28 640**	**24 541**	**4 099**	**5 159**
721	721	Hardware consultancy	6 540	5 602	938	1 585
722	722	Software consultancy and supply	19 560	16 858	2 702	3 473
723	723	Data processing	880	716	164	67
724	724	Database services	1 660	1 365	295	34
		Research & development & technical	**4 726**	**3 808**	**918**	**429**
731	731	Research & experimental development	3 573	2 945	628	219
74.3	7422	Technical testing and analysis	1 153	863	290	210
		Marketing services	**15 939**	**11 294**	**4 645**	**2 838**
74.13	7413	Market research & public opinion polls	2 373	1 113	1 260	168
74.4	743	Advertising	13 566	10 181	3 385	2 670
		Business organisation services	**29 880**	**23 220**	**6 660**	**7 221**
74.14	7414	Management consultancy	25 910	19 883	6 027	6 482
74.5	7491	Labour recruitment / Provision of personnel	3 970	3 337	633	739
	809	**Human resource development services**	**10 439**	**5 160**	**5 279**	**2 929**
8041		Adult & other vocational education	2 249	1 710	539	1 534
8042		Job training & vocational rehabilitation	8 190	3 450	4 740	1 395

Source: FSO, *Census of Enterprises 1995*.

TURKEY

Trends in strategic business services

Turnover

In 1994, turnover in the selected business services activities[1] totalled almost TRL 19 727 billion, representing 0.5% of GDP. Advertising represented 53% of this total, with human resource development services accounting for 28.5%. Turnover of computer-related services and business organisation services accounted for 9% and 7%, respectively.

Figure 1a. **Turnover in selected business services, 1994**
TRL billion

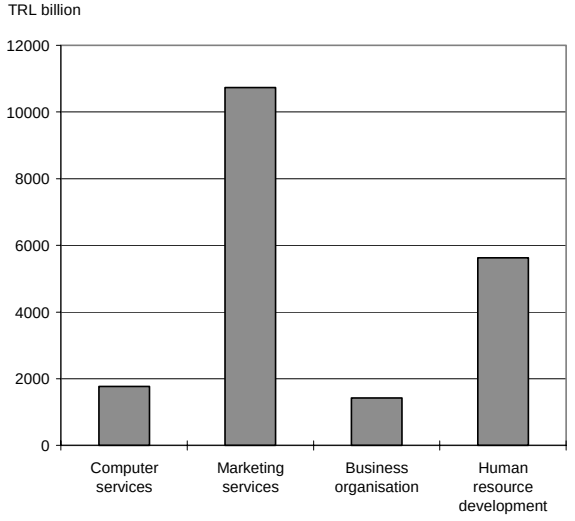
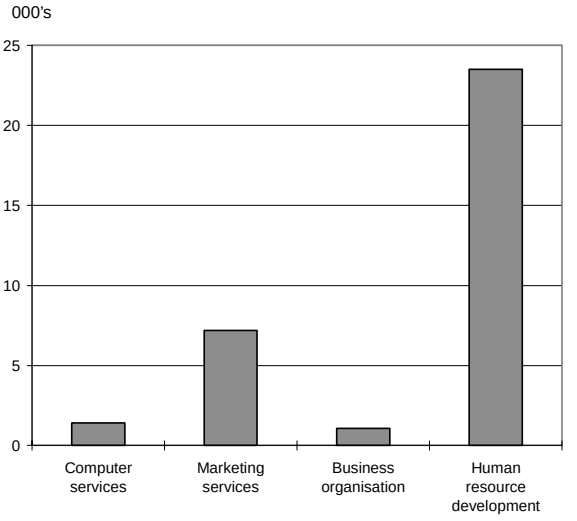


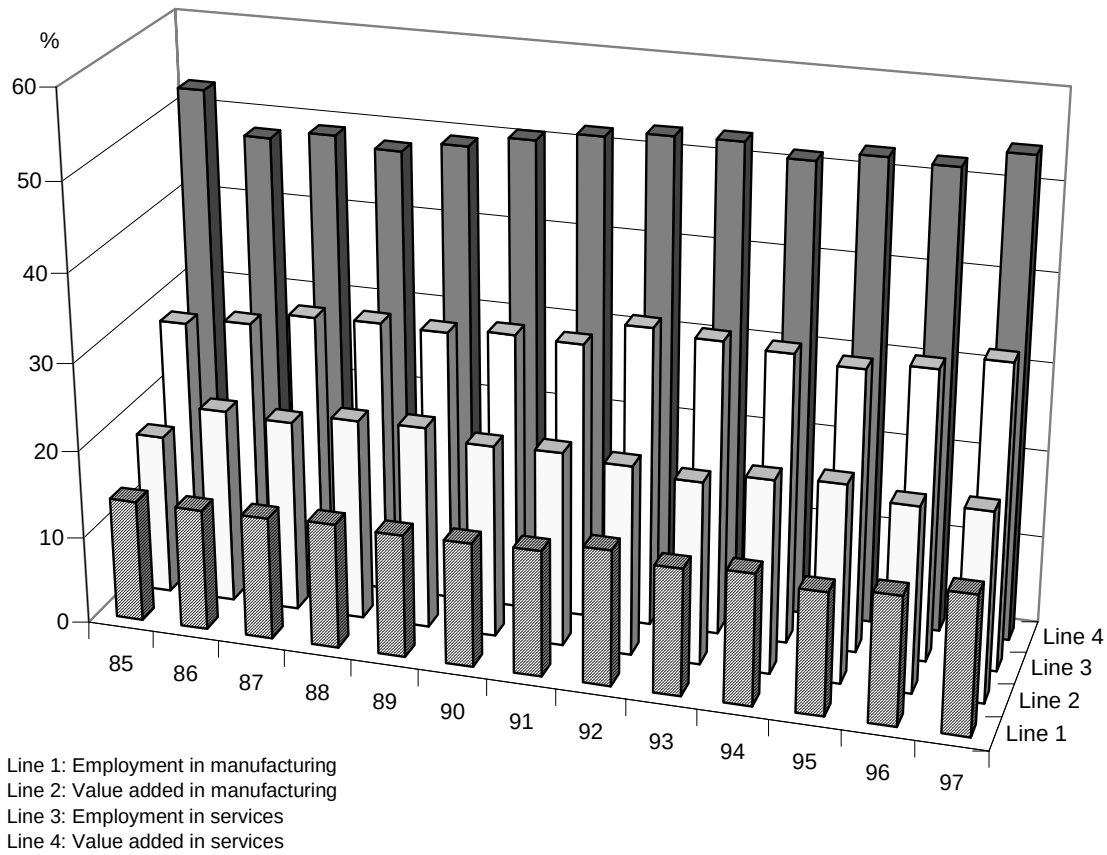
Figure 1b. **Employment in selected business services, 1994**
Thousands



Source: Ministry of Trade and Industry and State Institute of Statistics.

1. The five business services activities included in this study are: computer software and data processing services; research and development and technical services; marketing services; business organisation services; and human resource development services. For reasons of confidentiality, no data has been reported for categories comprising only one or two establishments.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



In Turkey, between 1960 and 1997, the share of services value added in GDP increased from 39.7% to 54.2%, while the manufacturing share of value added in GDP in 1997 amounted to 21.6%. Employment in services in 1997 accounted for 34.7% of the workforce; the manufacturing share of employment was 15.9% in the same year.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics.*

Employment

In 1994, employment in the selected strategic business services[1] totalled more than 33 000, representing 0.5% of services employment and 0.2% of total employment. Seventy per cent of this figure, 23 503 persons, were reported to be employed in human resource development services, a figure which dwarfs the figures reported for employment in the other strategic services. Marketing employment amounted to 7 190 and comprised, principally, advertising employment, with a minor share (7%) occupied in market research and public opinion poll testing. Employment in computer-related services was 1 408, of which 413 were in software consultancy and supply. Business organisation services employed 1 018 persons, the vast majority of whom worked in management consultancy and only 43 of whom worked in personnel recruitment services.

Enterprises

Some 4 400 firms were engaged in the provision of these business services in 1994, over 50% of which were providing human resource development services, while 40% supplied advertising services. A further 4.7% were engaged in computer-related services and 3% supplied management consultancy services. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), it is apparent that very small firms predominate in the business services market, averaging 7.5 persons per firm for 1994.

ANNEX

Selected business services in Turkey, 1994

Classification NACE	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover TRL billion
72	**721-726**	**Computer & related services**	**1 406**	**208**	**1 773.5**
	721-724	**Computer software & information processing**			
	721	Hardware consultancy*		2	
	722	Software consultancy and supply	413	44	666.3
	723	Data processing*		2	
	724	Database services			
		Research & development & technical			
	731	Research & experimental development*		2	
74.3	7422	Technical testing and analysis	117	3	165.4
		Marketing services	**7 190**	**1 784**	**10 730.3**
74.13	7413	Market research & public opinion polls	482	18	161.8
74.4	743	Advertising	6 708	1 766	10 568.5
		Business organisation services	**1 061**	**136**	**1 428.0**
74.14	7414	Management consultancy	1 018	132	1 422.2
74.5	7491	Labour recruitment / Provision of personnel	43	4	5.4
8041	809	**Human resource development services**	**23 503**	**2 284**	**5 630.6**
8042		Adult & other vocational education			
		Job training & vocational rehabilitation			

Note: ***** Data pertaining to one or two establishments may not be given for reasons of confidentiality; however, they may be included in totals.
Source: Ministry of Trade and Industry and State Institute of Statistics; data on services are compiled from annual surveys on service establishments.

UNITED KINGDOM

Trends in strategic business services

Business services in the United Kingdom constitute a well-developed sector and enjoy significant shares of the world market in some fields, *e.g.* a 10% share of the world market in management consultancy and a 9% share of the world market in market research services. In addition, many important foreign companies have sited their headquarters in the United Kingdom and, in particular, companies supplying marketing services. In the view of the UK authorities,[1] the strength of these activities reflects the attractiveness to foreign investors of the strong business services infrastructure and also reflects the trend towards globalisation, dominated by multinational companies. As in other OECD countries, outsourcing by manufacturing has contributed to the development of business services in the United Kingdom. Earlier studies estimated that 30% of the measured decline in manufacturing GDP was due to the outsourcing of business services. More recent work estimates the outsourcing effect to be approximately 10%.[2]

The Office of National Statistics (ONS) estimates that business services in general are some of the fastest growing activities in the United Kingdom, with real growth rates in output on average more than double those for the entire economy in the most recent decade, and computer services growing fastest of all. ONS findings are included in Table 1 and involve a wider coverage that that of this study.

Table 1. **Annual growth rates in business services in the United Kingdom**

% Annual growth rates	71 Equipment rental	72 Computer services	74 Other business services	All services	Manufacturing	GDP
Average 1988-98	4.7	11.9	4.6	2.6	0.8	2.0
Average 1993-98	8.7	14.7	9.3	3.9	1.6	3.1
1997-98	6.8	15.8	8.6	3.6	0.3	2.4

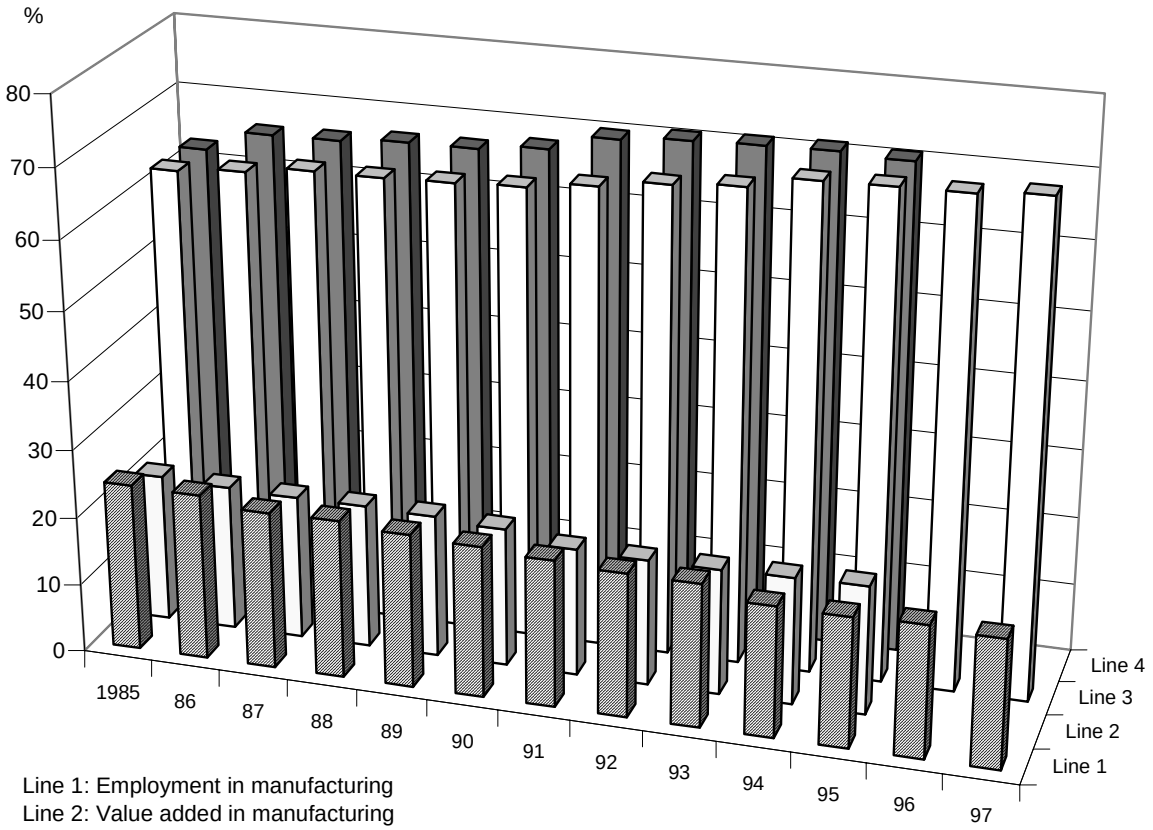
Note: The business services category used in this study comprises: equipment rental services to business, computer services, legal, accounting, advertising, consultancy, technical, engineering, private recruitment labour agencies, security, cleaning and other business support services.

Source: UK Office of National Statistics, 1999.

1. Nicolette Divecha, Department of Trade and Industry, *UK Business Services and Employment*, United Kingdom, 1998.

2. Research by Jane Croot for the Foundation of Manufacturing, United Kingdom.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Line 1: Employment in manufacturing
Line 2: Value added in manufacturing
Line 3: Employment in services
Line 4: Value added in services

Note: Between 1960 and 1995, the share of services value added in GDP in the United Kingdom increased from 53.8% to 70.8%. During the same period the share of manufacturing value added in GDP declined from 32.1% to 18.8%. The share of employment in services in total employment increased in the period 1960-97 from 47.6% to 71.3%. The manufacturing share in total employment was 18.8% in 1997.
Averages for the OECD and EU areas, in line with international practice, take 1990 as the base year, aggregating data for different countries using 1990 price levels and purchasing power parities.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

Value added

Value added for the five selected business services[3] grew by 21% between 1995 and 1996, and represented 3.2% and 3.6%, respectively, of GDP in those years. The fastest growing strategic business services in this twelve-month period were R&D and technical testing services (30.2%) and

3. The five business services areas selected were: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resources development services.

human resource development services (29.6%). Value added in computer-related services grew by 26% while that for business organisation services and marketing services grew by 17.3% and 13.5%, respectively. Significant variation existed within categories, *e.g*. within computer-related services, the value added of database services doubled in the twelve-month period while, in contrast, the value added of data processing services declined by 11%. Also, within this category, the value added of hardware consultancy expanded by 44% while that of software consultancy grew by 28%. Within R&D services, the growth in value added of R&D and experimental development was 50% higher than in technical testing services and within business organisation services, the value added of personnel recruitment services expanded by 23% and that of management consultancy by 8%.

Figure 1a. **Turnover in strategic business services, 1993-1996**
GBP billion

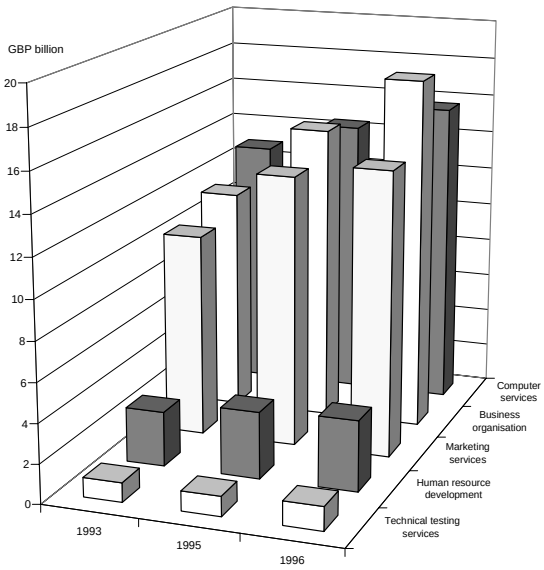
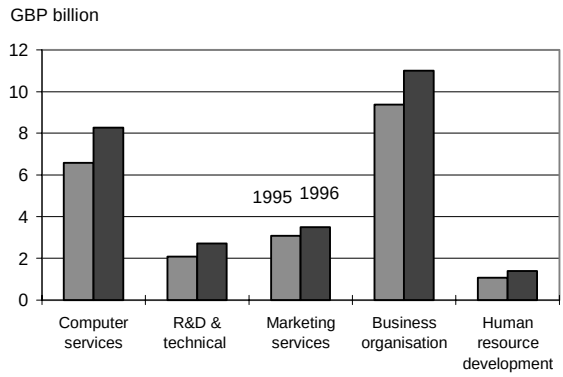


Figure 1b. **Value added of selected business services, 1995 and 1996**
GBP billion



Source: UK Office of National Statistics.

Turnover

For 1993, turnover for these strategic business services[3] (excluding R&D and experimental development) stood at GBP 38.6 billion and increased by 38% in the following three-year period to reach GBP 53.3 billion in 1996. Including turnover for R&D and experimental development, total turnover for this group of strategic business services amounted to GBP 57.3 billion in 1996. The turnover figure reported for human resource development services relates to services rendered by the private sector only. Provisional data available for 1997 and 1998 indicate that strong growth in turnover continued in these years, growing by 37% for both labour recruitment services and human resource development services in 1997. Turnover for software services and technical testing services grew by 36% and 27%, respectively.

Among the different strategic business services, business organisation services generated the highest turnover – GBP 15.2 billion in 1995 and GBP 18.1 billion in 1996 – and recorded growth in turnover of almost 60% in the 1993-96 period. Turnover of computer services and information processing services dropped back to second position in 1995 and 1996, recording revenue of GBP 14.6 billion

and GBP 15.7 billion, respectively, in those years – turnover growth for these activities was almost 22% for the 1993-96 period. Within business organisation services, personnel recruitment services accounted for a growing share of the total turnover, amounting to 53% in 1995-96. Turnover in marketing services progressed by 43% between 1993 and 1996. Turnover for human resource development services (which excludes public sector services) amounted to GBP 3.6 billion, an increase of 31% on the previous three-year period.

Advertising expenditure per capita placed the United Kingdom among the top five EU countries in this respect in 1994; although at less than 60% of US levels and 70% of Japan's level as measured in ECUs. Advertising in the United Kingdom, when measured as a percentage of GDP at market prices, was the highest of the EU countries at 1.13%, almost 40% higher than the EU average or the US level.[4] The UK market research sector currently accounts for approximately 9% of the world market. Market research agencies in the United Kingdom earned 47% of their revenue from manufacturing, 17% from services and 13% from the public sector.

The UK management consultancy sector accounts for 10% of the world market and is by far the largest of the EU markets as measured by turnover in 1994. Turnover for this activity amounted to GBP 7.1 billion in 1995 and grew by 19% in the following twelve months to reach GBP 8.4 billion in 1996. Management consultancy grew rapidly in the EU area during the 1985-90 period, averaging 15% per annum during that time and averaging 5% in the first five years of the 1990s, the UK activities contributing substantially to this performance. In 1994, turnover for management consultancy in the United Kingdom exceeded by 60 % (as measured in ECUs) that of Germany which had the second largest management consultancy business in the EU. The UK public relations branch of business organisation services has also been increasing rapidly in recent years, recording impressive growth rates in the period 1991-94: a 50% increase in units in operation; a 2% increase in turnover; and a 90% increase in the number of consultants employed. Of the EU-12 countries surveyed in the 1990s, the UK share of the public relations market, judged by whatever statistic, was by far the largest, employing a third of all professionals and holding at least half of all agencies.

Turnover for the other branch of business organisation services, personnel recruitment and training activity, is also high in the United Kingdom amounting to GBP 8.1 billion in 1995 and growing to GBP 13.3 billion by 1997. Along with France, Germany and the Netherlands, the United Kingdom is a key market for these services within the EU. Employment agencies have grown in response to market needs for more flexible and temporary work arrangements. Education and training services as well as quality accreditation, are gradually assuming more importance within personnel recruitment businesses.

Data available for human resource development services indicate that GBP 3.37 billion was generated in turnover in 1995 but was followed by a decline of GBP 259 million in the following year, only to recover strongly in 1997 when turnover of GBP 4.97 billion was recorded.

The United Kingdom had the second largest software business of the EU-15 countries in 1997, its market value estimated to be worth ECU 5.7 billion, just slightly over half that of Germany's and 17% larger than France's software business. Turnover for software consultancy and supply in the United Kingdom (ISIC Rev.3 722) amounted to GBP 15.3 billion in 1997. While, globally, US firms continue to dominate the market, three UK firms feature in the global top fifty. An important indicator for computer and software services is the weight of the top ten vendors in the market. The

4. Commission of the European Communities, *Panorama of EU Industry '97*.

weight of the top ten vendors has been declining in many countries and this is also true in the case of the United Kingdom. In the United Kingdom, the share of the top ten vendors declined to 27% in 1994, having peaked at almost 33% in 1993.

Leading management consultancy firms in the United Kingdom

Andersen Consulting
Coopers & Lybrand
Ernst & Young
Gemini Consulting
KPMG
McKinsey
Oracle
PA Consulting
Price Waterhouse
Touche Ross

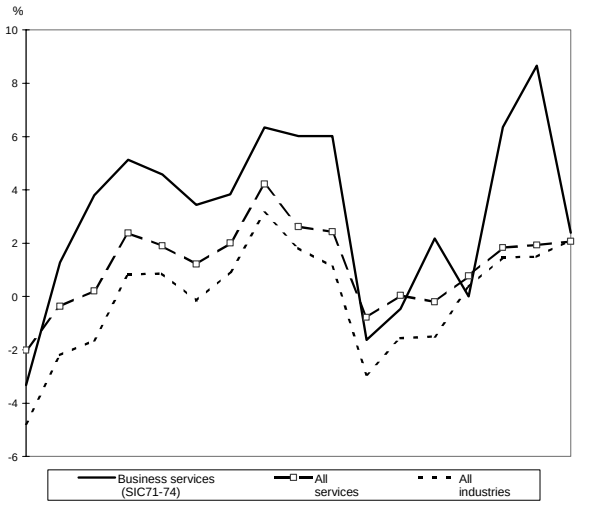
Source: Commission of the European Communities, *Panorama of EU Industry '97*.

Employment

Compared with services in general which enjoyed considerable employment growth in the 1990s, employment in business services activities appeared to benefit from even more significant gains. The number of salaried jobs in the broader category "business services – NACE 71-74" grew by 94% from 1.54 million in 1980 to 2.98 million in 1998, while during the same period numbers of employees in all services grew by 26%. Employees in the strategic business services in 1997 totalled 1.34 million, which represented an increase of over 60% on 1993. Expressed in percentages of services employees and total employees in 1997**,** the shares were 7.8% and 5.9%, respectively. This represents a significant progression over a four-year period, as the shares for 1993 were 5.2% of services employment and 3.9% of total employment. Excluding the category of labour recruitment/provision of personnel, where growth was the fastest, the increase was 39% over the four years. Concerning employment in labour recruitment/personnel provision services, it is noteworthy that prior to 1997, the counting of agency workers was liable to misinterpretation with a potential to affect productivity measurements. In 1997, a clarification of the reporting guidance was undertaken and data thereafter should be consistent.

There was strong employment growth across most activities, 46% in marketing services and 38% in human resource development services. Employment in computer software and information processing expanded by 65% and by 30% in management consultancy. The exception was R&D and technical services, where an increase of just under 5% was recorded.

Figure 2. **Employment growth rates in business services**
All services and all industries, 1980-97



Source: UK Office of National Statistics.

Figure 3a. **Employment in strategic business services, 1993-97**
Thousands

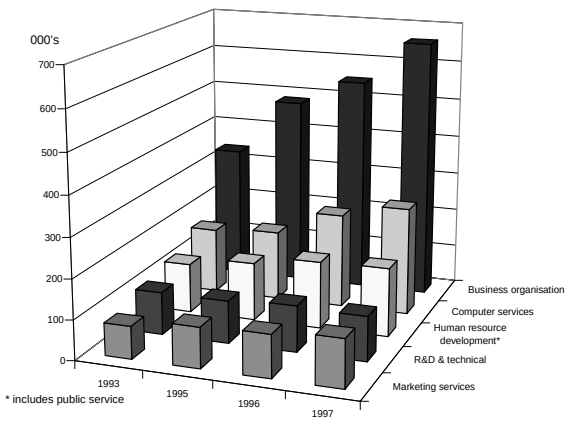
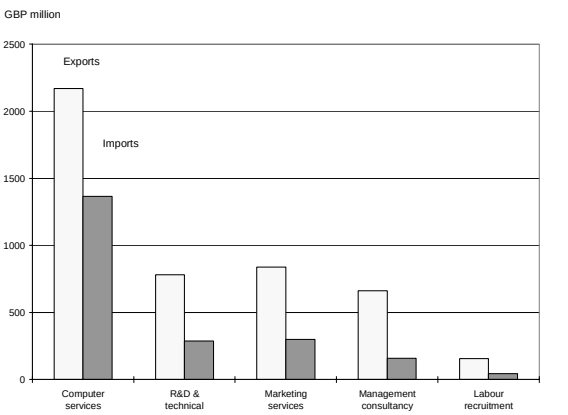


Figure 3b. **Exports and imports of selected business services, 1996**
GBP million



Source: UK Office of National Statistics.

Enterprises

In 1996, 116 391 firms were engaged in the provision of business services, almost half of which were supplying computer-related services. Of these computer services firms, 92% were engaged in software consultancy and supply. Overall, the number of firms in the strategic business services under review here grew by 9.4% in 1995-96. Data available for individual activities for 1993 indicate that firm numbers grew strongly for many activities between 1993 and 1996. The fastest growing category was computer software and information processing services where firm numbers grew by 38% in three years. Software firms grew by 34% while the less numerous hardware firms expanded by 85%. Firms engaged in business organisation services grew in number by 26% and marketing firms

increased by 11%. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), the preponderance of small firms is apparent with business services firms averaging just under ten employees per firm in 1995 compared with 31 for total manufacturing.[5] According to VAT records, registered business services comprise an unusually large proportion of very small businesses and very few large business services firms. Almost 65% of firms in the wider business services group generated less than GBP 100 000 annual turnover compared with 52% for services as a whole and 34% of manufacturing operations.[6] The increasingly dominant role played by large multinational operations in some fields has been noted; one result of this development is that smaller firms are increasingly being left to service niche areas.

Trade

For the strategic business services under review here, UK exports by reporting industries (Table 2) totalled GBP 4.6 billion in 1997 compared with imports of GBP 2.2 billion. When exports by "type of service" are calculated, they amounted to GBP 4.8 billion in 1997 compared with imports of GBP 1.8 billion. The United Kingdom enjoys a healthy trade surplus in each activity, exports being in most cases a multiple of imports, irrespective of how the data is captured. Exports by reporting industry indicate that computer services (NACE 722-726) were by far the largest activity accounting for 47% of the total while imports of the same services represented 63% of the total for the same group of categories. Exports of R&D services in 1996 amounted to GBP 781 million while imports were GBP 286 million. The recent and growing tendency for services firms to offer a range of business services, for example, those which offer combinations of computer, R&D, business organisation and personnel services, is reflected in the trade data as they are assembled by "type of service". Using this method, the trade data reveal exports of R&D services to be 104% higher at GBP 1.60 billion, with imports at GBP 657 million, 130% higher than under industry reporting. On the contrary, when "information services" and other services are isolated from "computer services", the trade figures for the latter decline by 50% for exports and by 75% for imports. This is partly explained by the exclusion of royalty payments, which are a separate IMF category.

The United States is an important trading partner for the United Kingdom in business services (Table 3) (data refer to trade between unaffiliated firms). Total imports for the four categories for which data are available amounted to GBP 282 million in 1994 and grew by 84% to reach GBP 518 million in 1997. At the same time exports increased at a slower rate (73%), going from GBP 174 million in 1994 to GBP 301 million, resulting in an increased deficit – GBP 217 million, compared with GBP 108 million in 1994. The United Kingdom enjoyed a healthy although fluctuating trade surplus with the United States in advertising during the period 1994-97 and recorded a surplus in R&D and technical testing services with the exception of 1995. Otherwise, large and growing deficits with the United States were experienced for computer services and for management consulting and public relations. The United Kingdom share of US-EU trade is very significant (Table 4). The United Kingdom accounted for more than half of EU trade in management consultancy and public relations services (both exports and imports). For trade in computer services, the United Kingdom accounted for one-third of EU imports from the United States and accounted for half of such exports to the United States although this represented a decline from two-thirds in 1994. In

5. OECD, *Industrial Structure Statistics*; OECD, *Labour Force Statistics;* OECD estimations.

6. Department of Trade and Industry, United Kingdom.

advertising the United Kingdom increased its share of EU exports to the United States from 30% to 38% and its share of imports from 29% to 38%.

Table 2. **UK trade (unaffiliated) in selected business services, 1996 and 1997**
GBP million

NACE Rev. 1	Reporting industry	Exports		Imports	
		1996	1997	1996	1997
722-726	Computer services	1 631	2 170	1 126	1 364
73	R&D	837	781	421	286
744/7413	Advertising and market research	635	838	282	298
7414	Management and economic consultancy	384	661	100	159
745	Labour recruitment	162	155	82	44
	Total business services	3 649	4 605	2 011	2 151
	Type of service	**Exports**		**Imports**	
		1996	**1997**	**1996**	**1997**
	Management consulting	645	890	298	314
	Advertising	565	827	430	393
	Market research	152	195	64	67
	R&D	1 294	1 597	767	657
	Computer services	956	1 083	284	339
	Information services	134	174	51	66
	Total business services	3 746	4 766	1 894	1 836

Source: UK Office of National Statistics.

Sales by US foreign affiliates of advertising services in the United Kingdom in 1995 and 1996[7] amounted to GBP 428 million and GBP 564 million, respectively. Data for computer services remain confidential to avoid disclosure of data of individual companies.

Foreign direct investment data are important in illustrating the degree of internationalisation of business services. Business services suppliers have been part of the globalisation process with an increasing mobility of large services providers (seeking proximity to major clients, seeking cost competitiveness, seeking access to particular markets or seeking to benefit from the availability of local skills). In addition, some large multinational groups (*e.g.* manufacturing, financial, etc.) have in recent years diversified their operations and increasingly provide integrated packages (product and associated support services).

7. US Department of Commerce, *Survey of Current Business*, 1998.

Table 3. **US-UK trade in strategic business services: Imports from the United States and exports to the United States**
GBP million

		1994	1995	1996	1997
Advertising services	Imports from the United States	16.3	36.1	57.0	58.7
	Exports to the United States	50.3	57.7	87.2	75.2
Computer services	Imports from the United States	148.9	157.2	234.6	220.0
	Exports to the United States	45.1	46.9	51.9	70.9
R&D & testing	Imports from the United States	33.3	51.4	30.8	34.2
	Exports to the United States	35.3	43.1	44.9	58.7
Management consulting and public relations	Imports from the United States	83.6	91.3	143.6	205.3
	Exports to the United States	43.8	46.9	87.8	96.5

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

Table 4. **UK share of US-EU trade in strategic business services, 1994 and 1997**
Percentages

	1994		1997	
	EU exports to the United States	EU imports from the United States	EU exports to the United States	EU imports from the United States
Advertising services	30%	29%	38%	38%
Computer services	64%	32%	51%	32%
R&D & technical testing services	48%	38%	44%	22%
Management consultancy & public relations	56%	49%	54%	57%

Source: US Department of Commerce, *Survey of Current Business*; OECD calculations.

Data which is available for US direct investment abroad reveals the importance of the role played by the United Kingdom with regard to US foreign direct investment in business services. In the case of the United Kingdom in 1994, GBP 224 million of inward direct investment was directed to business services, net earnings of GBP 216 million left the United Kingdom and the book value of the stock of inward investment was GBP 2.9 million. Outward investment flows corresponding to GBP 410 million with net earnings for the United Kingdom of GBP 363 million and stocks of outward investment stood at GBP 2.3 billion.[7] It is noted that the inward data is collected at the enterprise level and some inconsistency may exist for output and employment data at the level of industry breakdowns.

US direct investment in strategic business services in the United Kingdom amounted to GBP 1.47 billion in 1994. Computer services alone totalled GBP 1 billion dwarfing all other services and accounted for 28.6% share of US direct investment world-wide in computer services in 1994.

Advertising accounted for GBP 210 million or almost 14% of the world total. US direct investment of GBP 65 million in R&D services in the United Kingdom represented 16.5% of the total US investment in R&D services worldwide.

Barriers to the development of business services

The UK Department of Trade and Industry (DTI) recognise as the principal barriers to the development of business services the following: the need to improve higher quality of standards and better client/supplier relationships; the need to move industry away from competing on low-cost services towards services with higher value added; the need to strengthen the role of trade associations, particularly with regard to SMEs; and the lack of international information against which to benchmark performance.

Prospects for UK business services

The UK business services sector is recognised to be particularly strong in many fields, and a recent study comparing US and UK performances in areas such as management consultancy, training services, public relations and computing services put the UK activities narrowly ahead of those of the United States.[8] The sizeable shares in world markets for management consultancy and market research activities enjoyed by the United Kingdom have been mentioned earlier. However, concern has already been voiced by many firms in business services about expected acute shortages in high-skilled labour, and the DTI has commented that the services sector as a whole has shown limited interest in initiatives such as "Investors in People", designed to improve performance through better employee management.

A recent SWOT analysis is enlightening with regard to issues faced by these activities at the present time and in the near future. On the positive side, the following were noted: the United Kingdom disposes of a well-developed, competitive, high-growth, and flexible business services sector with relatively few barriers to entry.

On the "weaknesses" side, the following were highlighted: a fragmented industry with relatively few global organisations, a dependence on client-led opportunities overseas; insufficient data and limited possibilities for benchmarking; certain skills shortages and inadequate business-academic linkages.

Opportunities were recognised to exist in specialist niche openings and growth opportunities internationally, thanks to globalisation as well as opportunities offered in developing countries.

Threats include, among many of the weaknesses cited above, the threat of barriers to operating overseas for reasons of qualification accreditation, intellectual property issues, professional indemnity and visas. Also, the lack of international information against which to benchmark performance is considered important.

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8. London Business School *et al*., "Achieving World-class Service: An Anglo-American Benchmark Comparison of Service Practice and Performance" (May 1997), cited in Nicolette Divecha, *UK Business Services and Employment*, Department of Trade and Industry, 1998.

Policies for business services

The UK Government "sponsors" a number of business services in the framework of a wide-ranging policy covering a large number of manufacturing and service activities. The DTI engages dialogue with sectoral organisations, companies and stakeholders in order to help companies succeed at home and overseas. Projects developed and monitored in this context include: improving quality standards within the market research sector; encouraging continuous professional development of management consultants; and identifying the support required by smaller companies from their representative bodies, with particular reference to benchmarking. The contract-cleaning sector has been the object of their attention in the latter instance.

In addition, the UK Office for National Statistics (ONS) has a long record of involvement in efforts to improve the quality and availability of services statistics and is active in international efforts to develop a set of competitiveness indicators. Also, efforts are underway to develop deflators in order to estimate real growth in business services.

Policies with a broader application also favour the development of business services. Among these are:

- *Business Links*: A national network of business-led Business Links partnerships exists in England (similar arrangements exist for Scotland and Wales) with the aim of delivering or sign-posting high-quality business services. These services are aimed particularly at SMEs and cover the following areas: information and advice; access to finance; exports; innovation; new technology and design.

- *SME policy*: Aims at fostering an enterprise culture. In practice, the policy covers the following: ensuring access to finance for growing, innovative firms; better regulation; simpler administrative procedures; improved managerial competence; a flexible labour market for skilled and adaptable people; encouraging business-to-business support such as networking and mentoring.

- *Export promotion*: A range of support services are available, mainly information and advice drawing on the joint Overseas Trade Services operation of the DTI and the Foreign and Commonwealth Office. Commercial sections of the Diplomatic Service and guidance from 200 businessmen and women serving on the British Overseas Trade Board are also called upon in this effort.

- *Removing trade barriers*: The DTI is active in tackling trade barriers such as restrictive employment practices and lack of recognition of qualifications and skills. These efforts are conducted both nationally and internationally, including within EU and WTO frameworks.

- *Advice on benchmarking*: A benchmarking service delivered by intermediaries and aimed at SMEs in particular. An indication of the success of this initiative is the fact that discussions on licensing arrangements are underway with other countries.

- *Better regulation*: The UK Government is committed to the removal of unnecessary regulatory and administrative burdens on firms. A Better Regulation Task Force was set up for this purpose. To improve access to regulatory requirements, it is intended that 25% of all government services will be available electronically by the year 2002.

ANNEX

Selected business services in the United Kingdom, 1993

Classification UK SIC92	Classification ISIC Rev 3		Employment	Number of enterprises	Turnover
72	**721-726**	**Computer & related services**			
	721-724	**Computer software & information processing**	**166 000**	**39 800**	**12 930**
	721	Hardware consultancy	6 000	1 600	330
	722	Software consultancy and supply	123 000	37 700	11 200
	723	Data processing	35 000	500	1 400
	724	Database services	3 000	(incl. in 723)	(incl. in 723)
		Research & development & technical	**107 000**		
	731	Research & experimental development	86 000	n.a.	n.a.
74.3	7422	Technical testing and analysis	21 000	1 500	990
		Marketing services	**82 000**	**10 200**	**10 430**
74.13	7413	Market research & public opinion polls	26 000	800	880
74.4	743	Advertising	56 000	9 400	9 550
		Business organisation services	**337 000**	**32 900**	**11 440**
74.14	7414	Management consultancy	118 000	26 600	6 610
74.5	7491	Labour recruitment / Provision of personnel	219 000	6 300	4 830
8041	809	**Human resource development services**	**125 000***	**n.a.**	**2 760****
8042		Adult & other vocational education			
		Job training & vocational rehabilitation			

* includes public sector; ** excludes public sector.
Source: UK Office of National Statistics, 1999.

Selected business services in the United Kingdom, 1995

Classification UK SIC92	Classification ISIC Rev 3		Employment	Number of enterprises (firms) 1995	Turnover GBP million	Value added GBP million
72	**721-726**	**Computer & related services**				
	721-724	**Computer software & information processing**	**177 000**	**49 437**	**14 362**	**6 579**
	721	Hardware consultancy	10 000	1 960	363	154
	722	Software consultancy and supply	144 000	46 807	12 426	5 745
	723	Data processing	18 000	548	1 408	611
	724	Database services	5 000	122	165	69
		Research & development & technical	**107 000**	**3 313**	**4 980**	**2 078**
	731	Research & experimental development	79 000	1 901	3 948	1 509
74.3	7422	Technical testing and analysis	28 000	1 412	1 032	569
		Marketing services	**102 000**	**11 752**	**13 859**	**3 077**
74.13	7413	Market research & public opinion polls	38 000	968	1 258	520
74.4	743	Advertising	64 000	10 784	12 601	2 557
		Business organisation services	**483 000**	**37 186**	**15 208**	**9 379**
74.14	7414	Management consultancy	133 000	29 476	7 092	3 751
74.5	7491	Labour recruitment / Provision of personnel	350 000	7 710	8 116	5 628
8041	809	**Human resource development services**	**147 000***	**4 205****	**3 369****	**1 072****
8042		Adult & other vocational education				
		Job training & vocational rehabilitation				

* includes public sector; ** excludes public sector
Source: UK Office of National Statistics, 1999.

Selected business services in the United Kingdom, 1996

Classification UK SIC92	Classification ISIC Rev 3		Employment (GB only)	Number of enterprises (firms) 1996	Turnover GBP million	Value added GBP million
72	**721-726**	**Computer & related services**	**282000**			
	721-724	**Computer software & information processing**	**240 000**	**54 979**	**15 749**	**8 275**
	721	Hardware consultancy	**13 000**	2 959	463	223
	722	Software consultancy and supply	**184 000**	50 544	13 057	7 367
	723	Data processing	**35 000**	1 277	1 934	546
	724	Database services	**8 000**	199	295	139
		Research & development & technical	**116 000**	**3 445**	**5 162**	**2 707**
	731	Research & experimental development	91 000	2 085	3 996	2 017
74.3	7422	Technical testing and analysis	25 000	1 360	1 166	690
		Marketing services	**107 000**	**11 369**	**14 606**	**3 493**
74.13	7413	Market research & public opinion polls	30 000	1 341	1 257	602
74.4	743	Advertising	77 000	10 028	13 349	2 891
		Business organisation services	**549 000**	**41 604**	**18 140**	**11 004**
74.14	7414	Management consultancy	142 000	33 438	8 432	4 065
74.5	7491	Labour recruitment / Provision of personnel	407 000	8 166	9 708	6 939
8041	809	**Human resource development services**	**170 000***	**4 994****	**3 628****	**1 389****
8042		Adult & other vocational education				
		Job training & vocational rehabilitation				

* includes public services; ** excludes public services.
Source: UK Office of National Statistics, 1999.

Selected business services in the United Kingdom, 1997

Classification UK SIC92	Classification ISIC Rev 3		Employment	Number of enterprises (firms) 1996	Turnover (provisional) GBP million	Value added GBP million
72	**721-726**	**Computer & related services**	**352 000**		**22 860**	
	721-724	**Computer software & information processing**	**274 000**			
	721	Hardware consultancy	**18 000**			
	722	Software consultancy and supply	**216 000**		**15 310**	
	723	Data processing	**32 000**			
	724	Database services	**8 000**			
		Research & development & technical	**112 000**			
	731	Research & experimental development	86 000			
74.3	7422	Technical testing and analysis	26 000		1 340	
		Marketing services	**120 000**			
74.13	7413	Market research & public opinion polls	36 000			
74.4	743	Advertising	84 000		15 420	
		Business organisation services	**661 000**			
74.14	7414	Management consultancy	153 000			
74.5	7491	Labour recruitment / Provision of personnel	508 000		13 300	
8041	809	**Human resource development services**	**173 000***		**4 970****	
8042		Adult & other vocational education				
		Job training & vocational rehabilitation				

* includes public service; ** excludes public service.
Source: UK Office of National Statistics, 1999.

UNITED STATES

Trends in strategic business services

Turnover

For each of the selected strategic business services reviewed,[1] the United States is the most important supplier and market in OECD countries. Growth in these services in the United States has been very robust in recent years: turnover for this group of strategic business services increased by 158% between 1987 and 1996, the largest increases occurring in computer software and information services (253%) and in labour recruitment services (237%). Over a more recent period of time, labour recruitment services tended to grow somewhat faster than computer and information services. Turnover for other business services was also strong during the 1987-96 period: management consultancy (140%), R&D and technical services (99%), and advertising (81%).

Figure 1a. **Turnover in strategic business services, 1990-96**
USD billion

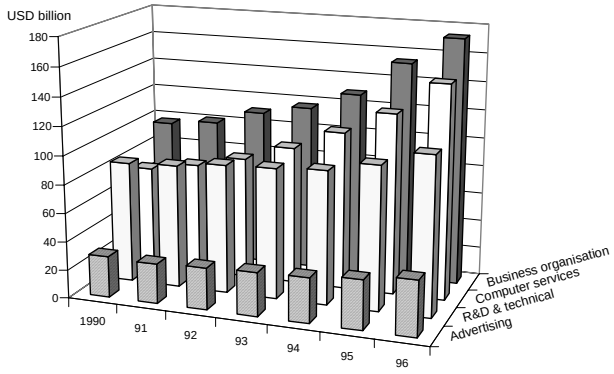
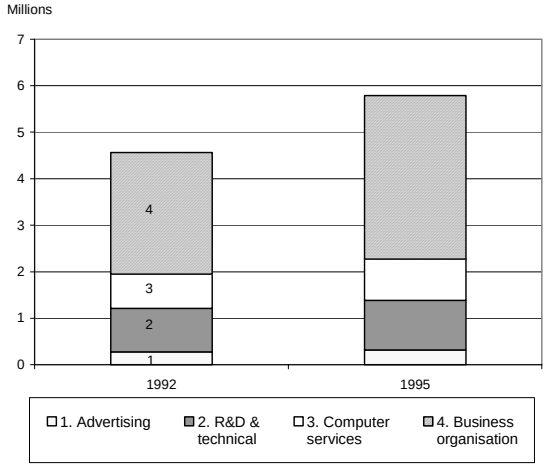


Figure 1b. **Employment in strategic business services, 1992-95**
Millions

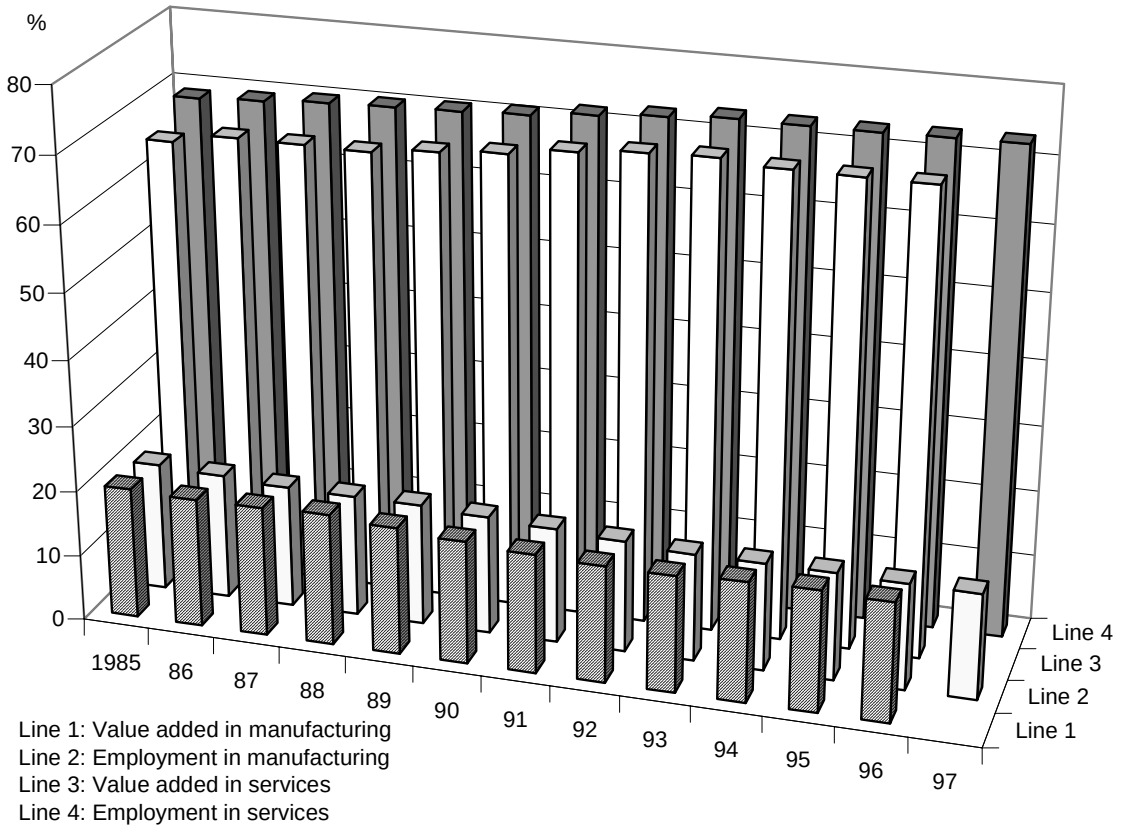


Source: US Department of Commerce, Office of Trade & Economic Analysis.

1. The five business services areas selected were: computer software and information processing services; research and development and technical testing; marketing services; business organisation services; and human resource development services. For the latter category no information was reported.

Figures 1a, 2a and 2b illustrate the strong performances in terms of turnover growth recorded by professional computer services and by management consultancy in the 1990s. Official estimates forecast similarly high growth rates for computer services at least until 2002. The US management consultancy business was the fastest growing professional service activity in the 1990s and now accounts for at least 50% of the entire international consulting market. Double-digit growth rates were forecast for this activity until at least the year 2000.

Services and manufacturing since 1985
Value added as a percentage of GDP and employment as a percentage of total employment



Note: In the United States the share of services value added in GDP increased from 58% to 70% during the period 1960 to 1996. Over the same period, the manufacturing share of GDP declined from 28% to 18%. The share of services employment in total employment increased during the period 1960-97 from 56% to 73%, while the manufacturing share in total employment declined by 10 percentage points from 26% to 16% of total employment.
Source: OECD, *National Accounts, Labour Force Statistics* and *Historical Statistics*.

Data for human resource development services were not available in the case of the United States where the market is highly fragmented. Generally, it is considered that US companies offer less training to employees than do other more formalised educational/training markets, such as those in Europe or Japan. The only available data come from recent surveys[2] which estimated the US market for private and corporate training to be worth approximately USD 26 billion annually. Most formal training occurs in large companies (found to spend three times more than small firms on training per employee), 60% of which is targeted at professionals and managers. Training for line workers and skilled labourers is usually more skill-specific and takes place on the job. The extent to which training functions have been externalised does not appear to have been captured in the data, nor does the creation/expansion of the training function by independent services providers in response to intensifying international competition, restructuring and associated employment flexibility needs.

Figure 2a. **Revenue in computer services**
USD billion
Data include estimates and forecasts

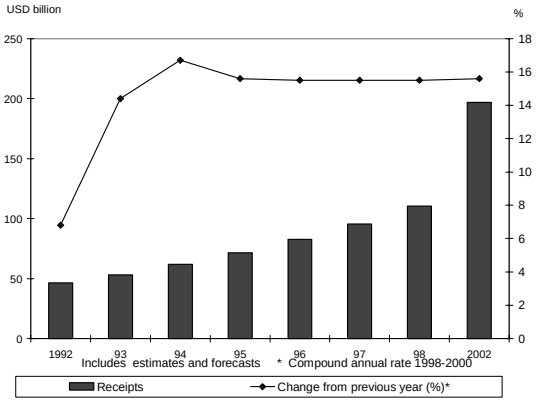
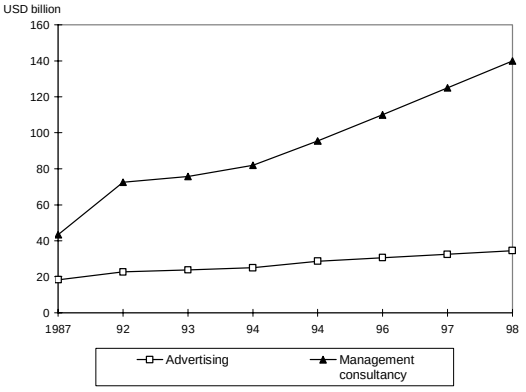


Figure 2b. **Revenue in advertising and management consultancy**
USD billion
Data include estimates



Source: *US Industry and Trade Outlook 1998*.

Employment

Employment in the selected business services in 1995 accounted for 6.3% of services employment and 4.6% of total employment. Of the 5.8 million persons employed in the United States in these activities in 1995, 2.6 million were engaged in the labour recruitment/provision of personnel activity, an increase of 90% on 1987 figures. Computer software and information processing services recorded employment growth of 71% during the same period. R&D and technical testing and analysis employed 1.07 million in 1995, an increase of 37% on 1987 levels. Employment in management consultancy expanded by 57% in the same period, and is estimated to have continued growing strongly, resulting in 500 000 new jobs in the 1992-98 period. Employment in advertising advanced least – increasing by 20% overall for the period 1987-95.

2. *US Industry and Trade Outlook 1998.*

Table 1. **Revenue of the top ten global service suppliers**
USD million

Information services			**Software (1997)**		
Company		***Revenue (1995)***	***Company***		***Revenue (1997)***
IBM	(US)	20 143	IBM	(US)	12 844
EDS	(US)	12 422	Microsoft	(US)	12 208
Digital Equipment	(US)	6 498	Oracle	(US)	4 486
Hewlett-Packard	(US)	6 258	Computer Associates	(US)	4 322
CSC	(US)	3 895	Hewlett-Packard	(US)	2 438
Andersen Consulting	(US)	3 798	SAP	(GER)	2 360
Fujitsu	(JAP)	3 752	Fujitsu	(JAP)	1 915
Cap Gemini Sogeti	(FRA)	3 614	Hitachi	(JAP)	1 499
Unisys	(US)	3 535	Novell	(US)	958
ADP	(US)	3 157	Siemens Nixdorf	(GER)	916
Advertising			**Management consulting**		
Company		***Worldwide revenues 1995***	***Company***		***Revenue 1996***
WPP Group	(UK)	3 420	Andersen Consulting		3 115
Omnicom Group	(US)	3 036	McKinsey & Co		2 100
Interpublic Group of Companies	(US)	2 751	Ernst & Young		2 100
Dentsu	(JAP)	1 930	Coopers & Lybrand Consulting		1 918
Young & Rubicam	(US)	1 198	Arthur Andersen		1 380
Cordiant	(UK)	1 169	KPMG Peat Marwick		1 380
Grey Advertising	(US)	988	Deloitte & Touche		1 303
Havas Advertising	(FRA)	974	Mercer Consulting Group		1 159
Hakuhodo	(JAP)	898	Towers Perrin		903
True North Communications		890	A.T. Kearney		870

Note: Information services predominate; these consist of professional computer services, data processing and network services and electronic information services, of which professional computer services is the largest subsector, accounting for 58% of total receipts.

Source: *US Industry and Trade Outlook 1998*, and Goldman Sachs Investment Research for data on software companies.

Figure 4a. **US receipts (unaffiliated) for computer and information services, 1994-97**
USD million

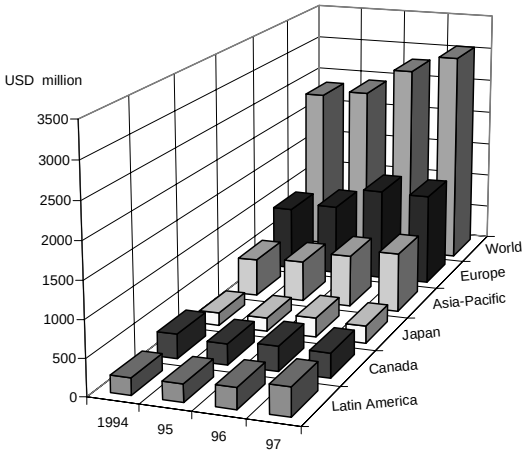


Figure 4b. **US receipts (unaffiliated) for R&D and testing services,1992-97**
USD million

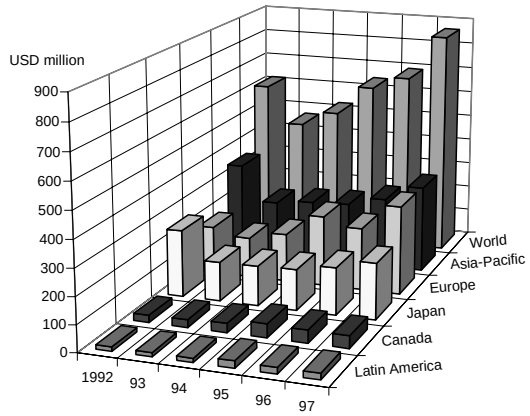


Figure 4c. **US receipts (unaffiliated) for advertising services, 1992-97**
USD million

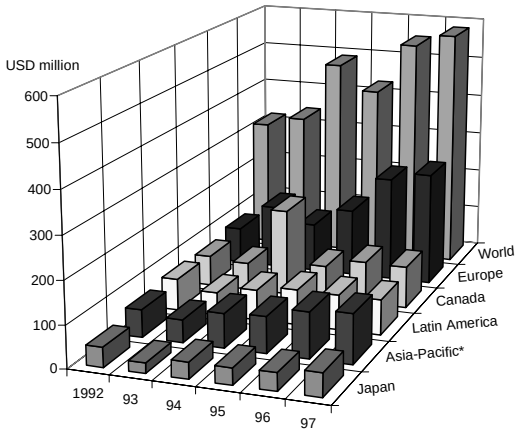
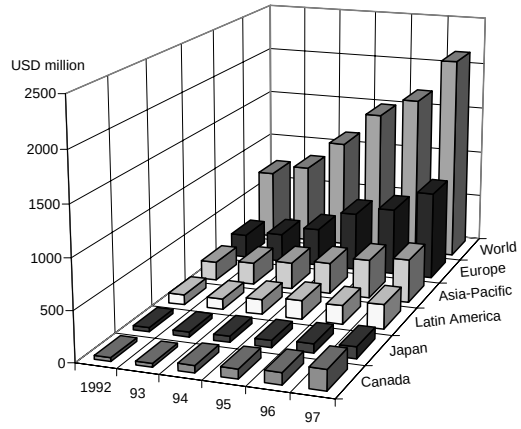


Figure 4d. **US receipts (unaffiliated) for management consultancy services, 1992-97**
USD million



Note: Asia-Pacific includes Japan.

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

Enterprises

Almost 260 000 establishments were engaged in the provision of these business services in 1995, an increase of 41% on 1987 numbers. These figures include employer enterprises. Of the 1995 total, 49% were involved in supplying business organisation services, of which three-quarters were in management consultancy and the remainder were in labour recruitment services. Approximately one-quarter of firms were suppliers of R&D and technical services while almost one-fifth were engaged in computer software and information processing activities. Advertising firms constituted the remaining 10%. The number of firms in computer software and information processing services expanded by 63% during this eight-year period and the number of firms supplying business organisation services, both in management consultancy and labour recruitment services expanded by almost 50%. Firm numbers in advertising and R&D and technical services grew by approximately 20%. In general, these strategic businesses can be characterised as comprising a large number of small firms and a small group of global players. When the average firm size is calculated (taken to be the ratio of employment to the number of firms), the result is 20 persons per firm for these business services in 1992 compared with 34.6[3] for total manufacturing.

Trade

The United States remains the largest international supplier of business services and exports have been growing more rapidly than domestic demand. As a sign of advancing globalisation, an increasing number of service providers also deliver their services nowadays as multinational operations (Table 1). US companies feature prominently in the top ten global positions for the various business services, including six US companies among the world's top ten software companies. Trade in services is being favourably affected by recent developments, including the General Agreement on Trade in Services along with various standards and quality management practices (*e.g.* ISO 9000) being increasingly adopted worldwide. US business services firms have recently been expanding into newly opened markets such as Eastern Europe and the countries of the former USSR. Mergers and acquisitions also facilitate their international expansion. Sales of these business services by US-majority-owned foreign affiliates (MOFAs) have been considerable in recent years and foreign direct investment by the United States in these activities has been significant.

Trade in computer and information services was the most important of the four major business services categories for which data are shown in Table 2. Forty-two per cent of US exports of computer and information services were exported to European countries in 1997 while 56% of US imports were sourced in Europe. Japan accounted for 8% of US exports and also for 8% of US imports in this field in 1997.

US management consultancy exports grew from USD 728 million in 1992 to USD 2.14 billion in 1997; over the five-year period, the trade surplus expanded by 180%, reaching USD 1.4 billion in 1997. In 1997, the United States exported 42% of these services to Europe and sourced 44% of imports in Europe. A further 5% of these exports went to the Japanese market and 5% of imports were sourced in Japan.

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3. OECD estimate based on OECD, *Industrial Structure Statistics*.

Table 2. **US trade in strategic business services**
USD million

Advertising	**1992**		**1993**		**1994**		**1995**		**1996**		**1997**	
	Receipts	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**
World	315	450	338	646	487	728	425	833	551	976	581	863
Canada	73	55	66	58	207	47	80	49	101	47	100	51
Europe	87	136	153	228	118	287	164	314	253	419	273	339
Latin America	76	30	54	34	72	51	84	46	83	59	84	59
Asia-Pacific	66	214	54	310	81	317	86	401	109	413	117	384
Of which: Japan	47	154	24	234	39	231	39	293	42	305	55	281

R&D & testing	**1992**		**1993**		**1994**		**1995**		**1996**		**1997**	
	Receipts	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**
World	611	225	464	239	522	294	638	364	688	343	862	473
Canada	27	24	29	29	35	35	52	44	48	30	47	37
Europe	181	123	153	118	183	143	268	198	238	211	337	316
Latin America	16	11	15	11	15	12	26	29	23	34	24	38
Asia-Pacific	349	43	212	60	228	75	235	52	269	38	330	51
Of which: Japan	253	23	148	42	150	54	155	23	178	12	212	19

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

Table 2. **US trade in strategic business services** *(cont'd)*
USD million

Management consultancy	**1992**		**1993**		**1994**		**1995**		**1996**		**1997**	
	Receipts	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**
World	728	243	826	287	1 134	321	1 489	465	1 680	593	2 139	782
Canada	37	9	36	10	72	27	94	70	118	68	203	111
Europe	246	96	296	123	394	153	605	187	692	278	907	342
Latin America	103	18	109	16	152	26	190	40	189	44	249	86
Asia-Pacific	191	88	226	106	275	71	317	113	394	154	444	200
Of which: Japan	42	23	49	19	61	17	72	30	92	32	116	41
Computer & information services	**1992**		**1993**		**1994**		**1995**		**1996**		**1997**	
	Receipts	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**	**Receipts**	**Payments**
World	1 417	143	1 680	211	2 332	224	2 418	286	2 798	287	3 047	434
Canada					333	34	285	35	339	38	335	74
Europe					899	122	1 000	160	1 295	169	1 286	242
Latin America					228	4	241	11	286	10	385	10
Asia-Pacific					523	53	565	66	723	69	828	103
Of which: Japan					177	20	188	23	267	25	238	34

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

The United States also consistently enjoyed a trade surplus in R&D and testing services for the years 1992-97; this surplus was approximately USD 390 million in 1992 and 1997. The European market took 39% of these exports and provided 67% of US imports, while Japan accounted for 25% of US exports and 4% of US imports.

Only in advertising did the United States record a deficit and this deficit widened from USD 135 million in 1992 to USD 282 million in 1997. The deficit in advertising trade occurred with both the European market and with Japan throughout this period (Table 2).

Generally, export and import data for business services account for less than the combined sales of MOFAs (majority-owned foreign affiliates). The US MOFAs are the principal vehicles for sales of many business services. Sales by these affiliate companies established in foreign markets have been multiples of exports in recent years. This has been especially true for affiliates in computer-related services, whose foreign (non-US) sales of services amounted to USD 12.1 billion in 1992 and were forecast to reach USD 73.2 billion by 2002. The case of advertising is equally a good illustration of the importance of MOFAs: in 1995, advertising exports amounted to USD 425 million while sales of services to foreigners by MOFAs in advertising in the same year were estimated to be USD 4.9 billion. Management consultancy is not an exception, with expected sales of USD 11 billion by MOFAs in this industry in 2002, representing a continuing ratio of 5:1 in favour of exports. While the bulk of services sales are transacted by affiliates in the services sector, subsidiaries classified as manufacturers accounted for 13% of all services sold by subsidiaries in Europe in 1993.

US foreign direct investment (FDI) in business services has been considerable in recent years and the most important share of US direct investment abroad has consistently gone to Europe – this in turn has been reflected in Europe's share (56%) of sales by US affiliates. Of the selected business services included in this study, FDI in computer and data processing services was by far the largest, accounting for approximately 60% of the total for these activities (Table 3 and Figure 5b). The United Kingdom constitutes an important destination for US investment in these business services, accounting for 29% of US foreign direct investment in computer-related services. Switzerland ranked in second position for US FDI in computer and data processing services, accounting for 7.5% of the total. The United Kingdom was also the principal destination for advertising investment, accounting for almost 14% of the total, and as in computer services, garnered a multiple of the volume of advertising investment, attracted by any other European country. For management consultancy and public relations, Switzerland was the favoured destination, accounting for 27% of the total. Netherlands was the principal destination for US direct investment in R&D and technical testing services in 1994.

Table 3. **Foreign direct investment position of the United States**
Historical cost basis, by industry of affiliate
USD million

	1994	**1995**	**1996**	**1997**
Computer services	8 209	8 252	11 198	11 845
R&D & technical testing	960	980	611	782
Advertising	2 139	2 403	2 848	3 324
Management and public relations	2 077	2 354	2 518	2 699
Personnel supply	447	603	688	1 352
Educational services	34	41	44	59

Source: US Department of Commerce, *Survey of Current Business*, October 1998.

Figure 5a. **Sales by US-majority-owned foreign affiliates,**
USD billion

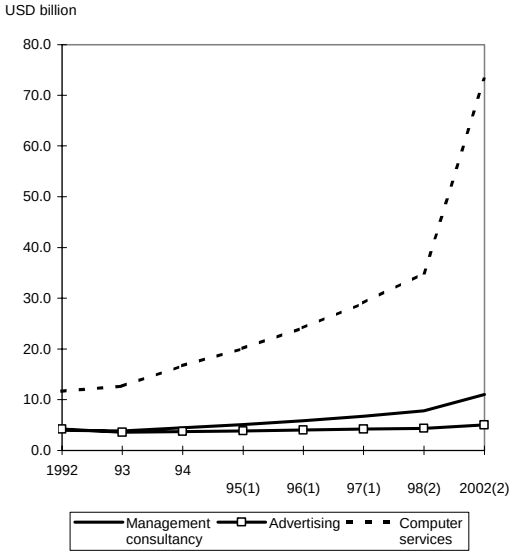
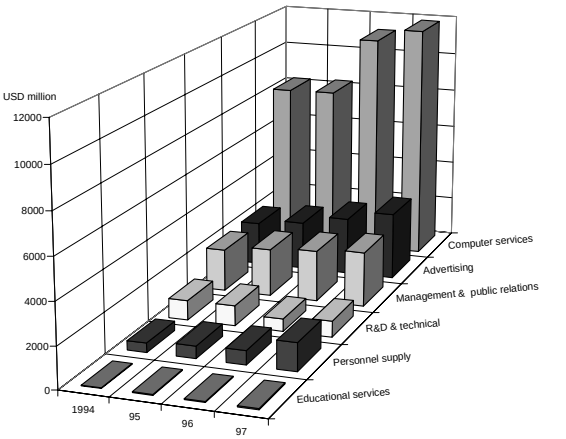


Figure 5b. **US direct investment position abroad, 1994-97**
USD million



1. Provisional. 2. Forecast.
Source: US Industry and Trade Outlook 1998.

ANNEX

Selected strategic business services in the United States: Employment, 1987-95

Classification 1987 SIC		1987	1992	1993	1994	1995
7371,2,3,4,5	**Computer software & information processing**	**522 039**	**733 544**	**786 712**	**798 963**	**893 361**
	Hardware consultancy					
	Software consultancy and supply					
	Data processing					
	Database services					
8711, 873 ex. 8733	**Research & development & technical**	**780 600**	**939 924**	**1 010 249**	**1 031 759**	**1 069 391**
	Research & experimental development					
	Technical testing and analysis					
	Marketing services					
	Market research & public opinion polls					
731 7331	Advertising	261 525	274 833	295 147	291 254	313 657
	Business organisation services	**1 948 924**	**2 618 684**	**2 783 496**	**3 156 456**	**3 514 591**
874	Management consultancy	551 842	643 952	791 204	858 434	866 337
736	Labour recruitment / Provision of personnel	1 397 082	1 974 732	1 992 292	2 298 022	2 648 254
	Human resource development services					
	Adult & other vocational education					
	Job training & vocational rehabilitation					

Note: Includes employer enterprises.
Source: Bureau of the Census and US Department of Commerce, *Census of Service Industries*.

Selected business services in the United States: Number of enterprises, 1987-95

Classification 1987 SIC		1987	1992	1993	1994	1995
7371,2,3,4,5	**Computer software & information processing**	**29 389**	**43 760**	**43 595**	**44 550**	**47 899**
	Hardware consultancy					
	Software consultancy and supply					
	Data processing					
	Database services					
8711, 873 ex. 8733	**Research & development & technical**	**48 476**	**55 365**	**56 727**	**58 223**	**60 012**
	Research & experimental development					
	Technical testing and analysis					
	Marketing services					
	Market research & public opinion polls					
731 7331	Advertising	20 711	22 901	23 728	23 820	24 769
	Business organisation services	**84 661**	**103 296**	**112 677**	**118 961**	**125 967**
874	Management consultancy	60 501	72 130	80 580	85 829	90 383
736	Labour recruitment / Provision of personnel	24 160	31 166	32 097	33 132	35 584
	Human resource development services					
	Adult & other vocational education					
	Job training & vocational rehabilitation					

Note: Includes employer enterprises.
Source: Bureau of the Census and US Department of Commerce, *Census of Service Industries*.

Selected business services in the United States: Turnover, 1987-96
USD million

Classification 1987 SIC		1987	1992	1993	1994	1995	1996
7371,2,3,4,5	**Computer software & information processing**	**42 398**	**85 764**	**96 745**	**110 706**	**126 737**	**149 642**
	Hardware consultancy						
	Software consultancy and supply						
	Data processing						
	Database services						
8711, 873 ex. 8733	**Research & development & technical**	**55 799**	**90 626**	**91 711**	**93 669**	**100 690**	**111 020**
	Research & experimental development						
	Technical testing and analysis						
	Marketing services						
	Market research & public opinion polls						
731 7331	Advertising	21 462	29 477	30 762	31 524	34 600	38 850
	Business organisation services	**63 717**	**111 190**	**117 175**	**129 423**	**154 154**	**173 494**
874	Management consultancy	43 381	72 490	75 026	81 439	94 787	104 975
736	Labour recruitment / Provision of personnel	20 336	38 700	42 149	47 984	59 367	68 519
	Human resource development services						
	Adult & other vocational education						
	Job training & vocational rehabilitation						

Note: Includes employer and non-employer enterprises.
Source: Bureau of the Census and US Department of Commerce, *Census of Service Industries*.

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