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BUSINESS AND INDUSTRY POLICY FORUM SERIES



THE
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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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FOREWORD

Services are transforming OECD economies on a massive scale, but are still impeded by regulations and policies that stifle innovation and competition. Comprehensive reforms need to be pursued internationally as well as in individual OECD countries. These are the principal conclusions reached by participants in a Business and Industry Policy Forum organised by the OECD on 28 September 1999. The Forum was organised by the Industry Committee, partly to address the mandate of the OECD Ministerial to explain the differences which have emerged in growth performance among OECD countries. It brought together senior government officials, experts, and business and trade union leaders from 30 countries to address issues related to “Realising the Potential of the Service Economy: Facilitating Growth, Innovation and Competition”.

The Forum traced the evolution of the service economy, particularly in knowledge-based areas, and examined how it affects business and society. With manufacturing slipping to less than 20% of GDP and the role of services rising to more than 70% in some OECD countries, services are seen as playing a principal role in economies. The two sectors are, however, becoming more interrelated. There is an increasingly important bundling of services with products – such as software with computers. The relationship is a dynamic one, with software, for example, driving developments in computer technology, and vice versa. Outsourcing is a key factor in this development. With companies focusing on core competencies, more service-related functions are being sourced from specialised firms; this trend is serving to improve performance in key areas.

The role of the Internet and electronic commerce was also examined. Developments in this domain are shattering conventional communication networks and are providing the means for companies to engage in partnerships that would have been unimaginable several years ago. These new partnerships help to diffuse knowledge and to strengthen the international presence and competitiveness of firms, including start-ups and small and medium-sized firms.

At the international level, participants agreed that countries need to work collectively through the GATS to establish the type of reliable and effective trading environment that has been achieved during the past 50 years for merchandise trade. At the same time, more needs to be done to substantially reduce current barriers to trade in services.

Governments need to implement a comprehensive policy approach to remove the remaining structural barriers which impede the performance and development of strategic business services, and related knowledge-intensive activities. Innovation policies should be adjusted and broadened away from traditional R&D support in manufacturing, and there is a need for new initiatives in training and lifelong learning. Tax reform and removing impediments to entrepreneurship are crucial in some countries. More adequate measuring and reporting of intangible assets is important for the effective channelling of venture capital to service activities. Finally, better input and performance indicators would provide the basic information needed by governments, service providers, users and investors to make more informed policy and business decisions.

There is considerable variation across OECD countries in the extent to which they have experienced rapid development of high-growth service industries. This, in turn, has been influenced by major differences in underlying policy conditions. In the United States, there has been extensive restructuring of existing firms which have reorganised their activities around their core competencies and outsourced a wide range of service-related activities, as well as numerous start-ups of service companies. Strong growth in Internet/ICT-related service providers has contributed to the rapid growth of an increasingly sophisticated range of innovative service products. These developments have been brought about by a number of interrelated factors, including lightly regulated product markets, efficient markets for corporate control, strong supply of venture capital and a climate that is conducive to risk-taking and entrepreneurship. Strong growth in services has also occurred in Canada and Australia, two countries with open economies and relatively few regulatory barriers. In contrast, growth in services has been slower in countries like Japan and Korea, where the business environment has been less favourable to entry by newcomers and to risk-taking, and where extensive cross-holdings of shares and the strength of *keiretsu* and *chaebol* relationships have slowed industry restructuring. Participants in the Forum agreed that the stakes are high, as services will provide the platform for future economic growth. It was agreed that the OECD should continue to work with Member countries to help design more effective and better-integrated policy approaches.

Further information on the Forum, including copies of the papers that were presented, can be accessed on the Internet at:

<http://www.oecd.org/dsti/sti/industry/indcomp/act/services/forum.htm>

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THE CHARACTERISTICS OF SERVICE INDUSTRIES

Services are a diverse group of economic activities that include high-technology, knowledge-intensive sub-sectors, as well as labour-intensive, low-skill areas. In many aspects, service sectors exhibit marked differences from manufacturing – although these distinctions may be blurring.

The nature of services

Simply defined, services are a diverse group of economic activities not directly associated with the manufacture of goods, mining or agriculture (see Annex Table A1 for an illustrative list). They typically involve the provision of human value added in the form of labour, advice, managerial skill, entertainment, training, intermediation and the like. They differ from other types of economic activities in a number of ways. Many, for example, cannot be inventoried and must be consumed at the point of production. This would include trips to the doctor, enjoying a meal at a restaurant, flying from Tokyo to Paris, or attending a concert. This is in marked contrast with manufactured products, whose tangible character allows them to be stored, distributed widely and consumed without direct interaction with the entity that produced the good.

Technological advances are, however, narrowing the differences between services and other economic activities. While it has not reached the point where someone can enjoy the ambience of a good restaurant without physically going to one, information and communication technology (ICT) now enables people to participate in a growing number of service-related activities in real, or deferred, time, without having to be physically present. Copies of movies and most other performances can be recorded and mass-produced for future consumption, like manufactured products. Software is developed and boxed like any other manufactured product, and is considered, for all intents and purposes, a good – albeit with a high service-related content. In these instances services have, in a sense, taken on the characteristics of commodities – one provider is mass-producing a common product for many people. Service providers are thus increasingly able to benefit from economies of scale (Box 1). The benefits have

not, however, been restricted to large enterprises as small firms can achieve similar gains through increased networking.

The relationship between service providers and consumers is also changing in other ways that may have significant implications for economies. Technology now allows providers to produce a single product, which is not mass-produced, but which is capable of being mass-consumed, either on a standardised or customised basis. Such is the case with online Internet access to dictionaries, encyclopaedias, newspapers, museum collections, etc. It will also apparently be the case with key, basic operating software in the near future, as both Microsoft and Sun Microsystems have announced their intention to supplement distribution of “boxed” software with online versions (Taylor, 1999).

Box 1. Technological advances are transforming services

In the 1920s, Ford Motor Company built the River Rouge assembly plant in Michigan. Coal and iron ore were brought in one end and finished automobiles came out the other. Today, this would seem aberrant, some sort of bizarre theme park, but in fact, at that point in time, the technology of scale made it an entirely rational way of working. There is a great similarity between banks today and the automobile industry that built that plant nearly 80 years ago. And that is, today's banks, like Henry Ford in the 1920s, are learning the techniques of mass production for the first time.

There was a time when a bank would lend to a business or provide a mortgage, would take the asset and put it on their books much the way a museum would place a piece of art on the wall or under glass – to be admired and valued for its security and constant return. Times have changed. Banks now take those assets, structure them into pools, and sell securities based on those pools to institutional investors and portfolio managers. In effect, they use their balance sheets not as museums, but as parking lots – temporary holding spaces to bundle up assets and sell them to those investors who have a far greater interest in holding those assets for the long term. The bank has thus gone from being a museum where it acquired only the finest assets and held and exhibited them in perpetuity into a manufacturing plant which provides a product for the secondary market. Just as Henry Ford did 80 years ago, banks today are focusing on producing a standardised product at a predictable rate, under standard norms of quality, and are teaching their workforces to produce that product as quickly and as efficiently as possible.

Technology has been key to this process. The reason that we see a services economy today, and gather to talk about it and recognise its importance is because technology has allowed service industries to gain the operational leverage that manufacturing achieved 100 years ago. In addition to banks, health systems, telephone and telecommunications networks, and distribution and retailing firms are further examples of sectors that have been able to benefit from economies of scale. As a result, we are now living in a world where global-scale service companies exist for the first time, whereas we have seen global manufacturing companies for 50 years or more.

Source: Adapted from Ehrlich, 1999.

Technology is also affecting the relationship between providers and consumers in areas previously unthinkable, such as health care, where the need for personal contact to diagnose and treat ailments is becoming less essential. “Internet” banking, real estate, retail and financial services provide other examples where personal, or onsite, contact with service providers is no longer essential for the services to be performed; in many instances such services can, in fact, be provided far more efficiently via the Internet or through other remote communication modes.

Relationship to manufacturing

The relative importance of manufacturing and services to economies, and the inter-relationship between the two have been the subject of much discussion through the years. Some have argued that the decline in manufacturing and the corresponding shift to services is unsupportable in the long run, since services depend critically on manufacturing for their existence. In the absence of manufacturing, service sectors are seen as collapsing. On the other hand, a forceful case was made at the Forum that services have become a major driving force in economic growth. Rather than services following and supporting manufacturing, manufacturing is seen as flowing to those countries and areas where the services infrastructure is efficient and well developed.

The discussion on this point ultimately underscored the close and symbiotic relationship between services and manufacturing, and the blurring, sometimes arbitrary, distinction between the two. Without demand for transportation, for example, the need for trucks, buses, ships and airplanes would collapse. Similarly, without demand for information and entertainment, there would be no need for printing presses, televisions and radios. The inter-relationship between computers and software provides an example of the dynamic interplay between manufacturing and service activities, as software developments are pushing development of more powerful computers, and vice versa. At the same time, computers and software are totally dependent on each other in the sense that neither would have commercial value without the other (*i.e.* a computer without software would be as worthless as software without an operating platform).

The shift of OECD countries towards services may, however, be overstated in light of the structural changes that are occurring in economies. Increased outsourcing of key services by manufacturers, for example, is tending to magnify the apparent shift to services, to the extent that such outsourcing simply represents a change in accounting. In the case of France, if one looks at the contribution that manufacturing and industry-related services are together

making to the economy, not much change has, in fact, occurred between the 1980s (when they accounted for 27% of value added to GDP) and the 1990s (29%) (Seyvet, 1999).

In addition to interacting with one another, services are increasingly being embodied in manufactured products. This is reflected in the innovative effort and expertise that is captured in the final value of products, as well as design, technical assistance and other “intangible” aspects. In some cases, the rising demand for products with a higher service-oriented content is having an impact on the ways that companies perceive themselves. One of the world’s largest steel producers, for example, currently considers its service-related activities to drive its business, with the manufacturing aspects playing an important but less dominating role (Seyvet, 1999). Moreover, following in the footsteps of France’s Minitel, some telecommunications and Internet service providers are now providing telecommunications and computer equipment to subscribers at low or no cost, reflecting the growing intrinsic value of the service rendered.

Competitive conditions

The service sector comprises some of the world’s largest corporations (Annex Table A2), as well as a large number of small and medium-sized enterprises which, in many cases, consist of a sole person. While a number of sectors are still heavily regulated, others are relatively open, with low barriers to entry and keen competition.

The convergence of services and manufacturing in many areas is, however, making it increasingly difficult to classify firms uniquely under either category, particularly as manufacturers expand their businesses into service-related areas. The firms General Electric (US) and IBM, for example, which are major manufacturers of goods, currently generate more than half their revenues from services, reflecting a transition that can be found, to varying degrees, throughout industry (General Electric, 1998; IBM, 1998).

The provision of services, and their cost structures, differ from other sectors in a number of key ways. In manufacturing, substantial costs – in the form of raw materials, labour and capital equipment – are typically incurred in mass-producing items for market. In the case of knowledge-based services, such costs can be negligible. In the case of electronically distributed items (such as software and Internet-based news sources), for example, virtually all costs are incurred in product development, the preparation of a single “master” product, marketing and technical support. This has important competitive implications. Already, for example, sophisticated Internet browser software is being made

freely available to consumers as is a wide range of other software and news products. This low-cost/no-cost accessibility, combined with the rapid development of the Internet and the World Wide Web, could be a catalyst for speeding the development and dissemination of a wide range of goods and services on a global basis.

Another distinguishing feature of services is the relatively high emphasis placed on intellectual capital, or “intangibles”, in many service activities. While difficult to measure, “intangibles” can hold the key to value creation. However, because, unlike a piece of equipment, they cannot be valued in a concrete way, and because they represent a weak form of collateral for the purpose of securing debt finance, their contribution to companies and their intrinsic worth often goes unrecognised – a major drawback for obtaining finance. Until ways can be found to improve the reporting and understanding of the role played by intangibles, growth and investment in promising knowledge-based activities will be slowed, with start-ups remaining heavily dependent on venture capital.

Innovation

Innovation, in its broadest sense, is widespread in many service sectors, but far less evident in others. Financial services, distribution and retail trade, communication services and software are among the most active innovators, as evidenced by their heavy investment in ICT and the vast array of new products that are being developed and adapted to meet changing consumer demands and/or enhance competitiveness. Areas where innovation has lagged tend to be those where regulation has restricted competition, or those which, by their nature, are less inclined to be innovative. This latter group would include certain personal services where physical labour is a principal aspect, or services which are heavily rule-bound (*e.g.* certain sports or games).

Measurement of innovation in services, however, is not as straightforward as in manufacturing, which makes it difficult to evaluate the extent to which it is occurring. While research and development expenditures (an innovation indicator) tend to be relatively low, for example, some service sectors (as indicated above) are major buyers and users of advanced technology, which, in turn, can have a pronounced effect on innovation. Similarly, patenting (another innovation indicator) is common in manufacturing, whereas innovation in services is more likely to be protected by copyright and trademark procedures. Moreover, there are many “intangible” forms of innovation associated, for example, with processes and procedures which are difficult to capture using established indicators.

In addition to being innovative themselves, services are spurring innovation elsewhere in the economy. Countries with advanced business services, for example, are likely to have stronger communication capabilities in terms of connectivity and receptivity and, as a result, higher innovative capacity. In this context, consultants and advisers can improve the connectivity between agents, sharing learning experiences and creating learning opportunities, thereby increasing receptivity. Similarly, advanced business services can improve the interaction between tacit and codified knowledge, helping to increase innovation (Hauknes, 1998). One of the more visible signs of this can be found in the field of electronic commerce, where the major advances being made by software and applications firms – like ICL, Oracle, Sun Microsystems, Microsoft, and many others – are facilitating a major re-engineering of a growing number of firms across all sectors of the economy.

Environment

Interest in promoting sustainable, environmentally sound, development is a high priority for OECD countries. Services provide a number of key challenges and opportunities in this area. Within services, transportation is a sector which is both a major energy consumer and a source of greenhouse gases. On the other hand, most of the fast-growing knowledge-based services are (relatively) environmentally benign. This is significant as it may mean that growth in these services could occur without aggravating environmental problems (such as greenhouse emissions). Although not conclusive, there is evidence that this could be occurring, albeit to a limited extent. During the 1990s, emissions of carbon dioxide in the United States were closely correlated to changes in economic activity. In 1998, however, emissions were only 0.4% above 1997 levels, despite weak energy prices and a 3.9% increase in GDP (Wright, 1999). This de-linkage could play an important part in meeting longer-term objectives relating to sustainable development. In addition, the contribution that these services are making to increased efficiency in the production and distribution of other goods and services should have a beneficial effect on resource use, which, in turn, could have important environmental implications.

THE ROLE OF SERVICES IN OECD ECONOMIES

Services account for over 60% of total economic activity in most OECD countries. Growth has outpaced overall economic growth in the OECD area, a trend which is expected to continue. Services are playing a greater role in business cycles, and knowledge-based services linked to information technology (IT) may be an important engine in overall growth.

Trends

Services play a key role in OECD economies, accounting for over 60% of total economic activity in most OECD countries, and for more than 70% in ten countries¹ (Annex Table A3). Their growth has exceeded overall economic performance for decades, which has resulted in the share of services in total economic activity increasing over time. The rising trend can be expected to continue, or even accelerate, in light of the increasing prominence of knowledge-based, service-oriented activities in the OECD area. The growing role reflects higher consumer and business demand, outsourcing of service-related activities from manufacturing firms and the major role played by IT.

Services also play an important intermediary role that is not easily reflected in statistics. Well-established financial, transportation and distribution systems, for example, are critical for the smooth functioning of all businesses and, for that matter, governments. In the field of international trade, although services themselves are not as widely traded as manufactured goods, they are associated with, and support, every export and import transaction. In the absence of such services, international trade would grind to a halt.

The most rapidly growing sectors are finance, insurance and real estate and business services (Box 2), with community, social and personal services increasing in a number of countries as well (Annex Table A4). The relative importance of transport and communication services in total services, on the other hand, has generally fallen, as has the share of the distribution sector. The

1. Includes government services.

declines reflect saturated demand for some of these services, while relatively rapid productivity growth in sectors such as communications has contributed to changes in relative prices and reduced the share of these sectors in total output and employment.

Box 2. Strategic business services

Strategic business services – which include computer software and information processing services, research and development and technical services, marketing services, business organisation services and human resource development services – have shown rapid growth and strong employment generation in recent years in OECD countries. Total turnover in these services is estimated to have exceeded USD 1.1 trillion for 19 OECD countries in 1995. The growth, which is part of a more general shift in economies to services, has been driven by a wide range of factors, including:

- ◆ *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 internal resources.*
- ◆ *The need for greater flexibility within firms.*
- ◆ *The rise of knowledge-based economies, which rely on expertise and specialised service inputs.*
- ◆ *Specialisation and increased division of labour in many areas.*

The rate of growth of strategic business services in the OECD area has been averaging around 10% per year in current terms, so that their combined turnover may be on the order of USD 1.5 trillion in 1999. Employment in these services is estimated to have exceeded 11 million persons in 1995, or about 2.4% of total employment for the total of the 21 countries for which employment data are available. This is more than twice the number of persons employed in the entire OECD motor vehicle industry, which is one of the largest manufacturing sectors. More recent data from countries indicate that strong growth has continued since 1995, thereby increasing the importance of these activities in economies.

The provision of strategic business services is considered key to enhancing performance across the economy, in manufacturing and services alike. Increased efficiency in the provision of services will have positive spill-over effects on both large and small firms. Governments can influence the supply of, and demand for, these services. Demand can be stimulated by promoting intangible investment by the private sector in R&D, training and education, and in business organisation; supply can be supported through a range of intermediary bodies. The enhanced provision of strategic services is seen as particularly valuable in improving the performance of small and medium-sized enterprises.

Source: OECD, 1999a.

Outsourcing

As indicated above, one of the reasons that business services are growing rapidly relates to the increased outsourcing by firms of activities that they had previously conducted internally. Reasons for this growth include pressure on corporations to concentrate operations on core competencies, reduce costs and exploit external, specialised expertise more effectively (Box 3).

Box 3. Factors driving outsourcing

- ✓ *Cost and efficiency.* Outsourcing firms that provide support services to other firms are often able to do so at lower cost while offering a wider choice of innovative products. This reflects the positive effects of competition – in-house firms are likely to be shielded from competition, a condition which lowers the pressures to be efficient and the incentives and need to innovate.
- ✓ *Competence.* The increasing sophistication of information, financial, computer, research and training needs by business and the rapid evolution of new techniques and products in these fields have made it difficult for firms to maintain competitive competence in these areas. Doing so would require the accumulation and maintenance of a knowledge base in diverse disciplines that in most instances firms would be hard-pressed to justify.
- ✓ *Specialisation.* The trend in industry in recent years has been towards consolidation and concentration on core competencies, a development which has provided new opportunities for independent suppliers of both goods and services.

Source: OECD.

Surveys conducted in the United States by the Outsourcing Institute (1997) show that companies with over USD 80 million in annual revenues increased outsourcing by 26% in 1997 to USD 85 billion. IT was the fastest growing activity being outsourced, accounting for 30% of total outsourcing expenditures. Human resources was the second largest (16%), followed by marketing/sales (14%) and finance (11%). Manufacturers accounted for nearly two-thirds of the outsourcing, with information and professional services each accounting for 13% of the total.

In Europe, IT outsourcing is also growing rapidly. Estimated at USD 15 billion in 1997, expectations are that it will rise to USD 27 billion in 2001. The most active markets have been in the United Kingdom, France and Italy (Lister, 1997). In Japan, a survey conducted by MITI (1997) indicates that job training (20.1%), information systems (19.7%), production processes (17.4%), accountancy and tax (14.0%) and research and development (13.7%), were the services that businesses were most likely to outsource. According to

the survey, the forces driving outsourcing were promotion of specialisation (cited by 65% of respondents), cost savings (50%) and improving efficiency (36%).

The rise in outsourcing is being accelerated by the advances that have been made in ICT. Now that firms are able to move information into and out of companies as fast as they can within them, traditional, closed, hierarchical structures have effectively been punctured. As a result, firms are being pressured to become flatter and more focused on those aspects of their business in which they hold true competitive advantage. In effect, the boundaries on their activities are shrinking to correspond to their world-class skills, with related activities being outsourced. ICT is facilitating the process by allowing a “suite” of companies operating in different but related spheres to co-ordinate in ways that enable them to operate efficiently and effectively as one (Box 4).

Box 4. Restructuring at ICL

The experience of ICL, a company based in the United Kingdom that has transformed itself from a computer manufacturer to a leading information and technology firm, is illustrative of the change that is occurring, albeit to varying extents, in many firms that are re-engineering themselves to focus on their core competencies. ICL's transition to services was driven by three factors:

- ✓ *Commoditisation.* Universally available components, software and the like made it difficult to develop a differentiated product that would not essentially be copied within a short period of time.
- ✓ *Globalisation.* Customers were expanding global sourcing strategies, increasing competitive pressures.
- ✓ *Liberalisation.* The removal of tariff and non-tariff barriers, as well as extensive regulatory reform, were creating new opportunities for innovative services.

At the same time, it was becoming apparent to ICL that customers in the business community were increasingly not seeking to buy technology (such as computers) as such, but were more interested in purchasing a “value proposition” that would be technology-driven. In other words, customers were evaluating and buying systems, as opposed to pieces of equipment that they would then adapt to meet their specific needs.

ICL responded by abandoning those areas of its business where it no longer had competitive advantage – notably in computer hardware – and by focusing attention on developing and marketing its expertise in designing and operating information and communications systems. It now does so in partnership with a variety of other firms, whose participation varies according to the specific work involved. In addition to providing customers with an outsourced service, ICL itself is a major outsourcer, through its relationships with other companies.

Source: Hall, 1999.

Economy-wide, outsourcing appears to offer benefits in the form of growth for new service sectors, improved quality of services and lower prices. There are, however, limitations to its growth, to the extent that firms become concerned about the potential leakage of strategic information, loss of competence and control in outsourced activities, and reduced acquisition of “know-how”. Other obstacles include immature and inefficient service markets, information asymmetries and little experience in measuring and evaluating outsourcing relations. In addition, growth could be slowed by industry- and country-specific laws and regulations, contractual issues, organisational considerations, employment mobility and related human resource issues and public procurement rules.

Electronic commerce

As indicated above, developments in ICT are revolutionising the way individuals and organisations collect, evaluate and transmit knowledge and information, both in home and work environments. These developments are likely to have profound effects on the role and impact of services in economies. One of the key innovations has been in the field of electronic commerce (e-commerce), which is providing new ways to conduct business that will have beneficial effects on economic growth, productivity and efficiency, jobs and consumer choice. It has already affected the communications, finance and retail trade sectors (comprising together about 30% of GDP), but it also holds promise in areas such as education, health and government (about 20% of GDP). Although the capability was available by the late 1960s, e-commerce development began in earnest in the early 1990s with the arrival of the World Wide Web, the liberalisation of the telecommunications sector, and innovations that greatly expanded the volume and capacity of communications systems.

Four broad themes have emerged as important for understanding the impact of e-commerce on society (OECD, 1998a):

- ✓ First, e-commerce is expected to transform the marketplace by replacing traditional intermediary functions, developing new products and markets and creating new and closer relationships between business and consumers. In doing so, the organisation of work will be changed, new channels of knowledge diffusion and human interactivity will be opened, more flexibility and adaptability will be needed, and worker functions will be redefined.
- ✓ Second, e-commerce will have a catalytic effect by serving to accelerate and diffuse changes that are already underway in the economy more

widely – such as the establishment of electronic links between businesses, the globalisation of economic activity and the demand for more highly skilled workers. Likewise, many sectoral trends already underway, such as electronic banking, direct booking of travel and one-to-one marketing, will accelerate.

- ✓ Third, e-commerce will greatly increase interactivity in the economy, as people will have the ability to communicate and transact business anywhere, at any time. This will tend to erode economic and geographic boundaries.
- ✓ Fourth, e-commerce is altering the relative importance of time by speeding up production cycles, allowing firms to operate in close co-ordination and enabling consumers to conduct transactions around the clock.

These changes are currently occurring in a relatively open environment, which is based on non-proprietary standards. The openness has led to a greater role for consumers, who are increasingly implicated as partners in product design and creation. An expectation for openness is building, which will cause transformations for the better (*e.g.* increased transparency and competition), and/or worse (*e.g.* potential invasion of privacy). Advances in e-commerce have the potential to increase economic efficiency dramatically, while strengthening and expanding global competition.

EMPLOYMENT AND SERVICES

Services are a growing source of employment in the OECD area and demand for highly skilled white-collar workers is rising, although services are also an important source of low-skilled jobs.

Characteristics

Job creation in services is exceeding overall job growth in the OECD area. By 1997, about 64% of OECD civilian workers (which includes government workers, but excludes armed forces personnel) were engaged in activities related to services; in nine countries, the share exceeded 70% (Annex Table A5). The overall level is up from about 55% in 1980. The share is expected to continue to rise over time as fast-growing knowledge-based services expand. Moreover, during 1980-97, more jobs were created in services in OECD countries than were created overall (meaning that growth in service-related jobs more than compensated for job losses in other sectors).

While the largest proportion of persons engaged in service activities in 1997 were employed in community, social and personal services (45%), implicit growth between 1980 and 1997 was strongest in the finance, insurance, real estate and business service sector (4% per year), which increased its overall share by 4 percentage points, to about 15%. Growth in community, social and personal services was also relatively strong (2.4%), followed by distribution (1.9%) and transport and communication (1.3%).

The diversity of services is reflected in the character of the labour force, which, as in manufacturing, ranges from relatively low-skilled workers to highly skilled specialists. An analysis of employment growth by skill level during the 1980s in ten OECD countries shows that the growth rate for highly skilled white-collar workers was higher than for other categories in all but one of the countries examined, while growth in jobs for highly skilled blue-collar workers, on the other hand, was generally relatively weak (OECD, 1997a). At the same time, it is important to note that many service sectors offer job opportunities for low-skilled labour (OECD, 1998c).

In the case of the United States, where job creation has been brisk in recent years, some 20 million jobs (net) were created during 1993-99, close to 90% of which were in service-related areas (including public utilities and government). An analysis indicates that 81% of the new jobs were in categories paying above-median wages, with 65% in job categories with wages in the highest-paying third of industry/occupation categories. Most of the job gains were in professional and managerial occupations (30% and 33%, respectively), but non-college graduates also fared well, as 71% of the new jobs created in occupations that were more likely to be filled by non-college graduates were in areas that paid above-median wages (US Council of Economic Advisers and US Department of Labour, 1999).

Similarly, in Canada, most service industries exhibit average weekly earnings greater than the overall average. The earnings are substantially higher in the transport, storage and communication and the finance, insurance and real estate categories. Moreover, in business services, earnings have risen by 3.2% per year during the past five years, which is twice the 1.6% average for all sectors (Industry Canada, 1999).

The development of services, which are less capital intensive than manufacturing and benefit more from the increased demand that comes with higher incomes, clearly holds the key to more jobs in economies plagued by structural unemployment. This is partly because some services generate potential jobs for low-skilled workers. At present, regulatory barriers, tax wedges, minimum wages, etc., impede the development of these types of services in a number of countries, particularly in continental European countries. At the same time, knowledge-intensive services are increasingly important for overall job creation, both because they are growing rapidly and because they play a role in the upgrading of workers' skills.

The importance of human capital

The transition to knowledge-based, service-oriented economies is raising the importance of human capital in enterprises. An acute shortage of skilled workers has already emerged as a major problem for some countries and companies. In recognition of this situation, governments are exploring a number of ways to support upskilling of the workforce. These include educational reforms, and incentives for firms as well as individuals to invest in continuous learning.

In Australia, the implications for government have been set out as follows (Australian Department of Industry, Science and Resources and Australian Services Network, 1999):

“... the ‘third wave’ [*i.e. knowledge-intensive*] service industries require significant IT&T [*information technology and telecommunications*] and scientific skills – which differ among segments (*e.g. IT&T, biotech*), but which share the characteristic that they constantly need to be kept relevant in highly dynamic environments. This presents ... a challenge for governments, which play the major role in education and training but are typically not geared to provide training which is highly responsive to changing industry needs.”

The effective implementation of lifelong learning programmes is seen as essential by Australia and by a number of other OECD countries (see OECD, 1998c and 1999h for examples of country initiatives for training and lifelong learning). To highlight one case, Canada has taken a number of initiatives (Industry Canada, 1999):

- ✓ *The Youth Employment Strategy*, which provides employment opportunities to youth via internships.
- ✓ *The Sectoral Partnerships Initiative*, which creates an alliance among management, labour, government and educators to develop comprehensive strategies that deal with the human resource challenges facing industry.
- ✓ *The Software Development Worker Pilot Project*, which addresses issues related to the shortage of skilled software workers. This project expedites the process of authorising foreign software workers in seven designated job categories to work in Canada on a temporary basis.

For the UK’s ICL, which recruited 3 200 new staff during an 18-month period in 1998-99 (total employment at ICL is on the order of 22 500 persons), a shortage of skilled workers represents a major constraint to growth. Reflecting the importance it attributes to human capital, the company currently spends some GBP 20 million annually on internal staff training and development (representing between 0.7 and 0.8% of sales) (Hall, 1999).

The Canadian initiatives, like many of their parallels in other OECD countries, are based on the notion that the prime role for governments in

upskilling is to work through and with industry. The behaviour of employers and employees is decisive for the degree to which there will be an accumulation of demand-led and relevant skills. The rapidly developing service sector is particularly dependent on a strong ability to generate vigorous upskilling.

Productivity

Standard indicators of labour productivity show that services make a contribution to overall productivity growth that is relatively limited compared with the size of the sector. At least half of growth in the non-farm business sector of Finland, France, Italy, Japan, the Netherlands, Sweden, the United States and Western Germany over the 1990-97 period, for example, was due to the manufacturing sector (or, in the case of Norway, mining) (OECD, 1999b). In certain instances, service sectors did, however, make important contributions in a number of OECD Member countries (*e.g.* transport and communication in Australia, Finland, Italy and Norway).

Slow productivity growth overall, however, masks a wide variety of experiences and is also influenced by measurement problems. In some services, such as distribution, telecommunications and parts of the financial services industry, technological change has strongly affected the production process and the organisation of production, and has contributed to significant improvements in productivity, but this may not always be easy to measure.

For instance, in the distribution sector, productivity growth over the period 1979-94 was more rapid than in the economy as a whole in several countries (OECD, 1998b). Growth benefited from greater use of advanced technologies, particularly ICT. These included scanning and inventory management systems, greater use of self-service systems, increases in scale, and closer integration of manufacturers and retailers. Productivity growth in transport and communication has also been rapid over the past two decades, reflecting advances in communications in particular. Several countries have sustained annual productivity growth rates of over 8%. A number of countries also performed well in transport, with annual productivity growth of around 3%.

Productivity growth in some other services – notably community, social and personal services – has been more sluggish. This may reflect measurement problems (Box 5); on the other hand, many of these services are also less easily automated or affected by technological improvements. There may be little scope for productivity growth in these areas.

Box 5. Problems in measuring services productivity

The key problem in calculating service sector productivity lies in achieving a suitable measure of output over time. This is complicated by two factors: *i*) market prices may not be observable for publicly provided services; and *ii*) it is often difficult to identify precisely what constitutes the service activity in a particular industry and to account correctly for quality changes in services. Most of these issues arise for the measurement of real output, which requires separating the price and quantity components of the value of production.

The measurement of output requires identifying whether the output consists of the transaction performed or the outcome achieved through the service. For example, should a teacher's output be measured by the numbers of hours of teaching or by the results achieved by students? If the former, then productivity growth will be zero by definition. Another difficulty is to identify the individual elements that usually comprise a service. The banking sector, for example, offers a series of services such as safekeeping, accounting, or facilitating payment of bills. These functions are difficult to seize in statistical practice, and proxies, such as the number of transactions, accounts or outstanding credits, have to be used.

Also, if the change in quality of a good or service is ignored in quantity measurement, all price changes (including those due to quality changes) will be registered as inflationary moves in product prices, and what is being compared over time will not be truly comparable. As a consequence, real output will be undervalued. As long as quality changes and characteristics of services are directly observable, statistical techniques can be employed to establish a relationship between these characteristics and the price of a service ("hedonic prices"). However, differences in quality characteristics of services are often difficult to observe. For example, it is straightforward to measure the hours spent by a lawyer with clients, but it is very difficult to measure the quality of the advice given. Yet the quality of the advice is a determinant of the price of the service and a price rise due to greater probability of winning a case cannot be distinguished from price rises for other reasons. Current statistical practice is not well equipped to deal with this issue.

Source: OECD.

INTERNATIONAL TRADE AND INVESTMENT IN SERVICES

Trade in services is growing more rapidly than trade in goods but still accounts for less than 20% of overall trade, partly due to market barriers. However, foreign direct investment in services exceeded FDI in manufacturing in the 1990s as service providers intensified efforts to establish commercial presence in foreign markets.

Trade trends

Trade in services has been increasing in recent years, driven partly by the globalisation of industry. Manufacturing and service firms which have increased their international operations have pressured service providers to support these operations either by exporting their services, or through the establishment of a presence in foreign markets. Technological advances are also key to expanded trade, as they have enhanced the ability of service providers to interface with foreign clients in a time-sensitive, highly cost-effective manner. Development of a greater variety of discrete “service-oriented” products (such as software and interactive databases that can be easily accessed) has also been key as it has created an effective medium for packaging and distributing storable knowledge and information.

In contrast to merchandise trade, which is generally measured in terms of cross-border transactions, the General Agreement on Trade in Services (GATS) defines four modes of trade for services (WTO, 1999a). The four modes give rise to a much broader concept of trade, including transactions performed by foreign subsidiaries as well as transactions performed by individuals who have temporarily travelled to a foreign country to perform services (or, conversely, consumers who have travelled to foreign providers to effectuate a service transaction):

- 1) *Cross-border supply*, which are services supplied from the territory of one party to the territory of another (similar to trade in merchandise).

- 2) *Consumption abroad*, which are services supplied in the territory of one party to the consumers of another (for example, tourism).
- 3) *Commercial presence*, which are services provided through the presence of service-providing entities of one party in the territory of another (for example, banking).
- 4) *Presence of natural persons*, which are services provided by nationals of one party in the territory of any other (for example, construction projects or consultancy).

As conventionally measured (modes 1 and 2 above), the share of services in total exports of goods and services has been relatively low (19% in 1998), given the major role that they play in economies, but the level has been rising. Between 1990 and 1998, world trade in commercial services grew at an implicit average annual rate of 6.4%, to USD 1.3 trillion, which was slightly higher than growth in merchandise trade (exports), which increased by 5.9% per year, to USD 5.4 trillion (WTO, 1999b). As with merchandise trade, OECD countries have dominated trade in services (Annex Table A6).

An analysis of the structure of trade for the year 1997 indicates that the highest growth occurred in services other than transportation and travel (Annex Table A7). Within this general “other” category, data for six leading countries indicate that trade in financial services (including banking and insurance), construction and computer and information services grew faster than the overall rate of 6% attained in 1997. Trade in cultural and recreational services, royalties and licence fees and other business services, on the other hand, grew more slowly than the average. Attempts have also been made to calculate the value of modes 3 and 4 of trade in services. Karsenty (1999) estimates that these modes could have accounted for another USD 820 billion in trade in 1997, bringing the total to about USD 2.2 trillion or 7 to 8% of world GDP.

Foreign direct investment

Foreign direct investment (FDI) is an important aspect of international trade in services. The total volume of services FDI in the OECD area is significantly higher than that of manufacturing FDI (OECD, 1996a). Important contributions to services FDI are being made in retailing, banking, business services and telecommunications, and, to a more limited extent, in hotels and restaurants. These are all sectors where commercial presence is an important requirement for business activity. However, it is only over the past decade that the total volume of services FDI flows in the OECD area surpassed

manufacturing (OECD, 1996a). Consequently, services FDI stocks in most countries are relatively low compared with manufacturing. In some services, such as education, health and social and personal services, international competition plays a minor role, as both trade and FDI are quite limited.

Issues

Growth in international trade and investment in services is influenced by a number of factors, including:

- ✓ The difficulty with which services can be stored or transported.
- ✓ The high level of person-to-person interaction that is common to many services and which may require local presence.
- ✓ The fact that many service providers are small firms that are less globalised and less disposed than larger manufacturing or agricultural concerns to export high-volume, homogeneous products.
- ✓ Cultural barriers and differentiated products, which can limit demand for imported services.
- ✓ Trade barriers.
- ✓ Restrictions on local establishments and operations.

The benefits of expanding international trade in services are clear. For consumers, it means greater choice, but there are many benefits for industry as well. In several services, such as retailing and retail banking, such expansion provides an important means for local companies to increase sales once firms are confronted with saturated domestic markets. It also provides a means for companies to gain access to new knowledge, innovative concepts, services and ideas, and to new technologies. This is particularly true in instances where companies participate in joint ventures, mergers or acquisitions with foreign partners. At the same time, expanded trade in services can act as a catalyst for broader growth in international trade and investment in other areas, by providing improved logistical and technical support to clients.

Co-operative arrangements and alliances also play an important role at the international level. For instance, retailers co-operate in joint purchasing groups, which provide them with additional market power in their dealings with manufacturers. International co-operative arrangements sometimes also include

joint marketing, logistics and finance. As these functions are closely linked to the core services provided by retailers, such co-operative arrangements may enhance the innovative performance of retailing firms. At the same time, it is important that such alliances do not give rise to detrimental concentration and hinder competition.

Barriers to trade

Growth in international trade, however, has been impeded by barriers that restrict the movement or activities of persons and firms, and cross-border transactions (Annex Table A8). Reducing these barriers in services is considerably more complex than in manufacturing as regulatory conditions tend to be specific to each service, making it difficult to address issues in an “across-the-board” manner.² This helps to explain why international services negotiations have, by and large, thus far been conducted on a sectoral basis. Further information on barriers can be obtained from a variety of sources, including the World Trade Organisation which has released more than 20 sectoral reports to the public (<http://www.wto.org>). Related work has also been conducted at the OECD (Box 6).

GATS

With a view towards strengthening framework conditions and reducing trade barriers, governments established the General Agreement on Trade in Services (GATS), mentioned above, during the Uruguay Round, under the auspices of the World Trade Organisation. The principal features of the Agreement are that it: *i*) covers most services (except those provided in the exercise of governmental authority); *ii*) establishes a principle of non-discrimination in favour of national providers (the national treatment principle); and *iii*) establishes the principle of non-discrimination among members of the Agreement [the most-favoured-nation (MFN) principle].

2. Exceptions being issues related to establishing a commercial presence in a foreign country and issues related to the temporary admission of foreign nationals or foreign permanent residents as services providers in a territory, both of which have important generic applicability.

Box 6. **Barriers to trade in services**

Air cargo services. Ownership and control issues pose barriers to entry and affect international competition in air cargo services, including “wet leasing” (*i.e.* leasing aircraft with a crew), multiple licensing requirements in multimodal operations, customs procedures and documentation requirements, restrictions on ground handling services, and safety, security and environmental standards as well as the proliferation of bilateral intergovernmental agreements (OECD, 1999c).

Environmental services. Barriers to trade in environmental services appear to arise from regulations relating to investment/establishment, conditions of entry and right of abode for services managers, licensing and government procurement practices. These are creating a disincentive to global diffusion of environmental technologies, skills and expertise (OECD, 1998d).

Financial information and advisory services. Barriers to trade in financial information and advisory services (FIAS) relate to limitations on physical establishment, restrictions on the provision and transfer of information, market access limitations on establishments, restrictions on the movement of suppliers, and instances of sectoral monopoly or exclusive provision and “reserved” government procurement (OECD, 1999d).

Professional services. Almost all OECD countries restrict the cross-border provision of one or more professional services, thereby requiring local presence. Full retraining requirements exist in some OECD countries for the provision of accountancy and legal services, effectively nullifying the value of any qualifications acquired abroad. Nationality and citizenship requirements are more frequent for legal and accountancy services than for engineering and architectural services (OECD, 1999e).

Wholesale trade services. Most restrictions applied by WTO members limit the provision of wholesale trade services by foreign affiliates or branches, through commercial presence requirements and regulations restricting the presence of natural persons. Specific measures affecting foreign direct investment in wholesale trade are not uncommon and usually involve specific commodities (OECD, 1999f).

Importantly, the Agreement includes a built-in commitment to continuous liberalisation through periodic negotiations. The negotiations that have taken place will be broadened and continued in 2000, when a new round is scheduled to begin. Six areas have received particular attention since the conclusion of the Uruguay Round (WTO, 1999c):

- ✓ *Movement of natural persons.* Further work completed in 1995 with modest results.
- ✓ *Maritime transport.* Negotiations suspended.
- ✓ *Financial services.* New commitments agreed to in December 1997; new provisions came into effect on 1 March 1999. The new commitments, *inter alia*, liberalise the conditions under which foreign

financial service suppliers can establish commercial presence in foreign countries.

- ✓ *Basic telecommunications.* New commitments agreed to in February 1997; new provisions came into effect on 5 February 1998.
- ✓ *Professional services.* Guidelines for recognition of qualifications in the accountancy sector adopted in May 1997; disciplines on domestic regulation for the accountancy sector adopted in December 1998.

As discussed at the Forum, the GATS framework represents a significant breakthrough, but much needs to be done to enhance its effectiveness. Further negotiations, for example, could be pursued on issues related to subsidies, government procurement, qualifications requirements, technical standards, licensing arrangements and regulatory transparency in countries (Australian Commonwealth Department of Industry, Science and Resources, 1999). In terms of market access issues, discrimination in favour of domestic firms is seen as having to be addressed, as well as restrictions on investment, limitations on the number of foreign service providers or asset and transaction limitations, and non-transparent procedures or unnecessary delays in licensing, and the like.

From the perspective of business, the new framework is seen as representing an important first step, but it is also perceived as an untested institution which does not have the stature of the GATT. Under the GATT, the rules and procedures governing trade – including customs procedures, tariffs and sanctioned trade measures – have established a reliable and predictable trading environment for goods. The same cannot be said for the GATS, at least at this point in time. The criteria to be applied to determine whether a product is a good or a service, for example, are in an evolutionary stage, and it is not clear to what extent there will be consistency among countries in this, or many other, areas (Hall, 1999).

POLICY ISSUES

The role of services in economic growth and job creation calls for greater government attention to improving services' performance and furthering their expansion. Most importantly, this implies reforms to domestic regulation, liberalisation of international trade and investment, and a reorientation of relevant government programmes to meet the needs of service industries more effectively.

As the foregoing analysis indicates, services are playing an increasingly important role in the OECD area. The structure of services within countries, however, differs considerably, with implications for economic performance. In a number of countries, the value added by finance, insurance, real estate and business services, which is one of the more dynamic service sub-sectors, increased significantly during 1987-97, with other service areas playing a lesser role. In the case of the United States and Australia, contributions to GDP exceeded 25%, up by more than 3 percentage points for each from a decade earlier. In the Netherlands, the United Kingdom and France, the levels also grew, raising the contribution of these services to GDP to 22-23%. In other countries, the contributions made by this sub-sector are lower, or are growing more slowly. There are various reasons for this. The diversified character of national economies as regards, for example, income level or industrial specialisation, is one factor, but the different policy frameworks operating in countries are also important. Rigid regulatory environments and trade barriers tend to limit competition and innovation, which, in turn, limits the role and constructive effects that service industries can play in economic development.

This is shown in OECD work on regulatory reform. Such reform has had very positive results on the US and the UK economies; more widespread reform in the OECD area has yielded similar benefits in the financial services, trucking, telecommunications and airline industries (OECD, 1997b). Moreover, substantial gains are foreseen in the Netherlands, Spain and Sweden as a result of ongoing reform, while there is high potential for economic gains in Japan and Spain, if reforms are pursued. The benefits to be derived from liberalisation and regulatory reform are discussed below, as are the gains from strengthening, or adjusting, government support to service industries.

Liberalisation

As discussed earlier, barriers to international trade and investment continue to pose obstacles to the globalisation of service sectors. Doing away with these barriers is essential for fulfilling the potential of globalisation in promoting the diffusion of ideas and innovative concepts and specialisation on the basis of comparative advantage. This, in turn, can have a tremendous positive impact on long-term global growth and well-being.

Multilateral solutions, provided they do not discourage competition, would of course facilitate and expand trade. At the same time, it is crucial that transparency and fairness be promoted, with relevant stakeholders fully on board in the process.

The need for multilateral principles in key areas is shared by the private sector. This was emphasised at the World Services Congress held in November 1999. Private sector participants in the Congress recommended that (World Services Congress 99, 1999):

- ✓ Horizontal disciplines for domestic regulation that result in transparent and predictable regulatory institutions and outcomes, and the imposition of the least burdensome or trade-restrictive rules based on objective criteria, be developed under Article VI of the GATS.
- ✓ On a sector-by-sector basis where appropriate, regulatory principles that promote competition and open and efficient markets be developed.

Such disciplines and principles are seen as providing the type of predictable framework that would promote competition and encourage growth in international trade.

In addition, a number of outstanding issues need to be addressed. Some of those of great relevance to services are (Australian Department of Industry, Science and Resources and Australian Services Network, 1999):

- ✓ Should competition policy be globalised, internationally harmonised or, at the least, be strengthened through more efficient bilateral treaties and co-operation between national competition authorities?
- ✓ Should governments take an active role in developing harmonised technical standards (*e.g.* digital television, message protocols and standards for e-commerce)?

- ✓ Is the international framework for intellectual property rights adequate?
- ✓ Are ethical and risk issues (*e.g.* biotechnology) appropriately and consistently regulated?
- ✓ Should regulatory (*e.g.* accounting) and organisational (*e.g.* law practice structure) standards be globalised?

Regulatory reform

Many of the barriers to service sector development are not found at the border between countries, but are rather of a domestic nature. Domestic regulation is one of the principal factors limiting growth and competition in services. Traditionally, such regulation has been designed to deal with perceived market failures, such as externalities related to investment in networks or infrastructure, or asymmetric information between producers and consumers. However, regulations often impose substantial costs and inefficiencies on firms, sectors and the economy as a whole:

- ✓ First, domestic regulation is often the most limiting factor for competition. Lack of competition can result in excess rents to capital or labour, or both, implying that profits and/or wages are higher than they would be under more competitive conditions.
- ✓ Second, regulations can create an environment in which firms have less incentive to economise on resources. This can result in over-investment, excessive employment or inefficient management of operations.
- ✓ Third, regulatory restrictions on the scope of operations or the type of products that can be supplied can prevent firms from taking advantage of economies of scale or of important synergies in related areas.
- ✓ Fourth, that inappropriate regulation makes firms less likely to innovate and to adapt the quality and mix of goods and services to changing consumer needs. This is borne out by studies conducted in Canada (Statistics Canada, 1998) and Germany (Mannheim Innovation Panel, 1999).

Box 5. Regulatory reform in services

Business services. While business services are not as highly regulated as other services, some restrictions do exist, notably in the areas of engineering services, employee recruitment and education. In advertising, a remaining issue concerns the diverse regulations in countries governing the kinds of marketing and advertising which are allowed (including controls designed to protect health, uphold decency and protect privacy) (OECD, 1999a).

Distribution services. A wide range of regulations, including restrictions on large stores, opening hours and zoning, appear to have slowed structural change in the distribution sector. The regulations have sometimes affected the efficiency of the distribution system but mostly appear to have limited the range of services provided to consumers (OECD, 1997c).

Electronic commerce. Issues related to the development of electronic commerce include rules and regulations related to consumer protection, privacy, authentication, access to infrastructure and taxation. Decisions that are made in these areas will play an important role in determining the overall nature and impact of electronic commerce on economies (OECD, 1998a).

Financial services. Where it has occurred, regulatory reform in financial services, particularly greater competition, has resulted in increased productivity, lower costs and prices, and gains from improvements in the quality, variety and flexibility of financial instruments. Overall resource allocation has been improved and disruptions to financial flows from swings in macroeconomic conditions have been reduced, while countries have benefited from increased international capital mobility (OECD, 1997b).

Network-based content services. Reforms are needed to realise the potential of new services based on digital networks in three interrelated areas: *i)* general policy frameworks, including liberalisation of rules governing market structure, ownership and access, and protection of intellectual property rights; *ii)* regulatory institutions and procedures, particularly licensing policies and commercial codes of conduct; and *iii)* public support programmes, including efforts to promote domestic content (OECD, 1996b).

Professional business services. Where restraints on the commercial aspects of professional practice have been relaxed, prices are lower and new services are appearing in response to consumer demand, while at the same time maintaining quality, performance standards and consumer protection through entry controls, licensing, etc. However, market access restrictions on foreign providers are limiting the ability of service providers to address the needs of clients that are expanding internationally (OECD, 1997b).

Telecommunications. Reform to facilitate competition in telecommunications has resulted in lower prices, improved product/service diversity and customer choice, enhanced quality, reduced costs, higher productivity, and accelerated network development and modernisation. Perceptions that reform would impact negatively on the provision of universal service, increase prices and reduce the commercial viability of incumbent operators have not been supported by actual experience (OECD, 1997b).

The direct results of inappropriate regulation in a particular sector are likely to be lower productivity, higher costs, higher prices, misallocation of resources, lack of innovation and poor service quality. In recognition of the adverse effects that regulation can have on markets, OECD governments have embarked on an ambitious programme to promote regulatory reform. Areas regulated for reasons related to market failure are being reassessed, as is the capacity of governments to correct such failures via regulation. The re-examination is revealing that changes in technology and experience have called into question the justification for monopolies in many sectors, and there is growing recognition that government failure may be as capable of creating inefficiencies as market failure. In services where the public sector has been the key provider over many years (*e.g.* health, education), the scope for private provision has increased and market mechanisms are starting to play a greater role (OECD, 1997b). Further efforts, however, are required (Box 5).

There is ample evidence that much can be gained from further regulatory reform in major service sectors, including road, rail and air transport, distribution services, telecommunications, professional services and financial services. Further regulatory reform of the telecommunications industry can provide better access to ICT, such as high-capacity broadband communications, which is of great relevance to many service sectors. More generally, reducing administrative barriers for start-up firms is an important area for reform, since this can promote greater business dynamism and entry (OECD, 1998c). Appropriate reform of regulations can also help promote new growth areas, as can be observed in environmental services and the market for new media.

Government programmes

Government support to industry can take various forms, ranging from the collection, analysis and distribution of information, to subsidies and other targeted financial support. While much attention has been paid to support for manufacturing (OECD, 1998e), relatively little analysis is available on support provided to services. It seems that such support has been directed to transportation, education, health care and social assistance, arts and entertainment and tourism, although there is a lack of consistent data. At the very least, greater efforts should be made to develop a more systematic and revealing collection of information that would provide more transparency on service industries. This would provide both government and industry with a basis for making more informed decisions on current and emerging issues.

The lack of support for many services contrasts with the privileged status that governments often accord major investment projects involving the

establishment of manufacturing facilities. The preferential treatment provided to such firms, through tax concessions and the like, distorts investment, with an unfavourable effect on those firms that are not direct beneficiaries. Such policies need to be reviewed, as service-oriented firms, particularly small and medium-sized enterprises, may be particularly disadvantaged. More generally, tax policies may need to be reviewed and modified to accord service firms the same sorts of incentives and accommodations that are available to manufacturing firms. Investment tax credits and accelerated depreciation may, for example, have much less value to knowledge-based services than to manufacturers; programmes and incentives that reward innovation and investment in intellectual capital (*i.e.* “intangibles”) may be in order for services. Similarly, research programmes could be reviewed to provide more balance between manufacturing and service-oriented activities. In this regard, current work on the importance and role of intangibles could be strengthened.³ Specific issues to be addressed concern the difficulties associated with the measurement of intangibles, the need to increase and enhance disclosure, and incentives to strengthen investment in intangibles.

Framework conditions

Participants in the Forum generally agreed that sound framework conditions are key to facilitating growth in services, and that governments should refrain from supporting specific projects or sectors. Finding the appropriate policy mix, however, could entail significant changes in some countries’ policies. A presentation made on the situation in Japan, for example, indicated that a new economic paradigm might have to be adopted in order to facilitate a major shift of resources from manufacturing to service industries (Nakamae, 1999). The new approach would entail a sharp cut-back in public spending, overhaul of the tax system to remove the bias towards manufacturing, and a major reduction in corporate tax rates that would result in all corporations paying an equivalent effective tax rate of 10 to 15%. Included in the tax overhaul would be the elimination of deductions for interest and depreciation charges, which are seen as benefiting large manufacturing firms in particular. Such changes are seen as likely to enhance the environment for entrepreneurs, and stimulate the growth of small and medium service-oriented enterprises.

3. See conclusions to the *OECD Symposium on Measuring and Reporting Intellectual Capital: Experience, Issues, and Prospects*, June 1999, <http://www.oecd.org/dsti/sti/industry/indcomp/act/Ams-conf/conclusions.htm>.

Small and medium-sized enterprises

Most OECD governments have targeted various types of assistance to SMEs (see, for example, Austrian Federal Ministry for Economic Affairs, Department of Industry, 1999; Industry Canada, 1999). Discussion at the Forum suggested that SMEs are key to driving growth and innovation in service economies, by providing the “humus” from which new companies either become established and grow, or fail. While many might remain relatively small-scale operations, successful firms in the information technology, telecommunications, distribution and retail sectors may grow rapidly organically and/or be acquired by other entities. It is crucial that governments review a range of policies for the purpose of fostering an environment which is favourable to entrepreneurship and risk-taking, while minimising the cost of regulatory compliance. Good entry conditions, *e.g.* strong markets for venture capital, need to be ensured. Likewise, conditions for exit are important, and help to reduce market rigidities. Assistance targeted to SMEs still has a role to play, *e.g.* in support of an efficient infrastructure facilitating access to government services.

Upskilling

Growth and development of services relies heavily on human capital. A comprehensive education policy, emphasising multidisciplinary and lifelong learning, is key to developing such capital. Policies should focus on developing the abilities of individuals to communicate, adapt to change, solve problems, network and interface effectively with clients and colleagues. In many service sectors, the skills needed are changing very rapidly. A lack of skilled workers, as well as a lack of flexibility, frequently acts as a severe constraint for development. Governments need to experiment with innovative ways to alleviate the shortage of such workers by, for example, making investment in human capital more demand-driven. It is important to adopt an approach which is consistent as regards basic education, higher education, and incentives for firms and individuals to invest in training.

Government services

The public sector is a major consumer and provider of services. Just as industry is re-engineering itself to focus on its core competencies, governments can explore areas where their efficiency and effectiveness could be enhanced by expanding the outsourcing of certain functions – either wholly or in partnership with outside firms. In sectors where governments remain a major provider, such

as health, education and social services, they can examine ways to become more sophisticated and innovative providers.

In the field of information, a number of governments have already taken steps to improve performance, providing online access to a broad range of government services and products at low or no cost. Several – notably Australia and the European Commission – are intensifying their work in services through expanded research and analysis in key areas (Australian Commonwealth Department of Industry, Science and Resources, 1999; Commission of the European Communities, 1998a and 1998b).

Services data

While many countries are making efforts to extend data collection on the service sector, services continue to be poorly covered in most basic statistics. To improve understanding of service processes and performance, and to design policies that are better suited to the characteristics of the service sector, better and more comprehensive data are needed.

CONCLUSION

Services currently dominate our economies, and are likely to become even more important in the future. They do not, however, tend to command as much attention at the political level as they should. Despite declining to less than 20%, manufacturing still seems to attract most of the attention when it comes to designing tax, trade and support policies. While this has not stopped the service sector from growing, the lack of attention has undoubtedly diminished the contribution that services could be making to our economies.

Increased trade and investment in services is an important vehicle for growth and competition. The potential in this area is great, as technological advances are increasing the tradability of services, while liberalisation of markets is providing an environment more conducive to international competition. The General Agreement on Trade in Services, negotiated in the Uruguay Round, provides a framework that governments can use to strengthen

and liberalise trade in services, but much remains to be done to reach the level that has been attained for trade in goods over the past 50 years, through the GATT.

Domestic reform is, however, an important part of the equation. Evidence of the powerful effects of regulatory reform abounds. Regulations that have stifled competition in many service areas have, for example, been undergoing rigorous review in most OECD countries. Where they have been implemented, reforms have often boosted growth and stimulated innovation in ways that would have been unimaginable several years ago. The dynamism of the telecommunications services industry provides insights into how profoundly markets can change. While much progress has been made on this front, further efforts are required. For example, attention will have to be paid to the role that governments could or should play in developing, implementing and maintaining standards and norms, both at the national and international level.

The role that governments can and should play in supporting growth in services received considerable attention at the Forum. Most participants stressed the benefits of favourable framework conditions over support measures. Such conditions include a truly neutral tax policy that does not cater to the needs of manufacturing industries, a favourable climate for venture capital, easy access to government services, a corporate governance regime that supports an open and contestable market for corporate control, and technical and generic assistance to support small and medium-sized enterprises. At the same time, participants emphasised the critical importance that should be assigned to the development, training and retraining of the workforce, as the shift to knowledge-based activities will require more flexibility, both in the ability of workers to adapt to new tasks, and the capacity to acquire new and/or updated skills. Effective lifelong learning programmes were seen as beneficial in this regard.

ANNEX

Table A1. **Illustrative list of services**

Service	Activities related to the:
Wholesale and retail trade	Sale of goods
Transportation and warehousing	Distribution of goods
Information	Gathering and dissemination of written, audio or visual information, including films and records
Finance and insurance	Facilitation of financial transactions, including those related to risk management
Real estate, rental and leasing	Temporary transfer of property, and the temporary or definitive transfer of real estate
Professional, scientific and technical	Provision of specialised, generally “knowledge-based”, expertise (<i>e.g.</i> legal, accountancy and engineering)
Management of companies and enterprises	Management of companies and enterprises, such as holding companies
Administrative and support, and waste management	Day-to-day support of other organisations (<i>e.g.</i> clerical assistance agencies, travel agencies and personnel firms)
Education	Provision of instruction and training (<i>e.g.</i> schools and specialised training centres)
Health care and social assistance	Provision of health care and social assistance (<i>e.g.</i> doctors, hospitals and clinics)
Arts, entertainment and recreation	Provision of entertainment in a broad sense (<i>e.g.</i> museums, opera, theatre, sports and gambling establishments)
Accommodation and food services	Provision of lodging, or the provision of meals, snacks or beverages
Public administration	Governing or administration of public entities and programmes
Other	Provision of personal services, repair and maintenance activities, professional societies, religious institutions, etc.

Source: Based on US Bureau of Census, 1999.

Table A2. Revenues of the world's largest corporations⁴

Company	Industry	Revenues (1997) USD million
General Motors Corporation	Manufacturing	178 174
Ford Motor Company	Manufacturing	153 627
Mitsui & Co., Ltd.	Services - Trading	142 688
Mitsubishi Corporation	Services - Trading	128 922
Royal Dutch/Shell Group	Oil	128 142
Itochu Corporation	Services - Trading	126 632
Exxon Corporation	Oil	122 379
Wal-Mart Stores, Inc.	Services - Retailing	119 299
Marubeni Corporation	Services - Trading	111 121
Sumitomo Corporation	Services - Trading	102 395
Toyota Motor Corporation	Manufacturing	95 137
General Electric Company	Manufacturing	90 840
Nissho Iwai Corporation	Services - Trading	81 894
International Business Machines Corporation	Manufacturing	78 508
Nippon Telegraph & Telephone Corporation	Services - Communication	76 984
AXA	Services - Insurance	76 874
Daimler-Benz AG	Manufacturing	71 561
Daewoo Group	Manufacturing	71 526
Nippon Life Insurance Company	Services - Insurance	71 388
British Petroleum PLC	Oil	71 193

Source: Fortune.com (1999).

4. In terms of market value, services companies are also prominent. A recent listing places Microsoft first at USD 407 billion; Walmart, sixth; AT&T, seventh; Nippon Telephone & Telegraph, thirteenth; MCI Worldcom, fourteenth; Citigroup, fifteenth; and America Online, twentieth (*Business Week*, 1999).

Table A3. **Services:**¹ Value added to GDP, by country, 1987 and 1997

Percentages

Country	1987		1997		Change
Australia	64.9	a	70.6	a, b	5.7
Austria	64.1		68.2	b	4.1
Belgium	68.6		71.3		2.7
Canada	66.8		71.6	c	4.8
Czech Republic	50.5	d	58.4	e	7.9
Denmark	71.6		72.1	f	0.5
Finland	61.6		66.3	b	4.7
France	66.9		71.5		4.6
Germany	64.0	g, h	69.9	g	5.9
Greece	61.1		67.9	f	6.8
Hungary	..		..		..
Iceland	64.2		69.0	f	4.8
Ireland	57.0		55.6	f	-1.4
Italy	61.9		66.9	f	5.0
Japan	56.8		60.2	b	3.4
Korea	47.2		51.4		4.2
Luxembourg	66.9		75.0	f	8.1
Mexico	63.3	i	68.4	b	5.1
Netherlands	67.8		69.8	f	2.0
New Zealand	65.1		66.6	e	1.5
Norway	66.0		65.9		-0.1
Poland	..		..		..
Portugal	56.1		60.9	f	4.8
Spain	59.3		70.9	e	11.6
Sweden	66.3		70.5	e	4.2
Switzerland	60.8	j	63.5	h	2.7
Turkey	49.1		54.2		5.1
United Kingdom	66.1	k	70.8	f, k	4.7
United States	68.3	l, m	71.4	b, l, m	3.1

.. Not available.

1. Includes import duties and other adjustments and excludes imputed bank service charges.

a. Sewerage services included under industry.

b. 1996.

c. 1993.

d. 1992.

e. 1994.

f. 1995.

g. Publishing included under services.

h. 1991.

i. 1988.

j. 1985.

k. Includes repair services of consumer durables other than clothing.

l. Sanitary and similar services included under industry.

m. Includes government enterprises.

Source: OECD, 1999g.

**Table A4. Services: Contribution of services to GDP, by sector,
1987 and 1997, by OECD country**

Value added as a percentage of GDP

Country	Wholesale & retail trade, restaurants and hotels		Transport storage and communication		Finance, insurance, real estate and business services		Community, social and personal services ¹		Producers of government services	
	I		II		III		IV		V	
	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997
Australia	19.2 a	20.1 a,b	8.0	7.8 b	22.0	26.2 b	13.5 a,o	14.8 a,b,o	3.9	3.9 b
Austria	17.4	17.2 b	6.2	6.4 b	16.7	20.6 b	5.7	7.1 b	13.5	13.1 b
Belgium	17.3 c	17.5 c	7.6	8.2	6.0 k	5.1 k	21.3 k	24.1 k	12.7	12.2
Canada	12.9	11.8 d	6.6	6.1 d	16.4	18.5 d	11.0	12.7 d	9.6	10.4 d
Czech Republic	11.6 i	15.2 e	6.8 i	6.7 e	14.1 l	17.7 e	6.7 i	8.8 e	5.5 i	4.2 e
Denmark	12.6	11.5 f	6.9	7.8 f	15.3	16.4 f	4.9	5.6 f	18.8	19.0 f
Finland	11.8	9.6 b	7.0	7.7 b	14.0	17.3 b	3.9	4.3 b	15.6	16.7 b
France	14.9	14.7	6.0	5.7	20.4	22.9	5.2 p	6.2 p	16.4 p	17.4 p
Germany	..	..	5.4 g	5.0	11.3 g,l	14.0 l	..	..	11.1 p g	10.8
Greece	11.6 a	11.6 a,f	7.1	6.2 f	7.3 m	9.5 f,m	12.7 a,m	15.8 a,f,m	9.9	9.2 p
Hungary	..	..	..	..	..	..	..	..	..	..
Iceland	9.3	10.3 f	5.9	6.2 f	14.0	14.4 f	4.8 q	5.5 p,q	12.1 q	13.8 f,q
Ireland	10.4	10.7 f	5.4	5.0 f	5.7	6.7 f	13.3	14.8 f	15.2	13.4 f
Italy	19.1 c	18.4 c	5.6	6.5	22.5 n	27.0 n	0.8 n	1.0 n	12.2	12.2
Japan	13.5 a	12.1 a,b	6.7	6.7 b	16.6 m	17.9 b,m	16.4 a,m	19.7 a,b,m	8.1	8.0 b
Korea	14.3	11.3	7.1	7.3	12.2	17.6	5.4	7.1	6.7	8.3
Luxembourg	15.4	12.8 f	5.3	7.5 f	20.3 k	18.0 f,k	23.1 k	27.5 f,k	11.5	10.7 f
Mexico	23.3 k	19.7 b	8.7 k	9.3 b	10.0 k	15.9 b	10.5 k	12.5 b	4.1 k	5.0 b
Netherlands	14.5	14.2 f	6.3	6.6 f	18.8	23.4 f	11.0	10.9 f	11.3	9.9 f
New Zealand	15.7	16.0 e	8.5	8.2 e	22.0	22.4 e	4.7	5.8 e	11.7	10.2 a
Norway	12.5	10.3	8.1	9.2	16.7	15.6 f	4.8	5.0	15.3	15.4
Poland	..	..	..	..	..	..	..	..	..	..
Portugal	19.2	15.9 f	6.7	5.9 f	11.5	14.4 f	5.6	6.4 f	11.7	14.9 f
Spain	20.1	22.6 e	5.5	5.7 e	16.7	17.6 e	5.7	0.9 e	11.4	12.8 e
Sweden	10.9	9.9 e	5.6	5.9 e	17.4	21.4 e	4.4	5.3 e	20.2	19.7 e
Switzerland	18.4 j	17.3 g	6.4 j	6.1 g	16.0 j	16.5 g	11.6 j	15.5 g	11.4 j	12.1 g
Turkey	19.9	20.8	11.6	13.9	8.9 m	8.1 m	2.8 m	3.9 m	5.1	9.0
United Kingdom	11.7 h	12.5 f,h	7.1	7.3 f	18.8	22.3 f	4.9 h	9.6 f,h	12.6	9.7 f
United States	16.9	16.8 b	6.3	5.9 b	25.5	28.6 b	9.8 r	11.5 b,r	11.8	11.4 b

Notes to Table A4:

.. Not available.

1. Including other producers.

a. Restaurants and hotels are included in IV.

b. 1996

c. Recovery and repair services included in I.

d. 1993.

e. 1994.

f. 1995.

g. 1991.

h. Repair services of consumer durables other than clothing included in category I.

Source: OECD, 1999g.

i. 1988.

j. 1985.

k. Real estate and business services included in IV.

l. Business services and real estate except dwellings included in IV.

m. Business services included in IV.

n. Community and social services included in III.

o. Excludes sewerage services.

p. Other producers included in V.

q. Educational services included in V.

r. Excludes sanitary and similar services.

Table A5. **Services: Civil employment in services as a share of total civilian employment, 1987 and 1997**

Percentages

Country	1987	1997	Change
Australia	68.1	72.7	4.6
Austria	53.7	63.8	10.1
Belgium	68.2	71.4	3.2
Canada	70.0	73.0	3.0
Czech Republic	40.5	52.5	12.0
Denmark	66.0	69.5	3.5
Finland	58.4	65.5	7.1
France	62.2	69.9	7.7
Germany ¹	55.4	60.2	4.8
Greece	45.0	56.9	11.9
Hungary	..	57.0	..
Iceland	57.6	65.5	7.9
Ireland	57.0	61.7	4.7
Italy	56.8	61.2	4.4
Japan	57.9	61.6	3.7
Korea	45.5	57.7	12.2
Luxembourg	62.7	71.8	9.1
Mexico	..	54.1	..
Netherlands	68.3	74.1	5.8
New Zealand	62.2	67.6	5.4
Norway	66.3	71.6	5.3
Poland	..	47.5	..
Portugal	42.9	54.8	11.9
Spain	52.5	61.7	9.2
Sweden	66.3	71.3	5.0
Switzerland	57.5	68.6	11.1
Turkey	31.0	34.7	3.7
United Kingdom	64.8	71.3	6.5
United States	69.9	73.4	3.5
G7 ²	63.9	68.2	4.3
EU-15 ²	59.0	65.2	6.2
OECD total ²	..	64.1	..

.. Not available.

1. Former Federal Republic of Germany only.

2. Only data shown in the table are included in these totals.

Source: OECD, 1999g.

Table A6. Leading exporters and importers in world trade in commercial services, 1998

Billions of USD and percentages

Exporters	Value	Share of total	Annual growth 1990-98 ¹	Importers	Value	Share of total	Annual growth 1990-98 ¹
United States	234	18	7	United States	161	13	6
United Kingdom	100	8	8	Germany	122	9	6
France	79	6	2	Japan	110	8	3
Germany	76	6	5	United Kingdom	76	6	7
Italy	70	5	5	Italy	69	5	4
Japan	61	5	5	France	63	5	3
Netherlands	48	4	6	Netherlands	45	3	5
Spain	48	4	7	Canada	35	3	3
Belgium-Luxembourg	35	3	4	Belgium-Luxembourg	34	3	4
Hong Kong, China	34	3	8	Austria	29	2	9
World	1 290	100	6	World	1 291	100	6

Note: Data for Hong Kong, China exclude mainland China.

1. Implicit annual growth between 1990 and 1998.

Source: WTO, 1999b.

Table A7. Growth in the value of exports of commercial services, by category, 1990-97

Billions of USD and percentages

Type	Value	Share of total	Annual change			
			1990-97	1995	1996	1997
Transportation	320	24	5	13	2	2
Travel	430	33	7	15	7	1
Other	560	43	9	16	9	6
Total	1 310	100	8	15	7	3

Source: WTO, 1998.

Table A8. **Illustrative list of trade barriers**

Restrictions on market entry, including via investment

- Prohibitions and quotas on foreign services firms and/or suppliers entering the market.
- Ban on sourcing from foreign companies, *e.g.* advertising, accounting, management consultancy.
- Service supply reserved exclusively for domestic suppliers, *e.g.* internal transportation of freight and mail, voice telephony services.
- Service supply reserved exclusively for residents or citizens, *e.g.* education, legal practice, insurance, civil engineering and surveying, investment advice.
- Government procurement of services reserved exclusively for domestic supply.
- Prohibitions on cross-border electronic transactions and data flows.
- Requirement that cross-border transactions take place on authorised or monopoly networks.
- Quantitative limits on the amount of foreign investment permitted in a sector and/or in establishing a local presence or investing in existing local companies.
- Quantitative limits on the number of foreign companies and/or personnel permitted in a sector, and the number of its own personnel a foreign company may employ.
- Quantitative limits in air and sea transport services, *e.g.* on the number of passengers or volume of cargo that may be carried, landing or harbour rights.
- Quotas on foreign films, television programmes and advertising.
- Higher minimum capital requirements for foreign service companies.
- Restrictions on the legal form of the foreign service company.
- Conditions on subsequent investment.
- Conditions on location of the investment.
- Admission taxes for foreign service companies and providers.
- Non-recognition of foreign qualifications or more stringent requirements for foreign providers than for domestic providers.

Additional ownership and control restrictions

- Compulsory joint ventures with domestic investors, existing companies or the government.
- Limits on the number of foreign board members or government-appointed board members.
- Government approval required for certain commercial decisions.
- Restrictions on foreign shareholders' rights.
- Mandatory transfer of some ownership to locals within a specified time frame.

Table A8. **Illustrative list of trade barriers** (*cont'd*)

Operational restrictions

- Performance or local content requirements (*e.g.* minimum exports, minimum local employment, use of local technology or equipment).
- Restrictions on access to operational permits or licences.
- Ceilings on royalties.
- Restrictions on repatriation of capital and profits.
- Mandatory minimum or maximum price setting, or uniform pricing requirements, regardless of relative efficiency of foreign and domestic service supplier.
- Favours domestic suppliers in the allocation of access rights to existing distribution networks, *e.g.* telecommunications, water and waste treatment, transport services, marketing channels, retail outlets.

Source: UNCTAD, 1996; OECD work in progress, "Assessing Barriers to Trade in Services", OECD Trade Directorate, Paris.

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