

**THE GLOBALIZATION OF SERVICES**  
**What Has Happened? What Are the Implications?**

*Gary Hufbauer*  
**Institute for International Economics**

*Tony Warren*  
**Australian National University**

**October 1999**

**INTRODUCTION**

Globalization has affected all facets of the world economy. This includes services, which in most economies are the single largest contributor to economic growth and employment. However, despite its importance to national output, the impact of globalization on services is only recently receiving the attention of researchers and policy-makers.

The aim of this paper is to provide a succinct survey of the process of globalization as it impacts upon the service economy. Specifically, the first section of the paper provides a brief overview of the increasing globalization of service industries by summarizing the available evidence on international services trade and investment levels.

This is followed by a section examining the basic economics of the global market, in particular the frictions that prevent price equalization across borders. This theoretical discussion leads into an analysis of the factors that both facilitate and limit increased globalization of the services sector. Particular attention is paid to reduced technical constraints affecting services trade, coupled with the barriers arising from policy impediments to services trade and investment.

Finally, the implications of increased globalization of services trade and investment are examined. The potential economic gains are considerable. But, there will also be losers from the globalization process. These groups will need to be compensated in the context of lowering the policy barriers to globalization.

---

An earlier version of this paper was presented at the International Conference of Private Business Organizations, *The Service Economy: An Engine for Growth and Employment*, hosted by the Institut der Deutschen Wirtschaft Köln, in Dresden, 3-4 June 1999.

## **MEGA TRENDS IN THE WORLD OF SERVICE INDUSTRIES**

A service is an economic activity that adds value either directly to another economic unit or to a good belonging to another economic unit.<sup>1</sup> Consequently, services have as a defining feature the requirement for direct interaction between producers and consumers (firms or households) before the service can be rendered.<sup>2</sup>

The need for producers and consumers to interact for a service to be rendered influences how international transactions in services are conducted. If a service producer in one economy has the desired capabilities, then a consumer resident in another country must somehow interact with the producer to acquire those services. The General Agreement on Trade in Services (GATS), following Bhagwati and Sampson and Snape,<sup>3</sup> developed a four-part typology of how such capabilities can be accessed internationally:

- through cross-border communications in which neither the producer nor the consumer moves physically, interacting instead through a postal or a telecommunications network (mode 1);
- through the movement of a consumer to a supplier's country of residence (mode 2);
- through the movement of a commercial organization to the consumer's country of residence (mode 3); or
- through the movement of an individual service supplier to the consumer's country of residence (mode 4).

Consequently, the concept of international services 'trade' encompasses foreign direct investment and the movement of labor, as well as traditional cross-border transactions.

Using this broader definition, Karsenty has sought to estimate the total global trade in services for the year 1997. Table 1 reproduces his preliminary results, detailing the total value for each mode of supply. While these figures should be treated with caution, they do give a

---

<sup>1</sup> This definition is derived from the classic definition of services first proposed by T.P. Hill, 1977, 'On Goods and Services', *Review of Income and Wealth*, 24(4), pp. 315-38, at p.317.

<sup>2</sup> S. Hirsch, 1989, 'Services and Service Intensity in International Trade', *Weltwirtschaftliches Archiv*, 125, pp.45-60.

<sup>3</sup> See Article I, GATS; J. Bhagwati, 1984, 'Splintering and Disembodiment of Services and Developing Countries', *The World Economy* 7(2), pp. 133-44, and G. Sampson and R. Snape, 1985, 'Identifying Issues in Trade in Services', *The World Economy*, 8(2), pp.171-182.

rough order of magnitude of the value of services trade to the world economy. At \$US 2,170 billion, services account for over 30% of total world trade.

**Table 1: Trade in services by modes of supply, 1997**

<i>Mode of Supply</i>	<i>Statistical proxy used to obtain estimate</i>	<i>Value (\$US billion)</i>	<i>Share of total services trade (all four modes)</i>
Mode 1: Cross-border supply	Business services shown in the balance of payments (excluding tourism and travel)	\$890	41.0%
Mode 2: Consumption abroad	Tourism and travel payments	\$430	19.8%
Mode 3: Commercial presence	Foreign affiliates productions (estimates of gross output)	\$820	37.8%
Mode 4: Movement of personnel	Compensation of foreign employees (shown in balance of payments data)	\$30	0.1%
All modes		\$2,170	100%

Source: G. Karsenty, 1999, 'Just How Big are the Stakes?: An Assessment of Trade in Services by Mode of Supply', Paper Presented at the Services 2000: New Directions in Services Trade Liberalization Conference, Washington DC, June 1-2 1999.

While the Karsenty estimates are only available for 1997, we do know from other sources that services have significantly increased their share of world trade over the past decade. This is true for both developed and developing economies. Table 2 details the share of services in total cross-border exports (merchandise plus business, travel and tourism service exports) for a range of countries for the years 1987 and 1997. All countries record an increase in the importance of service exports.<sup>4</sup> Importantly, developing countries also record significant export shares for services, undermining the common misperception that services exports are a developed country issue.

<sup>4</sup> In part, this reflects better measurement techniques, but the secular increase in the importance of service exports is remarkable nonetheless.

**Table 2: Services Share of Total Exports, Selected Countries, 1987 and 1997 (percentage)**

	1987	1997		1987	1997
Argentina	5	11	Japan	4	14
Australia	7	22	Korea	3	16
Austria	17	33	Malaysia	2	16
Brazil	2	13	Mexico	4	9
Canada	4	12	Netherlands	7	20
Chile	5	18	New Zealand	10	23
China	2	12	Norway	12	23
Czech Rep.	8	24	Peru	8	18
Denmark	10	25	Philippines	6	37
Finland	5	14	Poland	6	28
France	11	22	Romania	4	14
Germany	4	13	Singapore	6	30
Greece	25	46	Spain	15	29
Hong Kong	22	58	Sweden	7	18
Hungary	3	20	Switzerland	13	25
Iceland	12	23	Thailand	4	22
India	7	18	Turkey	10	42
Indonesia	2	11	UK	10	23
Ireland	3	10	USA	9	25
Italy	8	23			

Source: World Trade Organization, 1998, *Annual Report, Volume 2*, WTO, Geneva, Statistical Appendix.

Besides the increase in cross-border trade, foreign direct investment, cross-country mergers and international joint ventures have augmented the number of multinational service enterprises. These firms are especially prominent in sectors such as retail trade, finance, telecommunications, and civil aviation; and are also growing in accounting, law, engineering, and health care. New frontiers of privatization will open in areas such as electricity, gas, water; road, port and airport operations; waste disposal; health care; and education. In these areas, multinational service enterprises will seek to leverage their competencies in newly opened foreign markets.

Exact time series data on the development of multinational service enterprises are not available. However, according to UNCTAD estimates, service industries now account for over 50% of all new foreign direct investment. Furthermore, Table 3 details the number of service firms in the Fortune Global 500 in 1991 and in 1998. Services firms have increased their share of the Fortune Global 500 over the seven-year period in terms of the absolute number of firms, although their share of revenue and profits was somewhat smaller in 1998.

When coupled with known trends in services trade and investment, the Fortune Global 500 figures indicate that big services firms are spreading their operations worldwide, even though they are not raising their share of total output.

**Table 3: Share of Services Sector in Fortune Global 500, 1991 and 1998 (percentage)**

	<i>Service Sector Share, 1991</i>			<i>Service Sector Share, 1998</i>		
	<i>Number</i>	<i>Revenue</i>	<i>Profit</i>	<i>Number</i>	<i>Revenue</i>	<i>Profit</i>
Diversified service companies	13.4	30.0	8.6	20.2	20.0	7.2
Insurance companies	4.2	5.2	15.4	10.8	10.9	10.8
Transportation	5.8	7.6	-1.3	2.4	1.9	2.1
Utilities	5.8	7.6	8.7	7.6	7.3	12.2
Commercial savings and banks	12.0	17.3	21.6	13.6	10.9	10.9
Total for service firms	41.2	67.8	53.0	54.6	51.0	43.2

Source: *Fortune*, various editions.

## THE GLOBALIZATION PROCESS

### The Basic Economics of a Global Market

Before examining the causes and implications of the globalization of the services sector, it is helpful to briefly review the basic economics of the global market.

When prices are denominated in a single currency (for example the US dollar or the euro)  $P_{xc}$  represents the unit price for good or service  $x$  in the most competitive country/market (country  $c$ ). The following relationship will hold for the price of that same good or service in any other (less competitive) country/market, denoted  $P_{xj}$ :

$$\text{Inequality [1]} \quad (P_{xc} + T_{xcj} + M_{xj}) > P_{xj}$$

In inequality [1],  $T_{xcj}$  represents the transport costs necessary to carry/convey a unit of goods or services from country  $c$  to country  $j$ . Often the only practical way for country  $c$  firms to provide services in country  $j$  is to establish operations in country  $j$ . This is particularly so for

firms supplying services such as water reticulation, construction or health care. In these cases,  $T_{xcj}$  represents the minimum *additional* unit cost for country  $c$  firms to operate in country  $j$ , given  $j$ 's input cost structure such as wage rates, rents, telecommunications charges etc (but ignoring the effect of market entry barriers, which are identified separately in inequality [1]).

$M_{xj}$  in inequality [1] represents the per unit dollar or euro “add-on” for market entry barriers such as licensing requirements, investment restrictions, and quotas.  $M_{xj}$  is not limited to barriers that specifically restrict the entry of foreign firms, but also encompasses market entry barriers that keep potential domestic as well as foreign competitors from establishing a presence in the local market. Examples of the latter include a legislated telecommunications monopoly, which discriminates equally against potential foreign and domestic entrants.  $M_{xj}$  also encompasses extra-legal practices such as cartels or protection rackets.

The rationale of inequality [1] is that potential investment by country  $c$  firms in country  $j$ , or exports from country  $c$  to country  $j$ , will place a ceiling on the price in country  $j$ . Of course market forces, or very low input costs, within country  $j$  may serve to keep the  $P_{xj}$  price there below the left-hand side of inequality [1]. When  $T_{xcj}$  and  $M_{xj}$  are both zero, inequality [1] becomes an equality – the famous “law of one price”.

### **National Competitiveness in Services**

$P_{xc}$  in inequality [1] points to the familiar forces that determine the competitiveness of service industries in different countries. The determinants of the competitiveness of a particular market in the production of a specific service are, in part, very similar to the factors that determine national competitiveness in the production of goods.

Starting off, we have the standard comparative advantage variables. These give a particular country a competitive edge in supplying the inputs that are necessary for producing the service. For example, India has developed a comparative advantage in the supply of software services, because it is well endowed with skilled but comparatively cheap software engineers. Similarly, Australia is increasingly competitive in the provision of regional financial services because of its comparative advantage in telecommunications and legal services.

Besides better value inputs, location or geographical advantages also make particular countries world competitive in the production of selected services. Singapore, for example, thrives as a cargo port largely because of location. Caribbean tourism owes much to an abundance of warm water and fine beaches.

Finally, firm-specific strengths further help build international competitiveness. London, Frankfurt, Hong Kong and New York, for example, excel as providers of financial services owing to a tradition of innovation among top firms. Interestingly, there appears to be a strong “first-mover” effect in terms of liberalization. Countries that liberalize early find that erstwhile inefficient state enterprises quickly develop into effective international competitors. British Telecom and British Airways owe their international prominence to the United Kingdom’s early experimentation with privatization, deregulation and liberalization. The experience of US telecommunications and air transport industries also indicates how fostering domestic competition early has led to success on the world stage.

### **Reductions in Transport Costs**

The spectacular growth in services trade and foreign investment indicates that countries and firms are increasingly able to leverage their competitive positions and sell into foreign markets. In large part, this has been made possible by lower costs of interacting across borders – the Txcj term in inequality [1].

For services that can be delivered remotely, dramatic strides in telecommunications technology have slashed the distance barriers between countries. The lower costs and increased capacity of telecommunications networks mean that accounting, engineering, research, software development and other services are now routinely performed at locations distant from the purchaser. Electronic commerce is thriving, both for goods and services.

For services that require some form of physical interaction, international air transport is now ubiquitous and relatively cheap. Table 4 indicates the dramatic halving in US airfares (on a cent per mile basis) over the past 30 years. Furthermore, speeds have risen and flight frequencies have increased dramatically – issues of demonstrable importance for business travelers.

**Table 4: Average US airfares, 1970- 1997 (in 1982 dollars)**

<i>Year</i>	<i>Cents/mile</i>
1970	14.4
1975	13.6
1980	12.9
1985	10.5
1990	9.4
1995	8.2
1997	7.89

Source: Air Transport Association, cited in National Journal 10 February 1999

For some service industries, however, the value of the Txcj term is simply too high. The interaction requirements for services such as housing, construction or distribution are so great that cross-border supply is generally not feasible. Yet these industries are encountering lower start-up costs when they move overseas, as the processes of deregulation and liberalization take hold in many countries.

The feedback loop of globalization is important here. As pioneering multinationals spread their operations, they bring better sea and air transport, and improved telecommunications services along with them. Lower distance costs in turn open the way for a second wave of multinationals. For example, banks, professional service and distribution companies quickly follow their major clients into foreign markets.

### **Limited Reduction in the Policy Barriers to Services Trade and Investment**

It is not just a reduction in transport costs that has allowed the globalization of services to occur. A major driver of this process has been the significant reduction in barriers to services trade and investment (Mxj) – even though the absolute level of policy barriers remains comparatively high.

Successive rounds of multilateral trade negotiations, together with regional arrangements such as the European Union, the North American Free Trade Agreement, and the Australia-New Zealand Closer Economic Relations agreement, have been major forces for

international liberalization. Tariffs have been cut among industrial countries from averages in the 20 to 50 percent range in the early 1950s to averages of 3-8 percent in the late 1990s. Meanwhile, quotas have been pared back so that agriculture and apparel are now the main holdouts. These developments mean that the  $M_{xj}$  term has been substantially reduced for most *merchandise* trade, apart from the highly protectionist agricultural and textile sectors (see Table 5).

**Table 5: Tariff Estimates for Selected Industries and Countries at the End of the Uruguay Round**

	<i>Industrial Sector*</i> <i>Ad valorem tariffs</i>		<i>Agricultural Sector**</i> <i>Ad valorem tariff equivalents</i>				<i>Service Sector***</i> <i>Rough ad valorem tariff equivalents</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
EU	5.7	3.6	361	156	297	125	10	182	27
Japan	1.9	1.7	..	240	126	39	5	142	29
USA	5.4	3.5	5	6	197	31	5	111	22
Australia	10.0	12.2	0	0	52	0	7	183	25
Canada	4.9	4.8	1	58	35	38	9	118	26
Argentina	20.0	30.9	..	..	..	..	13	117	37
Brazil	15.0	27.0	..	..	..	..	25	143	47
Chile	15.0	24.9	..	..	..	..	34	182	45
El Salvador	17.8	30.6	..	..	..	..	..	..	..
Mexico	13.0	33.7	50	74	173	50	13	182	31
Hong Kong	0.0	0.0	..	..	..	..	32	150	39
India	54.0	32.4	..	..	..	..	36	191	47
Indonesia	20.4	36.9	180	30	110	70	35	190	43
Korea	7.9	8.3	..	11	24	45	21	185	36
Malaysia	9.1	9.1	..	..	..	..	35	176	36
Philippines	23.9	22.5	..	..	..	..	33	110	42
Singapore	0.4	5.1	..	..	..	..	..	..	..
Thailand	35.8	28.1	58	64	104	60	33	190	42
Turkey	9.7	22.3	..	..	..	..	..	..	..
Tunisia	27.0	40.2	..	..	..	..	34	194	48

Notes: (1) Average Applied Rates, Pre-Uruguay Round; (2) Average Bound Rates, Post-Uruguay Round; (3) Rice; (4) Wheat; (5) Sugar; (6) Beef and Veal; (7) Wholesale and Retail Distribution; (8) Transport, Storage and Communications; and (9) Business and Financial Services.

Source: \* International Trade Policies: The Uruguay Round and beyond Volume II. Background Papers. World Economic and Financial Surveys. IMF, Washington, 1994;

\*\* The Uruguay Round and the Developing Economies. World Bank Discussion Paper 307. The World Bank, Washington, 1995; and

\*\*\* Hoekman, Bernard. Tentative Steps: An Assessment of the Uruguay Round Agreement on Services. CEPR Discussion Paper Series No. 1150. CEPR, London, 1995.

Because of the nature of services, barriers to trade seldom come in the form of tariffs and are consequently very difficult to measure. Table 5 details very imprecise estimates of the tariff equivalents affecting key service industries, highlighting the extensive levels of protection that remain. These barriers are the main reason why service prices (Pxj levels in inequality [1]) can remain so high in many countries.

More precise estimates of the barriers to trade and investment in services are currently being constructed.<sup>5</sup> Table 6 provides estimates of the non-tariff barriers that affect the key telecommunications sector in the top twenty service trading nations. The greater the score, the higher the barriers, with 100% being the maximum score. The pervasive nature of these trade barriers explains why long distance telephone rates in Seoul, for example, are multiples of the rates charged in Sydney.

---

<sup>5</sup> See C. Findlay and T. Warren (forthcoming) *Impediments to Trade in Services: Measurement and Policy Implications*, Routledge, Sydney.

**Table 6: Restrictiveness Indices to Trade in Telecommunications Services for Top 20 Service Trading Nations, 1997**

<i>Country</i>	<i>Restrictiveness Index*</i>
United States	3
United Kingdom	0
France	21
Germany	5
Italy	14
Japan	4
Netherlands	3
Spain	41
Belgium	20
Luxembourg	17
Hong Kong	21
Austria	13
Canada	44
Switzerland	20
Korea	68
China	81
Turkey	80
Singapore	44
Sweden	10
Australia	4

Note: The higher the score, the greater the degree to which an industry is restricted. The maximum score is 100%.

Source: T. Warren, (forthcoming), 'The Application of the Frequency Approach to Trade in Telecommunications Services', in C. Findlay and T. Warren (eds), *Impediments to Trade in Services: Measurement and Policy Implications*, Routledge, Sydney.

Unlike goods, there are also strict limits on foreign direct investment and rights of establishment. These barriers prevent efficient service firms from locating in many countries. In other words, the  $M_{xj}$  term in inequality [1] can operate as a formidable barrier. United Airlines, for example, can create code-sharing alliances with Lufthansa and Varig, but it cannot acquire Aero Mexicana or Air Canada. Enron had a hard time breaking into the Indian electric power market. French water distributor Lyonnaise des Eaux cannot easily acquire water distribution systems in Korea. Aon and Allianz face severe restrictions if they seek to buy U.S. insurance carriers.

Table 7 illustrates these barriers to foreign direct investment for a group of Asia Pacific countries. The higher the score, the greater the barriers to foreign investment. Communications and financial services are subjected to the most stringent FDI controls. Scores are particularly high for the communications sector because most countries impose

ownership limits on telecommunications and broadcasting and completely close postal services to foreign entry. The least restricted sectors include business and distribution services.

**Table 7: Foreign Direct Investment Restrictiveness Indices for Selected APEC Economies and Selected Sectors**

	<i>Business</i>	<i>Communi- cations</i>	<i>Distribution</i>	<i>Education</i>	<i>Financial</i>	<i>Transport</i>
Australia	18%	44%	18%	18%	45%	20%
Canada	23%	51%	20%	20%	38%	24%
China	36%	82%	28%	53%	45%	46%
Hong Kong	2%	35%	5%	0%	23%	9%
Indonesia	56%	64%	53%	53%	55%	53%
Japan	6%	35%	5%	20%	36%	11%
Korea	57%	69%	63%	55%	88%	57%
Malaysia	32%	42%	8%	8%	61%	12%
Mexico	29%	74%	33%	45%	55%	28%
New Zealand	9%	43%	8%	8%	20%	13%
PNG	30%	48%	30%	30%	30%	30%
Philippines	48%	76%	48%	48%	95%	98%
Singapore	26%	52%	25%	25%	38%	25%
Thailand	78%	84%	78%	78%	88%	78%
US	1%	35%	0%	0%	20%	3%

Note: The higher the score, the greater the degree to which an industry is restricted. The maximum score is 100%

Source: A. Hardin and L. Holmes, 1997, *Services Trade and Direct Foreign Investment*, Staff Research Paper, Industry Commission, Canberra, Appendix A.2

## **WHAT ARE THE IMPLICATIONS?**

Given these dramatic declines in transport costs and the more gradual falls in protection, what are the implications of increased globalization of service industries for countries around the world?

Essentially the costs and benefits of globalization are a function of the increased competition brought by greater exposure to international markets. On the positive side, globalization forces down the price of services in high cost locales, increases output and improves service quality. On the negative side, there is the dislocation from increased competition as uncompetitive firms lose market share and their employees are laid off.

Increased competition results in lower prices and greater output in two ways. First, competitive pressure reduces the ability of firms to obtain excess margins. Second, in the face of a margin squeeze, firms seek to reduce costs. Cost reductions are in turn passed on to consumers in the form of lower prices.

Table 8 details the potential for excessive margins to be reduced as a result of globalization. It details estimates of the wider net interest margins that are attributable to barriers to trade and investment in financial services. To calculate these estimates, statistical techniques were used to see how net interest margins across countries varied as a result of differences in barriers to trade and investment, taking account of other factors that cause differences in spreads. It is immediately apparent from the data in Table 8 that consumers in some countries pay a very high price for the protection of their banking industry from competition. Globalization will reduce these margins.

The impact of globalization on costs is even greater. Globalization allows firms to achieve economies of scale as they are increasingly liberated from the size constraints of their home markets. In technical language, the demand elasticity coefficients facing individual firms increase with globalization – because firms can sell to many more markets.

Globalization also increases pressure on firms to minimize input costs. To survive, firms must use the best available technology. Importantly, they will also need to lobby to lower barriers that protect their suppliers, so that they can take advantage of the “law of one price” in input markets. If input prices still remain high by world standards, or if suppliers are unreliable, firms will be forced to relocate to countries where purchased input prices are lower and quality is higher.

**Table 8: The Estimated Effect on Net Interest Margins of Barriers to Trade and Investment in Banking Services for Selected Economies**

<i>Economy</i>	<i>Effect of Impediments to Foreign Banks on NIMs (%)</i>
Malaysia	60.61
Indonesia	49.32
Philippines	47.36
South Korea	36.72
Chile	34.00
Thailand	33.06
Singapore	31.45
Colombia	18.35
Japan	15.26
Australia	9.30
Hong Kong	6.91
Switzerland	5.95
Argentina	5.34
Canada	5.34
European Union	5.32
USA	4.75

Note: The European Union excludes Finland, Ireland and Luxembourg.

Source: K. Kalirajan, G. McGuire, D. Nguyen-Hong, and M. Schuele, 1999, 'The Price Impact of Restrictions on Banking Services', in C. Findlay and T. Warren (eds), *Impediments to Trade in Services: Measurement and Policy Implications*, Routledge, Sydney (forthcoming, November).

In terms of capital inputs, the competitive process inspires companies to minimize the quantity of financial capital (equity and debt) utilized per unit of output. There is also increasing pressure to reduce the unit cost of finance. Consequently, companies will need to adopt standard financial reporting and auditing practices, so as to reduce firm-specific risk factors and raise the firm's credit rating. At a macro level, companies will increasingly pressure their governments to adopt stable fiscal and monetary policies, pursue deregulation and liberalization, and root out corruption – so as to lower country-specific risk factors and bring about more favorable country credit ratings.

Globalization also forces firms to minimize labor costs. Companies will locate production where the unit labor cost is lowest. This is an obvious point, but in the fragmented world economy that characterized most markets until a decade or ago, very wide variations could be observed in unit labor costs. The “law of one price” operated so imperfectly that

many firms – protected by high transport costs and market barriers – could tolerate very high unit labor costs. This is no longer true. In the face of globalization, firms with high unit labor costs must boost labor productivity, eliminate rents from their wage structures, or relocate their operations. On a global basis, these forces will bring wage rates much closer to the marginal product of labor. A worker will earn what she produces – evaluated at a single world price. In turn, this means that individuals will have far more incentive to invest in their own skills.

In time, these forces will bring a “convergence of productivity” among service industries, as well as goods industries, in different countries. The McKinsey Global Institute data shown in Table 9 indicates how large the labor productivity differences remain, even between the developed economies. The scope for convergence - and the associated benefits and dislocation costs – are obviously significant.

**Table 9: Labor Productivity Index in Different Sectors (US=100)**

year of study	<i>Auto</i>	<i>Steel</i>	<i>Civil aviation<sup>a</sup></i>	<i>Telecom</i>	<i>Food processing</i>	<i>Retail banking</i>	<i>Retail</i>	<i>Construct-ion</i>	<i>Public Transport<sup>b</sup></i>
	1991-95	1995	1992	1992-95	1990-94	1992-95	1990-94	1990-94	1995
Switzerland			66						113
Japan	140	121		74	32		54	66	144
Denmark			66		90				
USA	100	100	100	100	100	100	100	100	
Germany	88		66	44	84	85	96	70	87
Sweden	79		66		58	80	84	77	188
France	71		66	48		100	96	80	61
Netherlands			66		106	154	83-95	100	100
UK	71		66	49	74		88		
Australia			84		68	60	60	95	
Italy	40		66						
Spain			66				73		
Korea	48	108	100	83	40	76	32	69	
Brazil	30	68	47	45	18	40	14	35	

Notes: Labor productivity is measured by output per full time employee.

*a* Civil Aviation indexes measure average labor productivity in Europe as a whole.

*b* Public transport is keyed to the Netherlands = 100

Source: McKinsey Global Institute

In general equilibrium terms, the pressure to reduce prices through greater efficiencies will boost world output. The Uruguay Round of Multilateral Trade Negotiations, which liberalized merchandise trade but only created a framework for liberalizing services trade, was credited with boosting potential world GDP by 2 - 3 percentage points. Services face far more barriers and account for a larger portion of GDP. It is conceivable that meaningful globalization of services markets could boost potential world GDP by 4 - 6 percentage points.

However, despite the many gains that globalization promises, there will be losers from the process as well as winners. Losing firms and workers in old-line industries like apparel, shipbuilding, steel, dairy, and sugar have a tradition of stout resistance to trade

liberalization. They are still fighting. But the big political fight in the decades ahead will come from losing firms and workers in service industries.

The process of liberalizing service industries will encounter the same barriers to progress that are so familiar in merchandise and agriculture. Powerful domestic interests limit the extent to which policy makers can expose domestic industries to international competition. If anything, the barriers to progress in services are even greater because of the widespread involvement of the public sector in providing services (e.g. electricity and water) and the large role of private trade associations in regulating services (e.g. licensing requirements for doctors and engineers). Policy reformers will need to bring great skill to the liberalization of barriers, both to compensate the losers and to avert a massive backlash against the next phase of globalization.