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Developing Countries as Exporters of Services: Looking Beyond Success Episodes

by

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Abstract:

The paper departs from the perception that trade in services in general and developing countries' exports in services in particular are dynamic segments of world trade. Both total trade data as well as US import trade figures do not support this perception. Success episodes such as the recent increase in Indian computer and data processing services are found to be outliers. Instead, developing countries continue to rely on relatively slowly growing exports of relatively labour-abundant consumer services relating to movements of goods and persons. Thus, they have not yet benefited from innovations in the information technology sectors providing a growth momentum for producer services. Given the link between goods production and goods distribution, successful exporters of manufactures mostly overlap with successful exporters of services. It is shown that the majority of exemptions from MFN treatment concentrate on such consumer services thus impeding developing countries' export growth. In view of the vague character of commitments negotiated in the General Agreement on Trade in Services, the paper argues that for the time being overproportionate growth of service exports from developing countries will remain limited to country episodes, but will not have the same wide country coverage as growth of manufactured exports.

Keywords: International trade in private services; developing countries, trade policies

JEL classification: F1

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I. Introduction

In recent years, both unprecedented technological innovations in the information technology (IT) industry and multilateral commitments to liberalise trade in services within the WTO have led many observers to conclude that services have become the new engine of growth in world trade. Behind this conclusion, there is the hypothesis that innovations turn services from formerly non-tradables into tradables and that they reduce one of the most important costs of transaction facing the cross-border supply of services, i.e. the physical movement of either consumers to producers or vice versa. Such movement is impeded by costs of bridging geographical distance as well as by politically-induced obstacles such as restrictive work permits, visa requirements and other regulatory discrimination against foreign suppliers. In overcoming such barriers, innovations are believed to foster the third major mode of supply, the cross-border exchange of knowledge services via data transmission. Complementing non-traditional so-called producer services such as software exports, traditional consumer services such as travel, tourism and transport have also been identified as growth industries. Changing preferences and sectoral structures in high-income countries toward services on the one hand, and on the other hand ongoing liberalisation of merchandise trade which is ineradicably linked to transport services are said to stimulate cross-border trade in consumer services.[1]

A high degree of heterogeneity of services and the inherent invisibility of many services take responsibility for the fact that service trade is much less documented than merchandise trade. This holds true for separating services from merchandise trade given the fact that many goods include a number of services and even are actually services, as well as for identifying the true origin and destination of services. To record cross-border services, separation of domestic and foreign demand/supply is required. This includes differentiating between residents from non-residents in balance of payments accounting. Not

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1 Over many years, both definition and labeling of services have been subject to controversies in literature. Principally, non-factor and factor services (the latter being labour and investment income) have to be distinguished. To identify trade in services and to avoid mixing in income from trade, investment and migration , one has to concentrate on non-factor services. For trade policy reasons, however, such mixing in has occurred because in many cases liberalisation of services is ineradicably linked to liberalisation of foreign direct investment, such as rights to establish subsidiaries abroad. Drawing a dividing line between services associated with factor movements such as people as consumers (tourists) or producers (consultants), or capital (investment) on the one hand and so-called „separated“ services (such as knowledge or information transmission) on the other hand, has been ruled by efforts to facilitate liberalisation of trade in non-factor services [Sampson, Snape, 1985; Grubel, 1987]. In the same vein, the distinction between embodied services requiring close proximity between consumers and producers of services and disembodied services provided by data transmission, for instance, has become important [Bhagwati, 1984, 1987]. The former category would approximate the category of non-separated services in the Sampson/Snape understanding. The shortcomings of these definitions are rooted in the difficulty that part of trade in services associated with factor movements such as persons are actually not factor services if people move as consumers, for instance. To cure these problems, Arndt [1989] has proposed two steps for typology, first, to clearly distinguish between non-factor movements and labour and investment earnings on the one hand and, in non-factor services, between sales to residents and non-residents on the other hand. Second, he proposes three categories of services: a) temporary movements abroad of people and goods, b) transport-transmission services including transport, trading and telecommunications (postal, phone, fax or e-mail), and c) transmitted information such as financial services, business services and information services (news agency, data processing, internet services). It seems that this distinction which was proposed long before web services emerged is still useful to respond to the very uneven speed of growth of service trade by categories.It is the third category of information selling abroad which has primarily benefited from IT technology laps and which can clearly be separated from the transmission service itself via the various media. In the following, the terms producer services and transmitted information services are used synomously.

surprisingly, in view of such difficulties, WTO and UN reports have started to systematically record commercial services only recently. Therefore, episodic evidence from rapidly growing software exports of countries like India dominates the perception that services are the new growth engine for developing countries in international trade.

This paper is intended to cast some light on this engine by analysing both international statistics as well as the probably most detailed statistical source with respect to South-North exports of commercial services, the US import statistics. Unlike other OECD countries, the US source distinguishes between party-related and non-party related trade in services thus considering an important push factor of service trade cited in literature, i.e. foreign direct investment (FDI).

Section II stylises the contribution of trade in services relative to merchandise trade during the last decade in general and particularly the role which developing countries have played in supplying services. Section III highlights the sectoral and regional structure of US imports of services from developing countries, again by putting merchandise and service trade into perspective. Section IV discusses a number of driving factors behind growth of South-North exports in services while Section V analyses the trade policy implications which emerge from endeavours to diversify the export mix in developing countries more strongly in favour of services. Section VI concludes on the results.

II. Growth in World Trade in Services: Much Ado About Little

Measured both in terms of growth and shares, world trade in commercial services has not risen spectacularly during the 1989-98 period (Table 1).[2] On average, growth rates for world commercial service trade were 2 percentage points higher than for world merchandise trade but in 1998 merchandise trade still comprised four fifths of world total trade, i.e. only 3 percentage points lower than roughly a decade before. For developing countries, the contribution of service exports to their total trade was even declining. While in 1989 services accounted for 17 per cent of developing countries' total exports, this share had declined to 16.3 per cent nine year later indicating higher growth rates of merchandise exports than for commercial service exports originating in developing countries. For developed countries, the expected result of higher growth in commercial services than in merchandise exports materialised. As a result, developing countries achieved to raise their share in world merchandise trade by more than 3 percentage points (from 19.1 per cent to 22.5 per cent) while their share in world commercial exports stagnated at the 17 per cent level.

As concerns the country distribution of service exports among the developing countries, it does not come as a surprise that the group of leading suppliers of manufactures largely overlaps with the group of leading exporters of services.

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2 The year 1989 has been taken as the reference year because detailed GATT reporting on commercial services trade started in that year.

Yet, the overlap is not complete (Table 2). Egypt and Turkey, two countries with little success only in exporting manufactures, emerge as more important exporters of services, while Mexico ranging among the top ten of developing countries' exporters of manufactures, scored significantly worse in exporting services.

The modest performance of developing countries as exporters of services fits into the broad sectoral pattern of service exports. During the nineties, the share of traditional service exports (such as travel and transport) in total commercial services declined while that of so-called other commercial services (often referred to as producer services) rose sharply [WTO, 1999: 74]. This is not surprising since it is in human capital intensive producer services (financial services, communication services, and marketing services) where developed countries are expected to enjoy comparative advantages and where the emergence of new markets has been benefited from technological innovations originating from and introduced in developed countries.

III. South-North Exports of Services in Detail : The US Import Pattern

A first glance on the US import pattern in services in general and toward developing economies in particular underlines the cautioning view toward services as a trade engine. During the nineties, US imports of services rose about as fast as imports of merchandise goods so that the share of services in total US imports stagnated at the 15 per cent level (Table 3). As concerns imports from developing countries, the same initial share of 15 per cent in total US imports from developing economies even declined to 13 per cent since US imports in merchandise goods from these economies rose annually by 2 percentage points faster than imports of services. Hence, again, as in world trade, US trade figures reveal the nineties as a decade of flourishing merchandise exports from developing countries rather than service exports. Breaking aggregate service trade data down to four major sectors (travel and passenger fares, other transportation (basically maritime and air transport including port services), royalties and fees as well as other private services) yields a simple explanation why developing countries were less successful than other suppliers. They concentrate their supply on traditional travel and transport services the demand of which has grown underproportionately relative to payments for knowledge use (royalties and fees) and other private services which include the so-called producer services like financial services and software services (Table 4). While the two latter categories accounted for more than 35 per cent of total US world service imports in 1998 (after 25 per cent nine years before), US imports from developing countries in these two categories accounted for only 28 per cent of service imports from developing countries (after 16 per cent in 1989). To put it differently, the first two categories concentrate on consumer services plus merchandise trade related services. They have grown proportionately to growth of GDP and growth of merchandise trade, respectively. In these sectors, developing countries' advantages are based on competitive unskilled labour in air and maritime transport, or repair and maintenance in port services. In addition, policy factors such bilateral cargo sharing in maritime transport have automatically favoured countries with a high volume in merchandise trade, in particular non-traditional goods, thus tightening the link between merchandise trade and transport-related service exports.

The two other categories, however are „separated„ or „disembodied" using the Sampson/Snape and Bhagwati terms and have benefited strongly from IT innovations. Their emergence reflects profound structural changes within tertiary activities toward high value-added information production. This is not to say that the IT innovations have bypassed developing economies but rather that many developing countries lack the locational prerequisites to make the rapid diffusion of such innovations to developing countries profitable. Such prerequisites are basically human skills which must not be necessarily oriented toward supplying the local market but must enable countries to provide software services for world markets by using their homebase endowment.

To highlight the composition of these „transmitted information services“ (in Arndt’s terms) in US imports and the role of developing countries as suppliers of such services, Appendix Table 1 offers the absolute amount of US imports in 1998 broken down by individual service categories. It is noteworthy that US figures allow for distinguishing between unaffiliated trade disaggregated by categories and affiliated trade („intra-firm trade“) on an aggregate basis. The latter comprises US parent companies’ purchases from their foreign affiliates as well as US affiliates’ purchases from their foreign parents[3]. Following the distinction between intra-firm trade and unaffiliated trade, a strongly different pattern of US total service imports vs imports from developing countries can be exhibited. In 1998, about sixty per cent of total imports were not party-related while forty per cent were intra-firm trade. The latter trade was equally divided into US parent companies’ imports from their affiliates and imports of affiliates operating in the US from their parent companies. The 40/60 per cent ratio proved stable over the nineties. In contrast to this distribution, much more imports in services from developing countries[4] were unaffiliated so that only 20 per cent of US imports from these countries were intra-firm trade. In 1989, this share

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3 Due to the residency principle in the balance of payments accounting, another channel of selling services in international markets is not classified as cross-border trade: When foreign affiliates of US companies sell services in the host country or when non-US affiliates operating in the US sell services in the US, both sorts of transactions are classified as domestic trade because affiliates of multinational corporations are regarded as residents of the host country. To the extent that this delivery of services affects developing regions, it is discussed below.

4 Developing countries comprise Latin America (excluding the tax havens of the „other western hemisphere“), Africa, Middle East and Asia, and Pacific (excluding Australia, Japan, and New Zealand).

amounted to 13 per cent only. The low intra-firm trade in these producer services originating from developing countries mirrors the sectoral pattern of US foreign direct investment in service industries which is clustered more on OECD countries than has been the case in manufacturing [US Survey of Current Business, September 1999]. Developing countries are neither the major foreign investors nor are part in a world-wide network of non-US companies producing services in developing countries and exporting them to their affiliates in the US. Therefore, it is not surprising that in affiliated trade US parents take the lion's share when importing from their affiliates abroad. In unaffiliated trade, two categories dominate if tax haven economies are disregarded, i.e., services in telecommunications on the one hand and business, professional and technical services on the other hand. Financial services, insurance and education lag behind these two categories. Unlike in manufacturing where Asian exports usually dominate over Latin American exports, both regions are at equal footing in exporting producer services (Tables 5 and 6). That means that the distinction between large relatively inward-oriented Latin American economies and small relatively outward oriented Asian economies which has been relevant in manufactured exports for long time becomes somewhat blurred in services. Thus, an inward-oriented country like India is as important as seller of telecom or business services as it is Singapore or Hong Kong. Furthermore, the NAFTApartner Mexico ranges next to total Europe as the largest individual seller of telecom services to the US.

The sub-sector „business, professional and technical services“ includes a number of heterogeneous activities and therefore impedes further reaching analyses at that level of disaggregation. Appendix Table 2 provides more details on the nature of these activities. It is in this sub-sector where the most frequently cited „success story“ of developing countries as suppliers of high skilled business services can be identified, i.e. the Indian software industry.[5] Indeed, data yield that in 1998 Indian companies which were unaffiliated to US companies exported computer and data processing services to the US worth 64 mill. US$, i.e. 17 per cent of total US imports in this activity. Corresponding data for 1997 were 4 mill. only. However, putting the 1998 figure into a perspective, it means no more than 0.8 per cent of total Indian merchandise exports to the US in 1998, less than total Indian pepper exports to the US and only 80 per cent of a single textile product, table linen made of cotton. These service exports would have only ranked at 15th place among the 25 leading 6-digit HS merchandise exports to the US [Trade Data Online: http://strategis.ic.gc.ca/]. Yet, aggregated over all developing countries, computer and data processing services are the industry with the highest share of developing country supply. In 1998, about 30 per cent of US

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5 For more details on this industry, see Arora, Arunachalam [1999].

imports in this industry originated from developing countries, with India as the largest single supplier (Table 6).

As concerns sales of services of US majority-owned foreign affiliates (MOFAs) operating in developing countries, there are no data distinguishing between local sales and foreign sales by host countries of the affiliate. For world-wide sales of services of all US affiliates, it has been shown that sales by affiliates were predominantly local sales. In 1997, 82 per cent of world-wide sales of services of MOFAs were transactions with customers residing in the same country as the affiliate [US, Dept. of Commerce, Survey of Current Business, October 1999: 60]. If we assume this share to hold also for affiliates operating in developing countries this would mean that MOFAs' services sold from their host base in developing countries to other countries comprised about 15 per cent of US imports of services from developing countries, hence a relatively small figure.

IV. What Drives Developing Countries' Competitiveness in Services?

The empirical pattern of South-North service exports in the nineties does not support the optimistic notion that services have been a stronger engine for export growth in developing countries than the manufacturing sector. One clue to explain this pattern is the importance of *locationally immobile factors*. As in merchandise trade, developing countries as service exporters benefit from unskilled labour and natural resource abundance (the latter being important for the tourist industry). To the extent that labour-intensive services are joint products of labour-intensive manufacturing (like the entire distribution sector), the overlap between those suppliers which are successful as exporters of manufactured products and those which export services in transportation and cargo handling is large. The overlap can increase if regulations such as bilateral cargo sharing and bilateral aviation agreements prevent other suppliers than the origin and destination country from breaking into the transport market.[6] If consumer services are decoupled from exports of manufactures as in passenger travel and tourism, another link become relevant, i.e., links to foreign technology and logistics via FDI. *Openness to FDI* and lack of restrictions against inflows of skilled personnel may enable developing countries to become suppliers of tourist services even if a strong export base in manufactures does not exist (such as in Kenya).

Both consumer services, goods-related and person-related services, seem to have grown at similar rates as manufactured exports. They clearly lag behind the rapid growth of business or producer services which have emerged in the course of technological innovations. However, few developing countries only seem to have been able to host production factors such as IT-software specialists which can compete internationally, for instance, India’s computer software industry and Mexican telecommunication services. It is this knowledge pool which is a

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6 Flags of convenience are excluded in this analysis since their sole service consists of acting as tax havens.

prerequisite for benefiting from innovations in information-transmitted services. Foreign direct investment has also in this case been instrumental to deepen the link between the local knowledge pool and international clients.

Interestingly, financial services originating from the banking centres Hong Kong and Singapore play a minor role, probably because offshore banking services are not included in the statistics. This points to the general caveat of an inadequate reporting system even in the relatively detailed US statistics.

V. Trade Policy Implications

Traditional trade policies which focus on taxing cross-boundary activities at the border play an insignificant role in services. The main impediments are restrictions against market access and the violation of the national treatment principle. Furthermore, at the sectoral level, bilateral agreements such as in maritime and air transport fall short to comply with the most favoured nation treatment principle. This holds the more as global maritime negotiations were suspended in 1996. Though this suspension also included MFN exemptions which were listed at the entry into force of the GATS, it meant that no compliance with the MFN principle can be expected until the conclusion of negotiations on service trade liberalisation. In a number of cases, WTO member countries have simply ignored the commitment to limit exemptions made at the beginning of GATS for a 10-year period and instead have labeled them

„indefinite“. Given this conduct, it is unlikely that for the time being service trade will be at the forefront of liberalisation achievements.

To stylise the implications of lack of progress in enforcing the non-discrimination principle for developing countries, it is helpful to highlight the sectoral pattern of trade measures which violate the MFN principle. If we distinguish between, on the one hand, producer or business services with the industrialised countries as the major international suppliers, and on the other hand, consumer services in which developing countries have stronger export interests, trade measures violating the MFN principle seem to be clustered in the latter, especially in transport. 147 measures out of 329 in total were listed under transport services (with maritime services topping the list) while only 51 measures were related to financial services and 98 measures referred to communications services (with audio visual services as the main „culprit“) [World Trade Agenda, 2000: 3]. Hence where services are finished products rather than intermediates, protection seems the highest. This is an analogy to the structure of protection in the manufacturing sector which also discriminates against suppliers exporting consumer goods and thus against unskilled labour-abundant countries. As many developing countries can competitively supply unskilled labour-intensive services in transport activities such as handling cargo onshore and offshore as well as servicing passengers, exemptions from MFN treatment prevent them from gaining trade shares against traditional bilateral or regional partner countries enjoying preferential treatment. In short, the sectoral pattern of exemptions from non-discrimination seems to constitute an effective barrier against developing countries' suppliers of consumer-related services. Though developing countries are already important exporters of such services as transport, their export potential seems to be higher and could probably be easily extended to services such as road transport and inland waterways. It is in these sectors where either domestic suppliers in industrialised countries are still strongly protected against international competition or where international competition is only allowed under bilateral or regional agreements subject to strict harmonisation of supply standards, for instance in the EU. Therefore, to think of a Brazilian road transport company supplying services within Europe, is far from realistic, at least for the time being.

VI. Conclusions

In contrast to what single episodes such as the Indian software exports suggest, developing countries in total have not yet emerged as fast growing exporters of services. During the nineties, they have been more successful as exporters of manufactures. This finding coincides with the general outcome that services in world trade as far as they are reported have not yet been as dynamic segments of total trade as many believe. If this should be due to insufficiencies in data reporting which doubtlessly are more serious than in merchandise trade this picture is unlikely to change in future. This can be expected as disembodied services which emerge from innovations in IT industries can easily escape documentation.

As concerns developing countries, their export focus has been on the relatively slowly growing segment in service trade, i.e., consumer services which are related to physical movements of persons and goods rather than to movement of knowledge and information. This is what US import data reveal. Growth of such trade depends more on business cycles than on structural shifts and thus should be closely linked to growth of traditional merchandise trade. There is more potential for developing countries to expand exports in consumer services given the importance of labour abundance in such service items. However, a cursory view on the sectoral pattern of exemptions from MFN treatment suggests that these items belong to the strongly protected areas. Exemptions from MFN treatment are clustered in transport services. There, developing countries are not only impeded in expanding their service exports through relatively low demand elasticities but also by trade barriers which protect unskilled labour in competing service industries of industrialised countries.

Outliers such as professional service exports from developing countries in computer software had spectacular growth rates in recent years only in the Indian case (as mirrored by US import data). However, in terms of magnitude, export earnings from these activities still strongly lag behind traditional manufactured exports.

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Table 1 – World Exports of Commercial Services and Merchandise Trade, 1989-1998 (in bill. US$)

Regions of origin	Merchandise trade			Commercial services		
	1989	1998	Annual growth rate	1989	1998	Annual growth rate
Developed Countries[a] (incl. transition countries)	2 301.3	4 010.2	6.4	509.2	982.0	7.6
Developing Countries[b]	543.7	1 166.8	8.9	111.4	228.0	8.3
Total	3 095.0	5 422.0	6.4	646.0	1 320.0	8.3

[a]Sum of ‘leading developed countries’ suppliers. – [b]Sum of ‘leading developing countries’ suppliers.

Source: GATT, International Trade 89-90, Vol. II; WTO, Annual Report 1999, International Trade Statistics. - Own calculations.

Table 2 – Share and Rank of Individual Developing Economies in World Exports of Commercial Services, 1999

Economy	Share	Rank[a]	
Hong Kong, China	2.6	10	(11)
China	1.8	14	(9)
Korea, Rep. of	1.8	15	(12)
Turkey	1.8	16	(36)
Singapore	1.4	17	(14)
Taiwan	1.3	19	(15)
Thailand	1.0	23	(24)
Mexico	0.9	25	(13)
India	0.8	26	(31)
Malaysia	0.8	27	(20)
Egypt	0.6	32	(-)[b]
Brazil	0.6	33	(25)
Philippines	0.6	34	(32)
South Africa	0.4	39	(33)
Argentina	0.3	40	(37)

[a]In parenthesis: rank in merchandise exports. – [b]Not among the leading fifty exporters of merchandise goods.

Source: WTO, Annual Report 1999. International Trade Statistics.

Table 3 – US Import Pattern in Merchandise and Service Trade, 1989, 1998 (in bill. US$)

	Imports from			
	World		Developing countries	
	1989	1998	1989	1998
Merchandise trade	493	944	178	432
Service trade	85	165	32	64[a]
Total trade	578	1 109	210	496

aFor reason of compatibility with 1989 figures, 1998 figures include both tax haven countries of Central America and Australia and New Zealand. Detailed statistics which include all countries of origin are available since 1992 only.

Source: Table 1; US Department of Commerce. Survey of Current Business, October 1999. - Own calculations.

Table 4 – Sectoral Structure of US Service Imports, 1989, 1998 (in bill. US$)

Area of origin	World		Developing countries	
	1989	1998	1989	1998
Travel and passenger fares	41.6	75.8	19.6	35.5
Other transportation	22.1	30.5	6.9	10.6
Royalties and licence fees	2.5	11.3	0.1	0.6
Other private services	18.9	47.7	5.6	17.5
TOTAL	85.1	165.3	32.1	64.2

Source: US Department of Commerce, Survey of Current Business, October 1998, October 1999. – Own calculations.

Table 5 – Share of Developing Regions in US Imports of Transmitted Information Services[a], 1989, 1998 (in per cent)

		Total	Affiliated			Unaffiliated						
			Total	By US parents from their foreign affiliates	By US affiliates from their foreign parents	Total	Education	Financial services	Insurance premiums	Tele-commun-ications	Business, professional, and technical services	Other services
Latin America[b]	1989	9.0	2.1	2.3	1.9	14.0	9.9	0	0.4	26.3	5.7	10.8
	1998	8.6	2.6	3.5	1.6	12.7	24.1	7.1	0.2	30.3	6.5	8.4
Africa	1989	n.a.	0.1	0	0.4	n.a.	n.a.	n.a.	0	0	0.6	0
	1998	1.4	0.5	0.9	0	2.1	2.3	0.9	0	4.3	2.2	0.4
Asia[c]	1989	9.4	3.3	4.2	2.0	13.3	7.7	4.1	0.6	14.9	8.4	2.5
	1998	9.3	6.2	8.9	3.4	11.3	4.1	8.6	0.2	24.9	10.3	3.8
Total Developing Countries	1989	18.4	5.2	6.5	4.3	27.3	17.6	4.1	1.0	41.2	14.7	13.2
	1998	19.4	9.3	13.3	5.0	26.1	30.5	16.6	0.4	59.4	19.0	12.6

[a]“Other private services“ in the US definition. – [b]Excluding Bermuda and other tax havens. – [c]Excluding Middle East. – n.a. = not available.

Source: US Department of Commerce, Survey of Current Business, October 1998, October 1999. - Own calculations.

Table 6 – Share of Developing Regions in US Imports of Business, Professional, and Technical Services, Unaffiliated, 1989, 1998 (in percent)

		Total	Advert-ising	Computer and data processing services	Data base and other informa-tion services	Research, development, and testing services	Manage-ment, consulting, and public relations services	Legal services	Construc-tion, engineering, architectural, and mining services	Industrial engineering	Installation, maintenance, and repair of equipment	Other services
Latin	1989	5.7	1.7	0	0	0	2.1	1.2	1.1	0	12.1	11.1
America[a]	1998	6.5	7.2	3.3	0.7	4.1	7.9	9.0	2.6	1.0	6.0	8.2
Africa	1989	0.6	0	0	0	0	7.0	0	0.5	0	0.1	0
	1998	2.2	0.8	0.3	3.6	3.2	0	0.9	0	1.3	0.2	2.6
Asia[b]	1989	8.4	7.0	19.6	0	0,8	9.1	4.9	n.a.	0	8.0	n.a.
	1998	10.3	7.7	26.9	10.1	4.0	15.2	12.1	6.7	4.8	12.1	9.8
Total Developing	1989	14.7	8.7	19.6	0	0.8	18.2	6.1	n.a.	0	20.2	n.a.
Countries	1998	19.0	15.7	30.4	14.4	11.3	23.1	22.0	9.3	7.1	18.3	20.6

[a]See footnote b in Table 5. – [b]See footnote c in Table 5.

Source: See Table 5.

Appendix Table 1 – US Imports of Transmitted Information Services by Countries, 1998 (in mill. US$)

	Payments													
	Total	Affiliated			Unaffiliated									Addendum
		Total	By U.S. parents from their foreign affiliates	By U.S. affiliates from their foreign parents	Total	Education	Financial services	Insurance			Tele-communi-cations	Business, professional, and technical services	Other services	Film and tape rentals
								Net	Premiums	Losses				
All countries	47 670	19 095	9 730	9 365	28 575	1 538	3771	6 908	18 581	11 673	8 125	7 684	549	176
Canada	5 426	3 085	739	2 346	2 340	12	231	509	1 050	541	333	1 086	169	39
Europe	20 830	10 832	5 915	4 918	9 998	900	2 314	1 677	7 952	6 274	1 276	3 636	196	97
Belgium-Luxembourg	628	(D)	(D)	110	(D)	9	66	53	120	67	30	95	(D)	(*)
France	2 389	1 372	622	750	1 017	113	146	327	651	324	101	306	24	9
Germany	2 232	1 556	667	890	676	52	147	-40	1 531	1 571	119	366	32	11
Italy	639	263	86	177	375	123	36	-16	81	97	91	131	10	3
Netherlands	1 251	935	298	637	316	13	60	3	43	40	44	180	17	6
Norway	157	82	5	77	75	0	11	10	15	5	13	40	0	0
Spain	440	89	63	26	351	130	41	6	10	5	61	105	7	0
Sweden	272	186	24	162	86	1	41	-36	82	118	21	58	1	(*)
Switzerland	1 400	752	182	570	648	3	137	289	1 235	947	60	146	14	11
United Kingdom	9 413	4 580	3 386	1 194	4 834	327	1 451	1 117	3 661	2 544	283	1 591	65	53
Other	2 009	(D)	(D)	325	(D)	129	178	-35	522	557	455	616	(D)	2
Latin America & Other Western Hemisphere	10 070	1 121	559	562	8 951	427	583	4 427	8 888	4 462	2 908	557	50	8
South & Central America	4 111	487	340	147	3 624	370	268	-20	37	57	2 460	500	45	5
Argentina	235	46	46	(*)	189	11	30	-5	20	25	102	51	1	1
Brazil	561	148	134	15	413	11	61	1	1	0	220	118	1	1
Chile	102	10	4	6	92	19	4	-1	(*)	2	48	22	0	(*)
Mexico	1 758	244	131	113	1 515	185	95	2	5	4	1 082	143	8	1
Venezuela	(D)	16	11	5	(D)	5	12	-4	2	6	80	22	(D)	2
Other	(D)	23	15	9	(D)	139	66	-12	10	21	928	144	(D)	(*)
Other Western Hemisphere	5 960	634	219	415	5 326	56	315	4 446	8 851	4 405	448	57	4	2
Bermuda	3 581	356	87	269	3 225	1	109	3 068	5 849	2 782	18	29	0	1

to be continued ...

continued Appendix Table 1

	Payments													
	Total	Affiliated			Unaffiliated									Addendum
		Total	By U.S. parents from their foreign affiliates	By U.S. affiliates from their foreign parents	Total	Education	Financial services	Insurance			Tele-communi-cations	Business, professional, and technical services	Other services	Film and tape rentals
								Net	Premiums	Losses				
Other	2 381	278	132	146	2 103	55	206	1 379	3 002	1 623	430	28	4	2
Africa	679	91	87	4	588	35	33	5	8	3	348	165	2	*
South Africa	181	83	83	0	98	5	10	-1	1	2	60	23	1	(*)
Other	497	7	3	4	490	29	23	6	8	2	288	142	1	0
Middle East	1 227	244	230	14	983	24	35	5	9	4	522	392	5	5
Israel	494	219	210	10	275	23	11	(*)	2	1	132	109	0	(*)
Saudi Arabia	271	5	5	0	266	0	10	-1	(*)	1	96	156	5	5
Other	460	19	15	5	441	1	14	5	7	2	294	127	0	0
Asia & Pacific	9 107	3 696	2 174	1 522	5 411	141	575	242	624	381	2 536	1 848	69	27
Australia	895	330	298	32	564	48	65	122	264	141	129	189	11	7
China	433	33	24	9	400	10	1	-3	-4	0	325	67	0	0
Hong Kong	963	558	490	68	405	2	70	24	3	-21	171	138	0	1
India	486	(D)	17	(D)	(D)	4	14	3	4	2	311	105	(D)	2
Indonesia	130	14	11	3	116	1	11	0	(*)	(*)	77	27	0	0
Japan	3 619	2 131	965	1 166	1 491	24	182	83	309	226	319	846	37	15
Korea, Rep. of	434	(D)	27	(D)	(D)	2	21	3	10	7	214	109	(D)	0
Malaysia	99	(D)	17	(D)	(D)	0	17	0	(*)	(*)	35	17	(D)	0
New Zealand	159	44	41	4	115	6	5	15	17	2	69	20	0	(*)
Philippines	320	3	3	(*)	317	0	29	0	6	6	210	78	0	0
Singapore	468	300	214	85	168	1	53	-3	3	6	65	51	1	1
Taiwan	419	101	50	51	318	1	17	-3	3	6	202	101	0	0
Thailand	176	14	11	3	162	1	16	4	6	2	85	56	0	(*)
Other	506	(D)	5	(D)	(D)	40	74	-1	3	5	325	44	(D)	1
Internatinal organiza-tions & unallocated Addenda:	330	27	27	0	303	0	0	43	51	7	201	(*)	59	1
European Union	18 445	9 950	5 705	4 245	8 497	819	2 092	1 375	6 701	5 327	888	3 147	176	86
Eastern Europe	600	46	4	43	575	41	27	4	1	-3	242	261	1	0

D = Suppressed to avoid disclosure of data of individual companies. – * = Less than $500,000.

Source: US Department of Commerce, Survey of Current Business, October 1998, October 1999. – Own calculations.

Appendix Table 2 – US Imports of Business, Professional, and Technical Services, Unaffiliated from Developing Countries, 1989 and 1998 (in mill. US$)

		Total	Advertising	Computer and data processing services	Data base and other information services	Research, development, and testing services	Management, consulting, and public relations services	Legal services	Construction, engineering, architectural, and mining services	Industrial engineering	Installation, maintenance, and repair of equipment	Other
All countries	1989	2 059	228	46	31	133	143	81	443	53	704	197
	1998	7 684	1 046	365	139	630	914	688	699	311	431	2 459
Latin America	1989	123	4	1	0	0	3	1	8	0	85	23
	1998	557	77	16	7	27	75	79	18	4	27	225
Argentina	1989	0	(*)	0	0	0	0	0	0	0	0	0
	1998	51	9	(*)	1	3	3	9	9	(*)	3	14
Brazil	1989	3	2	0	0	0	1	1	0	0	(*)	0
	1998	118	25	2	(*)	10	26	18	2	(*)	13	23
Chile	1989	-	-	-	-	-	-	-	-	-	-	-
	1998	22	2	(*)	(*)	1	(*)	3	1	(*)	(*)	14
Mexico	1989	90	1	(*)	0	0	(*)	(*)	3	0	80	6
	1998	143	14	4	(*)	4	12	16	2	3	5	83
Venezuela	1989	2	(*)	0	0	0	1	(*)	0	0	0	1
	1998	22	2	(*)	(*)	(*)	5	4	(*)	(*)	(*)	10
Other	1989	22	1	0	0	0	1	(*)	3	0	4	15
	1998	144	23	5	(*)	7	26	13	3	(*)	6	58
Africa	1989	13	0	0	0	0	10	(*)	2	(*)	1	0
	1998	165	8	1	5	20	(D)	6	(D)	4	1	65
South Africa	1989	0	0	0	0	0	0	(*)	0	0	0	0
	1998	23	6	(*)	1	1	1	3	(*)	(*)	1	10
Other	1989	13	0	0	0	0	10	0	2	(*)	1	0
	1998	142	2	1	4	19	(D)	4	(D)	4	(*)	56
Middle East	1989	51	3	0	0	6	4	1	(D)	0	5	(D)
	1998	392	19	8	1	63	(D)	12	(D)	(*)	10	66
Israel	1989	9	2	0	0	6	0	(*)	(*)	0	(*)	0
	1998	109	4	2	(*)	62	2	6	5	8*)	8	20
Saudi Arabia	1989	5	(*)	0	0	0	4	(*)	0	0	0	1
	1998	156	2	6	(*)	1	(D)	2	10	(*)	2	(D)

to be continued...

Appendix Table 2 (continued)

		Total	Advertising	Computer and data processing services	Data base and other information services	Research, development, and testing services	Management, consulting, and public relations services	Legal services	Construction, engineering, architectural, and mining services	Industrial engineering	Installation, maintenance, and repair of equipment	Other
Other	1989	37	0	0	0	0	0	1	(D)	0	4	(D)
	1998	127	13	1	1	(*)	4	4	(D)	(*)	(*)	(D)
Asia & Pacific	1989	448	101	15	6	15	48	9	(D)	1	79	(D)
	1998	1 848	436	128	28	61	203	175	96	170	72	480
China	1989	-	-	-	-	-	-	-	-	-	-	-
	1998	67	5	3	2	3	8	10	1	2	2	31
Hong Kong	1989	25	4	2	0	(*)	(*)	4	1	0	13	0.1
	1998	138	16	11	1	2	8	22	5	(*)	6	66
India	1989	4	0	1	0	0	0	0	2	0	0	0.2
	1998	105	4	64	2	3	4	3	(*)	5	3	15
Indonesia	1989	40	0	0	0	0	(D)	0	(D)	0	0	0
	1998	27	2	2	(*)	(*)	7	3	2	(*)	2	10
Korea, Rep. of	1989	19	3	0	0	0	(D)	0	(D)	0	5	0.1
	1998	109	18	1	(*)	3	10	17	(D)	5	16	(D)
Malaysia	1989	3	0	0	0	0	2	0	0	0	(*)	0
	1998	17	2	(*)	(*)	(*)	7	1	(*)	(*)	1	4
Philippines	1989	9	0	4	0	0	1	0	0	0	3	0
	1998	78	3	10	3	3	(D)	2	4	(*)	1	(D)
Singapore	1989	30	2	1	0	0	(*)	(*)	(D)	0	19	(D)
	1998	51	7	2	4	1	4	6	2	2	5	18
Taiwan	1989	25	6	0	0	0	2	(*)	4	0	12	1.3
	1998	101	15	3	(*)	5	(D)	9	7	(*)	14	(D)
Thailand	1989	-	-	-	-	-	-	-	-	-	-	-
	1998	56	4	1	1	3	(D)	4	5	1	2	(D)
Other	1989	18	(*)	(*)	0	0	4	0	1	0	4	9
	1998	44	2	(*)	1	2	4	4	(D)	(*)	1	(D)

(*) = Less than $500,000. – (D) = Suppressed to avoid disclosure of data of individual companies.

Source: See Appendix Table 1.