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Globalisation in Services: From Measurement to Analysis

OECD Statistics Working Paper

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GLOBALISATION IN SERVICES: FROM MEASUREMENT TO ANALYSIS

Isabelle Bensidoun and Deniz Ünal-Kesenci♣

NON-TECHNICAL SUMMARY

With the founding of the World Trade Organization, the scope of international liberalisation was extended to services, which now account for 70% of world value-added and 40% of world employment. The modes for opening trade in services are set out in the General Agreement on Trade in Services (GATS, 1995). All modes for providing services internationally are involved. In addition to conventional trade between residents and non-residents, which are recorded in the balance of payments and correspond mainly to modes 1 and 2, the GATS introduces the host-country operations of foreign-owned affiliates (mode 3) and services performed via the movement of natural persons abroad (mode 4). With the development of information and communication technologies, numerous services that were previously non-tradable can now cross borders (mode 1). But in many cases physical proximity between producers and consumers is still either necessary or preferable, and this is conducive to the establishment of affiliates abroad (mode 3). Our first aim in this paper is to provide a quantitative assessment of these different modes of supply.

As a prerequisite to each round of negotiations, Article XIX of the GATS calls upon the Council for Trade in Services, made up of representatives of the Member States, to conduct an assessment of trade in services, both in the aggregate and by sector. Since the early 1990s, the major international institutions have endeavoured to develop the capability to provide detailed and consistent statistical data at the world-wide level. Yet major gaps remain, especially with regard to the two modes of trade in services that do not fall under the conventional definition of trade. First, data on mode 3 are available for only some OECD countries. As a result, estimates of the respective weights of the four modes of supply provided by Karsenty (2002), and frequently quoted, are quite thin: data for a few developed countries are extrapolated to world level without any details on the underlying assumptions. Second, the data associated with mode 3, ordered according to a classification by activity, are not directly comparable to those related to modes 1 and 2, which are based on a classification by product. For the four major OECD countries for which data are most comprehensive (United States, Japan, Germany, France), we offer in this paper an estimation whereby the two datasets can be brought closer together. Data harmonisation brings about a substantial decrease in the sales of services performed by the affiliates of the trade sector, and hence a sharp drop in

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mode 3 trade. Nonetheless, mode 3 still prevails in aggregate trade in services: establishing affiliates is the primary means by which all four countries service foreign markets. The geographical breakdown of mode 3 trade shows that most of these markets are located in the North[1], and that a large majority of foreign affiliates in these four countries belong to Northern firms.

The North's domination is also evidenced in conventional trade in services, which we then analyse using the CEPII's CHELEM-BAL database, compiled from IMF statistics, the OECD database and national statistics. This merged database provides an especially exhaustive coverage of trade, spanning 11 major categories of services and 184 countries. Northern countries account for 81% of world service exports and 86% of those excluding transport and travel ("other services"). The latter include items that have increased the most over the last ten years (computer and information services, financial services, insurance, royalties and licence fees, cultural services). While the share of total services in aggregate world trade has not changed that much over the last three decades, it is within these activities that the globalisation of services has gathered pace.

The relatively rapid expansion of the "other services" category (which now accounts for half of aggregate trade in services) has been driven by strides in the advancement of information and communications technologies, which have reduced the obstacles that distance had placed on trade in certain services. This development makes it possible for countries in the South, which find it difficult to establish affiliates abroad, to take part in the globalisation of services. But for the time being, India alone has managed to gain substantial market shares, in computers and information services. The new domains remain the privilege of Northern countries, and particularly the United States and the United Kingdom, whose specialisation in these dynamic activities is especially strong.

Analysis of the globalisation of services is still restricted by the lack of data, despite statistical improvements. The most commonly used mode of international service delivery is the one about which statistical information is the most incomplete and heterogeneous. With the process of liberalisation already more complex for services than for goods, primarily because of domestic regulatory issues, the lack of statistics on trade in services may constitute one more source of difficulties in moving negotiations forward.

[1] The North comprises the United States, Canada, the European Economic Area, Japan and the "four dragons" namely South Korea, Singapore, Hong Kong (SAR China) and Chinese Taipei.

ABSTRACT

This paper provides new estimates of international trade in services for mode 3 (foreign affiliates' sales in a host country) for four major OECD countries, thanks to the harmonisation of FATS statistics with conventional international trade ones (trade recorded in the balances of payments – modes 1 and 2), using the CEPII's exhaustive CHELEM-BAL database. The results show that sales by foreign affiliates abroad account for the bulk of international trade in services. Technological changes are speeding up the globalisation of the tertiary sector. These new areas of trade are still dominated by the Northern countries, whose service surpluses offset some of their declining competitiveness in manufacturing markets.

JEL Classification: F10, F14, F23, L80

Keywords: Services, international trade, specialisation, FATS

RÉSUMÉ

Grâce à une mise en cohérence des statistiques FATS (ventes des filiales d'entreprises étrangères dans un pays d'accueil) et de celles du commerce international *stricto sensu* (échanges inscrits dans les balances des paiements, modes 1 et 2), cette étude propose des estimations inédites, pour quatre grands pays de l'OCDE, des échanges internationaux de services par modes de fourniture. Les résultats montrent que les ventes des filiales à l'étranger constituent la majeure partie des échanges de services, et ce en dépit des progrès technologiques qui ont levé la contrainte posée par la distance au commerce de nombreux services aux entreprises. Ces derniers, par leur dynamisme, ont profondément modifié le visage de la mondialisation dans le tertiaire. Les pays du Nord sont, pour le moment, les principaux acteurs sur ces marchés où ils compensent en partie l'érosion de leur compétitivité dans le secteur manufacturier.

INTRODUCTION

With the founding of the World Trade Organization, the scope of trade liberalisation was extended to new areas, including services, which now account, world-wide, for 70% of value-added and 40% of employment. The modes for international trade in services and the liberalisation thereof are set out in the General Agreement on Trade in Services (GATS). A broad understanding of the notion of trade was adopted, encompassing all modes by which services are delivered internationally. Alongside conventional trade between residents and non-residents, the scope now includes the operations of foreign affiliates in host countries and services supplied by natural persons abroad.

The decision to bring services into the scope of liberalisation highlighted the need for service trade statistics that were more detailed and internationally consistent. Here, the progress over the past decade is beyond dispute, yet the remaining difficulties are still very great, and especially acute in respect of the two modes of service delivery that lie outside the conventional definition of trade.

After a brief review of the special features of services, in terms both of their characteristics (Section I) and of how they are traded internationally (Section II), we shall explore the statistical problems that are still making it tricky to measure international trade in services (Section III). While liberalisation of services is on the agenda, these difficulties result in scant evaluation of the various modes of trade. The WTO's assessment (Karsenty, 2002), which is widely cited in economic literature, is fairly thin. It extrapolates to a world level mode 3 data that are available only for a number of developed countries, without specifying the underlying assumptions. In addition, while data on mode 3, which are arranged according to a classification by activity, are not directly comparable to data on modes 1 and 2, which are based on a classification by product, no mention is made of how this problem is handled. In this paper, focusing solely on four major OECD countries for which data are most comprehensive (United States, Japan, Germany, France), we offer an estimation whereby the two datasets can be brought closer together (Section IV).

We then analyse conventional trade in services, using CEPII's CHELEM-BAL database, compiled from IMF statistics, the OECD database and national statistics. This merged database provides an especially exhaustive coverage of trade, spanning 11 major categories of services and 184 countries. Here, data availability allows for global coverage and detailed sectoral analysis (Section V).

I. GOODS, SERVICES AND INTANGIBLES

The usual criterion of materiality goes back to (Say, 1850) and has long created a dichotomy between goods and services. This criterion of materiality also enters into statistical definitions to describe physical-object goods and intangible service products, as is suggested by the fact that the latter until recently were referred to in the balance of payments as "invisibles".

As long as the borderline between goods and services posed no problem – to a large extent as long as information and communication technologies had not yet profoundly altered the modes of production – neither did the immateriality criterion pose a problem as the distinguishing factor between goods and services.

The 1993 revised edition of the United Nations' System of National Accounts (SNA 1993), by acknowledging that the product of certain service activities[2] can give rise to the constitution of intangible fixed assets (immaterial investment), strikes a blow to the distinction between goods and services.

To acknowledge the existence of intangible assets produced as a result of service activities requires the amendment and clarification of what was a relatively consensual definition of services.

Consequently, in the SNA 1993, in addition to the definition stipulating that:

- Services are not separate entities over which ownership rights can be established.
- They are produced to order.
- They cannot be traded separately from their production.
- By the time their production is completed they must have been provided to the consumers.

It was added that "There is a group of industries generally classified as service industries that produce outputs that have many of the characteristics of goods, *i.e.*, those industries concerned with the provision, storage, communication and dissemination of information, advice and entertainment in the broadest sense of those terms – the production of general or specialized information, news, consultancy reports, computer programs, movies, music, etc. The outputs of these industries, over which ownership rights may be established, are often stored on physical objects – paper, tapes, disks, etc. – that can be traded like ordinary goods. Whether characterized as goods or services, these products possess the essential common characteristic that they can be produced by one unit and supplied to another, thus making possible division of labour and the emergence of markets."[3]

It can be seen that the grounds for the distinction between goods and services were seriously shaken by the addition of the above paragraph: certain outputs of service activities are now acknowledged to

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2 Computer software, mineral exploration expenditure, and entertainment, literary or artistic originals.

3 EC-Eurostat, IMF, OECD, UN, & WB (1993), paragraph 6.13.

possess a number of characteristics previously reserved for goods (separation between production and exchange, the possibility of establishing ownership rights). Consequently, with the development of information technologies and the expansion of investment to a portion of intangible assets[4], the difference between goods and services can no longer rest on exclusive criteria. Moreover, during the discussions preceding the adoption of a new system of national accounts, a new, three-pronged classification of products and activities had been suggested: tangible goods, intangible goods and services (Hill, 1999); or goods, information products and services (Vanoli, 1999). These proposals were not adopted[5].

[4] Because of the difficulties involved in valuing assets produced via R&D activities, and despite lengthy discussions on the subject, SNA 1993 did not adopt the proposal to categorise R&D expenditure as investment.

[5] For a detailed review of deliberations on the conceptualisation of services, see Banga (2005).

II. MODES OF INTERNATIONAL TRADE IN SERVICES: THE CONTRIBUTION OF THE GATS

While the definition of the notion of services has become blurred since the mid-1990s, the definition of international trade in services has in fact been clarified within the institutional framework of multilateral trade negotiations.

While the 1948 Havana Charter called for creation of an International Trade Organization which was to lay down principles and rules for trade in goods *and* services, for nearly half a century trade negotiations dealt with goods alone. Since the Charter was never ratified, the General Agreement on Tariffs and Trade (GATT), which was signed in 1947, continued to be the sole framework for negotiations, limited to trade in merchandise. Following successive rounds of negotiations which led to a substantial decrease in tariff-based trade barriers, one of the issues tackled by the Uruguay Round (1986-1994) was non-tariff barriers. At the same time, the United States, backed by the European Union and Japan, pressed for the incorporation of services into the GATT. Ultimately, the World Trade Organization (WTO), established in 1995 at the conclusion of the Uruguay Round, was commissioned to oversee multilateral negotiations in three areas, each of which to be governed by its own agreement: goods (carried forward from the GATT), services (General Agreement on Trade in Services, GATS) and intellectual property (Trade-related Aspects of Intellectual Property Rights, TRIPS).

Extension of the scope of trade liberalisation to the realm of services made it necessary to adopt a common statistical framework at the international level. As required prior to each round of negotiations, Article XIX of the GATS directs the Council, made up of representatives of the Member States, to carry out an assessment of trade in services in overall terms and on a sectoral basis. A broad concept of trade was then adopted, encompassing all of the ways in which services can be provided internationally. As a result, in addition to services recorded in the balance of payments, the GATS added the service activity of foreign affiliates operating in host countries. While trade liberalisation in the realm of goods has been confined to trade in the conventional sense (between residents and non-residents), the opening-up of services led to direct investment being brought into the scope of negotiations.

Under the GATS, a service is deemed to be "exported" from country A to country B if the service is performed by a provider from A on behalf of a customer from B, regardless of where the service is actually performed. It defined four types of trade in services, depending on who or what (the service, the consumer or the provider) crosses the border[6]:

- Mode 1 – **Cross-border supply** – This is exporting in the standard sense; as in the case of trade in goods, it is the **service** itself that crosses the border from A to B: examples include a satellite broadcast of a television programme, a lawyer's transmission of advice to a client in a foreign country via the post, fax or e-mail, execution of a financial transaction by an agent in London for a customer in Paris, etc.

[6] The definition of the four modes of service provision in the GATS draws heavily on the work of Bhagwati (1984 and 1985).

- Mode 2 – **Consumption abroad** – Here it is the **consumer** from B who travels across the border to A: *e.g.* a tourist checking into a foreign hotel or a patient going abroad for medical care.
- Mode 3 – **Commercial presence** – The service is performed by the **supplier** from A that has crossed the border as a **legal entity** to establish a permanent office or affiliate in B: *e.g.* an airline's representative office or the branch of a bank.
- Mode 4 – **Presence of natural persons** – Again, it is the **supplier** from A who crosses the border, but in this case there is **physical movement** by an individual for a limited amount of time: *e.g.* agents sent abroad for an auditing mission, an investigation or to work at a construction site.

This definition by the GATS of the four modes of trade in services has led to real strides in the understanding of globalisation in the service sector. As explained in the following section, this recent institutional framework paved the way for a foundation of international classification schemes that had heretofore been practically non-existent in the realm of services.

III. MEASURING INTERNATIONAL TRADE IN SERVICES: A STATISTICAL CHALLENGE

The advent of the GATS launched a new era in the statistical tracking of trade in services. Until the early 1990s, breakdowns of service trade had been fairly rudimentary. Only three categories had been itemised in the balance of payments accounts: transport services, travel services and other services. By comparison, trade in goods has long been catalogued according to elaborate international classification schemes encompassing thousands of different products. This abundance stems in part from the fact that trade in goods is recorded essentially by customs officials as the merchandise crosses borders. But border crossings are not as readily identifiable in the case of services[7], especially insofar as the four modes instituted by the GATS encompass movements of service providers (production factors) as well as of services (products).[8]

Box 1
The four modes of providing services: statistical sources

Balance of payments (BOP) statistics and statistics on foreign affiliates' trade in services (FATS) are the main sources of data on international trade in services:

- BOP statistics are generally produced by national central banks and statistical offices then provided to international public institutions (IMF, Eurostat, OECD). IMF statistics alone can provide world coverage. They are arranged according to the nomenclature of the IMF's *Balance of Payments Manual, 5th Edition* (BPM5), which involves classification by type of service (see Annex 1).
- FATS statistics are collected by international public institutions (OECD, Eurostat) from national statistica offices, central banks and ministries. They are arranged by type of activity (ICFA nomenclature using ISIC categories for foreign affiliates, see Annex 2).

[7] Since there is no recording by customs officials, data collection relies heavily on surveys, which in turn draw on corporate accounting systems. The time businesses spend on this task can represent a significant expense and in some cases explains their difficulties in responding to surveys.

[8] There is an abundance of literature on the measurement of trade in services; see in particular: Cave (2002 & 2006), CNIS (2006), Lipsey (2006) and OECD (2001).

MODE	STATISTICAL COVERAGE
1 Cross-border supply	BOP: transport (for the most part) (205), communications services (245), insurance services (253), financial services (260), royalties & licence fees (266), part of computer and information services (262), other business services (268) and personal, cultural & recreation services (287)
2 Consumption abroad	BOP: travel and tourism (236), repairs in foreign ports, part of transport (852)
3 Commercial presence	FATS: services classified by ISIC industry branch BOP: part of construction services (249)
4 Presence of natural persons	BOP: part of computer and information services (262), other business services (268), personal, cultural & recreation services (287), and construction services (249). FATS: expatriate employment in foreign affiliates. BOP: compensation of employees (310). Other sources: statistics on migration, employment, etc.

The main difficulty in classifying trade in services by mode of provision stems from the fact that the classification scheme used in the balance of payments provides no information that can be used to ascertain the mode corresponding to any given category of services. This arises in respect of the following categories:

- *Computer and information services*, *other business services*, and *personal, cultural & recreation services*, which fall under **mode 1** if suppliers produce them remotely and under **mode 4** if suppliers travel to the consumer's country.
- *Construction services* must be classified under **mode 3**, except for flows involving the compensation of employees that construction firms operating temporarily in a foreign country take with them. The latter must be recorded under **mode 4**.
- The presence of natural persons could be assessed in part by *compensation of employees* from the *income* section of BPM5. To do so would raise the same sort of difficulty as above: within this category it is not known what corresponds to services and what corresponds to other activities. Even if the employment is is in a service activity, it may not meet the narrow GATS concept of mode 4, which for employees, employed abroad, is restricted to corporate transferees. Consequently, it is very difficult to quantify the trade in services falling under mode 4.

Under the institutional leadership of the GATS, a major statistical construction undertaking began in the early 1990s. The initial work resulted in formulation of a new balance of payments manual by the IMF (5th edition, 1993), for which the nomenclature is far more detailed in respect of trade in services than in previous versions (Box 1 and Annex 1). Accordingly, the countries reporting to the IMF gradually adopted the new nomenclature, which at its most detailed level has more than sixty line items. At present, the bulk of IMF member countries provide relatively reliable reports in respect of eleven aggregated service items. As a result, of the four methods of provision, cross-border trade (mode 1) and consumption abroad (mode 2) are the ones best covered on a world level, thanks to balance of payments statistics.

In addition, six major international public institutions[9] joined forces to prepare a *Manual on Statistics of International Trade in Services* (EC *et al*., 2002). The manual covers all modes of trade and, *inter alia*, establishes a sectoral classification list for mode 3 (commercial presence), comprising sales by affiliates abroad and by foreign-owned affiliates in the host country. For mode 4 (presence of natural persons), it is not yet possible even to define a nomenclature, the multiplicity of non-harmonised statistical sources

[9] European Commission, IMF, OECD, UNCTAD, United Nations and WTO.

making trade in these services hard to identify. For the three other modes, however, the manual on trade in services offers the advantage of clarifying notions, proposing relatively detailed nomenclatures and establishing tables of correspondence to other international classification systems (CPC and ISIC).

Despite these notable advances, measuring international trade in services is still an arduous task. The joint efforts of international institutions notwithstanding, there is no unified statistical system to quantify the various modes of service provision at the international level. For each mode, trade is recorded by different surveys, according to separate classification systems, and collected from States by different international institutions (see Box 1).

As a result, while liberalisation of service markets at the European and world levels is on the agenda, it is currently almost impossible to specify the extent of the trade in question. The figures put forward by the WTO (Karsenty, 2002), and cited widely in the literature of economics, with regard to world sales of services (1 000 billion dollars for mode 1; 500 for mode 2; 2 000 for mode 3 and 50 for mode 4, at the turn of the 21st century) do not constitute a firm measure. Indeed, there is no explanation of the method used or the assumptions made to yield those estimates. And at the present time, statistics on mode 3 are established only for a handful of OECD countries, using accounting concepts that in some cases differ radically from one country to another.

This study proposes completely new estimates of international trade for mode 3, as well as for international trade in the conventional sense (trade recorded in the balance of payments, modes 1 and 2):

- The study uses data available on four major OECD countries (the United States, Japan, Germany and France) to estimate the extent of trade for the first three modes. This calculation is particularly difficult insofar as the data for modes 1 and 2 (recorded in the balance of payments), as emphasised earlier, are not broken down according to the same classifications as the figures for mode 3. The estimates proposed herein, by adjusting sales in the trade sector, make for more consistent comparison between sales data for affiliates and data on trade between residents and non-residents (section IV).

- In respect of conventional trade, the study makes use of CEPII's CHELEM-BAL database (Boumellassa & Ünal-Kesenci, 2006). This database, compiled from IMF statistics, is supplemented by data from the OECD and by national reporting. It proposes exhaustive coverage of trade across eleven major categories of services and 184 countries (section V).

IV. COMMERCIAL PRESENCE: THE MAIN MODE FOR GAINING ACCESS TO FOREIGN MARKETS

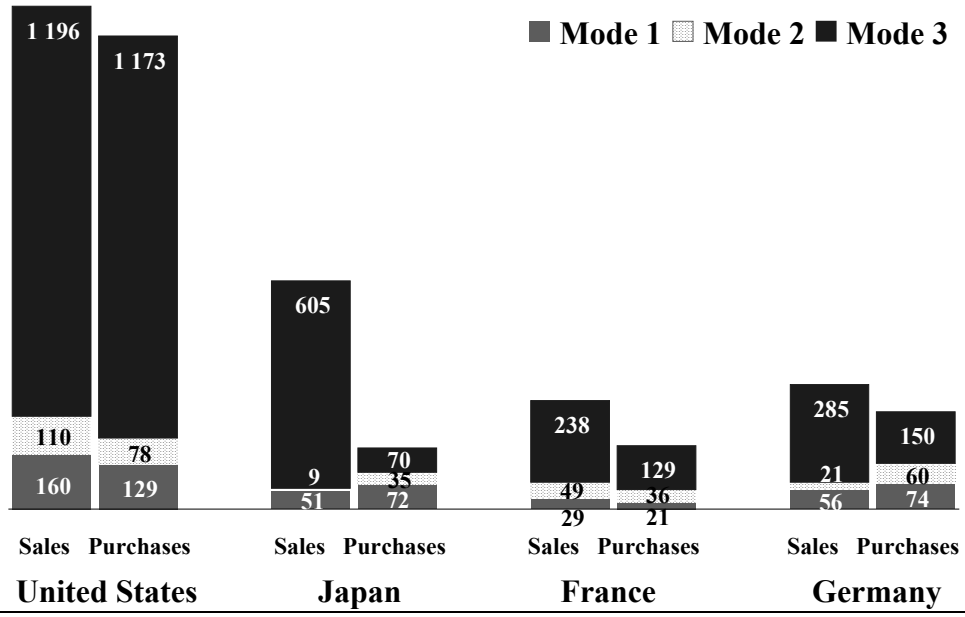
As emphasised above, the GATS covers all sales of services. When it comes to some categories of services, physical proximity between supplier and customer is crucial to the production and exchange of the service. If international trade is involved, this means that the supplier must cross the border. If the supplier is a legal entity with a long-term presence abroad, the services it provides do not constitute trade between residents and non-residents and are therefore not recorded in the balance of payments. This mode of service provision (mode 3) is tracked in FATS[10] statistics. Because the geographical coverage of these statistics is limited, mode 3 can be estimated for only a handful of countries. Here, results for trade in services broken down by mode are presented only for the United States, Japan, France and Germany.

At the turn of the 21st century, the dominant mode for these four countries' trade in services (the average of exports and imports) is that of commercial presence[11] (Figure 1). The proportion is roughly 80% for the United States and Japan, 73% for France and 67% for Germany. Next comes mode 1 (cross-border supply), except for France, in which case mode 2 (consumption abroad, essentially through tourism) figures significantly (17%).

[10] Foreign Affiliates Trade in Services.

[11] World-wide, Karsenty (2002) estimates that mode 3 accounts for 57% of sales of services, versus 29% for mode 1 and 14% for mode 2.

Figure 1 International trade in services by mode of supply
(in billions of dollars; average of 2000 and 2001)



Notes: For lack of detailed data that could enable a distinction to be made between the portions of *computer and information services, other business services* and *personal, cultural & recreation services* attributable to either mode 1 or mode 4, these items were attributed in their entirety to mode 1 (see Box 1). As a result, only the first three modes of trade in services were considered, since as the data stand now, it is impossible to make a reliable estimate for mode 4.

The term "sales" refers to a country's sales of services abroad through exports (modes 1 and 2) and to sales by its affiliates abroad (mode 3, outward flows). The term "purchases" refers to a country's purchases of services from a foreign country through imports (modes 1 and 2) and to sales by foreign-owned affiliates in the host country (mode 3, inward flows).

In this figure, some double-counting could not be avoided. For example, if a French parent company exports a product to its affiliate in the United States, which in turn sells it on the American market, the flow will be counted twice among French sales: once as a French export and yet again in the affiliate's turnover. The problem also arises symmetrically in respect of imports and purchases from French-based affiliates of foreign companies. Moreover, insofar as local turnover is not set apart, any exports by the affiliates are not deducted from total purchases. Fortunately in the case of services they, in most cases, cannot be resold so any double counting will be small.

Sources: authors' calculations using CEPII's CHELEM-CIN-BAL and OECD's FATS databases.

In the case of Japan, and to a lesser extent Germany, mode 3's domination of trade in services stems from a very high proportion of this mode of supply in sales abroad (91% for Japan; 79% for Germany), whereas the proportion for purchases from abroad is only 40% for Japan and 53% for Germany.

Because it is computed using raw data from FATS, this assessment of the relative share of mode 3, as depicted in Figure 1, needs to be adjusted, FATS being broken down by classifications based on activity rather than products. Consequently, the turnover of a service-sector activity covers all of the sales made by the sector, including sales of goods[12]. The problem is especially acute for the trade sector: here, most of the sales value is derived from goods sold rather than services rendered (distribution). Moreover, it is for this reason that this activity accounts for the bulk (on average, 65%[13]) of affiliates' aggregate sales of services.

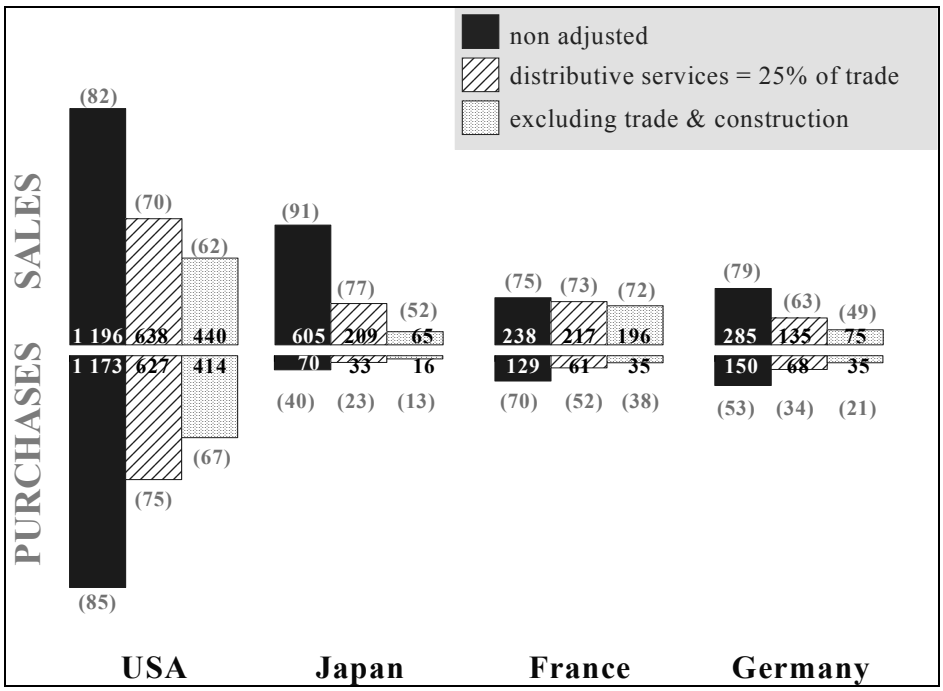
[12] For most service sectors, the problem arises only in respect of any goods that might be sold in connection with secondary activities.

[13] This is the average of the four countries' inward and outward sales for 2000-2001. This average masks wide disparities by country: France 33%, United States 62%, Germany 73% and Japan 87%.

Thus there are two possible approaches in trying to make balance of payments and FATS data more comparable. The first is to separate sales of services alone from the aggregate turnover of trade-sector affiliates (estimating mode 3 distribution services). Once this has been done, an inconsistency will persist insofar as in the balance of payments (mode 1) distribution services are included in the value of goods. They are therefore recorded along with trade in goods. As the value of these services cannot be estimated[14], the second approach[15] consists in excluding the entire trade sector from mode 3[16].

Figure 2 shows three evaluations of mode 3: the first shows raw data from FATS; the second estimates sales of mode 3 services after trade sector turnover is adjusted to include distribution services alone (see Box 2); and the last corresponds to sales of services by affiliates, excluding the trade and construction sectors.

Figure 2 Three evaluations of mode 3
(in billions of dollars; average of 2000 and 2001)



Note: The figures in parentheses show mode 3's share of aggregate trade in services, as a %.

Sources: authors' calculations using OECD, FATS data.

However the data are processed, sales of services by affiliates are still the primary means by which the four countries supply foreign markets. On the other hand, it is only in the United States that mode 3 is always the primary vehicle for sourcing services from abroad. In the case of Japan, mode 1 rises to 51% of service purchases after only the initial adjustment. Mode 3 falls to only 13% of purchases if the trade and

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14 Only the United States provides an estimate of trade in distribution services between residents and non-residents; see Borga (2006).

15 We should like to thank William Cave for suggesting that we make this adjustment.

16 Construction services, which account for a far smaller portion than the trade sector, have also been excluded from mode 3 sales. Although these services are recorded in the balance of payments and in FATS, their value incorporates the value of goods as well.

construction sectors are excluded, versus 59% for mode 1 and 28% for mode 2. In the case of Germany, the adjustments result in similar, albeit lesser, changes. For France, following the last adjustment, mode 3 is no longer the main mode for obtaining services from abroad: the proportion falls to 38%, versus 39% for mode 2.

Box 2
Estimating sales of services in the trade sector

The "trade" item in the FATS nomenclature (ISIC-ICFA) encompasses wholesale trade, retail trade as well as sales and repairs of motor vehicles and motorcycles (items 50-51-52). The turnover of firms whose main activity is in these sectors includes the value of goods sold as well as that of distribution services.

To estimate the amount corresponding to sales of services alone, turnover must be reduced by the cost of the merchandise (*i.e.* purchases plus changes in merchandise inventories), in other words, taking only gross margins (which, in this sector, are equivalent to production).

For the United States, the BEA[17] has provided estimates of the value of distribution services for 2002 and 2003. These figures were computed using input from the US affiliates of foreign firms operating in the wholesale and retail sectors on the cost and changes in inventories of goods purchased for resale. These distribution services totalled USD 134.9 billion in 2002 and 135.1 billion in 2003. Adding in the BEA statistics on the amounts of "secondary" sales of services by US affiliates in the wholesale and retail sectors – USD 8.9 billion and 9.6 billion in 2002 and 2003 – yields the trade sector's total sales of services. These sales accounted for 20.4% of aggregate sector turnover in 2002 and 18.6% in 2003.

For the other countries, there are no figures available that could be used to calculate affiliates' own margins. However, the average margin for the trade sector as a whole (for all resident firms in the sector) is available.

Gross margin rates

	France	Germany	Japan
Trade		25.2[3]	18.3[4]
Wholesale	23.9[1]	20.1	
Retail and repairs	31.3[2]	33.5	
Motor vehicles & repairs	24.1[2]	27.0	

Notes: [1] average of 1999 and 2001; [2] average of 2000 and 2002; [3] 1999; [4] production divided by turnover, 2002.

Source: INSEE results (2001, 2002, 2003, 2004); Statistisches Bundesamt Deutschland (http://www.destatis.de/presse/englisch/pm2001/p4350171.htm), METI, Current Survey of Commerce 2002 EUKLEMS.

Based on this input, and with the aim of estimating an approximate measure of the extent of sales of trade services, a uniform rate of 25% was applied to all of these flows. A further reason for this uniform approach is that it is impossible to estimate margin rates for outward flows (sales by affiliates abroad) in respect of each host country, since the latter is not always reported.

[17] See Borga (2006) and Koncz *et al.* (2006).

Table 1 Sectoral breakdown of mode 3 trade, all home/host countries combined turnover of the country's affiliates abroad (outward) & of foreign-owned affiliates in the country (inward)
As a % of total services

		United States		France		Germany		Japan	
ICFA		OUT	IN[2]	OUT	IN	OUT	IN	OUT	IN
	Total	100	100	100	100	100	100	100	100
4 500	Construction	2	5	1	2	4	2	3	0
5 295	Wholesale and retail distribution; repairs	29	29	3	38	39	43	65	44
5 500	Hotels and restaurants	3	3	2	1	1	3	1	16
6 495	Transport, warehousing and communications	8	9	2	12	19	12	6	22
6 895	Financial intermediation	30	32	29	9	18	12	6	-
7 395	Real estate, other business services	22	14	62	35	17	27	18	17
9 210	Audiovisual and performance activities	2	2	0	1	-	-	-	-
	Not broken down	5	6	1	2	3	2	1	1

[1] Average of 2000 and 2001, data are adjusted to exclude merchandise sales from trade sector turnover (Box 2). See Annex 2 for the FATS industry classifications.

[2] Insofar as ICFA items 7 395 for 2000 and 2001 and 6 495 and 6 895 for 2001 were not reported, they were estimated on the basis of their respective shares in total services in 2002 (which led to a decrease in items not broken down for 2000 and 2001).

Sources: authors' calculations using FATS data from OECD and Eurostat.

Table 1 breaks down affiliates' sales of services by major sector. The analysis of this breakdown is complicated by differences in the classification of activities from one country to another. For the United States, for example, it is not possible to shift satisfactorily from the national classification system (NAICS) to that of FATS (ISIC-ICFA). As a result, US data for certain items are not comparable to other countries' figures. Moreover, monetary intermediation[18] is not included for the United States or Germany, while aggregate financial intermediation and real estate activities are not covered in respect of foreign-owned affiliates operating in Japan. Regarding France, sales by affiliates abroad are classified according to the parent company's activity and not that of the affiliate. Insofar as a substantial proportion of French investment abroad is carried out through holding companies, sales by affiliates of these holding companies are attributed to the holding company sector[19], which at a higher level of aggregation becomes that of consulting and then business services. The very high proportion of consulting activities (included in item 7 395) in the sales by affiliates of French firms abroad (60% of total sales) is essentially a reflection of this particularity, which ultimately means that it is not known in which sectors these sales take place.

[18] This item is a component of the aggregate "financial intermediation" (see Annex 2).

[19] "…insofar as the parent company is the resident business that is the direct investor, in the event this parent is a holding company, its affiliate's *outward* turnover will be attributed to this holding company sector, even if the holding company is a component of a group whose primary activity in France belongs to an industry such as transport, telecommunications, etc." (Boccara, 2002 – translated from the French on p. 91).

Table 1 does, however, reveal a similarity between Germany and Japan, the two countries in the sample that specialise heavily in manufacturing (see item V.2., Figure 5). Distribution services, which for the most part are tied in with the marketing of industrial goods, constitute the leading sector in the sales of services by foreign-based affiliates of German companies (39%), and above all of Japanese ones (65%).

Table 2 Geographical structure of mode 3 sales by affiliates: Main partner countries (2000-01 average, as a % of world sales)

		UNITED STATES		FRANCE		GERMANY		JAPAN	
		OUT	IN	OUT	IN	OUT	IN	OUT	IN
WORLD		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
AMERICAS		**24.7**	**19.3**	**44.0**	**19.4**	**19.4**	**14.6**	**50.5**	**45.3**
of which:	United States	-	-	36.8	18.1	16.1	12.9	42.7	44.1
	Canada	12.3	13.6	1.1	1.0	1.5	0.2	3.1	0.4
	Mexico	1.6	0.2	0.6	-	0.3	0.0	0.2	0.0
	Brazil	3.0	0.1	3.1	-	0.5	0.0	0.9	-
EUROPE		**52.7**	**68.0**	**45.2**	**75.0**	**68.8**	**64.5**	**23.4**	**37.7**
	EU15	**49.7**	**58.5**	**41.1**	**66.6**	**51.8**	**55.0**	**22.8**	**32.8**
of which:	United Kingdom	28.0	19.3	11.1	10.2	10.7	9.8	9.8	2.3
	Germany	5.8	11.8	6.3	18.3	-	-	4.0	7.4
	Netherlands	3.0	12.7	7.6	19.1	5.6	21.8	3.4	5.9
	France	4.8	10.1	-	-	11.3	8.7	1.3	3.5
	Italy	1.9	0.6	4.9	3.4	5.3	3.9	0.9	0.6
	BLEU	1.3	0.3	4.5	9.0	4.1	7.1	2.4	9.5
	Spain	1.2	0.3	4.8	1.3	3.4	1.9	0.5	0.0
	Austria	-	-	0.1	0.4	6.2	2.8	0.1	0.1
	OTHER EUROPE	**2.9**	**9.6**	**4.1**	**8.3**	**17.0**	**9.5**	**0.6**	**4.9**
of which:	Switzerland	1.2	9.2	1.2	7.4	7.3	10.8	0.2	4.8
AFRICA & MIDDLE EAST		**1.5**	**1.2**	**2.7**	**0.5**	**1.1**	**0.5**	**1.7**	**0.0**
	AFRICA	0.7	0.6	2.4	0.2	0.9	0.1	0.3	-
	MIDDLE EAST	0.8	0.6	0.3	0.3	0.2	0.4	1.4	0.0
ASIA-PACIFIC		**21.1**	**11.4**	**8.1**	**5.1**	**10.8**	**20.5**	**24.4**	**16.9**
of which:	Japan	8.5	7.3	0.9	3.9	3.6	16.5	-	-
	Korea	0.6	0.1	0.2	0.7	0.9	3.0	0.9	12.4
	Singapore	1.3	0.4	1.7	0.0	1.7	0.2	7.1	0.4
	Taiwan	2.0	0.2	-	0.0	0.2	0.3	2.2	0.6
	Hong Kong	2.1	0.4	0.5	0.1	1.4	0.3	7.5	0.7
	China	0.6	0.0	0.1	0.0	0.3	0.3	1.1	1.4
	Indonesia	0.2	0.0	-	-	0.1	-	0.4	1.8
	Australia	3.6	2.8	0.8	0.1	1.6	0.0	3.2	0.2

* Data for France, Germany and Japan are OECD's FATS statistics (unadjusted for trade). For the United States, the OECD's FATS statistics show very little detail by partner. In respect of the United States, the above table shows the geographical breakdown that is available in BEA statistics (2007), which include only "secondary" sales of services in the distribution sector (see Box 2). In addition, differences in how flows are recorded in the four countries, as discussed earlier, make it difficult to compare the various countries' outward and inward flows.

Sources: authors' calculations using data from OECD FATS & BEA (2007).

The bulk of the turnover of foreign-owned affiliates set up in the four countries is attributable to firms originating in Europe (between 65 and 75% for the United States, France and Germany, 38% for Japan) and America (45.3% for Japan) (Table 2). Europe and America are also the two continents from which the four countries' affiliates abroad derive the majority of their sales of services: primarily in Europe for affiliates of German (69%) and American (53%) firms, in America for affiliates of Japanese (51%) and European (45%) firms, and in America for affiliates of French firms (44%). One-fifth of sales by affiliates of American firms and one-fourth of those by affiliates of Japanese firms are from Asia-Pacific, essentially in developed countries. From data for these four countries, it can be seen that mode 3 trade in services is dominated by firms from the North. The North's grip on the world market for services will be confirmed by the analysis of conventional trade.

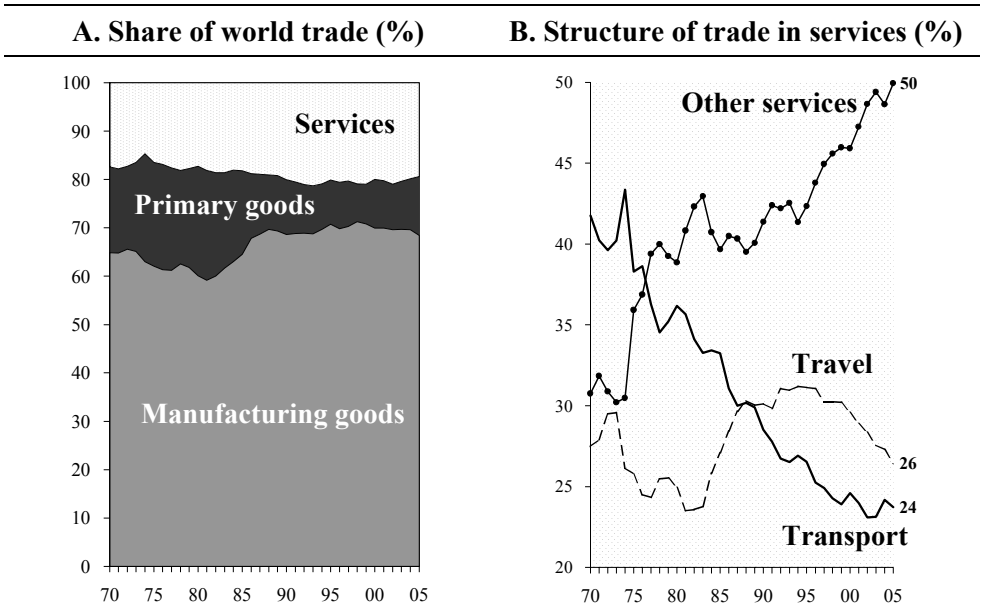
V. CONVENTIONAL TRADE IN SERVICES: DYNAMISM OF "OTHER SERVICES" AND DOMINATION OF NORTHERN COUNTRIES

V.1. Sectoral and geographical pattern of world trade in services

Globally, conventional trade in services is not especially dynamic: its share of aggregate trade - 20% of world-wide trade[20] – has scarcely evolved over the past three decades (Figure 3). But its composition has changed very substantially. At the end of the 1960s, transport constituted the largest segment (with over 40%), ahead of travel and "other services" (less than 30% each). However, while major economies of scale were lowering transport prices and thus slowing the rise in amounts traded, the rise of "other services" was very sharp. Between 1995 and 2005, their growth in value averaged 9% per annum, versus 7% for services as a whole (Table 3). By 2005, they accounted for half of all trade in services.

Since 1995, statistics make it possible to distinguish between a number of different categories of "other services" (Figure 4). Some of these, which still account for only a modest share of aggregate trade in services (between 2% and 5%), have grown very sharply: by 22% per year, on average (in value) between 1995-2005 for computer and information services, 13% for financial services, 9% for insurance services, royalties and licence fees and 8% for cultural services.

Figure 3 Conventional international trade in services *



*Average of world exports and imports.
Source: CEPII, CHELEM-BAL database.

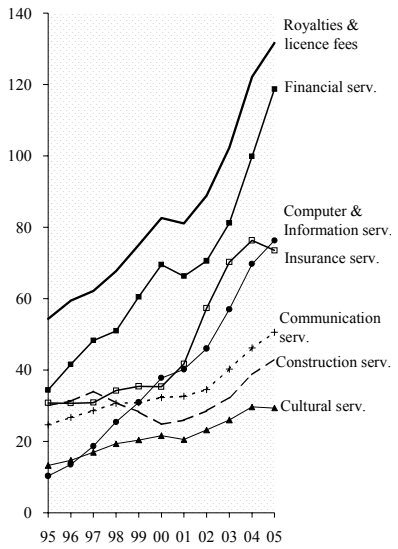
[20] Globally, conventional trade in services totalled 2 441 billion current dollars in 2005 (source: CEPII-CHELEM-BAL, average of credits and debits).

Trade in services is still heavily dominated by developed countries: in 2005 they accounted for 81% of world service exports, versus 68% of goods exports. It is in travel (29%), computer and information services (27%) and communication services (24%) that the share of Southern countries is the largest (Table 4). In the new areas, India alone has so far managed to carve out substantial market shares. As a result, in the realm of computer and information services, the Southern countries' market share is essentially a reflection of India's, which accounts for two-thirds of the South's aggregate share. In this context, it is easier to understand the pressure exerted by Northern countries, which are losing shares of manufacturing markets to the emerging countries, to incorporate trade in services into the scope of multilateral liberalisation. Their advantages in this as yet closed area give them cause to hope they can conquer rapidly growing emerging markets.

Table 3
Detailed sectoral breakdown of services trade* and trends

	Share (%) 2005	AAGR** 95-2005
Services	100	7
Transport	24	6
Travel	26	5
Other services	50	9
of which		
Computer & information serv.	*3*	*22*
Financial services	*5*	*13*
Royalties & licence fees	*5*	*9*
Insurance services	*3*	*9*
Cultural services	*1*	*8*
Communication services	*2*	*7*
Other business services	*22*	*7*
Government services	*3*	*4*
Construction services	*2*	*4*

Figure 4
Trade in "other services"* (billions of dollars)



*Average of world exports and imports.
**Average annual growth rate (%).
Note: See Annex 1 for the classification scheme for services in the balance of payments.
Source: CEPII, CHELEM-BAL database.

The 27-member European Union and the United States respectively account for 47%[21] and 15% of world service exports and have wide surpluses in this area (respectively, 98 and 55 billion dollars) (Tables 4 and 5). Their positions in the various activities included in the item "other services" are uneven.

[21] The single market for services having not yet been established, European Union trade in this study includess intra-EU trade and extra-EU trade.

Table 4 Sectoral breakdown of service exports by countries of the North and South, 2005

A. As a percentage of the world-wide total

	WORLD	**NORTH**	USA	JPN	**EU-27**	GER	FRA	UK	IRL	**SOUTH**	CHN	IND
Total	**100**	**81**	15	4	**47**	6	5	8	2	**19**	3	2
Transport	**100**	**82**	12	7	**43**	7	5	6	0	**18**	3	1
Travel	**100**	**71**	15	2	**43**	4	6	5	1	**29**	4	1
Other services	**100**	**86**	16	5	**51**	7	4	11	4	**14**	2	3
Communications	**100**	**76**	9	1	**55**	6	6	10	1	**24**	1	3
Construction	**100**	**78**	1	16	**57**	16	8	2	0	**22**	6	1
Insurance	**100**	**87**	13	2	**50**	4	4	6	18	**13**	1	2
Finance	**100**	**98**	20	3	**59**	4	1	26	4	**2**	0	0
Computers	**100**	**73**	7	1	**58**	8	2	11	19	**27**	2	18
Patents	**100**	**98**	46	14	**31**	5	5	11	0	**2**	0	0
Other bus. services	**100**	**85**	11	5	**51**	8	4	10	2	**15**	4	1
Culture	**100**	**86**	32	0	**42**	2	7	11	1	**14**	0	0
Public admin.	**100**	**82**	34	4	**31**	10	2	6	1	**18**	1	1

B. As a percentage of the total by country or by area

	WORLD	**NORTH**	USA	JPN	**EU-27**	GER	FRA	UK	IRL	**SOUTH**	CHN	IND
Total	**100**	**100**	100	100	**100**	100	100	100	100	**100**	100	100
Transport	**22**	**22**	17	32	**20**	25	23	16	5	**21**	21	13
Travel	**27**	**24**	28	11	**25**	19	36	15	8	**41**	39	15
Other services	**51**	**54**	56	56	**55**	57	40	69	87	**39**	40	73
Communications	**2**	**2**	1	0	**3**	2	3	3	1	**3**	1	3
Construction	**2**	**2**	0	7	**2**	5	3	0	0	**2**	3	1
Insurance	**2**	**2**	2	1	**2**	1	1	1	15	**1**	1	2
Finance	**7**	**8**	9	5	**8**	4	1	21	10	**1**	0	1
Computers	**4**	**4**	2	1	**5**	5	1	5	33	**6**	2	37
Patents	**5**	**6**	16	16	**3**	4	5	7	1	**1**	0	0
Other bus. services	**23**	**24**	18	25	**25**	30	22	28	23	**18**	31	11
Culture	**1**	**1**	3	0	**1**	0	2	2	1	**1**	0	0
Public admin.	**3**	**3**	6	2	**2**	4	1	2	1	**3**	1	1
Not broken down	**3**	**3**	0	0	**4**	-0	0	0	3	**4**	0	17

Source: CEPII, CHELEM-BAL database

Nearly half of world exports of "royalties and licence fees" (for the use of patents, copyright, trade marks) are attributable to the United States, and this item accounts for some 30% of American exports of other services. It is also in respect of this service category that the United States records its greatest surplus and European countries their deepest deficit (respectively, 32 and 16 billion dollars). Within the European Union, only the United Kingdom, France and Sweden achieve significant surpluses for this type of services.

US statistics, published by the Bureau of Economic Analysis (2007), can be used to ascertain the proportion of intra-firm flows within trade in services. These data show that two-thirds of all exports of royalties and licence fees consist of transactions between US parent companies, which own the intellectual property rights, and their affiliates abroad, mainly in Europe (52%) and in Asia (25%).

This domination by intra-firm trade reflects the desire of companies possessing intangible assets to retain a certain degree of control over those assets. Moreover, it is in this royalties sector, and in that of R&D (87% of R&D exports[22]), that the proportion of intra-firm flows is highest in the United States; for aggregate services, the proportion is a scant 26%.

In cultural services, 75% of world exports are attributable to the United States (32%) and European Union countries (42%). The difference between the two entities lies on the import side, such that the United States shows a surplus (of 9 billion dollars) and the European Union a deficit (of 2 billion dollars).

Table 5 Balance of services in 2005
(billions of dollars)

	USA	JPN	**EU-27**	GER	FRA	UK	IRL
Total	55	-24	**98**	-48	10	42	-13
Transport	-26	-5	**11**	-6	-2	-4	0
Travel	28	-25	**-2**	-43	11	-29	-1
Other services	53	6	**89**	1	0	75	-11
Communications	-0	-0	**1**	-2	1	1	-0
Construction	0	2	**7**	1	2	0	0
Insurance	-23	-1	**-2**	-3	-1	1	1
Finance	19	2	**49**	2	-1	33	3
Computers	2	-1	**29**	-0	-0	7	18
Patents	32	3	**-16**	0	3	4	-19
Other bus. services	25	1	**19**	-0	-3	27	-8
Culture	9	-1	**-2**	-2	-1	2	0
Public admin.	-11	1	**7**	4	-0	-1	0

Source: CEPII, CHELEM-BAL database.

The EU's surpluses lie primarily in the realms of financial services and of computer and information services[23]. For these two categories, the Union accounts for some 60% of world exports. Ireland, for computer services, and the United Kingdom, for finance, are the EU's leading protagonists.

V.2. Configuration of the specialisations of the major countries

The European Union's positions in a number of global service markets owe much to the United Kingdom, which is significantly more active in services trade than its large continental neighbours. Among the major OECD economies, the contrast is especially sharp between the United States and the United

[22] This very high proportion of intra-firm trade in American R&D exports is due primarily to exports by US-based affiliates of foreign corporations to their parent companies abroad (77% of the total).

[23] Until 2004, the European Union recorded a surplus in insurance services, which to a large extent was attributable to the United Kingdom's position in the sector. The figures for 2005 show such a collapse of British exports of insurance services that the Union began running a deficit in that service category.

Kingdom, which are very highly specialised[24] in services (Figure 5), and Japan and Germany, which have maintained their specialisation in the manufacturing industry (Figure 6). France occupies an intermediate position (Figure 7). But French specialisation in services stems to a large extent from the country's leading edge in tourism. The difference with the United States and the United Kingdom is clear: it is in the dynamic category of "other services" that these two economies enjoy a large competitive advantage. Their lead is attributable to specialisation in other business services and a strong edge in patents and licence fees for the United States and in financial services for the United Kingdom. While France's specialisation in other services is quite slight, its advantage in patents and licence fees has been on the rise since the turn of the century.

Box 3
Measuring international specialisation

A country's international specialisation and its comparative advantages and disadvantages are measured here by the indicator of contribution to the trade balance (Lafay, 1990). This indicator, measured in thousandths of aggregate trade in goods and services, compares a country's trade balance for a given product *k* with a theoretical balance corresponding to an absence of specialisation. The latter is computed by spreading the overall balance across the various products according to their respective shares in the country's total trade. The indicator is additive, and by construction the sum over all products is equal to zero. Thus, the indictor also enables to observe specialisation patterns under the theoretical condition of a balanced trade. A positive (negative) value for the indicator shows that the country has a comparative advantage (disadvantage) for the product in question. For a given country, the indicator of revealed comparative advantage (RCA) may be expressed as:

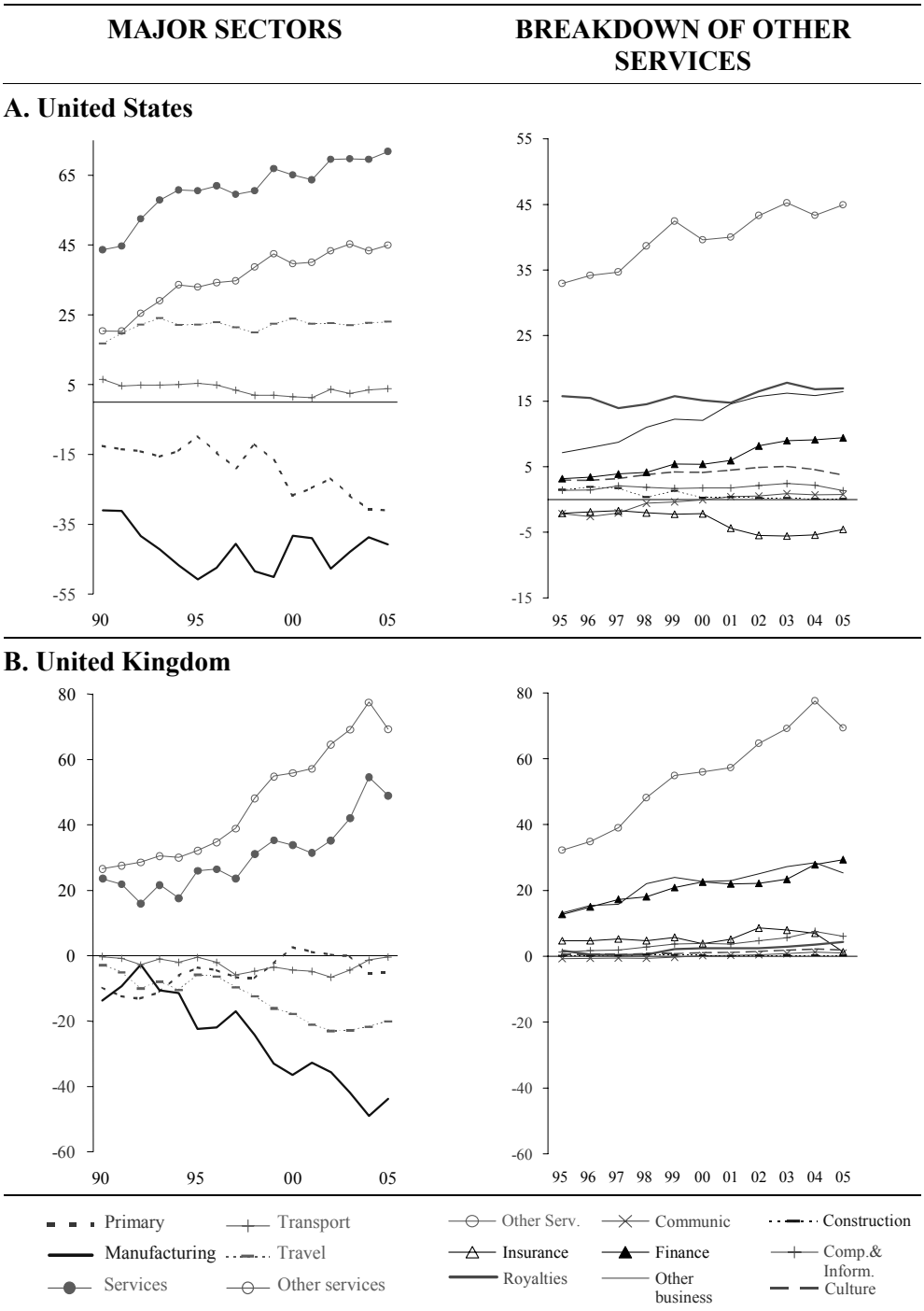
$$RCA = \left(\frac{1000}{X_{.} + M_{.}}\right)\left[\left(X_k - M_k\right) - \left(X_{.} - M_{.}\right)\left(\frac{X_k + M_k}{X_{.} + M_{.}}\right)\right]$$

where *k* is the product, *X* is exports, *M* is imports and " . " is the sum operator.

* Here, "product" is used in a broad sense referring to either goods or services.

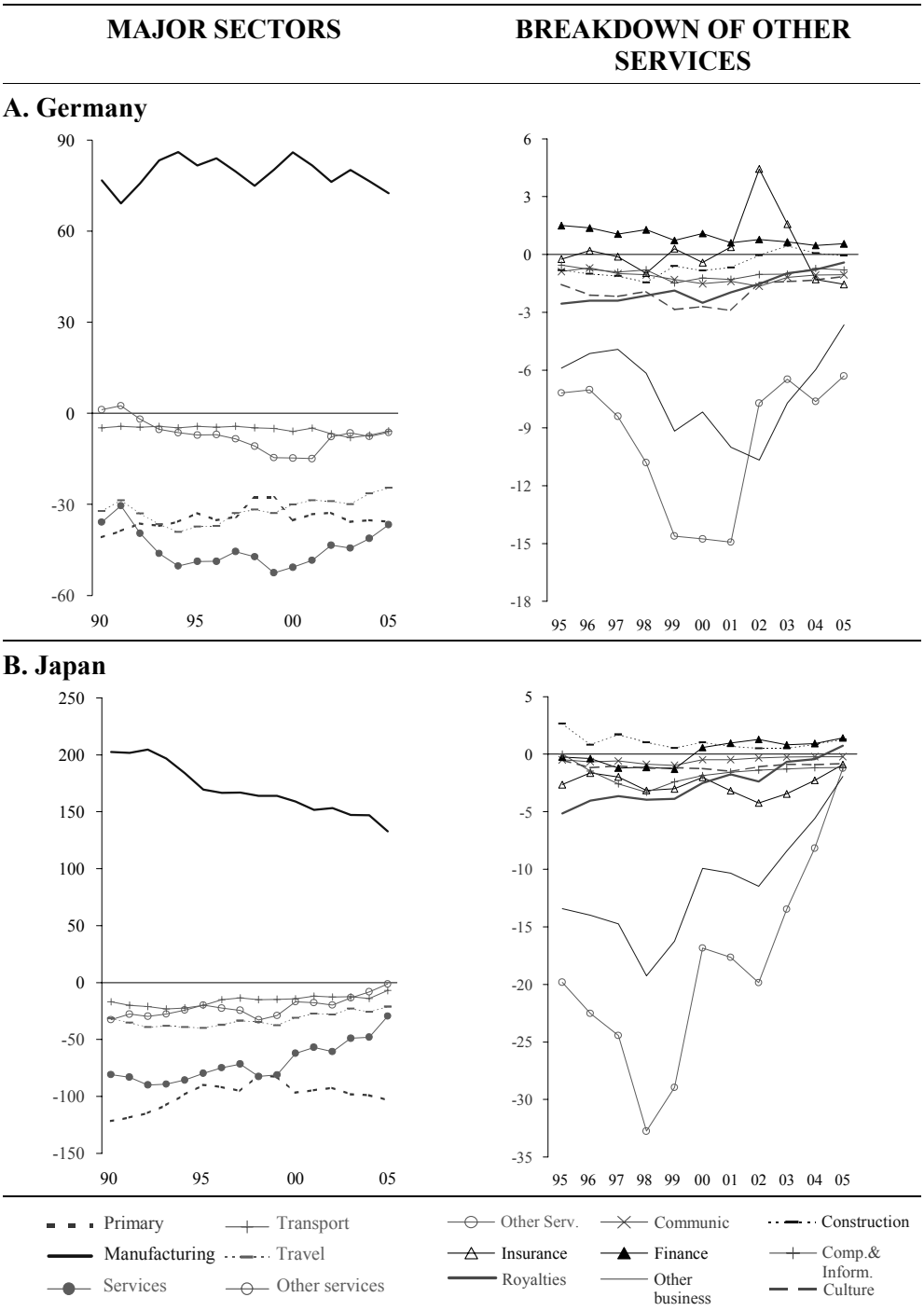
[24] Here, specialisation is measured by the indicator of contribution to the trade balance (Box 3).

Figure 5
Trade specialisation: United States and United Kingdom
Sectoral contributions to the trade balance (in thousandths of aggregate trade)



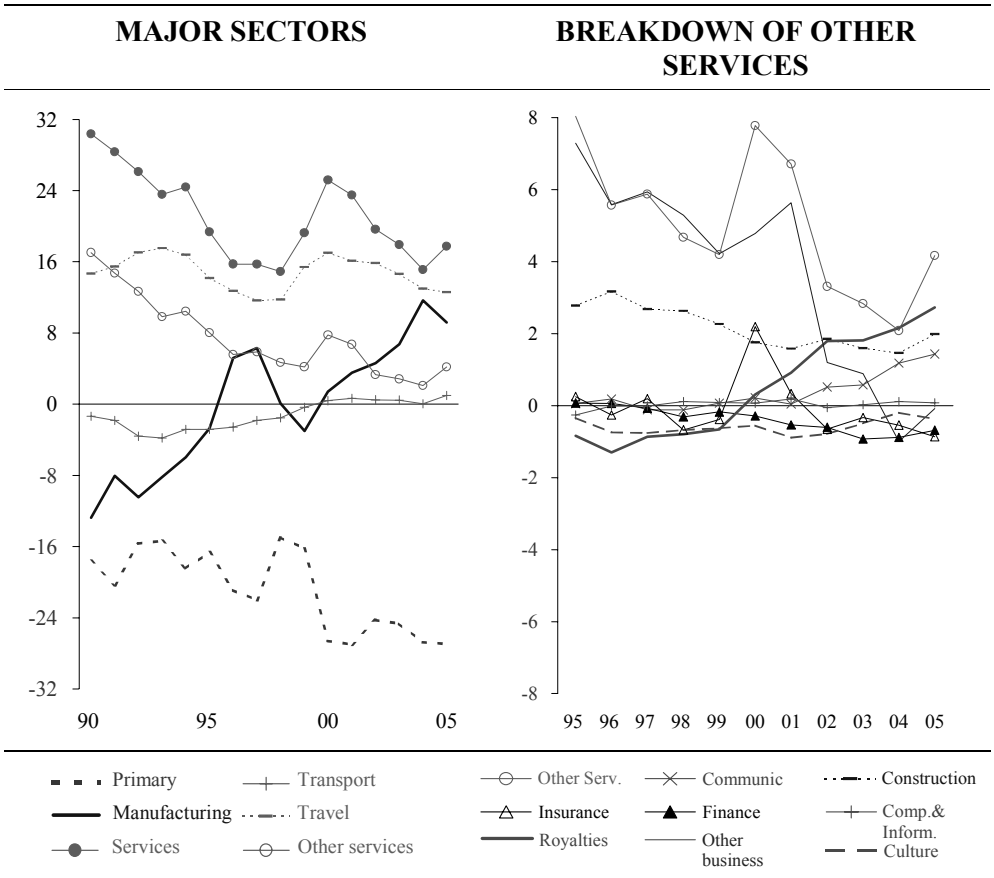
Source: CEPII, CHELEM-CIN-BAL databases

Figure 6
Trade specialisation: Germany and Japan
Sectoral contributions to the trade balance (in thousandths of aggregate trade)



Source: CEPII, CHELEM-CIN-BAL databases

Figure 7
Trade specialisation: France
Sectoral contributions to the trade balance (in thousandths of aggregate trade)



Source: CEPII, CHELEM-CIN-BAL databases.

CONCLUSION

Thanks to the development of information and communication technologies, international trade in services has undergone a sweeping change. “Other services” now account for half of all world-wide services trade recorded in the balance of payments. These technological trends also constitute an opportunity for countries in the South to take part in the globalisation of services. For the moment, India alone has managed to carve out substantial market shares, in computer and information services. Trade in services is in fact still largely dominated by countries in the North, and of the major OECD economies only the United States and the United Kingdom show an especially sharp specialisation in services.

Despite advances in the ways to trade services, the main vehicle for penetrating foreign markets is to establish affiliates abroad, rather than through exports, for the United States, France, Germany and Japan. Europe and America are the two regions from which the affiliates of companies headquartered in these four countries derive the bulk of their sales of services abroad. Likewise, in their own markets it is affiliates of European and American firms that account for most of the turnover of affiliates of foreign companies. The domination of Northern countries, which has been seen in respect of conventional trade in services, can be seen in this mode of service delivery as well.

A detailed analysis of mode 3 trade would require that data be more comparable from one country to another. The fact that recording methods differ between countries considerably limits the lessons to be learned from these statistics. Yet it emerges, at least in respect of the countries that could be studied here, that the establishment of affiliates abroad is the leading mode for servicing foreign markets. An extension of the geographical scope of the statistics would also make it possible to assess the extent of this mode of supply at the world-wide level. Beyond that, these statistical shortfalls emphasize the fact that the process of trade liberalisation in the realm of services has been set in motion without information being available to assess its impact.

BIBLIOGRAPHY

Banga R (2005), "Critical Issues in India's Service-Led Growth", *ICRIER Working Paper*, No. 171.

Bhagwati, J.N. (1985), "Why are Services Cheaper in the Poor Countries?", *Wealth and Poverty*, edited by Gene Grossman Essays in Development Economics Series, vol. 1, Cambridge, MIT Press, England, Blackwell, 82-91.

Bhagwati, J.N. (1984), "Splintering and Disembodiment of Services and Developing Nations", *World-Economy*, 7(2), June, 133-43.

Boccara F. (2002), "L'activité des filiales françaises à l'étranger : les Fats outward", in *Les investissements directs de la France dans la globalisation : mesure et enjeux*, Banque de France colloquium, 20 March 2002.

Borga M. (2006), "Improving Insurance, Wholesale, Retail and Financial Services Measures in FATS and Cross-border Trade", *7TH OECD International Trade Statistics Expert Meeting*, Paris, 11-14 September 2006.

Boumellassa H. & D. Ünal-Kesenci (2006), "Base de données CHELEM-BAL du CEPII", *Document de travail du CEPII*, 2006-08, March.

Bureau of Economic Analysis (BEA) (2007), "U.S. International Services: Cross-Border Trade 1986-2005, and Sales through Affiliates, 1986-2004", *Tables A - G and Tables 1- 11*, http://www.bea.gov/international/intlserv.htm.

Cave W (2002), "Measuring International Trade in Services and New Demands on the Family of Classifications", *17th Voorburg Group Meeting on Services Statistics*, Nantes, 23-27 September 2002.

Cave W (2006), "How are Services Being Internationalised?" *7TH OECD International Trade Statistics Expert Meeting*, Paris, 11-14 September 2006.

CNIS (2006), "Mesure des échanges internationaux de services", *Rapports du CNIS*, No. 100, February, http://www.cnis.fr/ind_doc.htm.

EC, IMF, OECD, UN, UNCTAD & WTO (2002), *Manual on Statistics of International Trade in Services*, ST/ESA/STAT/SER.M/86, Geneva, Luxembourg, New York, Paris, Washington, D.C.

EC-Eurostat, IMF, OECD, UN, & WB (1993), *System of National Accounts 1993*, Brussels/Luxembourg, New York, Paris, Washington, D.C.

Hill P. (1999), "Tangibles, Intangibles and Services: A New Taxonomy for the Classification of Output", *The Canadian Journal of Economics*, Vol.32 (2), pp. 426-446.

INSEE Résultats (2001) Les entreprises du commerce de gros en 1999, September.

INSEE Résultats (2002) Les entreprises du commerce de détail et du commerce automobile en 2000, July.

INSEE Résultats (2003) Les entreprises du commerce de gros en 2001, June.

INSEE Résultats (2004) Les entreprises du commerce de détail et du commerce automobile en 2002, July.

Karsenty G. (2002), "L'accord général sur le commerce des services et la mesure de la présence commercial", in *Les investissements directs de la France dans la globalisation : mesure et enjeux*, Banque de France colloquium, 20 March 2002.

Koncz J., M. Mann & E. Nephew (2006), "US International Services: Cross-Border Trade in 2005 and Sales Through Affiliates in 2004", *Survey of Current Business*, BEA, Vol.86, No. 10, October, http://www.bea.gov/scb/toc/1006cont.htm.

Lafay G. (1990), "La mesure des avantages comparatifs révélés", *Économie prospective internationale*, No. 41, 1st quarter.

Lipsey R.E. (2006), "Measuring International Trade in Services", *NBER Working Paper*, No. 12271, May, http://www.nber.org/papers/w12271.

OECD (2005), *Measuring Globalisation: OECD Handbook on Economic Globalisation Indicators*, Paris.

OECD (2001*a*), *Measuring Globalisation: The Role of Multinationals in the OECD Economies*, Volume II, Paris.

OECD (2001*b*), "Trade in Goods and Services: Statistical Trends and Measurement Challenges", by A. Lindner, B. Cave, L. Deloumeau & J. Magdeleine, *OECD Statistics Brief,* No.1, November.

Say J.B. (1850), *A Treatise on Political Economy; or the Production, Distribution, and Consumption of Wealth*, ed. Clement C. Biddle, trans. C. R. Prinsep from the 4th ed. of the French, Philadelphia, Lippincott, Grambo & Co.

Unal-Kesenci D. (2006), "Services: nouveau champ de la mondialisation", *L'Économie mondiale 2007*, pp. 83-92, La Découverte, Collection Repères.

Vanoli A. (1999), "Concrétiser l'immatériel, dématérialiser le concret: la comptabilité nationale à la recherche des limites perdues", INSEE *Méthodes*, No. 87-88, pp. 129-144.

ANNEX 1

CLASSIFICATION OF SERVICES IN THE BALANCE OF PAYMENTS (MBP5 & EBOPS)

200 TOTAL SERVICES
205 TRANSPORT
236 TRAVEL
981 OTHER SERVICES, total (sum 245-291)
245 COMMUNICATIONS SERVICES
246 Postal and courier services
247 Telecommunications services
249 CONSTRUCTION SERVICES
250 Abroad
251 In the reporting economy
253 INSURANCE SERVICES
254 Life insurance and pension funding
255 Freight insurance
256 Other direct insurance
257 Reinsurance
258 Auxiliary insurance services
260 FINANCIAL SERVICES
262 COMPUTER AND INFORMATION SERVICES
263 Computer services
264 Information services
889 News agency services
890 Other information provision services
266 ROYALTIES AND LICENCE FEES
891 Franchises and similar rights
892 Other royalties and licence fees
268 OTHER BUSINESS SERVICES
269 Merchanting and other trade-related services
270 Merchanting
271 Other trade-related services
272 Operational leasing
273 Miscellaneous business, professional, and technical services
274 Legal, accounting, management consulting, and public relations services
275 Legal services
276 Accounting, auditing, bookkeeping and tax consulting services
277 Business and management consultancy and public relations services
278 Advertising, market research, and public opinion polling
279 Research and development
280 Architectural, engineering and other technical services

281 Agricultural, mining and on-site processing services
282 Waste treatment and depollution
283 Agricultural, mining and other on-site processing services
284 Other business services
285 Services between affiliated enterprises, n.i.e.
287 PERSONAL, CULTURAL, AND RECREATIONAL SERVICES
288 Audiovisual and related services
289 Other personal, cultural and recreational services
895 Education services
896 Health services
897 Other
291 GOVERNMENT SERVICES, N.I.E.
292 Embassies and consulates
293 Military units and agencies
294 Other

ANNEX 2

CLASSIFICATION OF SERVICES IN FATS SURVEYS ACCORDING TO THE ISIC – ICFA CLASSIFICATIONS AND CORRESPONDENCE WITH BALANCE OF PAYMENTS CLASSIFICATIONS (MBP5-EBOPS)*

INDUSTRIES	ISIC Rev.3	ICFA	EBOPS
AGRICULTURE, HUNTING, FORESTRY, AND FISHING	**01+02+05**	**0595**	
MINING AND QUARRYING	**10-14**	**1495**	
TOTAL MANUFACTURING	**15-37**	**3995**	
ELECTRICITY, GAS AND WATER SUPPLY	**40-41**	**4195**	
CONSTRUCTION	**45**	**4500**	**249**
TOTAL SERVICES	**50-99**	**5095**	**200**
WHOLESALE AND RETAIL TRADE, REPAIR OF MOTOR VEHICLES AND PERSONAL GOODS	**50+51+52**	**5295**	**269**
– Sale and repair of motor vehicles	50	5000	
– Wholesale trade, except of motor vehicles	51	5100	
– Retail trade, except of motor vehicles	52	5200	
HOTELS AND RESTAURANTS	**55**	**5500**	**236**
TRANSPORT, STORAGE AND COMMUNICATIONS	**60+61+62+63 +64**	**6495**	**205 & 245**
– Total transport (land, water, air)	60+61+62	6295	205
of which : - Land transport	60	6000	
- Water transport	61	6100	
- Air transport	62	6200	
– Telecommunications	642	6420	245
FINANCIAL INTERMEDIATION	**65+66+67**	**6895**	**250 & 260**
	651	6510	260
of - Monetary intermediation (banks,financial	659	6520	260
institutions)	66+672	6730	250
which: - Other financial intermediation	6601	6601	
- Insurance companies and pension funding	6602	6602	
of which – Life insurance	672	6720	
– Pension funding			
– Auxiliary insurance activities			

REAL ESTATE RENTING AND BUSINESS ACTIVITIES	**70+71+72+73 +74**	**7395**	
of: - Real estate	70	7000	284
which:- Computer activities	72	7200	263
of which : - Software	722	7220	
- Research and development	73	7300	279
- Other business activities	74	7400	268
of which : - Legal, accounting, bookkeeping, etc.	741	7410	275
- Advertising	743	7440	278
OTHER COMMUNITY AND PERSONAL SERVICES	**75+80+85+90 +91+92+93+9 5+99**	**9995**	
of which : – Motion picture and video activities	9210		9210
GRAND TOTAL	01-99		

*With regard to the data presented in Section IV, the item "construction" (4500 in ICFA & 249 in EBOPS) is included in total services unless stated otherwise. For the most part, the correspondence in this table between the ICFA and EBOPS classifications is very approximate. Each EBOPS item could be spread over more than one ICFA item and vice versa.