

Römisch, Roman

Research Report

Trade in Services in the Central and East European Countries

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Roman Römisch

**Trade in Services in
the Central and East
European Countries**

Roman Römisch is WIIW research economist.
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Roman Römisch

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European Countries**

Abstract

Trade in services, although often neglected by theory and empiricism, plays a quite influential role in the balance of payments of most countries. In the case of the CEE countries, services trade also enters another dimension: it is a helpful means in the modernization process of the CEE economies whose (producer) services, as of 1989, were far from the development level typical of well-functioning market economies.

The first part of the present paper gives a theoretical and empirical overview of the services trade in eight CEECs, highlighting their strengths and weaknesses. The second part of the paper focuses on the services trade of the Czech Republic, Hungary and Poland with the EU in general and Austria in particular, thus also allowing for an examination of the advantages and disadvantages Austria has vis-à-vis the EU in trading services with the CEECs.

Keywords: Central and East European countries, foreign trade, trade in services, balances of payments

JEL classification: F14, F15, P52

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List of signs and abbreviations

Conventional signs and abbreviations:

.	not available
mn	million (10^6)
bn	billion (10^9)
n.i.e.	not included elsewhere

Currency abbreviations:

BGL	Bulgarian lev
CZK	Czech koruna
ECU	European Currency Unit
HUF	Hungarian forint
PLZ	Polish zloty
ROL	Romanian leu
RUB	Russian rouble
SLK	Slovak koruna
SIT	Slovenian tolar

Other abbreviations:

BoP	Balance of Payments
CEECs	Central and East European Countries
CEPR	Centre for Economic Policy Research
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
IMF	International Monetary Fund
MNE	Multinational Enterprises
RCA	Revealed Comparative Advantage
Recr.	Recreational
S.	Services
UNCTAD	United Nations Conference on Trade and Development
WIIW	The Vienna Institute for International Economic Studies

Executive summary

Services play a vital role in western market economies, not only because the services sector has usually the biggest share in employment and output, but also because we simply cannot imagine an economy to function without the existence of services, such as financial, insurance, information services.

Transition countries, which are the target of our study, are not different in this respect; they too depend on the existence of a functioning services sector – for the two reasons mentioned above, but also because it helps those countries to transform more quickly into modern market economies. The transition countries however have only **little experience in many of the producer-oriented services** (e.g. banking and insurance, computer and information services, telecommunications, accounting etc.), as these services sectors were either not existing at all or not developed to a western standard at the time of the breakdown of the iron curtain. Hence we expect that, in the short or medium run, the demand for many of the producer services will to a significant extent be satisfied by importing these services from abroad or through foreign direct investment. One task of this study is therefore to analyse in which services transition countries rely more and in which services they rely less on **imports** from western countries.

Services trade studies, especially bilateral comparisons, are rather **scarce**. This stems from the fact that there was no strong interest in dealing with services trade until the 1970s, since services were mostly seen as **non-tradables**. The late discovery that services should play a role in international trade implies per se that the theoretical treatment of services trade is not as refined as the theory of trade in goods, and is still a difficult task. Moreover, as mostly goods-based trade models are used for explaining services trade flows, a general services trade theory becomes even more unlikely; modern trade theory covers many different aspects which cannot be combined easily within a single model. Thus, there is no accepted, unambiguous services trade theory that could be applied, making a serious treatment of services trade quite difficult.

Trade theory basically provides two streams of explanations for foreign trade.

According to the first (**'old'**) **theory**, trade between two countries occurs if there are differences in factor endowments between those countries, giving one country a comparative advantage in the production of those goods and services that make intensive use of the factors with which this country is relatively well endowed. Hence this country can produce these goods and services relatively more cheaply than the other country and will therefore tend to export these goods to the other country.

The drawback of this theory is that it explains trade only when there are differences in endowments, and not the trade between two equally endowed countries (North-North trade). This deficiency is the starting point of the second ('new') trade theory.

This theory explains advantages in the production of goods and services through the existence of economies of scale and economies of scope, which in the first case occur when firms can expand their production (e.g. through a free trade agreement) and experience thereby falling average costs of production; economies of scope can be exploited if there is a cost advantage of producing different goods or services at the same location. Both types contain a comparative cost advantage, thus an incentive to trade which works well between two equally endowed countries.

*Following these theories we expected the **CEECs** to have **comparative advantages** in (low-skilled) labour- and (in some cases) natural-endowment-intensive goods and services, since they are relatively better endowed with these factors than their main trading partners, mostly western European countries. Conversely, we expect the **CEECs** to have **disadvantages** in the more know-how- and capital-intensive producer services, since those services had not been developed (to a western standard) in the CEECs before 1989.*

*The expectation concerning the **comparative advantages** of the CEECs were at least confirmed by the positive trade balances on transport and travel services for the **CEEC-5. Bulgaria, Romania and Russia** show some diverging results, which may be explained, first, by the fact that their main trading partners are not only EU countries but also other CEECs and other CIS countries; this leads to a different distribution of comparative advantages and thus to services balance results that are different from what we have expected. A second explanation may be that not enough capacities have been built up in these areas, so the countries are not able to exploit their potential comparative advantage.*

*The deficits the **CEECs** have in trading **other services** underpin our assumption that these countries have severe **disadvantages** in **producer-oriented services**, which require a good capital and high-skilled labour endowment and the knowledge and experience in exploiting economies of scope and economies of scale in each service. The expected gap of competitiveness in producer services of the CEECs that emerged after the breakdown of the iron curtain and the change of the economic regime, is becoming smaller in some cases; deficits in these areas reflect the fact that modernization implies the importing of the required producer services.*

*As the **CEECs'** main trading partner is the **EU**, the mentioned trade structure is also observable in the CEEC–EU services trade – at least in the trade of those three countries (the Czech Republic, Hungary and Poland) for which comprehensive data were available.*

Our study shows that the **Czech Republic** is a net exporter of services to the **EU** in 1995 to 1997, although the surplus is quite small and mainly caused by a huge surplus in travel services, which is compensating the loss in transport and other services trade.

The main exported services are travel services (mostly tourism): this reflects the huge comparative advantage in this service, mainly based on natural endowments, which the Czech Republic has vis-à-vis the EU.

On the import side, **other services** are by far the most important services that the Czech Republic buys from the EU: this indicates that there is strong demand for higher-quality producer services either from domestic firms which are adapting to western standards, or from MNEs which want to rely on the services they are accustomed to.

The calculation of a **revealed comparative advantage** index for the Czech–EU services trade shows that the Czech Republic has (partly sizeable) revealed comparative advantages in services: these rely mainly on differences in factor endowments (in travel services, other transport), and disadvantages in services that are either capital-intensive (air transport) or skill- and experience-intensive (other services). However, there are also signs that the Czech Republic is improving its competitiveness in some producer services such as financial, insurance and other business services.

In trading with the **EU**, **Hungary** relies even more than the Czech Republic on travel services: trading these services creates a large surplus for Hungary which is the backbone of the solid surplus in the overall services balance. Transport also contributes positively to the Hungarian services balance, while in other services Hungary has a deficit.

Surprisingly **travel services** are not the main Hungarian export service, instead **other services** are the ones exported most to the EU. This might indicate that Hungary has already considerably advanced in its transition process, since it has started to export more of those services to the EU where the initial gap in competitiveness is supposed to have been quite large. On the import side the Hungarian structure is similar to the Czech one, in so far as other services account for most of the services imports, whereas travel and transport services have only a minor share.

Regarding **competitiveness** Hungary performs well in travel and personal services; in both cases it has a large revealed comparative advantage, but it performs poorly in insurance services where the revealed disadvantage is at a constantly high level – despite the large inflow of FDI in this sector which should have improved the competitiveness of the Hungarian insurance services. An ongoing restructuring process is observable in financial and other business services, since for both services the RCA index shows growing competitiveness.

*The services trade between the **EU** and **Poland** – in contrast to EU trade with the Czech Republic and Hungary – is not based on travel services but on **transport services** instead. The surplus generated there is larger than the combined deficits in travel and other services from 1994 to 1996, so that the overall services trade balance is positive in these years. In 1997 the balance in services shows a small deficit, due to a jump in the travel services deficit. Transport and other services have a rather equal share in Polish exports to the EU, at least in 1997, while prior to 1997 transport was slightly more important than other services. Travel exports have a lower share than the other two services mentioned above; still they amount to one fifth of Polish services exports.*

As for imports from the EU, other services account for half of all Polish services imports from the EU, transport and travel hold approximately one quarter each in imports.

*The calculation of the **revealed comparative advantage** index for the Polish–EU trade shows that Poland has a significant advantage in transport services, especially in sea and other transport: this is mainly based on the Polish advantage in labour-intensive services, but also on the experience and know-how Poland acquired in transport before 1989. Poland has clear disadvantages in royalties and licence fees, other business services, financial services and insurance services.*

*The **CEEC–Austrian services trade** is in on the whole similar to the CEEC–EU services trade, since Austria draws on the same advantages and disadvantages as the EU. However in some points the analysis shows that the results concerning **CEEC–Austrian services trade** are **more pronounced** than in CEEC–EU trade, which is mainly due to Austria's geographical, cultural and historical proximity to some of the CEECs.*

Hence, in CEEC–Austrian services trade too, the trade patterns are on the CEECs' side determined by their advantages in (low-skilled) labour-intensive and natural-endowments-based services, and on the Austrian side by its advantages in producer services, which are intrinsic to the western, developed countries in their trade relations with transition countries.

*With the exception of the Czech Republic in 1997, all three **observed countries** incur **deficits** in the overall services balance from 1994 to 1997: these are mainly caused by the deficits each country has in other business services, and in unallocated services. The CEECs' **lack of competitiveness** in **producer services** and their advantages in labour- and natural-endowment-intensive services become obvious not only in the services balance, where generally travel and transport services have a surplus and other services a deficit; they also show in the analysis of the trade structures. Exports of the **CEECs** tend to **rely** mostly on **travel and transport services**, which are either based on natural endowments or on (low-skilled) labour; imports of the CEECs mainly consist of **other services**, which are seen as (high-skilled) labour-, know-how- and capital-intensive. The*

CEECs' disadvantages in producer services and their advantages in other services become most evident in the calculation of the **revealed comparative advantage index**, which strongly supports the theoretical assumption that the CEECs have advantages in travel and transport services (with the exception of air transport) and disadvantages in most producer services.

Although the analysis of CEEC–Austrian services trade is structured like the investigation of CEEC–EU services trade, we expected the results of the former analysis to be more pronounced than in CEEC–EU trade: First, Austria is an 'above-average' EU member in terms of the level of economic development; thus there should be a clearer pattern of advantages and disadvantages, since the adverse effects of less developed EU countries are left out. Second, the geographical, cultural and historical nearness to the CEECs reduces transaction costs for both trading partners, leading to a better revelation of the countries' advantages and disadvantages and a more segmented trading pattern.

The **comparison** of the **EU** and **Austria** in services trades with the CEECs shows that Austria – despite its small share in the EU regarding size, population, GDP etc. – has a **very important** role in overall EU services trade with the Czech Republic and Hungary and a smaller but still respectable position in EU–Polish trade. Austria is involved mostly in EU trade with **Hungary**, where Austria contributes over one third of all EU services exports to Hungary and absorbs more than one quarter of EU services imports from Hungary. Austria's share is largest in EU exports of **other transport services**, **construction** and **insurance services** and **other business services**, while in EU imports Austria has a large share in travel and construction services.

Austria's participation in EU trade with the **Czech Republic** is not as strong as in Hungarian trade, still Austria has a share of one fifth in EU exports to and one fourth in EU imports from the Czech Republic. Especially the high share in EU exports of insurance, financial and other business services, and the high shares in EU imports of travel and insurance services contribute to this picture.

Comparing the Czech Republic, Hungary and Poland, Austria's share in EU trade is lowest in the trade with Poland, yet Austria has a share of more than 10% in EU exports to and of more than 7% in EU imports from Poland, with an especially important role in EU exports of insurance, financial and other business services, and also in EU imports of air transport and financial services.

Regarding **Austria's competitive position** vis-à-vis the **EU**, Austria shows a **strong position**, specifically in trade with the Czech Republic and Hungary, and here especially in **financial and other business services**, in royalties and licence fees and in computer and information services (the last point is valid for Hungary only). In trade with **Poland** the **EU**

seems to be in an overall **better position** than Austria, solely in construction, computer and other business services Austria is more competitive than the EU.

In the past years **FDI** has become a more important source of delivering goods and services to foreign markets than exports, hence an investigation of the relationship of FDI inflows in the services sectors and services trade is important to complete the picture of services trade in the CEECs.

Although **theoretical models** of FDI and trade present some clear-cut conclusions, they remain at a very abstract level: they are dealing with differences in factor endowments (e.g. Krugman and Helpman) or development stages of countries (Markusen) which are easy to consider theoretically but are much harder dealt with empirically. Hence theoretical findings on whether FDI has a substitutive or a complementary effect on services trade in the CEECs are rather ambiguous and not conclusive.

Empirical observations of FDI in services and services trade are however not less inconclusive: some weak evidence can be found for both substitutive and complementary effects of FDI on services trade.

Trade in Services in the Central and East European Countries

1 Introduction

Analysing services trade flows has many interesting aspects. One of them is that services trade is part of the current account and therefore influences the result of the current account balance. Consider for example the case of Austria in the 1980s and early 1990s, when the surplus in the services balance was the main reason why the current account showed either a positive or a (negligible) negative outcome.

We expect this not to be true for the Central and East European countries (CEECs) in the years immediately following the start of transition; their past as communist countries implies that their experience in many of the producer-oriented services (e.g. banking and insurance, computer and information services, telecommunications, accounting etc.) is rather limited. As these services sectors were underdeveloped compared to western standards in the CEECs at the time of the breakdown of the iron curtain, there is a big need for establishing or modernizing these sectors. In the short and medium term this can only be done by importing these services from abroad or through foreign direct investment. We therefore expect the transition countries to have a sizeable deficit in the trade of these services, with a heavy impact on the current account balance. In transition countries endowed with a natural landscape attractive for tourism these adverse effects might be mitigated. In some countries (Hungary, Czech Republic) we might observe a positive travel balance, but it remains a question to be answered by the following analysis whether the surplus in the travel balance is large enough to compensate for the deficit arising from the trade in producer-oriented services.

Our analysis will elucidate the competitiveness of the various services sectors of the transition countries compared to European countries; we also examine Austria's competitive position compared to the position of the EU countries. This should provide some valuable insights concerning the development stage of the services industries in the CEECs.

Services trade studies, especially bilateral comparisons, are rather scarce. This stems from the fact that there was no relevant interest in dealing with services trade until the 1970s, as services were mostly seen as non-tradables. 'Interest by trade economists in services was prompted [...] by policy-makers acting under pressure from practitioners, mostly in the USA, who complained of the lack of international trade rules in services' (Sapir and Winter, 1994). The late discovery that services should play a role in international trade implies *per se* that the theoretical treatment of services trade is not as refined as the theory of trade in goods, and is still a difficult task. Moreover, since goods-based trade models are mostly

used for explaining services trade flows, a general services trade theory becomes even more unlikely, because modern trade theory covers many different aspects (ranging from comparative advantage theory to imperfect competition models and even to industrial organization analysis) which cannot be easily combined within a single model. Thus there is no accepted, unambiguous services trade theory which could be applied, making a serious treatment of services trade quite difficult.

The second reason why analyses of services trade flows are rare is the lack of appropriate data. This means that, even if there are sufficient data, they might not be usable because there is no clear-cut codification of services in international trade, making it sometimes impossible to compare two countries' services trade flows. There exists an IMF guideline of how to categorize services trade, but it is not as rigid as the SITC code, applicable to goods trade, and leaves room for interpretation which is used by the different countries in a different manner.

After this introductory first chapter, the second chapter contains a description of the overall current account situations in eight CEECs (Bulgaria, the Czech Republic, Hungary, Poland, Romania, Russia, Slovakia and Slovenia), in order to provide a short overview of what the services trade balance is part of.

In the third chapter we present a short overview of theoretical aspects of services trade, which is the basis for the following empirical investigation on the services trade flows of the eight CEECs.

In the fourth and fifth chapters we examine the services trade relationship between the Czech Republic, Hungary and Poland and the EU (Chapter 4) and Austria respectively (Chapter 5) in some detail, and we try to give some theoretical and empirical explanations of the direction of the service trade flows and the distribution of the comparative advantages.

In the sixth chapter Austria and the EU are compared in their competitiveness in trading with the Czech Republic, Hungary and Poland.

Finally, in the seventh chapter we present a short investigation of the theoretical and empirical effects of foreign direct investment in services branches on services trade in the CEECs.

In the appendix additional tables are given for the purpose of supplementary information.

2 Current accounts: structures and development

This chapter presents the current account balances for eight Central and East European countries at the most aggregate level, to provide an overview of past and present developments and to help us to obtain some general insights.

The data shown in Table 2.1 are expressed as a percentage of GDP, indicating the importance of the different categories for each economy. The first category shows the current account balance for each country. The four sub-categories listed below are the components the current account consists of.

Regarding the balance on goods and services respectively the explanation is straightforward. Referring to the goods item, it displays mostly the balance of imports and exports of movable goods; minor parts are goods for processing, non-monetary gold (gold that is not held as a reserve asset) etc.

The services balance covers all different kinds of non-factor services ranging from transport and travel to financial services, royalties etc. This point will be dealt with in detail later on in this study.

The balance on income comprises the compensation of employees (border, seasonal and other non-resident workers) as well as investment income, which covers receipts and payments accruing either from holdings of external financial assets (by residents) or from liabilities to non-residents. Within the investment income such items as income on equity (dividends, branch profits, reinvested earnings), income on debt and on other capital (interest) can be found.

The balance on transfers includes those of the general government (current international co-operation between different governments, payments of current taxes on income and wealth) and other transfers (e.g. workers' remittances, premiums-less service charges, claims on non-life insurance).

The *first common feature* observable for almost all countries is a current account deficit, mainly derived from a deficit in the trade in goods.

Exceptions in this respect are Russia and Slovenia: Russia had a current account surplus over the period observed, due to a positive balance on goods. Slovenia had a rather balanced position from 1995 to 1998; although its balance on goods was negative, this was compensated by the surplus in the balances on services, incomes and transfers.

Table 2.1

Current account in per cent of GDP

		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Bulgaria	Current account balance	-1.64	-2.96	-0.95	-4.18	-10.16	-0.33	-0.20	0.16	4.20	-2.06
	Balance on Goods	-1.47	-2.27	-0.39	-2.47	-8.19	-0.17	0.92	1.89	3.74	-2.57
	Balance on Services	0.93	0.41	-1.06	-1.10	-0.54	0.11	1.17	1.21	1.64	1.21
	Balance on Incomes	-1.26	-1.31	-0.35	-1.11	-1.78	-1.99	-3.30	-3.98	-3.51	-2.56
	Balance on Transfers	0.16	0.22	0.85	0.50	0.34	1.72	1.01	1.05	2.33	1.87
Czech Republic	Current account balance	1.35	-2.05	-2.64	-7.42	-6.17	-1.89
	Balance on Goods	-1.50	-3.53	-7.08	-10.15	-8.66	-4.65
	Balance on Services	2.94	1.21	3.54	3.31	3.29	3.37
	Balance on Incomes	-0.34	-0.05	-0.20	-1.25	-1.49	-1.32
	Balance on Transfers	0.25	0.32	1.10	0.66	0.69	0.72
Hungary	Current account balance	-2.02	1.15	1.21	0.94	-11.06	-9.76	-5.68	-3.74	-2.15	-4.85
	Balance on Goods	3.58	1.62	1.07	-0.03	-10.43	-8.95	-5.45	-5.87	-3.79	-4.47
	Balance on Services	-1.26	1.47	1.60	2.05	0.56	0.38	1.44	3.31	2.58	1.43
	Balance on Incomes	-4.78	-4.32	-4.06	-3.38	-3.09	-3.39	-4.04	-3.22	-3.12	-3.96
	Balance on Transfers	0.45	2.38	2.60	2.30	1.90	2.19	2.37	2.04	2.18	2.14
Poland¹⁾	Current account balance	-1.72	5.20	-2.81	-3.68	-6.74	1.03	0.68	-2.28	-4.01	.
	Balance on Goods	0.06	6.09	-0.93	-0.16	-4.08	-0.62	-1.30	-5.10	-6.87	.
	Balance on Services	0.18	0.60	0.91	0.86	0.66	3.07	2.80	2.38	2.22	.
	Balance on Incomes	-3.93	-5.74	-3.79	-4.94	-4.21	-2.77	-1.58	-0.75	-0.79	.
	Balance on Transfers	1.97	4.26	1.00	0.55	0.89	1.35	0.76	1.19	1.42	.
Romania	Current account balance	4.69	-8.51	-3.51	-7.69	-4.45	-1.42	-5.00	-7.28	-6.12	-7.65
	Balance on Goods	3.82	-8.74	-3.83	-6.10	-4.28	-1.37	-4.45	-6.99	-5.67	-6.88
	Balance on Services	0.72	-0.46	-0.48	-1.47	-0.44	-0.57	-0.92	-1.09	-1.18	-1.71
	Balance on Incomes	0.15	0.42	0.05	-0.46	-0.55	-0.43	-0.68	-0.87	-0.92	-1.03
	Balance on Transfers	.	0.28	0.76	0.33	0.81	0.94	1.04	1.68	1.66	1.97
Russia	Current account balance	3.36	2.35	2.88	0.93	0.90
	Balance on Goods	6.45	6.15	5.51	4.00	6.28
	Balance on Services	-2.41	-2.82	-1.36	-1.08	-1.12
	Balance on Incomes	-0.64	-1.00	-1.27	-1.93	-4.11
	Balance on Transfers	-0.03	0.02	0.01	-0.07	-0.15
Slovakia	Current account balance	-4.84	4.88	2.24	-11.13	-10.08	-10.44
	Balance on Goods	-7.61	0.44	-1.32	-12.15	-10.72	-11.54
	Balance on Services	2.27	4.81	3.11	0.20	0.38	0.08
	Balance on Incomes	-0.32	-0.87	-0.08	-0.25	-0.63	-0.78
	Balance on Transfers	0.82	0.50	0.53	1.07	0.89	1.80
Slovenia	Current account balance	.	.	.	7.81	1.51	4.17	-0.12	0.21	0.20	-0.02
	Balance on Goods	.	.	.	6.30	-1.22	-2.35	-5.09	-4.67	-4.24	-3.97
	Balance on Services	.	.	.	1.45	2.96	4.70	3.37	3.73	3.24	2.63
	Balance on Incomes	.	.	.	-0.31	-0.41	1.18	1.12	0.82	0.72	0.75
	Balance on Transfers	.	.	.	0.37	0.17	0.64	0.48	0.33	0.48	0.57

1) Data for 1998 were not available.

Source: IMF, BoP.

The *second common feature* is a negative balance on incomes (exception: Slovenia), resulting mainly from high interest payments on foreign debt (loans or – especially in the case of Hungary and Poland – bonds too).

A *third common feature* is a positive balance on transfers (exception: Russia in 1997 and 1998). The sources of this differ from country to country. In Bulgaria and Russia general government transfers dominate (these are grants by foreign governments or private institutions), whereas in Romania, Slovakia, Slovenia, the Czech Republic and Hungary other current transfers are of major importance.

After highlighting some common features in the current account balances of the CEECs, we now turn to country-specific information which might help to understand the current account situation in the eight CEECs observed.

2.1 Country-specific developments

In the first years after 1989 *Bulgaria's* current account balance was affected by continuous recessions in all transition countries. The latter had an adverse impact on Bulgarian exports due to a slump in demand for Bulgarian goods and services in the other CEECs. In addition, a reorientation and restructuring of trade took place, triggered by the breakdown of the CMEA trade regime in 1989. While Bulgarian demand for foreign goods was dampened by the economic downturn as well, the country was still dependent especially on imports of mineral fuels and also of machinery etc.; this was the main reason why Bulgaria incurred a deficit in the balance on goods from 1989 to 1992.

The services balance contributed positively to the current account balance in 1989 and 1990 only, mainly because of a positive tourism balance. However, when the tourism balance turned negative in 1991, the services balance turned negative as well. The balance on incomes entirely reflects Bulgarian net interest payments on foreign debt. As Bulgaria is a net debtor, this balance has been negative throughout the years. Net aid payments or other net payments as recorded in the balance on transfers were quite low during the first years of transition and improved the current account balance only marginally.

In 1993 a poor harvest, resulting in lower agricultural exports and increased imports, was one of the reasons for the exploding deficit in the balance on goods and consequently in the current account balance. Other reasons were a real appreciation of the currency and first signs of an economic upswing. However, the current account deficit of over 10% of GDP led to a depletion of foreign exchange reserves and ended in a massive devaluation of the Bulgarian currency. This clearly gave a boost to exports, which increased by 7% in 1994, while at the same time imports shrank by 12%, resulting in an almost balanced

position of goods trade in 1994. The increase in foreign transfers flowing to Bulgaria offset for the largest part the mounting debt service payments, so that after all the current account was balanced, too.

The subsequent current account balances until 1997 were heavily influenced by a severe crisis that shook the Bulgarian financial system starting in 1995. Due to the accumulation of huge losses, corrupt practices, imprudent lending, and administrative intervention by the authorities in the banking operations of the state-owned banks and improper supervision by the central bank, Bulgarian banks were in a bad shape. Their rapidly deteriorating liquidity led to a loss in confidence in the banking system with a subsequent run on banks, starting a vicious circle as the enormous withdrawals of bank deposits worsened the banks' liquidity. This finally ended in the complete collapse of the whole banking system in 1996/97.

The financial crisis was coupled with a deep currency crisis, leading to a devaluation of the Bulgarian lev by 165% during April-September 1996. This in turn was followed by accelerating inflation, peaking in hyperinflationary hikes in January and especially February 1997 when monthly inflation was 243%.

The banking and currency crisis resulted in an extensive currency substitution and massive capital flight, where all the BGL withdrawals were converted into foreign exchange and practically flowed out of the monetary circulation.¹ In order to reverse these trends the Bulgarian National Bank pushed the interest rate up reaching 25% monthly at the end of September 1996.

As a 'side effect' of the banking and currency crisis, the real economy was hit hard. The producers suffered from exorbitantly high interest rates as well as from a complete credit crunch, as the commercial banks ceased any further lending facing a very low liquidity constraint. The consumers suffered from high inflation, which eroded their incomes. Both groups were hurt deeply by the skyrocketing exchange rate.

The effect was a drastic drop in final demand. This together with liquidity problems of the producers led to supply-side disturbances, resulting in a wave of bankruptcies especially of small firms. The entire Bulgarian economy faced a downturn that was incomparable to the developments of other European transition countries.

However, with the exchange rate reaching astronomical heights and the ensuing problems faced by both producers and consumers, the demand for intermediate and final imported

¹ R. Dobrinsky (1996), 'Bulgaria: Financial collapse and economic downturn', *The Vienna Institute Monthly Report*, No. 10.

goods fell sharply; as a result, the current account balance turned positive in 1996 and 1997, despite the growing burden of debt obligations.

In 1998 the crisis seemed to be overcome and the Bulgarian economy grew for the first time since 1994. Hence demand for imports increased, whereas exports could not follow that pace and in fact even declined. This was partly because of a real appreciation and the negative spillovers of the Russian crisis and partly because of the low competitiveness of the Bulgarian economy. In consequence, not only the balance on goods but also the current account balance was negative.

In the *Czech Republic* the balances on services, incomes and transfers all remained fairly constant from 1993 to 1998; the deviating item and the one that influenced the current account most was the balance on goods. It deteriorated dramatically in 1995, when the deficit rose from 3.5% of GDP in 1994 to more than 7% of GDP. This however had no significant impact on the current account balance: in the same period the balance on services together with the balance on transfers compensated almost fully the additional loss stemming from the balance on goods. Yet, in 1996, the deficit in the balance on goods increased even more (to 10.16% of GDP); coupled with mounting debt service payments (balance on incomes), this caused the current account deficit to rise from 2.6% of GDP to 7.4% of GDP. In 1997 the picture did not change much, and although trade in goods was slightly improving, the current account deficit was still unbearably high (6.2% of GDP). Only in 1998 did it return to a 'normal' level.

From a macro point of view, the underlying causes consisted, first, in the fact that in 1995-1996 the Czech GDP grew stronger than the GDP of its main western trading partners (in particular Germany). As nearly two thirds of Czech trade is conducted with the EU, this gives an impetus to a worsening of the balance on goods, because (*ceteris paribus*) western demand for Czech goods grew slower than Czech demand for western goods.

More important, however, was the fact that the exchange rate in the Czech Republic was held constant from 1991 onwards – the koruna was pegged to a basket of currencies, with the main weights being the German mark and the US dollar. At the same time the Czech economy experienced a higher inflation than its west European trading partners, so the koruna appreciated in real terms vis-à-vis west European currencies. In addition the central bank tightened the money supply as an anti-inflationary measure in mid-1996. The higher interest rates attracted more capital to the Czech Republic, offsetting the current account deficit and thus prolonging the stable exchange rate regime² until May 1997 – when the situation became really unviable. Production and exports ceased to grow because of the

² J. Pöschl (1997), 'Has the crisis bottomed out?', *The Vienna Institute Monthly Report*, No. 6.

high interest rates and exchange rate, whereas imports were booming. At the end of May 1997 the authorities finally gave up their exchange rate policy and switched to a managed floating system. In consequence, the koruna devalued by some 10% against the US dollar (the parity jumped from CZK 30.8 to about 33.3 per USD) – making the exchange rate much more favourable for exports.

In the first years of the transition (1990-1992) *Hungary* incurred a surplus in its current account balance, due to surpluses in the balance on goods, the balance on services and the balance on transfers – though the latter seems not to be comparable to the other countries.³ The year 1993 however saw a sheer export debacle, with exports declining by 16.8%. As imports increased by 6.8⁴, the balance on goods turned from an equilibrium position in 1992 to a deficit of 10.4% of GDP. This together with a fall in the balance on services from +2% to +0.5% of GDP brought the current account balance from a surplus (+1% of GDP) deep in the red (-11% of GDP).

The poor export performance can be mainly explained by three factors; first, commission labour exports dropped by 50%; second, due to a poor harvest agricultural and food exports declined; and third, 90% of the export drop took place in trade with western countries. The reason why especially trade with western countries developed so badly – while in the meantime exports to Slovenia, the Czech Republic and Slovakia were expanding – were the recessions taking place in Hungary's main trading partners and a real appreciation of the forint during the preceding three years.

In 1994 the picture did not change much: the current account deficit decreased only slightly, to 9.8% of GDP, and as also the general government deficit was at an alarming 8.4% of GDP, the situation became unsustainable. In order to overcome this crisis, the government introduced a stabilization package. Part of this package were a 9% devaluation of the forint, a new exchange rate regime introducing a pre-announced crawling peg, an 8% surcharge on all imports (except for investment goods and energy), a radical cut in fiscal expenditures and a deep cut in real wages in the public sector, which spread over to the whole economy.

These measures improved the competitiveness of Hungarian exporters – through devaluation and reduction of unit labour costs, decreasing demand for imported goods and wage cuts – and thus also the balance on goods, and consequently the current account balance, improved dramatically. The current account deficit fell to 5.7% of GDP, and declined even more in the subsequent two years.

³ The balance on transfers includes deposits and withdrawals of notes and coins denominated in foreign currency to and from foreign currency accounts held by resident households. So the figures stated in the statistics are biased upwards compared to the other countries.

⁴ S. Richter, S. (1994), 'Hungary: Economic growth not yet setting in', *The Vienna Institute Monthly Report*, No. 4.

It is remarkable that among the CEECs Hungary has the largest deficit in the balance on incomes (if measured as a percentage of GDP). This stems to a large extent from debt service payments (about 80% of income payments) and to a smaller part from repatriated profits (about 20% of income payments).

The *Polish* current account balance in 1993, according to IMF data, showed a relatively high deficit, 6.7% of GDP. This was primarily due to weak demand for Polish exports, resulting from continuing recession and protectionism in Western Europe, and also to the persistent appreciation of the zloty. Yet another reason consisted in the high interest payments paid on foreign debt (4% of GDP), an item which was significantly lower in the following period as a result of agreements with the London and Paris Clubs.

A devaluation of the zloty in August 1993 was the impetus for a vigorous increase in exports in 1994 combined with a much slower increase in imports. The outcome was an improvement in the balance on goods and services, which, together with lower interest payments, led to a current account surplus in 1994. The latter continued to hold in 1995; though the zloty was appreciating in real terms, this was partly offset by the improving quality and therefore competitiveness of Polish products.⁵

In 1996 the current account balance turned negative again, pushed by a worsening of the trade balance. The real appreciation, high GDP growth and lower tariffs (on trade with the EU) were the main causes, leading to a strong rise in imports and a much weaker performance of exports, which continued in 1997 and 1998.

Romania's current account situation is probably the worst of all CEECs treated here. It has recorded a consistently high deficit throughout the past nine years, with only a slight relief in 1994. The sources of the deficit are primarily the constantly negative balance on goods, but also the negative balances on services and incomes.

From 1992 to 1994 a clear upward trend could be observed in the Romanian current account situation, when the deficit shrank from about 7.7% of GDP to an acceptable 1.4% of GDP. This was mainly the result of a remarkable improvement in the balance on goods (the deficit decreased from 6.1% to 1.4% of GDP), and strengthened by a simultaneous improvement in the balance on services.

In 1995 however the situation worsened again due to an increase in the deficit by over 3.5% of GDP, which was mainly caused by a rapid increase in GDP (+6.9%) and the

⁵ L. Podkaminer (1995), 'Strong growth continues', *The Vienna Institute Monthly Report*, No. 4.

connected rise in domestic demand and industrial output (+9.4%), which in turn were supported by loose monetary and fiscal policies.⁶

In 1996 the GDP still grew rapidly (+4.1%) stimulated by budgetary overspending and monetary relaxation, thus spurring domestic demand. This, combined with an only 2% rise in Romania's exports but an 11% rise in imports, caused the current account deficit to increase by more than 2.5% of GDP from 1995 to 1996.

An austerity package introduced by the new government elected in 1996, proposing measures such as reducing the budget deficit and the liberalization of the foreign exchange market, dramatically constrained investment and consumption in 1997 (private and public), and provoked a GDP decline by almost 7%. The reduction in domestic demand was also recognizable in domestic demand for foreign goods (imports) which declined by 1.4% compared to the previous year, whereas exports increased slightly; hence the current account balance improved slightly (by about 1% of GDP), but probably not as much as had been expected.

In 1998 the current account deficit expanded once again (by 1.5% of GDP), led by a deterioration of the balance on goods which was mainly caused by slow progress on restructuring; this is confirmed by the decline in exports (by 1.5% compared to the previous year) and (slowly) increasing imports.

Russia recorded a (steadily declining) current account surplus in the period 1994-1998 (falling from 3.4% of GDP in 1994 to 0.9% of GDP in 1998). Russia specializes in exporting base metals and mineral products⁷ as it has a 'natural' comparative advantage in producing these two commodity groups. The exports of these goods are mainly responsible for Russia's positive trade and current account balance. However, the advantage in trading with these goods can easily be reverted to the opposite, as was the case in 1997-1998: the world market price for mineral products declined, leading to a decrease in Russia's exports (in dollar terms) in 1997 (-0.4%) and 1998 (-16.3%). In spite of the huge slump in exports, Russia's balance on goods improved in 1998 compared to 1997. This due to the devaluation of the rouble (it lost 70% of its value between July and December 1998) and the subsequent decline in imports, which shrank in the end even more than exports.

The positive effect on the current account balance exerted by the improving balance on goods in 1998 was however lessened by a huge deficit in the balance on incomes (4.1% of GDP), consisting most presumably of debt obligations.

⁶ G. Hunya (1996), 'Romania: Overheating calls for restrictive measures', *The Vienna Institute Monthly Report*, No. 4.

⁷ The exports of these two commodity groups alone represent more than 60% of total exports each year (1994-1998).

The *Slovak Republic* experienced a boom in exports in 1994 and 1995,⁸ mostly of iron and steel for which there was continuing strong demand in western European countries. This paved the way for a current account surplus in those years, supported by the strong performance of services trade.

The more surprising were the disastrous current account results in the years that followed. Driven by high GDP growth (above 6.5% on average from 1995 to 1997), an appreciating koruna, and the inability of Slovak products such as consumer durables, machinery and industrial equipment to attract domestic demand (in spite of their prices being often lower than those of imported goods), the trade balance plunged to a deficit of 12% of GDP, from a surplus of 2% the year before.

Because of stubborn adherence to a stable exchange rate, and lacking restructuring of industrial production (raw materials still account for almost two thirds of total industrial output), the current account deficit did not improve much in 1997 and even deteriorated again in 1998.

Slovenia's current account balance showed a nearly balanced position from 1995 onwards (with an amplitude from -0.12 to $+0.21\%$ of GDP), characterized by a constant deficit in the balance on goods, and constant surpluses in the balances on services, incomes and transfers.

The balance on services in particular contributed positively to the current account balance, recording a surplus of over 3% from 1995 to 1997 and of 2.6% in 1998. These good results were mainly influenced by the surplus in travel services (tourism), which is in this respect by far the most important Slovenian services sector.⁹ The balance on incomes and the balance on transfers played a minor role only. However, the positive sign of the balance on incomes was remarkable in so far as Slovenia is the only one of the eight observed countries which had a surplus in this category. The reason behind is that the compensation of employees (cross-border and seasonal workers) by far outweighed the interest payments on foreign debt.

3 Services trade in general

3.1 Theoretical background

When we speak of trade theory, it usually solely refers – at least implicitly – to the theory of trade in goods. This starts with David Ricardo, who, in presenting his enlightening idea of the comparative advantage being the cause of international trade, uses wine and cloth for

⁸ Z. Lukas (1996), 'Second year of accelerating growth', *The Vienna Institute Monthly Report*, No. 3.

⁹ Personal travel in Slovenia accounted for over 50% of total services exports from 1993 to 1998.

illustrating his theory. This tradition continues in the common trade literature thereafter and finally ends in modern economics textbooks, which investigate foreign trade with the help of abstract variables such as q_1 and q_2 , which stand for the quantities of a (not defined) good 1 and a (not defined) good 2.

No word whatsoever is lost on services in standard trade theory, and the questions arise why this should be the case and whether or not this theory is actually applicable to services trade.

We derive the answers to these questions by pointing out the differences between goods and services.

The main difference between goods and services lies in fact in a feature common to both of them: both goods and services rely on the services of various production factors (labour, capital) in the course of their production. For example, building a car needs the services of engineers, who design and plan the car, further it uses the services of mechanics, who assemble the different prefabricated parts, and it also employs the services of lacquerers, who varnish the car etc. On the other side receiving a proper haircut needs the services of a person who washes your hair, the services of a hairdresser who cuts your hair etc.

This is true not only for factor services of labour, but also for factor services of capital, for both goods and services production rely on the use of capital, the former in a more extensive and evident way, the latter in a more subtle way.

The example above can be more or less easily extended to any kind of goods or services production, just showing that goods and services do not differ much in their conceptual form of production.

The core of the difference between goods and services is that goods embody those factor services, and quasi 'store' the value added by them in the form of a specific good, whereas in services those factor services are disembodied and not storable. For example, a Mozart concert played by the Vienna Symphonic Orchestra at the Vienna Concert Hall requires the physical presence of the providers of the services (musicians) at the time of the use, otherwise it would not be possible to listen to it – except if you buy the CD on which this concert is recorded. But this CD is no longer a service but a good in which the factor services of the musicians have been stored.

Hence the characteristic of non-storability of services is the major difference between goods and services. It implies further that the production and the consumption of a service have to take place at the same time, but not necessarily at the same location, because one can think of transmitting services via telecommunications over a long distance.

In principle the non-storability of services and the coincidence in time of their production and consumption should be no impediment to services trade, since if one defines trade in goods more broadly, i.e. that goods trade consists of immobile consumers in one nation receiving goods from immobile producers in another nation, one will discover that services trade basically flows along the same channels as goods trade.

Basically three ways of trading goods and services can be distinguished:

- (1) *Immobile consumers* in one nation buy goods or services from *immobile producers* in another nation. This seems to be the most common way in goods trade, but it is also applicable to services trade, where the transactions flow over telecommunications networks from the provider to the user. This occurs for instance in financial services and professional services.
- (2) *Mobile consumers* of one nation travel to another nation to buy the goods from an *immobile producer*. This is supposed to be relatively rare in goods trade and common in services trade, especially in branches such as tourism, health care, education, ship repair and airport services.
- (3) *Mobile producers* of one nation travel to the *immobile consumers* in another nation to produce their goods there. This seems to be very rare in goods trade (an example may be a painter drawing a portrait – and selling it, too), and common in services trade, especially in fields where frequent and close interaction between the producer and the customer is not required, for instance engineering.

In the following we outline the common characteristics and differences in services and goods trade to deliver some clues to answer the questions posed above.

Relating to the first question – why services are not mentioned in trade theory – it can be said that, because of their nature as non-storable items, services have been seen for a long time as being non-tradables. Indeed, trading non-storable services makes more demands on mobility, since it requires either the producer to be flexible enough to travel to the consumer or vice versa, or it demands a well-developed communications network. These three forms of mobility were certainly given to a very small extent only, at Ricardo's time, and even until the early 1970s mobility seemed not to be sufficiently developed to let services have a significant impact on overall trading.

However, in the early 1970s, the advance of transport and communications technology allowed serious trade in services; yet even then it was recognized by economists only after practitioners involved in services trade had put pressure on politicians, asking for international trade rules in services.

Moreover, supposing that traditional trade theory is applicable to services trade, it could be argued that, even if services and goods use in principle the same trade channels, there exists a difference in the use of these trade channels between goods and services, making it easier to apply trade theory to goods rather than to services trade. The difference is that goods are much more frequently traded along the 'classical' channel, where an immobile producer in one country delivers goods or services to an immobile consumer in another country – which is foreign trade in common-sense definition, and the definition most economics textbooks use.

Services are rarely traded in this manner, more often they use the other two channels mentioned above. Hence applying the principles of trade to services, would require additional explanations, for instance of transport and/or communications costs for the producers or consumers; this would complicate things, and would also be completely unessential to the theory itself.

Thus, an answer to the question why services are not mentioned in trade theory, could rely on the fact that services trade was discovered too late, and only when the theory of (goods) trade was already fully developed; by supposing that this theory was also applicable to services, there seemed no need to implement services in the explanation of the trade theory, as the introduction of services would complicate things excessively.

Leaving room here for more elaborate explanations of the first question, we now turn to the second, much more vital question – is the usually proposed trade theory, which was designed for goods, also applicable to services trade ?

Basically trade theory explains why two nations engage in mutually beneficial exchange of goods, by arguing that each of the two nations has to have an advantage in producing specific goods, in so far as each country is able to produce certain goods more cheaply than the other country (or exclusively), making it desirable for each country to import the cheaper goods from abroad and to concentrate on the production of those goods where it has an advantage; thereby each country's welfare is increased by being able to spend the saved money (through the substitution of cheaper foreign goods for expensive domestic goods) on more of the other goods.

There is absolutely no problem in substituting services for goods in this context; the essence of it would remain the same, just as it would remain unaltered if we only substitute services for the goods of just one country, saying that trade theory explains why two nations exchange goods and services.

It has been shown above that services use the same trade channels as goods, indicating that services can be treated in the same manner as goods, too; and since even the fact

that services trade differs from goods trade in the frequency of use of each of the three channels mentioned does not change the core of the argument, it seems to be logically consistent if we argue that trade theory should – in principle – also be applicable to services trade.

Hence the theoretical treatment of services trade is not different from the theoretical treatment of goods trade, which is basically a search for the underlying reasons why one country has an advantage in producing certain goods that other countries do not have.

Ricardo taught us that not absolute price advantages in a specific good induce trade but that rather relative or comparative price advantages in goods production between countries cause foreign trade.

What Ricardo missed to explain was where the comparative advantage actually stems from, a question that was not challenged for over a hundred years since Ricardo wrote his 'Principles'. It was the achievement of Eli Heckscher and (later) Bertil Ohlin to provide the first explanation of the foundations of the comparative advantage, propagating that 'a difference in the relative scarcity of the factors of production between a country and another is thus a necessary condition for differences in comparative costs and consequently for international trade'. (Heckscher, (1919) 1991)

The fundamental weakness of the Heckscher-Ohlin (H-O) Theorem is that it is only able to explain inter-industry trade, where each country exports certain commodities in exchange for different commodities. Therefore the model is widely used for the explanation of North-South trade, with the developed countries exporting mainly finished, high- and medium-tech, high-skilled goods and services to developing countries, which in turn export raw materials and low-tech, low-skilled goods and services. Here the approach using differences in factor endowment works quite well in explaining the trade structures.

The H-O model does much worse when it is used for describing North-North trade, or at least part of it, because developed countries do not differ much in factor endowments in many respects. Yet, in some cases there are differences in factor endowments, such as in natural resources (arable land, landscape), and here the traditional model is still applicable. But in those cases where factor endowments in different countries are similar to each other (skilled labour, capital, technology) the H-O model loses its footing and cannot explain why trade actually occurs.

The existence of trade is then explained by economies of scale and economies of scope in the production of goods and services, and by the fact that nations trade similar but

differentiated products or services.¹⁰ Unfortunately economies of scale and economies of scope are difficult to implement theoretically in a trade model: they are in general incompatible with the assumption of perfect competition, and one has to choose among many ways of modelling imperfect competition, this being crucial to the conclusions and the welfare assessments one can draw from analysing trade. However, the difficulties in finding out which nations gain and which probably even lose through trade based on economies of scale, do not change the fact that trade, caused by economies of scale and economies of scope, does exist, and that the basic ideas behind them are fairly simple.

In the case of autarky, Adam Smith's statement that 'the Division of Labour is limited by the Extent of the Market' (Smith, Ch. 3) holds, because firms can exploit possible economies of scale and economies of scope only as long as there is demand for their products, which indeed is constrained by the size of the domestic market (country). Under free trade, firms have the chance to produce for a much larger market than their domestic one, thus being able to supply the domestic as well as the foreign market (through trade) with their goods or services at a lower price than under autarky – because of falling average costs of production if they can exploit economies of scale and because of a price advantage in producing different goods or services at one location if they can exploit economies of scope.

Basically services trade seems not to be much influenced by Heckscher-Ohlin-type advantages, but rather by economies of scale and economies of scope – a view that is mostly supported theoretically and only rarely empirically.

One of the few empirical works, by Sapir and Lutz (1981), tested the Heckscher-Ohlin-Samuelson thesis on its ability to explain services trade and only got significant results for services such as tourism and transport, but much less relevant results in the case of producer services (i.e. all services except tourism and transport services).

This supports Gray's (1989) hypothetical construct of 'a continuum of forces contributing to relative international efficiency of different goods and services ranging from complete reliance on differences in national factor endowments at one end (with technology everywhere the same) (the left end) and, at the other end (the right end), complete reliance on differences in technological endowments with endowments of traditional factors of production identical in all countries.' Among services, tourism and resort tourism will be located towards the left of this continuum, whereas medical and information-intensive services are to be found on the right-hand side.

¹⁰ This is not the perception the HO theory has of goods; usually it supposes that the goods of one branch are homogeneous.

A similar result is obtained by Markusen (1989), who supposes producer services to be knowledge-intensive, which in turn suggests the existence of economies of scale in producer services, as knowledge must be acquired at an initial learning cost after which knowledge can be provided at a very low marginal cost.

Dunning (1989) goes more into detail, identifying international business consultants, merchant and investment banks and hotel chains as probably being able to exploit economies of scale, because they have economies of specialization of personnel, and economies of common governance arising from their ability to move people, money and information between different parts of their organization. Furthermore he assumes that shipping services can exploit economies of scale because they have large fixed costs but only relatively small marginal costs (for shipping see also Francois, 1999).

Economies of scale can also be developed and exploited by service firms indirectly, through the exploitation of economies of scale (and scope) – in expanding overseas – by their goods-producing client firms. In order to satisfy the needs of their client firms, the service firms follow them on their internationalization route, thus creating the possibility of developing and exploiting economies of scale – a point which is mentioned by Landesmann and Petit (1995) and by the OECD (1996), which also presented empirical proofs of the connection between the relative comparative advantage of a country in professional business services and the internationalization of their client firms from the home country, at least in some services. The OECD observed that the two countries with the largest FDI position in 1992 – the United States and the United Kingdom – were also the strongest exporters of legal, accounting and management consulting services, whereas data on construction and engineering showed no significant relationship to FDI.

Network externalities (for a detailed discussion see Katz and Shapiro, 1985) seem to have a position between economies of scale and economies of scope and are also the source of technological comparative advantages: the returns of such a network increase with each additional user of that network, which may be found in telecommunications services, financial services, insurance contracts, etc. (see Landesmann and Petit, 1995).

Economies of scope are discovered by Dunning (1989) in firms which are also goods producing, airlines and hotels, through a world-wide referral system, in shipping services and business consultancies, and in insurance and banking, especially in brokerage-type services such as real estate and travel agents, investment analysts and commodity dealers.

Economies of scope are also present when the comparative advantage of service firms rests in their knowledge of the sourcing of essential inputs and the ability to reduce the associated search, negotiating and monitoring costs in the same location. Moreover, some

intermediate services need to draw upon each other, and frequently they are jointly demanded by customers. This explains why such services are located in close proximity to each other. The concentration of globally oriented business and financial activities in a few major cities (e.g. London, New York, Tokyo) is explained by the need to gain and sustain this particular form of competitive advantage (see Dunning, 1989).

After all it seems that the sources of comparative advantages in services trade seem to be a heterogeneous, multidimensional set of qualities which are not easily compiled to a single theoretical framework.

This is well represented by a table put together by Gray (1989), presenting different kinds of international trade activities and variables which might contribute importantly to those individual categories of trade (see Table 3-1). Although the list of variables might not be exhaustive and the trade activities are only marked with an X if the related variable has a substantial role as an explanatory variable (that means that an absence of an X does not imply a zero explanation value), the table shows how difficult it would be to form a single trade theory comprising all possible variables.

Table 3-1

The multidimensionality of international trade

Explanatory variable	Trade in					
	goods		manufactures		services	
	agricul- tural	natural resource	lo-tech	hi-tech	other	factor- embodied
Climate	X					X
Natural resource endowments		X				X
Simple factor proportions	X		X			X
Human capital				X	X	
Technology differences				X	X	
Scale economies				X	X	
Differentiated goods				X	X	
Lancasterian tastes				X		X
Transport costs	X	X				X
Communication linkages					X	X
Internal dynamics				X	X	
Related distribution unit					X	
Barriers to investment					X	

Source: P. Gray (1989), 'Services and Comparative Advantage Theory', in Giersch (ed.) (1989), *Services in World Economic Growth*.

Focusing on services trade it can be seen that the sources of the comparative advantages are differentiated most in other services (i.e. producer services) followed by factor-embodied services (tourism and transport). It is also shown that the trade in knowledge-

intensive producer services has – with exceptions – the same explanatory variables as the trade in high-tech goods, whereas the trade in factor-embodied services is explained more by other variables, such as climate, transport costs, etc.

Comparative cost advantage effects are present most when there is completely free trade; they may become mitigated and distorted, however, if there exist barriers to trade¹¹ which either raise the cost of producing a good or service, or increase the cost of distributing them, or make a good or service itself more expensive.

In reality such trade barriers exist both for goods and services, and appear in the same form for both – at least in principle. Hence it can be observed that most countries use tariffs, taxes, quotas, technical standards, price controls and even subsidies (or a combination of these), either to protect the domestic market against imports of certain goods or services in order to build up their own industry in this sector (infant industry argument), or to avoid the impact of a process of 'destructive competition' in industries with large fixed costs and fluctuating demand, which would lead to bankruptcies and/or to a permanent change in the services offered to customers; this also prevents the danger of 'cream-skimming', i.e. firms are only willing to supply the most lucrative markets (forced by competition) and the services offered in less lucrative markets deteriorate or vanish completely.

Trade barriers, especially regulation and licensing, are often also justified by their purpose of protecting ill-informed buyers in the domestic market – an argument that seems quite well suited for services trade, since services are mostly experience or credence 'goods', implying that their quality cannot be known prior to their consumption.

Border measures such as tariffs, taxes and quotas are not easily applied to services because of their non-storability and intangibility; hence these measures are often applied to the providers of the services rather than to services *per se*. A prominent example of a quota or quantitative restriction on services trade are the bilateral air service agreements that regulate trade in air transport services, which specify which airlines may fly on a certain route, what capacity may be provided (number of seats/flights), etc.

Although price-based instruments such as tariffs and taxes are difficult to apply to services trade, there exists another price-related trade barrier, i.e. price controls. Price controls can take the form of requiring uniform price setting, or of imposing a minimum or maximum price, or of enforcing the use of a price-setting rule or formula; examples of services

¹¹ For a conceptual discussion of barriers to services trade see Hindley and Smith (1984); for a detailed discussion see Hoekman and Primo Braga (1997).

sectors that are subject to price controls are air transport, financial services and telecommunications.

Standards and licensing are common tools to secure that the imported services have at least the same quality as the domestic ones and are often used in professional and certain business services (legal, accountancy and medical services), and also in tourism and transport, where especially environmental standards apply.

Table 3-2

Tariff estimates for selected industries and countries at the end of the Uruguay round

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

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

Source: * International Trade Policies: The Uruguay Round and beyond, Volume II. Background Papers. World Economic and Financial Surveys. IMF, Washington, 1994. ** The Uruguay Round and the developing economies. World Bank Discussion Paper 307. The World Bank, Washington 1995; ***Hoekman, Bernard. Tentative Steps: An Assessment of the Uruguay Round Agreement on Services. CEPR Discussion Paper Series No. 1150. CEPR, London, 1995

Source: G. Hufbauer and T. Warren, *The Globalization of Services*, Institute for International Economics Working Paper, 99-12.

Hufbauer and Warren (1999) present a table where they collected data on tariff estimates for selected industries and countries at the end of the Uruguay round. The table comprises data for the agricultural as well as for the industrial sector, and also estimates of tariff equivalents for the service sectors. But as trade barriers in services trade have rarely the form of tariffs, they are difficult to measure and are therefore likely to be imprecise.

However, the results show that in general the tariff equivalents for services are much higher than the average tariffs on goods, being especially high in transport, storage and communications, considerably lower, but still high in business and financial services, and lowest in wholesale and retail distribution; this corresponding to the order of public regulation of the services sectors.

In the following part of this chapter, we will analyse the services balances of eight CEECs (Bulgaria, the Czech Republic, Hungary, Poland, Romania, Russia, the Slovak Republic and Slovenia) in more detail, investigating whether these countries run a surplus in services trade at all, and which services items are contributing positively and which negatively to the overall services balance.

We do this by calculating the GDP share of the net trade of each service, which should be a fairly easily understandable measure of the importance of the individual services items.

We expect that, in general, these countries have a surplus in those services where they can draw on their comparative advantages in (low-skilled) labour, natural endowments and low energy prices. Conversely, a deficit is to be expected in those services which rely on a well-developed human capital base, capital and technology, and knowledge. These expectations are based on the following consideration: Until 1989, the transition countries had an economic system which did not require the development (especially) of producer services in a western manner. The breakdown of the iron curtain and the installation of market economies left the countries with serious drawbacks in producer services: not only did those countries lack the human skills and experience required in market-oriented economic activities, as well as a solid capital base and technology etc., but in addition their traditional trade networks, habits and contacts became obsolete due to a reorientation towards western markets.

For the reasons just mentioned we would expect that the transition countries incur in general a deficit in producer services (these are contained in other services). However, in construction services, which are also part of producer services, these countries may yet run a surplus if they manage to step up exports of their relatively low-skilled construction services and do not attract high-skilled and experience-intensive construction projects from abroad.

In transport and travel services, assumed to be labour- and energy-intensive, prospects should be better for the transition countries. As transport was necessary also before the fall of the iron curtain, a lack of capital or experience should not be important or even non-existent. In some cases these countries could even have advantages as their old transport networks still apply (especially in waterways), so they can exploit economies of scope and co-ordination better than their western competitors.

In travel services, which consist mainly of tourism, some of the countries (Bulgaria, Hungary and Slovenia) are favoured because of their natural endowments (landscape, climate), so they are in any way expected to have a surplus in their travel balances. But the other countries should have positive travel balances as well, assuming that travel is also a function of income. Hence, because incomes in these countries are much lower than incomes in their main trading partners (the EU, especially Germany), it might be that travel imports (CEE citizens travelling abroad) are much smaller than travel exports, resulting in a positive travel balance.

3.2 Country-specific developments in services trade

3.2.1 Bulgaria

Following a deficit in 1993 the Bulgarian services balance improved constantly until 1997, when it reached a peak with a surplus of 1.6% of GDP. Throughout the period observed, travel services – with surpluses well above 1% of GDP – were mainly responsible for this positive result. The main weight in travel services lies on personal travel, not only in the net result, but also in the shares. Personal travel has a share of over 90% in exports as well as imports of travel services, and a share of around 30% (18%) in total Bulgarian services exports (imports).

In transport services Bulgaria runs a low but consistent deficit which seems to have slightly improved since the beginning of the transition process. As no breakdown of transport services is available, not much can be said about the reason for this deficit.

Other services seem to be the only category affected by the economic crisis in Bulgaria in 1996-1997. After the deficit in other services had peaked in 1995, with 0.66% of GDP, it improved to only 0.23% of GDP in 1996; in 1997 there was even a relatively large surplus, of 0.74% of GDP. However, as data in 1996 were far less detailed than in 1997, it is difficult to determine which services were the main contributors to the rise in the other services balance. We may suppose however that, due to the crisis, there was a general fall in the domestic demand for these services; as there was also a severe banking crisis, we may further assume that especially financial and related services has a strong impact on the other services balance.

Table 3-3

Bulgaria: Net services trade in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	-8.19	-0.17	0.92	1.89	3.74	-2.57
Services	-0.54	0.11	1.17	1.21	1.64	1.21
Transport	-0.68	-0.93	-0.28	-0.47	-0.56	-0.58
Travel	0.47	1.22	2.12	1.91	1.45	1.76
Business Travel	.	.	0.04	0.11	0.09	0.27
Personal Travel	.	.	2.08	1.80	1.36	1.49
Other services	-0.33	-0.18	-0.66	-0.23	0.74	0.03
Communication Services	-0.09	-0.27
Construction Services	0.91	0.42
Insurance Services	-0.11	-0.12
Financial Services	0.05	-0.05
Other Business Services	-0.33	-0.18	-0.66	-0.23	-0.18	0.00
Government Services nie.	0.16	0.03

Source: IMF, BoP.

3.2.2 Czech Republic

A bit surprisingly, the Czech services balance did not follow the balance in goods on its way down during the crisis from 1995 to 1997. Instead the services balance improved considerably from 1994 to 1995, when its surplus (in terms of per cent of GDP) almost doubled. All main items of the services balance contributed to this development, as did the surplus in transport services, as well as travel services. Most important however were other services, which decreased their deficit by more than 1% (of GDP) to an almost balanced situation.

In the years following 1995 the services balance remained at a fairly constant surplus (around 3.3% of GDP), although other services developed negatively in 1997 and 1998. This loss was made up by a simultaneous increase of the balances in transport and travel services.

Travel services have the strongest influence on the overall balance in services; they are in absolute terms even bigger than the transport balance and the other services balance combined (except for 1994). Travel is also the main export service, with a share of about 50% in total services exports, whereas as an import service its role is declining: its share in total services imports fell from close to 50% in 1996 to 34% in 1998.¹²

¹² Unfortunately it is not possible to distinguish between personal and business travel in the Czech Republic, thus 'Travel' comprises both elements.

Transport services also contribute positively to the overall balance, as the Czech Republic is a net exporter of transport services, especially of other transport services, which includes rail and road transport. Diminishing imports of those services strengthened the positive result in transport services; imports were declining steadily from 2.14% of GDP in 1994 to 1.08% of GDP in 1998, while in the meantime exports remained fairly constant.

The balance in other services was negative except for 1996, when it had a tiny surplus. This was the result of the constantly improving other services balance from 1993 onwards, due to a rapidly decreasing share of other services imports in total services imports, while the exports of other services increased from 1994 to 1996. Other services imports accounted for 5.6% of GDP in 1994 and fell to 4.5% of GDP in 1996; during the same period other services exports rose from 4.2% to 4.8% of GDP, and the result was a small surplus of 0.3% of GDP. After 1996 the situation reversed; imports were increasing, exports decreasing. This resulted in a deficit of 1.3% of GDP in 1998.

Table 3-4

Czech Republic: Net services trade in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	-1.50	-3.53	-7.08	-10.15	-8.66	-4.65
Services	2.94	1.21	3.54	3.31	3.29	3.37
Transport	1.47	0.98	1.27	1.09	1.30	1.31
Sea Transport	0.05	-0.02	-0.05	-0.02	-0.01	0.00
Air Transport	0.04	0.10	0.09	0.12	0.10	0.00
Other Transport	1.39	0.89	1.24	1.00	1.21	1.31
Travel	3.00	1.61	2.39	1.93	2.39	3.34
Personal Travel	3.00	1.61	2.39	1.93	2.39	3.34
Other Services	-1.53	-1.38	-0.12	0.28	-0.39	-1.28
Communication Services	0.20	0.14	0.07	0.02	0.01	-0.14
Construction Services	-0.24	-0.20	-0.16	0.41	0.03	-0.03
Insurance Services	-0.10	-0.15	-0.19	-0.09	-0.08	-0.15
Financial Services	-0.11	-0.07	-0.17	-0.08	-0.01	-0.10
Computer and Info Services	.	.	-0.01	0.01	0.00	-0.01
Royalties & License Fees	-0.05	-0.06	-0.08	-0.10	-0.08	-0.10
Other Business Services	-1.32	-1.16	0.39	0.05	-0.11	-0.94
Personal; Cultural and Recr. S.	.	.	-0.10	-0.02	-0.18	0.03
Government Services, nie	0.10	0.12	0.13	0.07	0.03	0.15

Source: IMF, BoP

Other services are also the main import services; they account for about half of all imported services, whereas their export share is only one third (of all services exports).

As far as the individual components of other services are concerned, each component does not have much influence on the overall balance on services, simply because the trading volume is very small in these services categories. The exception to this might be 'other business services', which recorded a deficit bigger than 1% of GDP in 1993 and 1994.¹³

3.2.3 Hungary

Also the Hungarian balance on services shows a surplus over the whole period (except for 1989), yet this surplus does not seem to be as stable as that in the Czech Republic. In 1992 the Hungarian services balance had a plus of 2% of GDP, in 1994 it was nearly balanced, and in 1996 it had again a surplus of more than 3% of GDP. The main factor for these movements were other services, losing more than 1% of GDP during 1992 to 1994 and gaining 0.8% from 1994 to 1996.

The upward movement of the overall services balance from 1994 to 1996 was strengthened by a steadily improving travel balance, and by the turnaround in transport services, which had been negative until 1994, but had only positive signs thereafter.

The structure of the Hungarian services exports and imports is quite different from those of the other countries observed. First, trade in transport services plays but a minor role in the Hungarian services trade and, second, trade in other services is the most important part of the Hungarian services trade structure.

Transport services exports in Hungary had only a share of 1.5% (on average) of total services exports until 1994, but jumped to a share of 10% in 1995, and stayed there (on average) until 1998. Imports of transport services were not significant either. In the period 1990 to 1994 they had an average share of 6.5%, and from 1995 to 1998 of 10% of total services imports.

Exports of other services accounted for about 64% of total services exports in 1990; thereafter their share declined, but still reached about 47% in 1996. In terms of GDP their share remained rather constant – from 1990 to 1996 Hungary exported other services worth (an average) 4.8% of GDP – so the declining part in total services exports is due to

¹³ 'Other business services' is just the sum of many other business services which are left out here for simplicity. It comprises e.g. operational leasing services, legal, accounting consulting services, R&D services etc. which on their own have no significant influence on the overall balance on services.

growing exports of the other two components (in terms of GDP). From 1990 to 1996 Hungary managed to increase exports of transport services from close to zero to 1% of GDP, and of travel services from 3% to 5% of GDP.

In 1997 and 1998 the share of other services exports decreased dramatically in terms of their share in total services exports (from 47% to 36%) as well as in terms of GDP (from 5.1% to 3.8%). Some components of other services did not follow the trend however. Among them were construction services, increasing their share from 0.6% to 1.2% of total services exports. Others were financial services (from 4% to 6%) and also royalties and licence fees, which doubled their share from 1% to 2% (they doubled their share in terms of GDP as well). The main reason for the decline lies in other business services, which fell from 38.6% to 21.8% in terms of total services exports, and from 4.2% to 2.3% in terms of GDP.¹⁴

On the import side other services are by far the most important component of total services trade and capture 57% or more (up to 70%!) of total imports throughout 1989 to 1998. The main services purchased abroad are financial services, royalties and licence fees and other business services.

Travel is the major traded service, in the sense that it yields the highest surplus of all three main components (transport, travel, other services), making it the main factor of influence on the overall balance on services.

From 1990 to 1995 the surplus in the travel balance was rather small (around 1.3% of GDP), but it grew considerably thereafter, reaching a high in 1997 with 3.1% of GDP.

Travel became also the most important exported service, catching a share of over 50% of total services exports in 1997 and 1998. As an imported service travel is not that important, in terms of per cent of GDP and of total services imports; this shows that Hungary has some competitive advantage in this respect, which it also uses, and also proves the common sense knowledge of Hungary as a tourism country. This is also confirmed by a disaggregate look at the travel balance, showing a huge surplus in personal travel (over 3% on average for 1996 to 1998) and a small deficit in business travel.

¹⁴ No breakdown of 'other business services' is available for Hungary, so we cannot attribute the decline to a specific component.

Table 3-5

Hungary: Net services trade in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Goods	3.58	1.62	1.07	-0.03	-10.43	-8.95	-5.45	-5.87	-3.79	-4.47
Services	-1.26	1.47	1.60	2.05	0.56	0.38	1.44	3.31	2.58	1.43
Transport	-1.20	-0.48	-0.24	-0.28	-0.25	-0.38	0.17	0.22	0.17	0.41
Transport Passenger	0.02	0.04	0.02	0.05
Transport Freight	-1.20	-0.48	-0.24	-0.28	-0.25	-0.38	0.57	0.16	0.00	0.16
Transport Other	-0.42	0.02	0.14	0.21
Travel	-0.55	1.21	1.61	1.57	1.15	1.20	1.46	2.85	3.13	2.74
Business Travel	-0.37	-0.38	-0.32	-0.37
Personal Travel	1.83	3.23	3.45	3.10
Other Services	0.49	0.73	0.23	0.76	-0.34	-0.44	-0.19	0.24	-0.72	-1.72
Communication Services	0.03	0.04	0.02	0.02
Construction Services	-0.03	-0.09	-0.01	-0.03
Insurance Services	-0.13	-0.05	-0.03	-0.03	-0.03	-0.04	0.07	-0.06	-0.13	-0.12
Financial Services	-0.12	0.04	0.08	-0.22
Computer and Info Services	0.00	-0.08
Royalties & License Fees	.	0.04	-0.06	0.02	-0.02	-0.10	-0.09	-0.19	-0.20	-0.35
Other Business Services	.	0.53	0.13	0.56	-0.25	-0.26	-0.03	0.50	-0.50	-0.98
Personal; Cultural and Recr. S.	0.05	0.09
Government Services, nie	-0.10	0.22	0.19	0.21	-0.05	-0.03	-0.03	0.00	-0.03	-0.04

Source: IMF, BoP.

3.2.4 Poland

The description of the Polish balance on services is split into two periods (1989-1993 and 1994-1997), because there is a significant change in the availability of data at the beginning of the second period. Thus it is possible to give a detailed picture of the second period, whereas for the first period only the main points can be highlighted.

In the period 1989-1993 Poland had a surplus in trade in transport services as well as in trade in other services (with the exception of 1993) and an almost balanced situation in trade in travel services. In the first three years of this period Poland concentrated on trade in transport services, which had a share of over 50% in total services trade (exports and imports, too) in 1989 to 1991. In 1992 and 1993 other services became more important and gained a share of about 50% of total services exports and 60% of total services imports.

The second period, 1994-1997, is marked by a tremendous increase in travel services exports, which jumped from a zero balance in 1993 to a plus of over 2% of GDP in 1994.

Since travel imports remained at their former level (0.3% of GDP) this resulted in a surplus of the travel balance of about 2% of GDP. Just as Hungary, Poland also has a positive personal travel balance and a negative business travel balance.

The rise in travel exports is also documented in the structure of the Polish services trade, where travel exports took a share of about 30% (average 1994-1997) in total services exports – previously it had been at 3% only.

Table 3-6

Poland: Net services trade in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Goods	0.06	6.09	-0.93	-0.16	-4.08	-0.62	-1.30	-5.10	-6.87
Services	0.18	0.60	0.91	0.86	0.66	3.07	2.80	2.38	2.22
Transport	0.17	0.58	0.58	0.64	0.83	1.16	1.01	0.74	1.06
Transport Passenger	0.15	0.27	0.14	0.10	0.19	0.19	-0.04	0.14	0.19
Transport Freight	1.00	1.51	1.13	1.31	1.19	1.47	1.27	0.82	0.98
Transport Other	-0.98	-1.20	-0.68	-0.77	-0.55	-0.50	-0.22	-0.22	-0.10
<i>Sea Transport</i>	0.54	0.66	0.42	0.48
<i>Air Transport</i>	0.14	-0.05	0.06	0.10
<i>Rail Transport</i>	0.25	0.21	0.23
<i>Road Transport</i>	0.07	0.00	0.20
<i>Inland Water Transport</i>	0.00	0.00	0.00
<i>Pipeline Transport</i>	0.07	0.06	0.06
Travel	-0.02	-0.11	0.01	0.06	-0.05	2.17	1.50	1.80	1.19
Business Travel	-0.21	-0.23	-0.24	-0.22
Personal Travel	2.37	1.73	2.04	1.42
Other Services	0.03	0.13	0.32	0.16	-0.12	-0.26	0.29	-0.16	-0.04
Communication Services	0.05	0.08	0.08	0.11
Construction Services	0.23	0.59	0.30	0.23
Insurance Services	0.11	0.17	0.13	0.15	0.13	-0.09	0.01	-0.13	-0.02
Financial Services	-0.06	-0.07	0.00	-0.05
Computer and Info Services	-0.04	-0.04	-0.07	-0.05
Royalties & License Fees	-0.02	-0.03	-0.08	-0.10
Other Business Services	-0.08	-0.04	0.19	0.02	-0.25	-0.26	-0.18	-0.20	-0.07
Personal; Cultural and Recr. S.	0.00	0.00	0.00	-0.01
Government Services, nie	-0.07	-0.07	-0.05	-0.08

Source: IMF, BoP.

From the first period to the second, the surplus of transport services increased, although not very significantly, reaching about 1% of GDP. Within transport services, freight transport is the dominant service on the export side, covering some 70% of all transport services; on the import side it is other transport. Regarding the means of transport, sea transport takes more than half of the transport services exports in 1995; in 1996 and 1997

this share was declining because of the growing importance of export of rail and road transport. In imports, sea transport has also the biggest share (43% of transport services), but here too rail and road transport are rising.

Trade in other services is nearly balanced in terms of GDP, as Poland is a net exporter of communication and especially construction services, which compensate almost completely the loss of all other components of other services combined.

The trade structure of other services is characterized by high export and import shares of construction services (15% of total services exports on average, 16% of total services imports), insurance services (6% of exports, 10% of imports) and other business services (13% of exports, 24% of imports). A growing share of services imports is devoted to computer and information services and to royalties and licence fees.

3.2.5 Romania

Just as the situation of the Romanian overall current account balance is very bad, so is the situation of the services balance. Almost all categories of the services balance show deficits from 1994 to 1998. Furthermore, the travel services balance and the other business services balance have a constantly increasing deficit. The result of this is of course that the overall services balance is negative, and its deficit is increasing too.

However, a positive highlight is to be found in transport services: air transport services were incurring a surplus until 1997, and perhaps one of the main driving forces behind the fact that the transport services balance was positive for the only time in 1997.

Even the travel services balance has a deficit: this is surprising, on the one hand, as Romania is endowed with natural resources attractive for tourism, but on the other hand Romania's tourism infrastructure might be in such a bad shape that it is impossible to exploit the comparative advantages in travel services.

Less astonishing is the deficit in other services, because in these services transition countries are supposed to have severe disadvantages. Only in communication services and construction services does there exist a positive services trade balance for Romania, but the surpluses are by far too tiny to compensate for the big losses, especially in other business services.

Table 3-7

Romania: Net services trade in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	-4.28	-1.37	-4.45	-6.99	-5.67	-6.88
Services	-0.44	-0.57	-0.92	-1.09	-1.18	-1.71
Transport	-0.19	-0.07	-0.37	-0.34	0.07	-0.34
Sea Transport	.	-0.05	-0.31	-0.51	-0.22	-0.17
Air Transport	.	0.37	0.31	0.56	0.21	-0.01
Other Transport	.	-0.39	-0.39	-0.42	-0.05	-0.20
Travel	.	-0.12	-0.30	-0.38	-0.44	-0.52
Other services	-0.25	-0.38	-0.24	-0.37	-0.81	-0.86
Communication Services	.	0.11	0.11	0.13	0.18	0.14
Construction Services	.	0.08	0.33	0.10	0.04	0.05
Insurance Services	-0.02	-0.01	0.02	-0.02	-0.02	-0.04
Financial Services	.	0.02	-0.06	-0.02	-0.04	-0.03
Computer and Info Services	.	-0.01	0.00	0.00	-0.02	-0.03
Royalties & License Fees	.	0.00	-0.01	0.25	-0.08	-0.05
Other Business Services	-0.24	-0.53	-0.66	-0.81	-0.82	-0.86
Personal; Cultural and Recr. S.	.	0.05	0.05	0.05	0.01	0.02
Government Services, nie	.	-0.09	0.00	-0.04	-0.04	-0.02

Source: IMF, BoP.

3.2.6 Russia

In Russia the overall services balance deficit was fairly high in 1994 and 1995, accounting for a minus of at least 2.4% of GDP. The size of this deficit largely depends on the size of the deficit in travel services. The balance in transport and the balance of other services remained almost stable from 1994 to 1998.

In 1994 and 1995 travel services showed a deficit of 1.7% and 2.2%, respectively, of GDP, improving significantly to a minus of 'only' 0.8% of GDP in 1996. One reason for this was probably the strong devaluation of the rouble of 1995 and 1996 that boosted travel exports, which in this period grew much faster than travel imports. From 1996 the travel balance was at an almost stable deficit of 0.7-0.8% of GDP.

Transport services recorded a rather solid if low surplus from 1994 to 1998; it might be that Russia still profits from its pre-transition transport networks with Russia at their core, which seem especially important in air transport services.

In other services, Russia's deficit declined moderately from 1% of GDP in 1994 to 0.6% in 1997, remaining stable in 1998. The improvement in this balance stems mainly from the improvement in construction services. As the other transition countries, Russia has a deficit

in financial and other business services for the reasons noted above. Only in communication services and in royalties and licence fees does Russia achieve a positive result; the surplus of the latter service may be due to the past acquisition of know-how, giving Russia advantages especially in trading with the CEECs and CIS.

Table 3-8

Russia: Net services trade in per cent of GDP

	1994	1995	1996	1997	1998
Goods	6.45	6.15	5.51	4.00	6.28
Services	-2.41	-2.82	-1.36	-1.08	-1.14
Transport	0.31	0.14	0.22	0.17	0.23
Sea Transport	0.17	0.07	0.15	0.05	0.06
Air Transport	0.10	0.02	0.06	0.08	0.09
Other Transport	0.05	0.05	0.01	0.04	0.08
Travel	-1.69	-2.15	-0.81	-0.68	-0.78
Other Services	-1.03	-0.81	-0.77	-0.57	-0.58
Communication Services	0.04	0.05	0.05	0.06	0.07
Construction Services	-0.63	-0.46	-0.24	-0.16	-0.14
Financial Services	0.01	0.00	0.00	-0.06	-0.05
Royalties and Licence Fees	-0.01	0.00	0.03	0.04	0.01
Other Business Services	-0.45	-0.40	-0.61	-0.45	-0.47

Source: IMF, BoP.

3.2.7 Slovak Republic

From 1993 to 1995 the Slovak services balance had a very solid surplus, with a high in 1994 when it reached almost 5% of GDP. In 1996 the services balance, just as the balance on goods, deteriorated significantly: it slumped from a plus of 3% to just 0.2% and remained there until 1998.

The components of the services balance were affected differently by this crisis.

Transport services managed to keep their surplus at a level similar to that before 1996 (on average); although the 1996 surplus was a half per cent of GDP lower in 1995, it recovered in 1997 to 2% of GDP.

The structure of transport services (similar to Poland) is dominated by freight transport in imports and exports, and by other transport means (i.e. rail and road transport) as concerns the means of transport.

Until 1996 the travel services balance had a surplus higher than 1% of GDP, in 1994 it even reached 2%; but after 1996 it declined steadily and showed a surplus of merely 0.06% of GDP in 1998. Travel services exports are made up exclusively of personal travel (business travel plays no role at all), whereas in travel services imports business travel has a share of about 31%.

The deficit of the other services balance was very low until 1995 (0.3% of GDP on average), but soared up to 2% of GDP in 1996 and even worsened in 1997; only in 1998 there was a slight relaxation, but with 1.5% of GDP it still was high compared to the period of 1993 to 1995.

In 1996 other services exports fell from a previous 6.5% of GDP to 4% while imports dropped by 0.8% only, thus negatively affecting the other services balance.

The decline in exports was mainly due to a decrease in communication services exports, falling from 1.5% of GDP to 0.1%, and a decline in other business services from 3.6% to 2.5%.

Remarkably, Slovakia had a surplus in construction and financial services in 1993 and 1995, but both diminished after 1996 – not because of an export decline, but because imports in those categories rose and offset the export surplus.

The export structure of other services is mainly determined by other business services, which cover by far the largest part of other services exports (about 60% on average); of minor importance are construction and financial services.

The import structure is also dominated by other business services; some 60% (on average) of other services imports consist of other business services.

The structure of the services import balance is marked by a dominant role of other services exports until 1995, which capture (on average) more than 50% of total services exports. In the same period transport and travel account for about one quarter of services exports.

In 1996 and thereafter other services were still the most important export services, though their share fell to some 41% (on average). Instead, transport and travel became more important: transport now accounts for nearly one third and travel for more than one quarter of total services exports.

Other services are even more important in services imports. In 1993-1998 an average 64% of all services imports going to Slovakia were other services imports. Travel, accounting for about 20%, had a slightly bigger share than transport in services imports.

Table 3-9

Slovakia: Net services trade in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	-7.61	0.44	-1.32	-12.15	-10.72	-11.54
Services	2.27	4.81	3.11	0.20	0.38	0.08
Transport	1.43	2.75	1.78	1.32	2.04	1.58
Transport Passenger	.	-0.03	-0.06	-0.14	-0.18	-0.23
Transport Freight	.	2.77	1.88	1.49	2.23	1.78
Transport Other	.	0.01	-0.04	-0.02	-0.01	0.03
<i>Sea Transport</i>	.	-0.03	-0.07	-0.08	-0.03	-0.04
<i>Air Transport</i>	.	-0.06	-0.08	-0.12	-0.13	-0.17
<i>Other Transport</i>	.	2.82	1.97	1.55	2.21	1.77
Travel	1.38	2.08	1.74	1.02	0.55	0.06
Business Travel
Personal Travel	.	2.72	2.73	1.81	1.26	0.60
Other Services	-0.54	-0.01	-0.40	-2.14	-2.21	-1.57
Communication Services	.	-0.22	-0.08	0.01	0.01	0.01
Construction Services	.	0.36	0.45	0.08	0.16	-0.09
Insurance Services	.	-0.12	-0.12	-0.21	-0.13	-0.05
Financial Services	.	0.19	0.29	-0.16	0.01	-0.05
Computer and Info Services	.	.	.	-0.04	-0.08	-0.19
Royalties & License Fees	.	-0.41	-0.39	-0.34	-0.35	-0.20
Other Business Services	-0.54	0.27	-0.33	-1.26	-1.73	-1.07
Personal; Cultural and Recr. S.	.	.	.	-0.07	-0.01	0.01
Government Services, nie	.	-0.08	-0.21	-0.13	-0.08	0.07

Source: IMF, BoP

3.2.8 Slovenia

The Slovenian balance on services had a rather constant surplus from 1992 to 1998, with an average of more than 3% of GDP over the observed period. In a number of years (from 1992) it was the main reason why the Slovenian current account balance was either positive or had a negligibly low deficit.

The driving force behind the services balance surplus is Slovenia's advantage in travel services, resulting in a surplus of 3.3% of GDP (on average) of the travel balance. Transport services also contribute to the positive result of the services balance, though their share is small compared to travel.

With the exception of the years 1994 and 1995, other services – with a deficit of 0.3% to 0.8% of GDP – had a negative influence on the overall result.

The structure of the services exports is characterized by the dominance of travel services, which represent more than half of all Slovenian services exports. Transport exports have a share of about 25% in services exports and other services take 20%. The import structure is more evenly distributed: on average, each component contributes with approximately one third to services imports; however, the high share of transport imports in 1992-1994 declined thereafter and was only at about 25% in 1998. The loss in transport services has been compensated by a rise in both travel and other services; both had a share of about 37% in total services exports in 1997-1998.

In transport services Slovenia exports and imports mainly rail and road transport services (i.e. other transport), with a share of about 75% on average in total transport exports and over 80% on average in transport imports.

Table 3-10

Slovenia: Net services trade in per cent of GDP

	1992	1993	1994	1995	1996	1997	1998
Goods	6.30	-1.22	-2.35	-5.09	-4.67	-4.24	-3.97
Services	1.45	2.96	4.70	3.37	3.73	3.24	2.63
Transport	-1.31	0.44	0.47	0.37	0.40	0.55	0.68
Sea Transport	.	0.37	0.19	0.20	0.21	0.22	0.22
Air Transport	.	0.14	0.13	0.07	0.02	0.03	0.01
Other Transport	.	-0.06	0.16	0.10	0.17	0.30	0.19
Travel	3.11	3.38	3.74	2.98	3.64	3.53	2.78
Business Travel
Personal Travel	3.47	3.86	4.15	3.31	3.98	3.86	3.08
Other Services	-0.35	-0.87	0.49	0.02	-0.31	-0.84	-0.82
Communication Services	.	0.03	0.05	0.01	-0.01	-0.02	-0.02
Construction Services	.	.	0.85	0.60	0.31	0.14	0.15
Insurance Services	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00
Financial Services	-0.08	-0.06	-0.04	-0.04	-0.05	-0.06	-0.07
Computer and Info Services	-0.07	-0.10	-0.10	-0.08	-0.01	-0.10	0.01
Royalties & License Fees	-0.01	-0.07	-0.09	-0.10	-0.11	-0.26	-0.16
Other Business Services	-0.06	-0.56	-0.03	-0.26	-0.35	-0.43	-0.56
Personal; Cultural and Recr. S.	-0.09	-0.04	-0.05	-0.07	-0.07	-0.09	-0.10
Government Services, nie	.	-0.05	-0.10	-0.02	-0.02	-0.02	-0.06

Source: IMF, BoP

In travel services Slovenia only exports personal travel services (vacations etc.) and no business travel services; however, it might be that this impression appears just due to statistical problems. Slovenia exports travel services worth 6% (on average) of GDP and import services worth 2.7% (on average). Imports can be split up into business and personal travel, but business travel is of no significance.

Slovenia exports other services in a value of 2% of GDP (on average); half of those exports are other business services. Relatively important are also exports of computer and information services, which are constantly growing, and construction services.

Other services imports amount to about 2.5% of GDP; the main imported services are again other business services.

3.3 Summary

Trade theory basically provides two streams of explanations for foreign trade.

According to the first ('old') theory, trade between two countries occurs if there exist differences in factor endowments between those countries, giving one country a comparative advantage in the production of those goods and services that make intensive use of the factors with which this country is relatively well endowed. Hence this country can produce these goods and services relatively more cheaply than the other country and will therefore tend to export these goods to the other country (if trade barriers are sufficiently low).

The drawback of this theory is that it explains trade only when there are differences in endowments, and not the trade between two equally endowed countries (North-North trade); this deficiency is the starting point of the second ('new') trade theory.

This theory explains advantages in the production of goods and services through the existence of economies of scale and economies of scope, which in the first case occur, when firms can expand their production (e.g. through a free trade agreement) and experience thereby falling average costs of production; economies of scope can be exploited if there is a cost advantage of producing different goods or services at the same location. Both types contain a comparative cost advantage, thus an incentive to trade, which works well between two equally endowed countries.

Following these theories we expected the CEECs to have comparative advantages in (low-skilled) labour-intensive and, in some cases, natural-endowment-intensive goods and services, since they are relatively better endowed with these factors than their main trading partners, mostly western European countries. On the other hand, we assumed the CEECs to have disadvantages in the more know-how- and capital-intensive producer services, since these services had not been developed (to western standards) in the CEECs before 1989.

The expectation that the CEECs have – compared to their main trading partners – a comparative advantage in labour- and natural-endowment-intensive services were at least

confirmed by the positive trade balances on transport and travel services for the CEEC-5. Bulgaria, Romania and Russia show some diverging results: this may be explained, first, by the fact that their main trading partners are not only EU countries but also other CEECs and other CIS countries, which leads to a different distribution of comparative advantages and thus to services balance results that are different from those we expected. Second, it may also be the case that – especially in tourism – not enough capacities have been built up in these areas, so that these countries are not able to exploit their potential comparative advantage.

The constant deficits that the CEECs generally have in trading other services underpin our assumption that these countries have severe disadvantages in mostly producer-oriented services, which build on a good capital and high-skilled labour endowment and on the knowledge and experience in exploiting economies of scope and economies of scale in each service. The expected gap of competitiveness in producer services of the CEECs that opened up after the breakdown of the iron curtain and the change of the economic regime, seems to become smaller in some cases; deficits in these areas reflect the fact that modernization implies the import of the required producer services.

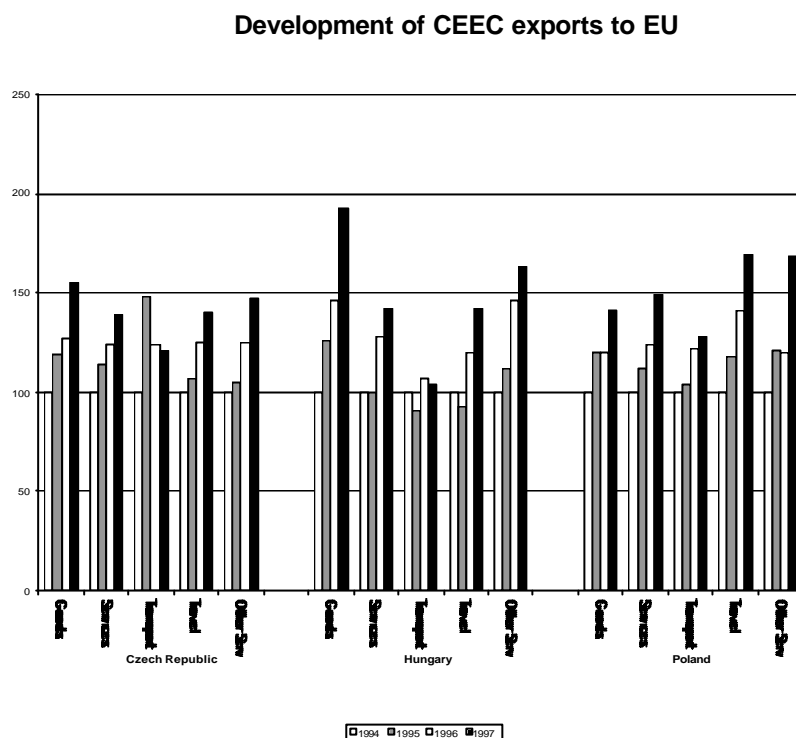
4 CEEC–EU services trade structure

Along with the progressing transformation of the CEECs towards western standards, their participation in international trade in general, but also in international trade in services is rising. This is especially true for the trade with the European Union. From 1994 to 1997 CEEC exports and imports to and from the EU were rising quickly, with trade in goods mostly growing at a faster pace than trade in services. An exception to this are the imports of other services to the Czech Republic and Hungary, which were in fact declining, indicating an advanced stage of the catching-up process in these service fields; this is also supported by the fact that the exports of other services rose fastest among services exports in those countries from 1994 to 1997 (see Figures 4-1 and 4-2).

Growth rates tell only half of the story: of importance is also the level from which growth is starting. Hence we investigate in this chapter the level of the CEECs' services trade with the EU, analysing in depth the net trade position, the trade structure and the competitiveness of the CEECs in services trade with the EU.

Eurostat, the statistical office of the European Union, which published a geographical breakdown of the EU current account, supplied data on CEEC-EU trade. In compiling the data from different national institutions Eurostat faced severe problems due to disharmonies in the supplied data. Although each European country should work, at least in principle, according to the same methodology, national offices differ in capabilities (resources) and opinions in recording and analysing the data.

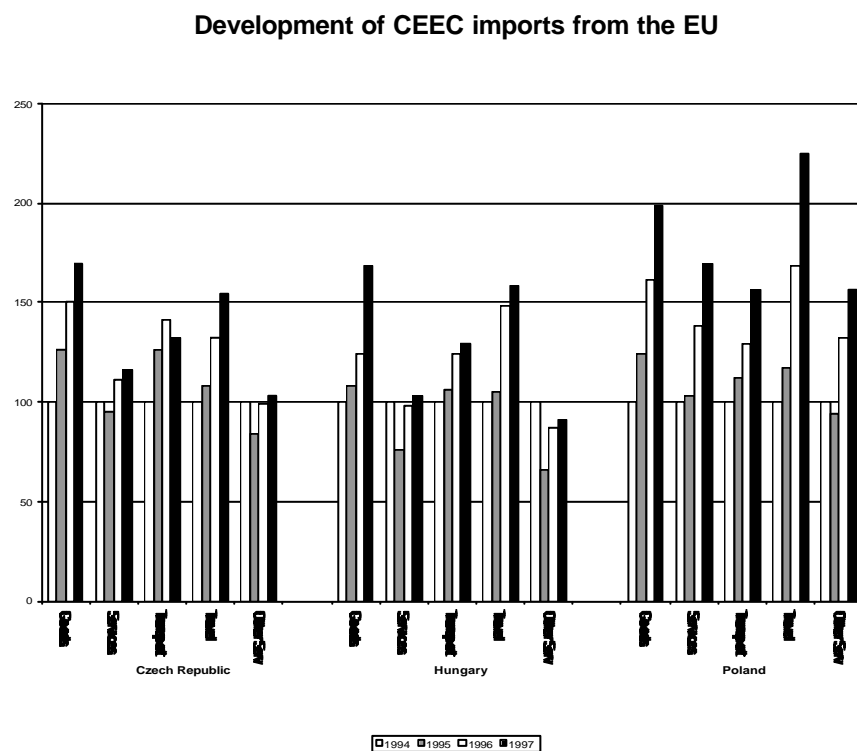
Figure 4-1



in current ECU prices, 1994 = 100

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997.

Figure 4-2



in current ECU prices, 1994 = 100

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997.

In order to get harmonized data for the current account, Eurostat estimated or transformed in one way or another some of the incoming data. This method, however, creates room for errors and inconsistencies, which we unfortunately encountered when working with these data. Any Eurostat data presented here should be seen in the light of these qualifications, and therefore be treated with some caution; where obvious errors occurred, we usually made small notes.

Eurostat provides in its recent publication¹⁵ for the EU and its member countries bilateral services trade data for the Czech Republic, Hungary and Poland, which we used in analysing services trade flows between these countries and the EU (in chapter 4) and Austria (in chapter 5). The first table in each of the sub-chapters shows the net-trade flows between the three CEE countries and the EU and Austria, respectively, which throws light on the real trade developments that took place. The second table presents the share in exports and imports each service category has, measured as a percentage of total services exports or imports. The heading 'credit' on top of the tables refers to exports from the CEE countries to the EU and Austria, respectively; 'debit' refers to imports from the EU and Austria.

For the third table we have calculated an index indicating for which services one country has an advantage in trading with another country.

The concept of the index: We took the net trade result of one service at a time and divided it by the total trade volume of this particular service (exports plus the absolute value of imports). Written as a formula it looks like this:

$$a_i = \frac{X_i - M_i}{X_i + M_i}; i = 1 \text{ to } n;$$

where a is the index, the subscript i relates to i^{th} service sector, n is the total amount of services, X are exports and M are imports.

The index can take values between +1 and -1; a value of +1 is only possible if a country exports the specific service but does not import any of this service, and *vice versa* for a value of -1. If a country has a high index value in a certain service, it is said to have revealed itself as having a comparative advantage in trading this service if the index is positive, or as having a comparative disadvantage if the index is negative. Therefore the index is also called revealed comparative advantage index. The (dis-) advantage is the bigger the closer the index approaches (-)1.

¹⁵ *Geographical breakdown of the EU current account*, Luxembourg, 1999.

4.1 Czech Republic

The net services trade flows from between the EU and the Czech Republic in 1994-1997 are to be found in Table 4-1; the shown figures are net exports from the EU to the Czech Republic in million ECUs.

A characteristic point of the EU–Czech services trade is that the overall services trade balance, compared to the balance in goods, is insignificantly low in absolute value. Unlike the goods balance it is at least positive from 1995 to 1997, which means that the Czech Republic was a net exporter of services in that period. This fact is even more interesting since the Czech Republic was a net importer of services in 1994, but managed to turn its services balance by 180° degrees and moved from a deficit of ECU 154 million in 1994 to a surplus of over ECU 126 million in 1995.

Looking at Table 4-1, one service group can be identified as being responsible for this development, namely other business services. The Czech deficit in other business services more than halved from 1994 to 1995, plunging from minus ECU 456 million to 'only' ECU 190 million. The improvement in that period was strengthened by an increase in net exports of transport services, especially sea and other transport services, and by a decline of net imports of computer and information services. The negative development of construction and communication services somewhat dampened the overall improvement in 1995. In 1996 net exports were much lower than in 1995, due to a worsening in transport services – in particular air transport services imports rose by as much as ECU 45 million; also, the deficit in other services was about ECU 53 million higher than the year before.¹⁶ In 1997 Czech net services exports reached ECU 150 million, made possible by a growing surplus in travel services (+ ECU 28 million against 1996) and a lower deficit in other business services (+ ECU 41 million against 1996).

The backbone of Czech services trade with the EU is travel services, of which the Czech Republic is a net exporter, and which yield the highest surplus. The positive balance in travel services does more than outweigh the deficit in other services trade in 1995, it is also bigger than the deficits of other services and transport services combined in 1996 and 1997, and it is therefore the reason why the overall services trade balance is positive at all. Travel services have such a strong position within the Czech services trade because the comparative advantages in travel services are mainly based on natural (and historical) endowments, which are more or less independent of a country's stage of development. Hence it is possible for countries otherwise not at a western standard, to exploit their comparative advantages in this respect, which might also be strengthened by a price

¹⁶ The figure for insurance services in 1996 is probably too high. As a consequence the figure for other services is too high as well, because of difficulties in data collecting. This problem lies however on the side of Eurostat.

advantage versus western countries due to low labour costs, as is the case in the Czech Republic.

Table 4-1

Net services trade flows, Czech Republic – EU, ECU million

	1994	1995	1996	1997
GOODS	-1834.7	-2882.4	-4481.9	-4194.4
SERVICES	-153.6	126.5	15.7	149.7
Transport	8.1	73.2	-37.3	-21.5
Sea transport	-2.0	40.5	-11.9	-2.0
Air transport	6.7	-2.7	-48.0	-27.6
Other transport	2.4	36.2	23.5	7.9
Travel	334.2	351.5	399.0	427.2
Other services	-481.7	-289.0	-341.7	-260.4
Communications services	14.8	4.9	2.4	0.3
Construction services	-7.6	-44.4	-31.8	-9.7
Insurance services	-22.1	-23.1	-53.0	-12.0
Financial services	-11.2	-12.6	-15.4	-7.8
Computer and information services	-30.6	-17.6	-18.7	-34.0
Royalties and licence fees	-10.3	-6.8	-11.4	-39.9
Other business services	-455.7	-190.0	-219.6	-179.3
Personal, cultural and recreational	-6.8	5.0	9.6	17.7
Government services, n i e	42.8	-4.4	-3.9	4.5
Services not allocated	-15.2	-9.1	-4.3	3.5

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997.

Looking at the individual items of the services balance, apart from travel services, the Czech Republic is a net importer of most of them; the exceptions are transport services in 1994 and 1995, and communication services and personal, cultural services since 1996.

Clearly, this is the picture that was to be expected, having in mind some fundamentals of trade theory. As an ex-communist transition country, the Czech Republic (as well as all other transition countries) faces serious (comparative) disadvantages especially in producer services, not only because of lacking technology, underdeveloped human skills, experience etc. in producer services, but also for another reason: after the breakdown of the iron curtain, trade had to be reoriented from Russia et al. towards western countries, making the traditional trade networks, habits, contacts etc. more or less useless and aggravating the poor competitive position.

Air transport services – though they are not necessarily a producer service – are a good example in this respect; while they showed a surplus in 1994, the balance deteriorated rapidly, resulting in a relatively large deficit in 1996 and 1997. This might well have been

caused by an only poorly developed, western-markets-oriented flight network, putting the Czech airline in an unfavourable position: unlike western airlines, it had not the possibility e.g. to establish local sales offices abroad, or a referral system with hotels etc., or to become member of a world-wide airline consortium. This made it hard to exploit economies of scale and economies of scope, which is necessary in air transport services. Moreover, since air transport (as any other transport service) is very capital-intensive, the Czech air transport services are in an even worse situation as their capital (mostly aircraft) is outdated and thus not very competitive *per se*.

A general look at, and interpretation of, the developments in other services confirm the view that the Czech Republic has deficits in the individual parts of other services; as mentioned above, it can be assumed that these deficits are due to a gap in experience, know-how, capital, networking capabilities etc. to western countries, which makes the Czech suppliers of producer services incapable of providing their services at the demanded western standards, thus resulting in an excess demand for foreign services from the EU.

However, there are signs that the Czech Republic is on the way to modernize, indicated by the improving balances of construction services, insurance services (1996 to 1997) and financial services. These services branches are slowly converging to the standards required, either by restructuring and acquiring experience on their own, or with the help of foreign partners through FDI or other forms of co-operation (especially in insurance and financial services), thereby probably giving a boost to their reputation as well which is quite essential in most of the services.

A scent of modernizing lies also in the deteriorating balances of computer and information services, and of royalties and licence fees, which are human-skill- and R&D-intensive. The growing deficits in these service sectors show that there is increased demand for these services, which the Czech services are not able to satisfy. Especially in computer and information services this has a lot to do with using the advantages of (positive) network externalities and scale economies. Since in the Czech Republic computers were and are not as common as in western countries, there was in the past just a limited market for computer services firms to develop. Thus western (EU) firms have a clear advantage, as they already underwent a learning process that is still ahead of the Czech firms. But with the growing number of computer users, and the advancing knowledge, in the Czech Republic, there will be either less demand for computer and information services from abroad, or more exports of these services, so that the trend in this balance should reverse in the near future.

The negative development in royalties and licence fees could be explained – from a Schumpeterian point of view – with the argument that the Czech Republic does not have

enough adequately sized firms that can perform R&D on a sufficiently large scale. It can also be explained by the lack of human skills, thus taking a human capital approach. Yet another explanation, using the trade model of Helpman and Krugman (see above), argues that foreign MNEs invest in assembly plants in the Czech Republic to make use of the wage differentials, but perform their R&D in their home countries and 'export' it to their plants abroad.

The services trade structure of Czech–EU trade is built as follows:

Czech exports to the EU are dominated by travel services, with a share of more than 40% in total exports. Other services have an increasing share in total service exports since 1995 (from 34.5% to 39.7%), indicating that the Czech Republic begins to rely more on the skill-intensive services than on the capital-intensive transport services; the share of the latter declined in same period (from 25% to 17%).

Table 4-2

Trade structure: Czech Republic – EU¹

	Credit				Debit			
	1994	1995	1996	1997	1994	1995	1996	1997
SERVICES	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Transport	19.60	25.48	19.50	17.02	17.22	22.80	21.75	19.54
Sea transport	3.61	6.27	2.96	3.55	3.39	4.13	3.65	3.94
Air transport	7.39	6.71	6.62	5.16	6.26	7.44	9.35	7.06
Other transport	8.53	12.55	9.98	8.31	7.56	11.22	8.76	8.55
Travel	42.63	39.81	42.94	43.05	17.76	20.13	21.08	23.63
Other services	37.41	34.47	37.47	39.70	63.81	56.21	56.84	56.82
Communications services	1.66	2.44	1.96	2.09	0.59	2.32	1.85	2.24
Construction services	5.81	6.03	6.49	7.15	5.72	9.43	8.31	8.25
Insurance services	0.48	0.92	(-0.12)	1.11	1.81	2.51	2.83	1.84
Financial services	0.75	0.90	1.24	1.22	1.38	1.79	2.11	1.74
Computer and information services	1.80	0.88	1.07	1.04	3.53	2.10	2.12	2.95
Royalties and licence fees	0.91	1.62	2.11	2.12	1.46	2.20	2.76	4.43
Other business services	19.84	19.45	22.32	22.39	46.31	33.47	34.75	33.78
Personal, cultural and recreational	1.64	1.27	1.41	1.51	1.90	1.05	0.89	0.68
Government services, n i e	4.31	0.96	0.99	1.07	1.23	1.33	1.22	0.92
Services not allocated	0.36	0.21	0.09	0.23	1.27	0.83	0.33	0.06

1) Figures in brackets are obviously false and unreliable.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997; own calculations.

Other services are dominated by other business services representing more than half of all other services exports, and strongly influenced by construction services, which have a share of about one sixth in other services exports

The most important transport service exported is other transport. Its share of 10% (on average) in total services exports is approximately as big as the share of air and sea transport combined.

On the import side, other services are clearly the services purchased most abroad: almost 60% of all services imports are other services. Here again other business services take the largest share (over 50% of other services imports); construction services play an important role as well. Moreover royalties and licence fees become more and more significant as an imported service, as is documented in their rising share in total services imports (from 1.5% in 1994 to 4.4% in 1997). The share of transport services in imports is declining from 22.8% in 1995 to 19.5% in 1997, whereas the travel share is rising by approximately the same amount from 20.1% to 23.6% – which might be traced back to a rise in income in at least some social strata in the Czech Republic.

The results of the calculation of the specialization index (RCA) are presented in Table 4-3.

Table 4-3

Specialization index: Czech Republic – EU¹

	1994	1995	1996	1997
GOODS	-0.11	-0.14	-0.19	-0.15
SERVICES	-0.05	0.04	0.00	0.04
Transport	0.01	0.09	-0.05	-0.03
Sea transport	-0.02	0.24	-0.10	-0.01
Air transport	0.03	-0.01	-0.17	-0.12
Other transport	0.01	0.10	0.07	0.02
Travel	0.37	0.36	0.35	0.33
Other services	-0.31	-0.20	-0.20	-0.14
Communications services	0.44	0.06	0.03	0.00
Construction services	-0.04	-0.18	-0.12	-0.03
Insurance services	-0.61	-0.43	(-1.09)	-0.21
Financial services	-0.34	-0.30	-0.26	-0.14
Computer and information services	-0.37	-0.38	-0.32	-0.45
Royalties and licence fees	-0.28	-0.11	-0.13	-0.32
Other business services	-0.44	-0.23	-0.21	-0.17
Personal, cultural and recreational	-0.12	0.13	0.23	0.41
Government services, n i e	0.52	-0.12	-0.10	0.12
Services not allocated	-0.59	-0.56	-0.56	0.60

1) The index number for insurance services in 1996 is obviously false. This can be explained by difficulties experienced by Eurostat in calculating services trade data for the European Union.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997; own calculations.

As stated above, a value of 1 means that the Czech Republic (the EU) is completely specialized (vis-à-vis its trading partner) in producing a specific service. The closer the index approaches 1, the bigger the comparative advantage in producing this good. A value of zero states that there is no advantage for either country.

The results for Czech–EU trade tell us that overall the Czech Republic seems to have no significant disadvantage in producing services. This is shown by the index figures for (total) services which are close to zero.

In transport services, the Czech Republic had a small advantage in 1994 and 1995, but lost it in 1996 and continued to be negative in 1997. This development was primarily due to the growing EU advantage in air transport services. The possible reasons for this advantage were already mentioned above. Yet it should also be noted that the Czech air transport services improved their competitiveness from 1996 to 1997, indicating that the Czech airline begins to adapt to western standards.

It is no surprise that the Czech Republic has a rather big advantage in travel, shown by the results from the two tables above. This advantage is however declining steadily, which can be traced back to imports rising slightly faster than exports.

The disadvantage in other services is not as big as the advantage the Czech Republic has in travel; moreover it is steadily declining, indicating a growing competitiveness of the Czech producer services sector in general. This image gets blurred however if we take a closer look at the details.

It can be said that the Czech Republic is becoming – in one way or another – more competitive in five of the nine other services categories. In four of these five services (construction, insurance, financial and other business services) the disadvantage was continuously diminishing over the observed period, whereas in the fifth service, i.e. personal services, the Czech Republic already had a competitive advantage since 1995, and this advantage even increased. At least for the first four services the improvement in competitiveness is partly due to FDI or some other form of co-operation with western countries; another part of this improvement may be attributed to the advancing of a learning process in which the Czech services industries acquire know-how and experience, develop skills etc. Both, FDI and the learning process induce slowly but steadily western standards in these fields of services, thus making it possible for firms to gain in size and explore economies of scale and economies of scope, resulting in a more competitive stance versus western firms.

Taking government services out of consideration, three services remain, and in all these services the Czech Republic is losing competitiveness. In communication services there

had been a really big advantage in 1994, but it disappeared almost completely in 1995 – according to the data – and in 1996 and 1997 there seemed to exist no specific advantage on either the Czech side or the EU side. However, this picture might be totally misleading as in fact telecommunications is improving in the Czech Republic, thanks to big efforts made to modernize the communication system (rapidly increasing number of lines and optical cable lines).

Computer and information services and royalties and licence fees are the remaining two services. The competitiveness of the Czech Republic worsened in 1997 compared to 1994, and in both sectors it faced in 1997 the highest disadvantage over the observed period, which is a clear downward movement in these two service categories.

4.2 Hungary

The Hungarian services balance is – like the Czech balance – low compared to the balance in goods; it is however not as insignificant as the Czech balance, as it compensates approximately one fifth of the loss in trade in goods from 1995 to 1997 (compared to the 0.5% to 4% the Czech services balance covers).

In 1994 the Hungarian services balance was negative due to a very high deficit in other services, which in turn was caused by a high deficit in other business services.¹⁷ In 1995 this deficit was considerably lower than the year before – it moved from ECU 566 million to 'only' ECU 171 million; this was the main reason why Hungary had a surplus in the services balance, since the other service items did not change too much.

From 1995 and 1997 travel is the dominating service, its surplus is two to three times the deficit stemming from other services, leading to a significantly positive result in the overall services balance. It seems as though Hungary is even more capable than the Czech Republic of exploiting its competitive advantages (based on natural endowments) in tourism, because of the latter's even more important role and size; the strong growth in the travel balance, which happened despite a decline in arriving travellers, suggests also that the quality of travel (tourism) services is improving, or adapting to western standards, so that Hungarian travel services enterprises are able to charge higher prices.

Transport services have some positive influence on the overall balance, but their surplus is rather small and moreover declining from 1994 to 1997. There is a clear segmentation identifiable within transport services.

¹⁷ The figure for other business services seems to be overestimated in 1994; it does not fit into the observed trends in Table 4-4, nor into the trends indicated by IMF data for Hungary.

On the one hand, Hungary is a net exporter of sea transport services with a fairly constant surplus of about ECU 20 million, which might be mainly due to a comparative cost advantage (low labour and energy prices). Moreover, since Hungarian sea transport is based on the river Danube (especially in goods transport) and has a long tradition, starting long before the breakdown of the iron curtain, Hungary has experience in logistical management, and in exploiting economies of scope and co-ordination. This leaves the country in a fairly good competitive position. On the other hand, Hungary is – for similar reasons as the Czech Republic – a net importer of air transport services, although the deficit in this service is relatively low.

Net trade in other transport was negative in 1994, positive in 1995 and 1996 and turned negative again in 1997. This negative balance in other transport services trade (consisting mainly of rail and road transport) with the EU might continue. Especially in road transport the capital becomes more and more outdated (more than 70% of Hungarian trucks are older than six years). This might be at odds with EU regulations – especially environmental – and might imply the imposition of indirect trade barriers which would worsen the competitiveness of Hungarian transport firms.

At the aggregate level Hungary is a net importer of other services, which should be no longer a big surprise; the deficit is even larger if we subtract personal and government services from the other services balance and concentrate solely on producer services.

One may argue that Hungary still has some deficits in producing this kind of services because its producer services firms are not yet competitive vis-à-vis EU firms. From a more positive point of view however one can say that there is still strong demand for western-standard services as they are an essential input to the modernization of the Hungarian economy, and to the redirection towards western countries.

This relates typically to insurance and other business services; despite large FDI inflows, it may be that these firms did not have enough time to build up reputation (essential to the insurance business), experience or a substantial capital base, or that they had no access to the trained labour required. These are all factors that need some time to develop, so they are currently not competitive and cannot supply the domestic market adequately. This situation might even be worsened by the strong presence of foreign MNEs in Hungary, which are accustomed to western-standard producer services but cannot (or even do not want to) find them in Hungary. Thus they demand these services from abroad and raise the producer services deficit.

Truly positive developments can be reported from financial services, royalties and licence fees, and from computer and information services. Although the first two services show a deficit in their balance, the improvement in financial services is obvious from the dramatic

decline of the deficit from 1996 to 1997. This indicates that progress is made in the restructuring of the Hungarian banking sector, mostly supported by foreign investment that helped Hungarian banks to develop professional expertise, effective distribution networks etc., and also gave access to needed capital. Less obvious is the improvement in royalties: here the deficit is constant rather than declining. However, looking at the export and import data reveals that imports rise fast, but exports rise even faster, hence an increasing Hungarian competitiveness in that field might be assumed. Yet this is somewhat in contrast to what should be expected if R&D expenditures as a share of GDP are considered: here Hungary, with a share of 0.8% (in 1997), lies well below the European average. A possible explanation for this may be found in the strong presence of FDI, which might partly be seen as an indirect import of R&D, thus substituting for direct imports of royalties and licence fees.

Table 4-4

Net trade flows, Hungary – EU; ECU million

	1994	1995	1996	1997
GOODS	-2 106	-1 242	-1 313	-2 077
SERVICES	- 197	221	259	406
Transport	70	21	31	7
Sea transport	20	19	22	16
Air transport	87	- 22	- 6	- 7
Other transport	- 39	22	15	- 2
Travel	412	360	443	555
Other services	- 672	- 154	- 216	- 158
Communications services	- 5	7	19	5
Construction services	- 26	22	- 73	- 23
Insurance services	- 21	- 24	- 38	- 36
Financial services	- 36	- 31	- 35	- 10
Computer and information services	- 31	- 3	12	1
Royalties and licence fees	- 24	- 29	- 17	- 19
Other business services	- 566	- 171	- 229	- 226
Personal, cultural and recreational	14	78	152	149
Government services, n i e	21	- 4	- 8	2
Services not allocated	- 6	- 5	1	2

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997.

Quite surprisingly though is the surplus in computer and information services in 1996 and 1997. We would have suspected that Hungary is in one part of these services, namely computer services, less developed than EU countries and therefore should be an importer of computer services. But as these services consist not only of computer services but also of information services, it might well be that the latter are the reasons for the surplus in 1996 and 1997. However, lacking more detailed data any hypothesis about the balance in

these services is degraded to pure speculation which would require an in-depth analysis of the services sector that goes beyond the scope of this study.

The structure of Hungarian–EU trade, in the light of the trade flows shown above, is very interesting indeed. As mentioned travel services yield an extremely high surplus for Hungary, so in this respect they are the most important traded services. Table 4-5 below however shows that it does not have the largest share in Hungarian services exports. In this respect other services, with a share of about 46% in total services exports, are more important than travel services, with a share of 35-38% only. This and the declining share of transport services in exports indicate that Hungary does not rely on its advantages based on natural-endowment-intensive and capital- but low-tech-intensive services; the country is rather restructuring its services sector in the direction of high-skill-intensive producer services. This development is reflected in the Hungarian services export structure.

Table 4-5

Trade structure: Hungary – EU

	Credit				Debit			
	1994	1995	1996	1997	1994	1995	1996	1997
SERVICES	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Transport	21.20	19.30	17.80	15.59	14.87	20.93	18.68	18.70
Sea transport	4.25	3.27	3.60	3.81	2.64	2.41	2.85	3.77
Air transport	12.88	7.98	7.45	5.92	6.48	10.93	8.93	7.65
Other transport	4.01	7.92	6.74	5.85	5.75	7.60	6.88	7.24
Travel	38.04	35.40	35.74	38.06	10.38	14.35	15.59	15.97
Other services	40.17	45.10	46.15	46.20	73.81	64.15	65.49	65.24
Communications services	0.80	2.84	1.78	2.21	0.99	2.78	0.93	2.45
Construction services	10.64	9.91	7.97	8.50	10.95	9.89	13.34	11.68
Insurance services	0.91	1.20	1.31	1.11	1.99	3.23	3.69	3.37
Financial services	0.59	1.13	1.24	1.35	2.59	3.62	3.44	2.20
Computer and information services	1.66	1.24	1.58	1.39	3.25	1.69	1.15	1.66
Royalties and licence fees	0.84	1.26	1.64	2.85	2.13	3.63	2.87	4.55
Other business services	18.59	19.84	21.03	20.05	48.66	35.94	37.32	36.98
Personal, cultural and recreational	1.68	6.43	8.60	7.64	0.69	1.66	1.11	1.12
Government services, n i e	4.19	1.20	1.01	1.10	2.56	1.72	1.65	1.23
Services not allocated	0.73	0.19	0.28	0.17	0.99	0.57	0.26	0.12

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

The import structure shows that Hungary needs first of all other (producer) services, which account for about two thirds of the Hungarian services imports, whereas it seems to be relatively well 'equipped' with travel and transport services. This structure is clear if Hungary is defined as a country that is relatively well endowed with a landscape attractive for tourism and low-skilled workers/low-tech capital. Hence it is obvious from trade theory

that what Hungary requires from abroad is high-skilled services (other services), rather than services that make intensive use of those production factors with which Hungary is relatively well endowed (tourism and transport).

For the future it can be expected that, as Hungary becomes more developed and incomes rise, travel imports will have a tendency to increase and the share of other services will tend to fall.

Hungary's specialization structure in trading with the EU is similar to the Czech structure, though it is more distinct in many respects. Hungary on the whole has a small but noticeable advantage in producing services; this can of course be traced back to its huge comparative advantage in travel services with its strong influence on the services balance. The advantage in travel is also documented in Table 4-6 below, where the index value for travel is around 0.5 – a truly high value.

In transport services the Hungarian advantage is small; sea transport seems to be highly competitive for the reason mentioned above, but because of its small volume of trade the comparative advantage does not spill over to the whole transport services. As indicated Hungary has a (very small) disadvantage in air transport services. This might be explained by the relatively small size of the Hungarian airline, limiting the range of flight destinations and making it harder to exploit economies of co-ordination and economies of scope, and thus to serve the more lucrative flight routes competitively.

The comparative disadvantage in other services is not as big as in the Czech Republic. In the categories in which both countries have a comparative advantage (compared to the EU), i.e. communication and personal services, Hungary performs better than the Czech Republic, especially in personal, cultural services, where the Hungarian index in 1996 and 1997 is about 0.8. (The Czech values for these years are 0.2 and 0.4.)

Competitiveness is improving in financial services – this development is also observable in the services balance – which is most probably related to the strong presence of FDI in this sector giving an impetus to tight restructuring of the Hungarian banking sector.

Improvements are also observed in royalties and licence fees and other business services, though these developments are not easily seen from the balance sheet. In the case of royalties and licence fees, the index suggests a strongly rising competitiveness within a few years: however, as mentioned above, it is not clear whether Hungary has become truly more competitive in R&D or whether royalties imports have been substituted by FDI inflows, thus not showing up in the services trade balance. The index of other business services indicates a slowly improving competitiveness in this sector, although the deficit in other business services is rising. This is explained by Hungarian exports of these services

growing faster than imports, yet not fast enough to induce a reverse trend in the services balance. This situation might be interpreted as Hungary modernizing in two directions. On the one hand the ever increasing demand for other business services from abroad may imply that Hungary adapts more and more to western standards (be it through own or through foreign-owned firms), on the other hand the services produced in Hungary gain competitiveness in trading with the EU, which is also a sign of modernization (although it is by far not sufficient to satisfy domestic demand).

Insurance services record a constant, high level of disadvantage from 1994 to 1997, despite the large presence of FDI. But as mentioned above, the development of an insurance sector seems to be much dependent on time, so it can be expected that the Hungarian disadvantage in insurance will decline in the future.

Table 4-6

Specialization index: Hungary – EU

	1994	1995	1996	1997
GOODS	-0.15	-0.08	-0.07	-0.08
SERVICES	-0.06	0.08	0.07	0.10
Transport	0.12	0.04	0.05	0.01
Sea transport	0.18	0.22	0.18	0.11
Air transport	0.28	-0.08	-0.02	-0.03
Other transport	-0.24	0.10	0.06	-0.01
Travel	0.53	0.48	0.45	0.49
Other services	-0.35	-0.10	-0.11	-0.07
Communications services	-0.16	0.09	0.37	0.05
Construction services	-0.07	0.08	-0.19	-0.06
Insurance services	-0.42	-0.40	-0.42	-0.42
Financial services	-0.66	-0.47	-0.41	-0.14
Computer and information services	-0.38	-0.08	0.23	0.01
Royalties and licence fees	-0.48	-0.42	-0.21	-0.13
Other business services	-0.49	-0.22	-0.21	-0.20
Personal, cultural and recreational	0.37	0.64	0.80	0.79
Government services, n i e	0.19	-0.10	-0.17	0.04
Services not allocated	-0.21	-0.45	0.11	0.27

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

In construction and computer services the situation is ambiguous: both move from a bad situation to a situation where there are comparative advantages for Hungary (construction services in 1995, computer services in 1996), but thereafter the advantage diminishes again or turns negative. These movements, together with lack of data, make any interpretation speculative so that we are forced to leave it out here.

4.3 Poland

A first look at the Polish balance on services shows that it is quite different from those of the Czech Republic and Hungary. Unlike in the Czech Republic and Hungary, the backbone of the Polish services balance is constituted by transport services (instead of travel services), which had a surplus large enough to compensate for the loss in travel and other services combined from 1994 to 1996; only in 1997 was the surplus not large enough to keep the balance positive.

The main factor within transport services are other transport services (e.g. road and rail). A positive but smaller role play sea transport services. Air transport show a relatively low but steadily rising deficit from 1994 to until 1997. This is in principle the same structure we have already observed for the former two countries, but the Polish transport balance is of much higher importance for the overall services balance. The explanation for this can be found, first, in the same reasons for which the Czech Republic and Hungary have (dis-) advantages in transport services: as Poland seems to be relatively well endowed with factors essential for transport, i.e. low-skilled labour and low-tech capital combined with low energy prices, the country has a price advantage in transport services. Second, Poland being a coastal country and having many waterways, it has a long history of using these ways of transport, thereby accumulating skills and knowledge of how to exploit economies of scope and economies of co-ordination. This leaves Poland in a quite competitive position in maritime and inland water transport. Third, as Poland is a relatively large country it had to build up enough capacity in rail and road transport to supply the domestic market even before the fall of the iron curtain. Thus Poland has been a strong competitor in these services from the very start of transition, as it incurred the high fixed costs already in the past and is now able to make use of the low input prices of labour and energy to offer lower prices (through lower marginal costs) than its rivals.

Only in air transport has Poland a deficit because of qualitatively and quantitatively poor capital equipment, making it impossible for the Polish airline to satisfy the needs of its customers.

Travel services had in 1994 and 1995 negative though insignificant results; this changed in 1996 and 1997 as the deficit became quite high and influential, especially in 1997 when it was ECU 218 million and nearly as much as the deficit from other services. Possible reasons for this are that there was a rise in income of at least some social strata who preferred to travel abroad (which is supported by the boom in travel imports), as Poland's natural endowments are either not suitable for tourism or, if they are, not well developed.

Like the other countries, Poland is a net importer of other services and has the highest deficit in these services. For Poland however this deficit was relatively moderate due to a

low deficit in other business services, and was easily compensated by the transport surplus.

In 1996 the deficit in other services peaked because of insurance services. Yet this figure may be doubted: data problems may have resulted in a wrong Eurostat estimate of the insurance figures. This point is also supported by the result in Table 4-9. It can therefore be assumed that the real deficit for insurance services in 1996 is much lower than stated in the table.

Within other services Poland is a net exporter of communication services, despite or even because of the poor development of its communication sector. Due to the exceptionally low number of Polish telephone subscribers, import possibilities of communication services are much lower than export possibilities of those services to the EU. In other words: much fewer people from Poland (relatively seen) have the possibility to phone to the EU (Polish imports) than EU inhabitants have the possibility to phone to Poland (Polish exports). This is also shown in the statistical figures for the period 1994 to 1997: incoming calls from abroad to Poland exceed by far the outgoing calls to abroad from Poland. (This explanation might also be valid for the Czech Republic and Hungary, but there no data are available.)

Construction services show a surplus over the period 1994 to 1997 (except in 1996): this is the expected result assuming that a main factor in construction competitiveness are labour costs where Poland has a clear advantage. The more surprising is the deficit in 1996: a possible explanation might be the fact that in 1996 there were one or more bigger construction projects that needed the skills and experience of EU firms, so that the balance turned negative.

In insurance and financial services Poland is a net importer. Leaving out the dubious figure for insurance services for 1996, a downward trend of the deficit is observable (especially in insurance services). This is strongly related to the presence of FDI in these sectors, which is assumed to be the main driving force in the restructuring of these services. Thereby insurance and financial services acquire skills, know-how, a solid capital base and last but not least a good reputation, making them more competitive and rendering Poland less dependent on imports of those services.

In royalties and licence fees and other business services Poland shows deficits; between 1995 and 1997 those deficits rose considerably. This indicates growing demand for such services, either triggered off by foreign firms located in Poland or by domestic firms adapting to western standards. Growing demand is however not countered by growing supply. One conclusion may be that the restructuring process is concentrating on the

manufacturing sector, while in producer services sector Poland relies on foreign suppliers for the time being.

In computer and information services Poland, like Hungary, has a relatively high surplus (in 1995 and 1996). Again, like in Hungary, this is difficult to explain: a similar reasoning as was used in the case of communication services might explain the surplus in this balance.

Table 4-7

Net trade flows, Poland – EU; ECU million¹

	1994	1995	1996	1997
GOODS	-2 611	-3 564	-7 961	-10 536
SERVICES	201	376	14	- 28
Transport	430	419	496	439
Sea transport	115	43	126	115
Air transport	- 18	- 28	- 55	- 53
Other transport	334	403	424	377
Travel	- 9	- 9	- 112	- 218
Other services	- 211	- 28	- 360	- 252
Communications services	23	21	33	30
Construction services	53	47	- 83	7
Insurance services	- 43	- 25	(- 182)	- 4
Financial services	- 18	- 11	- 21	- 12
Computer and information services	- 1	43	38	1
Royalties and licence fees	- 38	- 61	- 47	- 70
Other business services	- 215	- 30	- 99	- 208
Personal, cultural and recreational	1	1	- 2	1
Government services, n i e	24	- 14	5	2
Services not allocated	- 7	- 5	- 8	4

1) Figures in brackets are dubious and unreliable.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997.

The Polish services trade structure shows a dominance of transport services from 1994 to 1996, reflecting the heavy reliance on the sector where the country is supposed to have the biggest comparative advantage. In 1997 however other services took over the place of the main exported service. Together with the increasing share of travel services this is a sign that the Polish services industry is changing its orientation from capital-based to more skill-intensive. The main loser seem to be other transport services whose share declined by 4% from 1996 to 1997; however its total share of over 22% of total exports in 1997 is still the highest of all individual services sectors.

The structure of other services exports is in line with the CEEC-typical structure for other services exports to the EU. Approximately half of these exports are other business services

exports. Construction services exports have a relatively high share of 7-9% of all services exports, and the remaining services have a more or less low share.

The services import structure is again typical and corresponds to trade theory for CEECs: half of all services imports are other services, especially other business services, but also construction services. Comparing the shares of each individual service contained in other services, the two services mentioned before are by far the most important. Communication services and royalties and licence fees are of relative importance too, having a share twice as big as those of the remaining services.

Table 4-8

Trade structure: Poland – EU¹

	Credit				Debit			
	1994	1995	1996	1997	1994	1995	1996	1997
SERVICES	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Transport	44.54	41.31	43.82	38.09	23.65	25.65	22.10	21.80
Sea transport	15.55	10.04	12.52	11.54	10.42	9.73	7.01	7.28
Air transport	4.01	4.45	4.66	4.17	5.61	7.10	7.14	6.06
Other transport	24.95	26.79	26.64	22.37	7.57	8.81	8.00	8.50
Travel	19.32	20.21	22.03	21.93	22.25	25.29	27.16	29.60
Other services	35.20	37.95	34.11	39.79	52.45	48.10	50.29	48.52
Communications services	2.53	3.51	3.98	3.83	1.44	3.04	2.55	2.69
Construction services	7.46	8.18	8.01	8.96	5.13	7.20	11.76	8.61
Insurance services	1.18	0.01	(-6.46)	0.45	3.97	1.50	1.58	0.58
Financial services	0.50	0.67	1.06	1.03	1.66	1.47	2.00	1.46
Computer and information services	0.65	2.75	2.95	1.73	0.77	0.82	1.29	1.67
Royalties and licence fees	0.88	1.14	1.41	1.35	3.34	5.04	3.51	3.88
Other business services	18.68	19.29	20.85	19.82	34.13	25.37	25.40	27.16
Personal, cultural and recreational	1.04	0.97	0.94	1.14	1.09	1.14	1.05	1.08
Government services, n i e	2.18	1.37	1.37	1.48	0.98	2.53	1.16	1.39
Services not allocated	1.05	0.58	0.09	0.21	1.58	1.02	0.43	0.05

1) Figures in brackets are dubious and unreliable.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

Nevertheless, as incomes are rising travel services become more and more important: their share rose from 22% to almost 30%. Transport is as expected the least imported service in 1996 and 1997 (in 1994 and 1995 it has about the same share as travel), it accounts for slightly more than 20% of all services imports. Within transport, sea and other transport services imports are slightly more important than air transport.

Overall Poland had a small comparative advantage in producing services in 1994 and 1995, in 1996 there was virtually no advantage vis-à-vis the EU and in 1997 Poland even incurred a small disadvantage.

The calculation of the indices for the individual service items gave basically the results that could be expected after analysing the net trade flows and the trade structure.

Table 4-9

Specialization index: Poland – EU¹

	1994	1995	1996	1997
GOODS	-0.12	-0.14	-0.26	-0.29
SERVICES	0.06	0.10	0.00	-0.01
Transport	0.36	0.33	0.33	0.27
Sea transport	0.25	0.12	0.29	0.22
Air transport	-0.11	-0.13	-0.21	-0.19
Other transport	0.57	0.58	0.54	0.45
Travel	-0.01	-0.01	-0.10	-0.15
Other services	-0.14	-0.02	-0.19	-0.10
Communications services	0.33	0.17	0.22	0.17
Construction services	0.24	0.16	-0.19	0.01
Insurance services	-0.50	-0.98	(1.64)	-0.13
Financial services	-0.50	-0.28	-0.30	-0.18
Computer and information services	-0.03	0.61	0.39	0.01
Royalties and licence fees	-0.54	-0.57	-0.43	-0.49
Other business services	-0.24	-0.04	-0.10	-0.16
Personal, cultural and recreational	0.03	0.02	-0.05	0.02
Government services, n i e	0.43	-0.20	0.08	0.03
Services not allocated	-0.14	-0.18	-0.66	0.58

1) Figures in brackets are dubious and unreliable.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

For the reasons already mentioned Poland has expectedly an advantage in sea and other transport services; the size of these advantages (especially in other transport services) is however surprisingly high. Equally the disadvantages in air transport and travel is as expected in the light of the previous tables and explanations.

In 1994 and 1995 the advantage in transport services seemed to be big enough to compensate for the disadvantages in travel and other services and to secure an overall good competitive position. In 1996 and 1997 the situation in transport services remained constant, but the disadvantages in travel and other services increased, causing a decline in the overall competitiveness.

Traditionally CEECs have a disadvantage in producing other (producer) services and so has Poland, but this disadvantage is not constant over time as shown by Table 4-9; the values fluctuate from close to zero to –0.2.

Poland's advantages in communication services and computer and information services are deceptive: as already mentioned, Poland's communication services are by far not competitive for the lack of technological infrastructure, and the same might be assumed for computer and information services. But if the above assumption of a reverse causation between the technological development and the trade balances of these services is correct, the 'advantages' shown might diminish in the future as Poland becomes more developed in these respects.

In financial services and insurance services Poland's competitiveness seems to have gained momentum in so far as the country's disadvantages in trading these services diminished considerably from 1994 to 1997. This seems to be mainly related to the presence of FDI in these sectors: apart from manufacturing, FDI is highest in the financial and insurance sector, which paved the way for a restructuring process of the financial sector and contributed to a decline in the demand for foreign financial and insurance services (imports of both financial and insurance services fell from 1996 to 1997).

The large disadvantages Poland faces in royalties and licence fees and the growing disadvantages in other business services indicate that Poland seems to concentrate its restructuring efforts on manufacturing and services where large-scale foreign investment inflows are possible, so that the rising demand for other business services and royalties can only be satisfied by imports from abroad.

4.4 Summary

*Due to insufficient data on bilateral services trade, the analysis of services trade between the **CEECs** and the **EU** is limited to three CEE countries: the Czech Republic, Hungary and Poland.*

*The **Czech Republic** is a net exporter of services to the EU in 1995 to 1997, but the surplus is quite small and mainly caused by a huge surplus in travel services compensating the loss in transport and other services trade.*

The main exported services are travel services (mostly tourism), reflecting the huge comparative advantage in this service, mainly based on natural endowments, that the Czech Republic has vis-à-vis the EU.

On the import side, other services are by far the most important services that the Czech Republic buys from the EU. This indicates that there is strong demand for higher-quality producer services either from domestic firms which are adapting to western standards, or from MNEs which want to rely on the services they are accustomed to.

The calculation of the revealed comparative advantage index for Czech–EU services trade shows that the Czech Republic has (partly sizeable) revealed comparative advantages in services which rely mainly on differences in factor endowments (travel services, other transport), and disadvantages in services which are either capital-intensive (air transport) or skill- and experience-intensive (other services). However there are also signs that the Czech Republic is improving its competitiveness in some producer services such as financial, insurance and other business services.

*In trading with the **EU, Hungary** relies even more than the Czech Republic on travel services. Trading these services creates a large surplus for Hungary, which is the backbone of the solid surplus in the overall services balance. Transport also contributes positively to the Hungarian services balance, and only in other services has Hungary a deficit.*

Surprisingly travel services are not the main Hungarian export service; instead, other services are the ones exported most to the EU. This might indicate that Hungary has already considerably advanced in its transition process, since it does not rely most on those services which would be easy to rely on (e.g. travel services), but has started to export more of those services to the EU where the initial gap in competitiveness is supposed to have been quite large. On the import side the Hungarian structure is similar to the Czech one, in so far as other services account for most of the services imports, whereas travel and transport services have only a minor share.

Regarding competitiveness Hungary performs well in travel and personal services: in both cases it has a large revealed comparative advantage. It performs however poorly in insurance services, where the revealed disadvantage is at a constantly high level – despite the large inflow of FDI in this sector that should have improved the competitiveness of Hungarian insurance services. An ongoing restructuring process is observed in financial and other business services: for both services the RCA index shows growing competitiveness.

*Services trade between the **EU** and **Poland** is, in contrast to EU trade with the Czech Republic and Hungary, not based on travel services but on transport services instead. The surplus generated there is larger than the combined deficits in travel and other services from 1994 to 1996, so that the overall services trade balance is positive in these years. In 1997 the services balance shows a small deficit, due to a jump in the travel services deficit. Transport and other services have quite similar shares in Polish exports to the EU, at least in 1997; before that year transport was slightly more important than other services. Travel exports, with a lower share than transport and other services, are yet not insignificant: they amount to one fifth of Polish services exports.*

Concerning imports from the EU, other services account for half of all Polish services imports from the EU, transport and travel hold approximately one quarter each in imports.

The calculation of the revealed comparative advantage index for Polish–EU trade shows that Poland has a significant advantage in transport services, especially in sea and other transport: this is mainly based on Poland's advantage in labour-intensive services, but also on the experience and know-how the country acquired in transport before 1989. Poland has clear disadvantages in royalties and licence fees, other business services, financial services and insurance services.

5 CEEC–Austrian services trade structure

The analysis of the services trade between the CEECs and Austria is built and structured like the investigation of the CEEC–EU services trade: we examine the same variables as in the preceding chapter and also use the same data set, making possible a direct comparison of CEEC–EU and CEEC–Austrian services trade.

We expect the results of the analysis of CEEC–Austrian trade (especially the revealed comparative advantage index) to be more pronounced than in CEEC–EU trade – for two reasons: First, Austria is in many respects an 'above-average' EU member, thus there should be a clearer pattern of advantages and disadvantages as the adverse effects of less developed EU countries are left out.

Second, Austria's geographical, cultural and historical proximity to the CEECs in general and to the bordering countries in particular (in our case Hungary and the Czech Republic) reduce transaction and search costs for both trading partners; hence it is much easier for them to gain knowledge about their advantages and disadvantages than in trade with other countries. This faster, and faster accumulating knowledge leads to a better use of the countries' advantages and a more segmented trading pattern. This tendency is strengthened by the (traditionally) existing political and economical networks that reduce uncertainty and have also facilitated the build-up of a good reputation of producers on both sides of the border.

5.1 Czech Republic

The Czech services trade balance with Austria looks much like the Czech–EU balance. This is no surprise since Austria draws basically on the same advantages and disadvantages as the EU in trading with the Czech Republic. It is obvious that Austria has advantages in the high-skill-, high-tech-, knowledge-intensive services, mainly to be found

in other services. The Czech Republic relies on its advantages in the low-skill-, low-tech-capital-, and natural-endowment-intensive services sectors.

Table 5-1

Net services trade flows, Czech Republic – Austria, ECU million

	1994	1995	1996	1997
GOODS	-159.5	-315.6	-326.9	-321.8
SERVICES	-355.7	-54.5	-40.8	89.6
Transport	-23.9	18.5	12.7	20.3
Sea transport	.	2.6	4.2	5.2
Air transport	.	-2.1	-6.2	-1.4
Other transport	.	18.1	14.7	16.6
Travel	111.5	176.4	214.5	231.5
Other services	-443.4	-137.2	-139.3	-129.0
Communications services	-0.1	1.2	0.9	0.1
Construction services	-39.6	-30.9	-20.2	-5.1
Insurance services	-0.4	3.2	-7.4	-1.7
Financial services	-6.9	-4.2	-4.4	-3.1
Computer and information services	.	0.0	0.0	-6.1
Royalties and licence fees	-0.6	-2.9	-7.6	-4.4
Other business services	-397.9	-105.4	-101.4	-108.7
Personal, cultural and recreational	1.4	0.5	0.2	-0.5
Government services, n i e	0.7	1.2	0.7	0.7
Services not allocated	.	-112.2	-128.8	-33.2

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997.

As opposed to Czech–EU trade, the overall Czech–Austrian services balance started with a huge deficit in 1994 that was twice as large as the deficit in goods trade¹⁸, but then improved significantly reaching a relatively large surplus in 1997 (the Czech–EU balance was positive already in 1995).

One reason for this development was the continuous increase in the travel surplus. That in turn might be related to several factors: an improvement of Czech travel services standards, combined with relatively low prices; an increase in reputation of the Czech travel services; increasing exploitation of economies of scope (thereby enlarging the offered travel portfolio); or a change in tastes of Austrian tourists, making the Czech Republic more attractive for Austrian tourists. What is remarkable about the travel balance is the size of the Czech surplus – the travel surplus alone could have covered more than half (in 1997 even 70%) of the deficit in trade in goods throughout the period.

¹⁸ The figures for 1994 are very doubtful indeed.

Another reason for the improving services balance was a decrease in the deficit in trade in those services that could not be allocated to a specific category. Actually the size of these latter services in the services balance is quite large, which blurs the analysis. But since these services have a negative balance, they should most probably be attributed to other services: it seems unlikely that the Czech Republic has a deficit in those services where it is supposed to have a comparative advantage.

Transport services show a picture typical of CEEC–EU trade. The Czech Republic is a net exporter of sea and other transport (rail and road) services, and a net importer of air transport services, for reasons that have been discussed in the chapter above.

The balance on other services yields also a result typical of CEECs in trading with western partners: it is negative. Moreover the other services trade flows between Austria and the Czech Republic are moving in parallel to the trade flows between the EU and the Czech Republic in nearly every sector, with the exception of royalties and licence fees, and other business services in 1997. In this year the Czech deficit in EU trade with royalties increased, whereas in Austrian trade it declined; the deficit in other business services behaved vice versa.

The structures of Austrian services exports and imports to and from the Czech Republic are rather one-sided. The main exported services are travel services (see Table 5-2), having a share of over 50% in all services exports. Far less important are transport and other services, the former accounting for about 14%, the latter for about 17% (on average) of total services exports. The main imported services to the Czech Republic are other services; transport and travel services are of minor importance.

This shows that both countries rely heavily on their advantages in producing certain services, resulting in a clear specialization structure in trade. This structure is much more pronounced than the Czech–EU structure, although a large part of services have not been allocated to a certain services sector in Czech–Austrian services trade. If these services are added to other services, for the reasons proposed above, it would somewhat change the Czech export structure: yet travel would be still the dominant service, and in imports other services would be even more significant.

There are a number of explanations for this services trade structure. First, in travel services differences in natural endowments can be assumed to play no role; one could even argue that, if they did play a role, they would be in favour of Austria. Income and price advantages seem to be much more important in travel services. Here the Czech Republic has huge absolute 'advantages'; the first one is a true advantage, namely that prices for travel services are – in absolute terms – lower than in Austria. The second one should not be seen as an advantage, but in travel services turns out to be one: the lower incomes in

the Czech Republic (combined with higher prices in Austria) make travelling to Austria hardly affordable, whereas it is no problem the other way round.

Table 5-2

Trade structure: Czech Republic – Austria

	Credit				Debit			
	1994	1995	1996	1997	1994	1995	1996	1997
SERVICES	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Transport	0.00	15.28	14.31	13.25	3.80	9.45	10.55	11.22
Sea transport	.	0.80	1.40	1.28	.	0.15	0.44	0.30
Air transport	.	4.58	3.83	3.93	.	4.50	4.77	5.12
Other transport	.	9.90	9.08	8.05	.	4.81	5.34	5.80
Travel	57.02	54.04	56.35	55.27	6.97	9.35	8.21	11.46
Other services	42.98	18.04	14.19	18.54	89.23	45.69	41.25	53.60
Communications services	0.08	0.32	0.28	0.89	0.05	0.02	0.08	1.06
Construction services	4.75	3.38	1.89	2.25	8.36	9.68	5.84	3.95
Insurance services	0.98	1.90	0.48	1.62	0.48	0.99	1.95	2.39
Financial services	1.84	0.26	0.30	0.57	1.90	1.14	1.16	1.45
Computer and information services	.	.	.	0.27	.	.	.	1.81
Royalties and licence fees	0.30	0.35	0.10	0.19	0.22	0.94	1.63	1.29
Other business services	33.95	11.22	10.58	12.16	78.07	32.78	30.25	40.97
Personal, cultural and recreational	0.54	0.17	0.13	0.13	0.01	0.03	0.08	0.28
Government services, n i e	0.54	0.43	0.44	0.46	0.13	0.12	0.27	0.40
Services not allocated	0.00	12.64	15.15	12.94	0.00	35.50	40.00	23.72

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

Second, Austria's specialization on exports of other services derives from the country's much higher experience in, and knowledge of these services and its relative abundance of capital and high-skilled labour. These render Austria much more competitive, especially if these services are related to FDI from Austria to the Czech Republic: many investors seem to prefer the producer services from their home country to those from their host country, because they know what they get.

The impression of the distribution of advantages between the Czech Republic and Austria is confirmed by the results of the calculation of the revealed comparative advantage presented in Table 5-3 below.

In overall services trade the Czech Republic had a slight disadvantage in 1995 and 1996 (RCA values of -0.06 and -0.04) but it improved its performance in services trade, resulting in a relatively high advantage in 1997.

The labour-intensive part of the Czech transport industry seems to be more competitive than the Austrian industry. From the table below it can be seen that there exists a distinct Czech advantage in overall transport services; a closer look reveals that especially sea transport services are by far most favourable for the Czech Republic. A lower advantage exists for other transport services. Thus the Czech Republic makes full use of its comparative advantage in low-skill-intensive services through which it can command lower prices, making them attractive as exports to Austria.

The revealed advantages in travel services take truly high values, but we suppose that with rising incomes in the Czech Republic, this advantage will diminish in the future – if at a very slow pace.

Traditionally CEECs have a more or less high disadvantage in trading other services. This holds also for Czech–Austrian trade as indicated by Table 5-3. The results show that the Austrian advantage is fairly high, with an RCA value around 0.47 (1995-1997 average).

Table 5-3

Specialization index: Czech Republic – Austria

	1994	1995	1996	1997
GOODS	-0.09	-0.15	-0.14	-0.12
SERVICES	-0.40	-0.06	-0.04	0.10
Transport	-1.00	0.18	0.11	0.18
Sea transport	.	0.65	0.49	0.68
Air transport	.	-0.05	-0.15	-0.04
Other transport	.	0.29	0.22	0.26
Travel	0.56	0.67	0.73	0.71
Other services	-0.65	-0.48	-0.52	-0.41
Communications services	-0.14	0.89	0.55	0.01
Construction services	-0.60	-0.53	-0.54	-0.18
Insurance services	-0.06	0.26	-0.63	-0.10
Financial services	-0.41	-0.66	-0.62	-0.35
Computer and information services	.	.	.	-0.69
Royalties and licence fees	-0.27	-0.50	-0.89	-0.70
Other business services	-0.68	-0.54	-0.51	-0.47
Personal, cultural and recreational	0.90	0.64	0.23	-0.28
Government services, n i e	0.29	0.53	0.20	0.16
Services not allocated	.	-0.52	-0.48	-0.20

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

Disaggregating other services shows that Austria initially had high advantages in construction, financial and insurance (in 1996) services, but they declined to a moderate

level in 1997. This may be attributed to the strong presence of FDI that is supposed to be partly a substitute for Austrian financial and insurance exports.

In royalties and licence fees and other business services Austria has also a big advantage – either because of the underdevelopment of these services in the Czech Republic, necessitating foreign-produced services, or because of services and goods producing MNEs that demand headquarter services from Austria.

5.2 Hungary

Hungarian–Austrian services trade is typical of services trade between CEE and western countries in three aspects. First, Hungary has a deficit on the overall services balance; second, Hungary is a net exporter of travel services; and third, Hungary is a net importer of other services.

The overall services trade deficit was about ECU 102 million in 1995¹⁹, rose to ECU 176 million in 1996, but fell sharply to ECU 37 million in 1997. A large amount of this deficit can be attributed to trade in services that could not be allocated to a specific category (see Table 5-4).

Surprisingly Hungary has a deficit in transport services – though this is relatively low throughout 1995 to 1997, with a low in 1995 (ECU 9 million) and a high in 1996 (ECU 35 million). Nevertheless these results refute our expectations that Hungary should have a surplus in transport services as these are mostly labour-intensive (especially sea and other transport) and Hungary is supposed to have a comparative advantage in such services.

The deficit in transport services is mainly caused by air transport services. This is no surprise considering that Austrian air transport services are much more competitive than Hungarian ones: Austrian airlines are (quantitatively and qualitatively) much better endowed with capital than their Hungarian counterparts, and they have also a much longer experience in competition. Thus they have already knowledge exploiting economies of scope and co-ordination, e.g. by offering a comprehensive network of flight routes or by entering strategic alliances.

Other transport services are also a main contributor to the deficit in transport services – which is in contrast to our assumption that Hungary should have an advantage in these labour- and energy-intensive transport services.

¹⁹ We leave out 1994 because of the aforementioned data problems.

The surplus in sea transport is small and insignificant over the observed period, but it is at least as expected and can be explained by the same factors as are valid for EU–Hungarian trade.

Travel services are the positive pillar in Hungarian services trade; here Hungary has a solid and high surplus, which is also growing over time (from ECU 176 million in 1995 to ECU 232 million in 1997). This indicates that the sector is modernizing to western standards and/or building up some positive reputation. Thus it improves its competitive position not only compared with Austrian travel services but also with the travel services of those countries where Austrians usually travel to.

The deficit in other services trade shows an upward trend in the years 1995 to 1997, increasing from ECU 119 million to ECU 163 million.

Table 5-4

Net services trade flows, Hungary – Austria, ECU million

	1994	1995	1996	1997
GOODS	-529.9	-736.1	-470.1	-845.1
SERVICES	-564.3	-102.3	-176.1	-37.5
Transport	-63.9	-9.0	-35.1	-27.0
Sea transport	.	2.2	1.7	3.6
Air transport	.	-10.2	-19.5	-14.5
Other transport	.	-1.0	-17.3	-16.1
Travel	114.7	176.3	230.1	232.5
Other services	-615.1	-119.2	-146.7	-162.9
Communications services	-0.1	-1.1	9.7	-0.5
Construction services	-43.5	3.6	-54.0	-34.7
Insurance services	-13.2	-10.4	-4.8	-20.1
Financial services	-1.8	-2.8	-4.0	-4.6
Computer and information services	.	-0.2	2.6	-3.3
Royalties and licence fees	-1.9	-3.2	-3.3	-2.7
Other business services	-555.1	-105.1	-94.2	-96.4
Personal, cultural and recreational	-0.1	0.5	0.3	-0.1
Government services, n i e	0.7	-0.5	1.0	-0.4
Services not allocated	0.0	-150.4	-224.3	-80.1

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997.

Some of the sub-balances of the other services balance did not reveal such constant trends but were fluctuating more or less heavily. This holds for communication, construction, insurance and computer services. These fluctuations are not easy to explain, but since the trade volumes in these services are low, it could well be that one or more bigger transactions in one year disturb the 'normal' trade flows and make the balances unpredictable.

Financial and other business services show an increasing deficit, which is an indicator of an ongoing specialization process. This might be especially the case in financial services: if Hungarian exports and imports are treated separately, the exports of these services are observed to decline steadily until 1997.

The Hungarian–Austrian trade structure is similar, but not equal to the Czech–Austrian services trade structure. The main difference is that other services exports are more important in Hungary than they are in the Czech Republic. Apart from that the picture is quite the same.

Table 5-5

Trade structure: Hungary – Austria¹

	Credit				Debit			
	1994	1995	1996	1997	1994	1995	1996	1997
SERVICES	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Transport	0.00	14.00	12.34	12.36	6.48	13.20	14.11	15.76
Sea transport	.	0.77	1.23	1.19	.	0.31	0.72	0.57
Air transport	.	3.91	3.20	3.58	.	4.86	5.04	5.58
Other transport	.	9.32	7.90	7.59	.	8.02	8.36	9.61
Travel	46.69	43.53	47.18	45.36	8.32	9.93	5.72	7.41
Other services	53.31	33.81	27.80	28.49	85.20	46.69	40.74	51.65
Communications services	0.02	0.57	0.69	1.26	0.01	0.66	(-0.75)	1.27
Construction services	23.00	15.57	9.03	12.80	14.25	12.61	14.07	17.35
Insurance services	1.33	1.87	3.20	1.18	1.91	3.16	3.09	4.17
Financial services	0.58	0.27	0.22	0.01	0.43	0.66	0.70	0.70
Computer and information services	.	0.40	0.59	0.11	.	0.36	0.11	0.61
Royalties and licence fees	0.07	0.11	0.12	0.06	0.22	0.58	0.53	0.47
Other business services	27.95	14.60	13.48	12.76	68.27	28.33	22.80	26.70
Personal, cultural and recreational	0.05	0.11	0.05	0.09	0.04	0.01	0.00	0.10
Government services, n i e	0.32	0.30	0.41	0.22	0.07	0.32	0.18	0.28
Services not allocated	0.00	8.65	12.68	13.79	0.00	30.19	39.43	25.19

1) Figures in brackets are obviously false and unreliable.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

Transport services exports account for slightly more than 10% of all services exports. The main weight within transport lies on other transport services (rail and road), exports of this kind make up approximately two thirds of transport exports.

Travel is of course the main exported service; it has a rather constant share of less than one half in total services exports.

The increased importance of other services exports for Hungary (compared to the Czech Republic) is due to the large share taken by construction services. With a share of over 10% (on average) they play an equally important role as other business services – a quite unusual situation as normally the latter services are by far the most exported services.

The remaining other business services are of minor importance, especially financial services (in 1997) and royalties and licence fees. This is another indicator that there is an almost complete Austrian specialization in the trade of these services.

The main imported services are again other services. Like in exports, construction services also have a high share in total services imports (14.5% on average from 1995 to 1997), but unlike in the export structure, they are slightly less important than other business services. The high shares in exports as well in imports might be explained by the segmentation of construction services trade in two parts, with one part relying mainly on low-skilled labour, favouring Hungarian exports, and the other part consisting of know-how-intensive and high-skill-intensive services, favouring imports from Austria.

The share of transport services rises from 13.2% in 1995 to 15.7% in 1997 due to a rise in air transport and other transport services, the latter being the most important imported transport service with a share of around 60% of transport services imports.

The analysis of Hungarian–Austrian trade is completed with the presentation of the revealed comparative advantage index in Table 5-6. Overall Hungary has a small disadvantage in services trade, especially if it is compared with the disadvantage in goods Hungary faces in trading with Austria. For 1997 however the index value is low *per se*, indicating that the advantages in services trade are almost evenly split between Hungary and Austria.

A very general feature of the Hungarian–Austrian specialization structure is that specialization seemed to increase in almost every single service from 1995 to 1997.

The index values indicate that Austria focused more on transport and other services exports from 1995 to 1997, whereas Hungary concentrated on travel services.

In detail the Austrian advantage in transport services was very small in 1995 (index value of 0.05) but rose to a moderate size by 1997 (index value of 0.15). This upward movement was caused by the rising advantage in air and other transport services, while at the same time the Hungarian advantage in sea transport remained constant at a fairly high level.

Regarding travel services Hungary had already a huge advantage in 1995 (index value of 0.57), and this even increased until 1997 (index value of 0.70). Like in the Czech Republic

this high revealed comparative advantage might diminish in the future. Its pace of decline will be mainly influenced by the pace of the catching-up process of Hungarian incomes to Austrian incomes. In the course of this process Hungary would, on the one hand, lose its comparative cost advantage by becoming more expensive, thus causing exports to decline. On the other hand, more Hungarians would be able to afford travelling to Austria, thus increasing travel imports. In sum, these developments would result in a lower advantage in travel services.

In other services almost all services show that the Austrian advantage increased from 1995 to 1997; the exceptions are communication services, where the Austrian advantage diminished, and other business services, where the advantage stayed constant at a high level.

Table 5-6

Specialization index: Hungary – Austria¹⁾

	1994	1995	1996	1997
GOODS	-0.24	-0.30	-0.15	-0.20
SERVICES	-0.40	-0.08	-0.13	-0.03
Transport	-1.00	-0.05	-0.20	-0.15
Sea transport	.	0.35	0.14	0.32
Air transport	.	-0.19	-0.34	-0.25
Other transport	.	-0.01	-0.16	-0.15
Travel	0.41	0.57	0.73	0.70
Other services	-0.58	-0.24	-0.31	-0.32
Communications services	-0.33	-0.15	(-5.91)	-0.03
Construction services	-0.18	0.02	-0.34	-0.18
Insurance services	-0.54	-0.33	-0.12	-0.58
Financial services	-0.27	-0.48	-0.61	-0.97
Computer and information services	.	-0.03	0.61	-0.72
Royalties and licence fees	-0.76	-0.72	-0.71	-0.79
Other business services	-0.70	-0.39	-0.38	-0.38
Personal, cultural and recreational	-0.25	0.78	1.00	-0.06
Government services, n i e	0.33	-0.12	0.28	-0.14
Services not allocated	.	-0.61	-0.60	-0.32

1) Figures in brackets are obviously false and unreliable.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

The fluctuations of the net trade flows have a strong impact on the size of the revealed comparative advantage index; additionally the observed time period is very short. Thus it is difficult to give any statement on the 'normal' size and development of the RCA index in four cases: communication, construction, insurance and computer services.

The remaining three indices: financial services, other services and royalties, show a large and (especially in financial services) strongly growing Austrian advantage. These persistent advantages are probably mainly due to the headquarter function Austria has. Hence mostly foreign-owned enterprises in Hungary are supplied from Austria with headquarter services, which contain exactly those services in which Austria has a constant advantage.

5.3 Poland

The size of the Polish–Austrian services trade is smaller, in both relative and absolute terms, than the Austrian–Hungarian and Austrian–Czech services trade. While Austria's share in EU trade with the Czech Republic is about 25% (on average) in exports and imports, and even larger in EU trade with Hungary, the Austrian share in EU trade with Poland is only 13% (on average) in Polish exports and a meagre 7.7% in imports.

The reason for this is probably not that much the greater geographical distance, but the greater cultural and historical distance between Poland and Austria. Austrian and Polish firms could generally not rely on an already existing economical and political network, making it much harder for firms to enter the market – especially in the services sector, where reputation plays an important role.

Looking at Polish trade with Austria, it can be seen that services trade did not follow the trend of trade in goods in 1997. While the goods trade deficit increased, the Polish services balance improved in 1997 compared to 1996. This improvement was mainly caused by the lower deficit in trade in services that could not be allocated to a specific category. It shrank by over ECU 40 million – a quite considerable amount compared to the deficit of ECU 107 million in 1996. Generally one can say that the size and fluctuations of the non-allocated services have a strong influence on the Polish services balance from 1995 to 1997. This fact blurs the overall picture of the Polish services balance and structure.

Unlike the two countries analysed above, Poland is not a net exporter of travel services – the item that is the backbone of those countries' services trade and kept their services balance at a rather acceptable level. Poland has to rely on its strong transport services, the only services that create a surplus worth mentioning. This situation is similar to EU–Polish services trade and reveals that Poland does not have a comparative advantage in natural endowments (as have the Czech Republic and Hungary), but has advantages in labour- and energy-intensive transport services.

Within transport services other transport is by far the most profitable service for Poland. It is responsible for 75% of the surplus in transport services trade. Sea transport developed positively; its surplus increased steadily from ECU 2 million in 1995 to ECU 5 million in

1997. In these two services categories Poland can rely on the advantage, already mentioned in EU–Polish trade, of having had to build up sufficient transport capacity and knowledge to supply the domestic market already before the start of transition. Now the country is competitive in transport services: it can exploit economies of scale because the large fixed costs were incurred already in the past, and can supply the international market at usually lower marginal costs than its competitors due to low labour and energy costs.

In contrast, Poland is supposed to be less competitive in air transport services as it does not have the capital and experience that western countries have. Nevertheless, counter to our expectations Poland had a surplus in air transport services in 1995 and 1996. That surplus however declined and turned into a small deficit in 1997.

Travel services trade is not an important factor in the Polish balance of services. Still the turnaround from a deficit into a small surplus in the travel balance in 1997 deserves some explanation. When we look at travel exports and imports, we first see that these flows are rather small. Second, Polish services imports declined steadily from 1995 to 1997, which is in contrast to the development of EU–Polish trade, thus we might relate this decline in imports to a change in tastes of Polish tourists. On the other side Polish travel exports increased slightly: perhaps Poland was able to improve its reputation, or to exploit some economies of scope, thus offering a larger travel portfolio; or it may have started modernizing the country's tourist sites, becoming more attractive for Austrian tourists.

Apart from the non-allocated services, other services are the main reason why the overall Polish balance in services has a deficit. Principally it is no wonder that Poland has a deficit in other services: we have learned from our theoretical considerations and our empirical observations that CEECs traditionally have (comparative) disadvantages in the production of most of the other services. But we have also learned that it is possible for these countries to have advantages in some of those services, e.g. in the low-skill-intensive part of construction services or in communication services (but here the 'advantage' arises from an underdevelopment of the communication sector). Hence it is no surprise that Poland is a net exporter of communication services and a net importer of financial and other business services. Even the fact that Poland is a net importer of construction services can be explained by arguing that Poland might especially need and import high-skilled construction services as it cannot produce them on its own, for the lack of experience and skilled labour.

Astounding and difficult to explain are however Poland's surpluses in insurance services, in computer and information services and in royalties and licence fees.

On the export side the Polish services trade structure is very different from those of the Czech Republic and Hungary, because the main exported services are other services

instead of travel services. Indeed travel services are the item exported least; from 1995 to 1997 they reach a share of less than 10% in total services exports.

Instead other services account for about half of all services exports, with construction and other business services taking the main share of these exports. But also the rest of the other services play a more important role in exports than is the case in the Czech Republic and Hungary. For example, if the shares of communication, insurance and financial services as well as the shares of royalties in exports are compared with Hungarian or Czech shares, they are much higher and often more than double the respective shares in the two other countries. This increased importance can of course be traced back to the low share and value of Polish travel exports, which automatically raises the shares of all remaining other services.

Table 5-7

Net services trade flows, Poland – Austria, ECU million

	1994	1995	1996	1997
GOODS	-64.8	-207.9	-358.5	-463.0
SERVICES	-218.0	-116.6	-154.5	-105.4
Transport	-20.2	26.2	31.3	17.1
Sea transport	.	2.4	4.9	4.8
Air transport	.	3.3	2.5	-0.1
Other transport	.	20.5	23.9	12.4
Travel	-5.4	-10.8	-9.4	0.4
Other services	-192.4	-53.9	-69.0	-60.8
Communications services	0.3	4.0	3.2	0.2
Construction services	-2.5	-21.5	-10.9	-10.3
Insurance services	0.5	0.5	0.5	7.9
Financial services	-3.1	-2.1	-5.8	-0.5
Computer and information services	.	2.4	1.6	-0.7
Royalties and licence fees	-0.1	-0.1	0.0	0.4
Other business services	-187.5	-36.7	-56.3	-57.6
Personal, cultural and recreational	-0.1	-0.3	-0.4	0.0
Government services, n i e	0.1	-0.1	-0.8	-0.1
Services not allocated	0.0	-78.2	-107.4	-62.1

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997.

Transport services are also of greater importance in Polish services exports than in the other two countries; this might be due not only to the low travel share but also to Poland's advantages in transport services.

On the import side the picture is similar to that in the Czech Republic or Hungary. Other services are dominating and transport and travel play a minor role. Unfortunately a large

share goes to services not allocated; if these services could be attributed to a specific service category the import structure might well change quite a bit.

Relying on the available data, what can be said is that other services amount to about half of Polish services imports, which reflects the by now well-known services export structure of a developed western country to a less developed CEEC.

Transport and travel services are not that essential, although it seems that transport is of rising and travel of decreasing importance. The latter point is in contrast to the development in EU–Polish trade (this we have already discovered in analysing the net trade flows), and possibly the same reasoning as above applies for an explanation.

Table 5-8

Trade structure: Poland – Austria

	Credit				Debit			
	1994	1995	1996	1997	1994	1995	1996	1997
SERVICES	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Transport	0.00	33.96	32.36	27.77	6.94	9.98	7.94	13.04
Sea transport	.	2.07	3.67	2.80	.	0.30	0.49	0.34
Air transport	.	6.63	5.30	7.57	.	2.60	2.10	5.08
Other transport	.	25.26	23.38	17.39	.	7.07	5.35	7.61
Travel	20.67	9.41	7.56	8.06	7.02	9.34	6.87	5.24
Other services	79.33	46.35	50.19	57.26	86.04	46.28	47.62	57.39
Communications services	0.61	2.93	2.25	1.45	0.05	0.22	0.25	0.90
Construction services	22.20	8.60	12.69	15.80	6.41	12.77	10.09	13.77
Insurance services	2.65	1.49	1.59	5.08	0.48	0.66	0.69	0.87
Financial services	0.61	0.91	3.51	2.63	1.22	1.30	3.62	1.91
Computer and information services	.	1.63	1.09	0.07	.	0.08	0.09	0.28
Royalties and licence fees	0.20	0.05	0.13	0.59	0.08	0.06	0.07	0.28
Other business services	50.20	29.68	28.10	30.95	77.09	30.45	31.98	38.88
Personal, cultural and recreational	0.00	0.05	0.00	0.00	0.03	0.14	0.13	0.00
Government services, n i e	2.85	1.01	0.84	0.69	0.69	0.61	0.69	0.51
Services not allocated	0.00	10.28	9.90	6.92	0.00	34.40	37.58	24.33

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

The figures in Table 5-9, showing the results of the calculation of the revealed comparative advantage index, point to a general disadvantage of Poland services trade with Austria.

This is nothing unexpected for a CEEC trading with western countries, but a closer look reveals two interesting features. Both are subcategories of other services; first, Poland has some advantages in insurance services trade with Austria throughout the period, reaching a high in 1997 with a value of 0.59. This is quite at odds with our theoretical findings – we expected that Poland should have a disadvantage in these services – but it might also be a

one-time high; as no data are available for the following years, no serious prediction can be made.

Table 5-9

Specialization index: Poland – Austria

	1994	1995	1996	1997
GOODS	-0.08	-0.21	-0.36	-0.37
SERVICES	-0.60	-0.27	-0.30	-0.20
Transport	-1.00	0.32	0.37	0.17
Sea transport	.	0.59	0.60	0.69
Air transport	.	0.19	0.15	0.00
Other transport	.	0.35	0.40	0.21
Travel	-0.15	-0.27	-0.26	0.01
Other services	-0.63	-0.27	-0.28	-0.20
Communications services	0.50	0.77	0.66	0.04
Construction services	-0.07	-0.44	-0.19	-0.13
Insurance services	0.16	0.13	0.10	0.59
Financial services	-0.78	-0.42	-0.32	-0.04
Computer and information services	.	0.84	0.73	-0.71
Royalties and licence fees	-0.20	-0.33	0.00	0.17
Other business services	-0.72	-0.28	-0.36	-0.31
Personal, cultural and recreational	-1.00	-0.67	-1.00	.
Government services, n i e	0.02	-0.02	-0.22	-0.05
Services not allocated	.	-0.71	-0.75	-0.68

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

The second point is the high index values of computer and information services in 1995 and 1996 and the drastic turnaround in 1997. One interpretation of this might be that because of the low trading volume, few big transactions bias the index values and distort the long-term trend. Therefore it would not be wise to interpret these values in a rigid manner and believe in a specialization of Poland in computer services in 1995 and 1996, which reversed completely in 1997. It would be safer to wait for additional data and to analyse the development then.

The other values are quite as could have been expected according to Tables 5-7 and 5-8. Poland has a clear advantage in transport services, especially in sea transport, where it has an index value of 0.6 and beyond. In air and other services the Polish advantages begin to fade, in fact in air transport services the former advantage was equalized, and in other transport services the advantage declined to a moderate level.

Travel services show a reverse trend, since Poland became more attractive as a travel destination, or Austria was favoured less by Poland, or both, and therefore the former Polish disadvantage changed to a small advantage.

In other services Poland has some disadvantages, although they are not as big as could have been expected. Moreover these disadvantages are declining for some items, e.g. construction and financial services, and reversing to an advantage for royalties and licence fees. However also the Polish advantages in communication services declined dramatically in 1997, and are now almost non-existent.

Thus, apart from other business services in which Austria has a clear and stable advantage, there are either Polish advantages in services trade (insurance, communication and royalties and licence fees), or the disadvantages are relatively small (excepted computer and information services).

5.4 Summary

CEEC–Austrian services trade is on the whole similar to CEEC–EU services trade, since Austria draws on the same advantages and disadvantages as does the EU. However, in some points the analysis shows that the results of CEEC–Austrian services trade are more pronounced than in CEEC–EU trade, mainly due to Austria’s geographical, cultural and historical nearness to some of the CEECs.

This chapter shows that the trade patterns are on the CEECs’ side determined by their advantages in (low-skilled) labour-intensive and natural-endowments-based services, and on the Austrian side by the country’s advantages in producer services, which are intrinsic to the western, developed countries in their trade relations with transition countries.

With the exception of the Czech Republic in 1997, all three observed countries incur deficits in the overall services balance from 1994 to 1997, which are mainly caused by the deficits each country has in other business services and in services that could not be allocated. The CEECs’ lack of competitiveness in the so-called producer services and their advantages in labour- and natural-endowments-intensive services become obvious not only in the services balance, where travel and transport services have generally a surplus and other services a deficit. They also show in the analysis of the trade structures. Exports of the CEECs tend to rely mostly on travel and transport services, which are either based on natural endowments or on (low-skilled) labour; imports of the CEECs consist mainly of other services, which are seen as (high-skilled) labour-, knowledge- and capital-intensive. The CEECs’ disadvantages in producer services and their advantages in other services becomes most evident by the calculation of the revealed comparative advantage index, which strongly supports the theoretical assumption that the CEECs have advantages in

travel and transport services (with the exception of air transport) and disadvantages in most producer services.

Although the analysis of CEEC–Austrian services trade is structured like the investigation of CEEC–EU services trade, we expected the results of the former analysis to be more pronounced than in CEEC–EU trade: First, Austria is an 'above-average' EU member; thus there should be a clearer pattern of advantages and disadvantages as the adverse effects of less developed EU countries are left out. Second, the geographical, cultural and historical proximity to the CEECs reduces transaction costs for both trading partners, leading to a better use of the countries' advantages and a more segmented trading pattern.

6 Comparison EU–Austria

From the Austrian point of view it should be interesting to know what position Austria has vis-à-vis the EU in competing for the CEECs' services markets. This question will be analysed in this chapter, using mainly the results obtained in the two preceding chapters but interpreting them in a way to obtain some insights about Austria's competitiveness vis-à-vis the EU in trading services with CEECs.

Unfortunately, EU–CEEK and Austrian–CEEK data are incompatible for reasons already mentioned: a large share of Austrian–CEEK trade in services could not be allocated to a specific service category whereas in EU–CEEK this problem did not occur, so the comparison between the EU and Austria becomes blurred.

6.1 Czech Republic

In Table 6-1 the shares of Austria in EU exports to and imports from the Czech Republic are shown for the years 1995 to 1997.

It can be seen that Austria's share in EU services trade (exports as well as imports) is more than double its share in goods trade, amounting to about one quarter of total EU services exports and imports. Generally it can be said that the importance of Austrian services trade with the Czech Republic within the EU is much greater than could be expected from indicators such as country size or population etc. There are certainly other explanations for the large Austrian share in EU services trade with the Czech Republic than the ones mentioned above, such as a historical, geographical, cultural affinity between the two countries.

In that sense it is not wise to compare the size of the Austrian services trade shares with the share Austria has in the EU regarding population, size, GDP etc. The preferred

approach is to compare the services trade shares in the different service categories among one another to get some relative measure by which it is possible to state in which services Austria performs (relatively) well and in which it does (relatively) poorly.

What can be seen from Table 6-1 below is that Austria has a relatively large share in other services, where it accounts for approximately 20% of all EU exports in this category. Within other services Austria does well in insurance services, which are also of rising importance, for Austria's share in EU exports rises from about 12% in 1995 to some 29% in 1997. A good Austrian performance can also be observed in financial services (18.5% of EU exports in 1997) and other business services (with a share of 27% in 1997).

Austria has a relatively low share in EU services exports especially in sea transport (being land-locked), in royalties and licence fees (only 6.5% of EU exports in 1997), in construction services, which show moreover a declining trend (from 31% in 1995 to 10.6% in 1997), in communication services (rising however from 0.2% in 1995 to 10.6% in 1997), and in travel services.

Austria also absorbs a large share of Czech services exports to the EU, adding up to one quarter of all Czech exports to the EU.

Austria imports a relatively large share of travel services (approximately one third of Czech exports in this category), of air and other transport services and – somewhat surprisingly – of insurance services. In the remaining services Austria does not have a significant share in EU imports; very low values can be observed in royalties and licence fees and personal services (both account for around 2% of EU services imports).

In the two preceding chapters we calculated a specialization index for Czech–EU trade and Czech–Austrian trade, respectively. This index gave some information about the services sectors in which the Czech Republic had an advantage or disadvantage compared to the EU or Austria.

It is possible to reinterpret this index in so far as what is a disadvantage for the Czech Republic has to be an advantage for the EU or Austria, and *vice versa*²⁰, making it feasible to compare the competitiveness of the EU and Austria in trading services with the Czech Republic.

The first result of this comparison is that Austria seems to have been in a slightly better position than the EU in trading services in general in 1995 and 1996, since in this period

²⁰ Technically this means that, if we wanted to show the index from an EU or Austrian point of view, we would have to multiply the values in the specialization index tables by –1.

Austria had a small revealed comparative advantage whereas the EU had not. In 1997 both Austria and the EU had a disadvantage in trading services with the Czech Republic, but the Austrian one was slightly bigger than the EU's (Austria had an index value of -0.10 for 1997, the EU had a value of -0.04).

Table 6-1

Austria's share in EU exports to and imports from the Czech Republic¹⁾

	Exports			Imports		
	1995	1996	1997	1995	1996	1997
GOODS	10.32	9.51	9.71	10.11	10.57	10.45
SERVICES	30.11	27.50	22.23	24.52	25.01	25.02
Transport	12.48	13.33	12.76	14.70	18.35	19.48
Sea transport	1.08	3.30	1.67	3.14	11.81	8.99
Air transport	18.19	14.03	16.13	16.71	14.48	19.02
Other transport	12.90	16.77	15.08	19.34	22.75	24.25
Travel	13.99	10.71	10.78	33.29	32.82	32.13
Other services	24.48	19.96	20.97	12.83	9.47	11.69
Communications services	0.21	1.12	10.55	3.19	3.56	10.66
Construction services	30.92	19.31	10.66	13.75	7.29	7.87
Insurance services	11.87	18.90	28.85	50.68	(-97.84)	36.55
Financial services	19.07	15.17	18.47	7.15	5.98	11.72
Computer and information services	0.00	0.00	13.66	0.00	0.00	6.52
Royalties and licence fees	12.87	16.23	6.47	5.38	1.17	2.20
Other business services	29.49	23.94	26.97	14.15	11.85	13.60
Personal, cultural and recreational	0.94	2.34	9.08	3.24	2.33	2.14
Government services, n i e	2.61	6.13	9.73	10.93	11.19	10.73

1) Figures in brackets are obviously false and unreliable.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

In transport services the EU is in a better position than Austria, especially in sea and air transport but also in other transport (rail and road); in sea transports Austria has a huge disadvantage against the Czech Republic (index value of -0.68 in 1997), whereas the EU had a small revealed comparative advantage; in air transport the EU and Austria have some advantages compared to the Czech Republic, but the EU's is slightly bigger (0.12 in 1997) than the Austrian one (0.04 in 1997). In other transport services the Czech Republic performs better than Austria and the EU, but still Austria has a larger disadvantage than the EU.

The same is true for travel services, where the Czech Republic has a big revealed comparative advantage against both the EU and Austria: the index values are -0.33 for the EU and -0.71 (!) for Austria.

So far the comparison has always shown a worse position for Austria than for the EU, but this changes if a look is taken at other services. Here Austria performs better than the EU, which is demonstrated by the index values for other services which are 0.41 (in 1997) for Austria but only 0.14 (in 1997) for the EU.

Within other services Austria seems to be more competitive than the EU in nearly all categories, the exceptions being communication services in 1995 and 1996, and insurance services. Very large differences in competitiveness exist in other business services (the EU has an index of 0.17 in 1997, the Austrian index is 0.47), financial services (EU: 0.14 in 1997, Austria: 0.35), and royalties and licence fees (EU: 0.32 in 1997, Austria: 0.7).

6.2 Hungary

What has been said about the importance of the Austrian share in EU services trade with the Czech Republic is even more true for EU–Hungarian trade, as can be seen from Table 6-2 below.

Austria's share in overall EU services exports is almost 50% in 1995, but is declining to about 30% in 1997. Especially in transport services and other services Austria has a very strong position within the EU, having a share of more than 30% in EU exports in the former and a share of slightly under 30% (in 1996 and 1997) in the latter. Only in travel exports is the Austrian share relatively low, amounting only to about 16% (in 1996 and 1997).

Looking at the results in more detail, it can be observed that in transport Austria has a very large share in other transport services exports (around half of EU exports), and a still large share (25%) in air transport exports; only in sea transport is Austria not that important.

Within other services Austria plays an important role in EU exports of construction services (more than half of these exports are coming from Austria), of insurance services (which have a share of some 45% in 1997) and also of other business services (running up to more than one quarter of EU exports in 1996 and 1997). Austria's weaknesses are clearly royalties and licence fees and personal services; each amount only to about 3% of EU exports in the respective category. A below-average performance can also be detected in computer and financial services, where Austria only holds slightly above 10% of the EU exports.

On the import side, Austria has a large share in imports of transport services, especially of other transport services (about 36% in 1997), of travel services (declining from some 44% in 1995 to some 33% in 1997), of construction services (about 42% in 1997) and also of insurance services (about 30% in 1997).

Almost no Hungarian exports to the EU of financial, computer and personal services as well as of royalties go to Austria, as the low shares in these categories show at least for 1997.

Table 6-2

Austria's share in EU exports to and imports from Hungary¹⁾

	Exports			Imports		
	1995	1996	1997	1995	1996	1997
GOODS	18.48	18.19	18.76	11.67	15.52	14.77
SERVICES	49.21	43.48	36.26	35.64	29.01	27.94
Transport	31.03	32.84	30.56	25.85	20.11	22.16
Sea transport	6.36	10.97	5.50	8.35	9.94	8.73
Air transport	21.89	24.51	26.44	17.46	12.46	16.90
Other transport	51.94	52.83	48.09	41.93	34.00	36.24
Travel	34.05	15.94	16.82	43.82	38.29	33.30
Other services	35.81	27.05	28.71	26.71	17.47	17.23
Communications services	11.63	(-35.07)	18.75	7.21	11.34	15.93
Construction services	62.73	45.88	53.90	56.01	32.88	42.08
Insurance services	48.26	36.45	44.86	55.65	71.08	29.62
Financial services	8.95	8.85	11.61	8.63	5.11	0.24
Computer and information services	10.43	4.11	13.19	11.39	10.88	2.11
Royalties and licence fees	7.83	8.06	3.77	3.10	2.05	0.57
Other business services	38.79	26.57	26.18	26.23	18.60	17.78
Personal, cultural and recreational	0.34	0.00	3.22	0.61	0.17	0.34
Government services, n i e	9.24	4.67	8.11	8.96	11.77	5.64

1) Figures in brackets are obviously false and unreliable.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

In analysing Austria's position in competing with the whole EU for services trade with Hungary, we use the same methodology as in the case of the Czech Republic.

The most striking result is that in 1997 Austria has in all but two services sectors a better competitive position than the EU. The exceptions are sea transport and travel services, where the EU has a smaller revealed comparative disadvantage in trading with Hungary.

The largest gap in competitiveness between Austria and the EU can be found in financial services, where Austria has an index value of 0.97 in 1997 while the EU only of 0.14; in royalties and licence fees (Austria: 0.79 in 1997, EU: 0.13); and in computer and information services, where Austria has a revealed comparative advantage index of 0.72 in 1997, and the EU of -0.01 (!).

6.3 Poland

From Table 6-3 it can be seen that in EU–Polish trade, Austria is not as important as it is in EU–Czech and EU–Hungarian trade. Nevertheless, the characteristic feature that the share of Austrian services trade is much bigger than the share of its goods trade in EU trade with CEECs applies also to EU–Polish trade.

Austria's share in overall EU services exports is 16% in 1995, but declining to some 11% in 1997. This development is mainly influenced by the decrease in the Austrian travel share from 6% in 1995 to 2% in 1997, and also by a slight fall in the share in other services exports from 15.7% in 1995 to about 13.5% in 1997.

Table 6-3

Austria's share in EU exports to and imports from Poland¹⁾

	Exports			Imports		
	1995	1996	1997	1995	1996	1997
GOODS	4.09	3.53	3.62	3.53	2.84	3.00
SERVICES	16.32	14.78	11.39	7.67	7.86	7.65
Transport	6.35	5.31	6.81	6.31	5.81	5.58
Sea transport	0.51	1.04	0.54	1.58	2.31	1.86
Air transport	5.97	4.35	9.56	11.42	8.95	13.88
Other transport	13.09	9.87	10.20	7.24	6.90	5.95
Travel	6.03	3.74	2.02	3.57	2.70	2.81
Other services	15.70	13.99	13.47	9.37	11.57	11.01
Communications services	1.18	1.43	3.79	6.41	4.46	2.90
Construction services	28.94	12.67	18.21	8.06	12.47	13.49
Insurance services	7.19	6.49	17.13	(915.56)	(-1.93)	86.31
Financial services	14.42	26.80	14.88	10.41	25.93	19.45
Computer and information services	1.66	1.03	1.89	4.56	2.90	0.31
Royalties and licence fees	0.18	0.28	0.81	0.32	0.70	3.33
Other business services	19.58	18.61	16.30	11.81	10.60	11.95
Personal, cultural and recreational	1.99	1.90	0.00	0.38	0.00	0.00
Government services, n i e	3.92	8.80	4.15	5.64	4.80	3.56

1) Figures in brackets are obviously false and unreliable.

Source: Eurostat: Geographical breakdown of the EU current account – 1994-1997, own calculations.

Although the Austrian export shares in EU–Polish trade are lower than the comparable shares in EU–Czech or EU–Hungarian trade, Austria performs quite respectably in some services – all to be found within other services: Austria has a share of about 13.5% (in 1997) in EU exports of these services. At a detailed level it can be observed that Austria has a quite important role in EU–Polish trade in construction services (18.2% in 1997), insurance services (17.1% in 1997), financial services (14.9% in 1997) and other business services (16.3% in 1997). Austria's importance is all but negligible in exports of sea

transport, royalties and licence fees, and personal services, but also of computer and communication services.

In EU services imports from Poland Austria takes a larger share in four services. These are air transport, where in 1997 almost 14% of EU imports of these services are imported by Austria, construction services, with a share of 13.5% in 1997, financial services, where Austria accounts for almost 20% of EU imports of these services in 1997, and other business services, with an Austrian share of about 12%.²¹

The picture of the EU's/Austria's competitiveness in services trading with Poland is not as clear as it was in the case of Hungary. Indeed it is very mixed.

In 1997 the EU is in a better position in sea transport, where it has a smaller disadvantage against Poland than has Austria; in air transport, where the EU has, in contrast to Austria, a revealed comparative advantage with a value of 0.19 (Austria: 0.00); in travel, insurance services and royalties and licence fees, where the EU has an advantage in all three (index values of 0.15, 0.13 and 0.49) and Austria a disadvantage; and in financial services, where the EU's revealed comparative advantage is larger than the Austrian one (index of 0.18 compared to 0.04).

Austria, in 1997, is more competitive in other transport services and communication services – in both cases the Austrian comparative disadvantage against Poland is smaller than the EU's; in construction and computer services, where Austria has a revealed comparative advantage (index of 0.13 and 0.71 respectively) while the EU has not (index of –0.01 and –0.01); and in other business services, where the Austrian revealed comparative advantage is bigger (index value of 0.31) than the one of the EU (index value of 0.16).

6.4 Summary

*The **comparison of the EU and Austria** in services trade with the CEECs shows that Austria – despite its small share in the EU regarding size, population, GDP etc. – has a very **important role** in the EU services trade with the **Czech Republic and Hungary** and a smaller but still respectable position in EU–Polish trade. Austria is involved most in EU trade with Hungary, where Austria contributes over one third of all EU services exports to Hungary and absorbs more than one quarter of EU services imports from Hungary. Austria's share is largest in EU exports of other transport services, construction and*

²¹ We left insurance services out of consideration because the peculiar results for 1995 and 1996 make the result for 1997 very doubtful.

insurance services and other business services, while in EU imports Austria has a large share in travel and construction services.

*Austria's participation in **EU** trade with the **Czech Republic** is not as strong as in Hungarian trade, still Austria has a share of one fifth in EU exports to and one fourth in EU imports from the Czech Republic. Especially the high share in EU exports of insurance, financial and other business services, and the high shares in EU imports of travel and insurance services contribute to this picture.*

*Comparing the Czech Republic, Hungary and **Poland**, Austria's share in EU trade is lowest in the trade with Poland, yet Austria has a share of more than 10% in EU exports to and of more than 7% in EU imports from Poland, with an especially important role in EU exports of insurance, financial and other business services, and also in EU imports of air transport and financial services.*

*Regarding **Austria's competitive position** vis-à-vis the EU, Austria has good prospects, first of all in trade with the Czech Republic and Hungary, and here especially in financial and other business services, in royalties and licence fees and in computer and information services (the last point is valid for Hungary only). In trade with Poland the EU seems to be in an overall better position than Austria, solely in construction, computer and other business services Austria is more competitive than the EU.*

7 The effects of FDI on services trade

7.1 Theoretical issues

So far we have dealt with trade only, but there is another important way of transacting goods to be mentioned here. This is not directly related to trade but has a strong indirect influence on trade in goods and services. Although it is not a trade flow, it is a way of transacting goods and services between two countries, and it occurs when providers from one country establish a local branch or subsidiary in another country in order to produce and supply goods and services directly; this is also known as **foreign direct investment (FDI)**.

In fact FDI has become a more important source of delivering goods and services to foreign markets than exports: in 1998 foreign affiliate sales (of goods and services) in domestic and international markets were about USD 11 trillion, compared to almost USD 7 trillion of world exports the same year (UNCTAD, 1999).

The importance of FDI in the services sector is shown in a review of eighteen service industries in the United States, where the Department of Commerce identified eight

industries in which investment is the dominant mode for international transactions (accounting, advertising, automobile and truck leasing, banking, employment agencies, equipment leasing, hotels and motels and legal services), eight industries in which both trade and investment flows are important (communications, computer services, construction and engineering, educational services, franchising, health services, insurance and motion pictures) and only two industries in which trade flows dominate (air and maritime transport).²²

These facts however do not provide an answer to the question why a firm actually enters a foreign market, especially if there are costs associated, including communications and transport costs, higher costs of stationing personnel abroad, barriers due to language and customs, and being outside the local business and government network.²³

A multinational enterprise must therefore have some intrinsic advantages such as economies of scale or economies of scope which make FDI the superior form of production. And it is the size of these advantages which determine the extent of FDI taking place. A conceptual framework for determining these advantages and their size is introduced by Dunning (1989), who suggested three main factors on which the extent and pattern of foreign-owned production is dependent. This has become known as the OLI framework: ownership, location and internalization:

- 1) The extent and nature of the technological, managerial and marketing assets a firm possesses and can acquire, and the way in which these assets are organized and geographically dispersed. These comprise the **ownership**-specific or **comparative** advantages of firms, determining their ability to service particular markets vis-à-vis their competitors.

The nature of the ownership or competitive advantages of a firm is dispersed in many ways, which have in general a strong relationship to the different sources of the competitive advantages in trade we already discussed partly above. Adding some more sources of competitive advantages, we should first mention the aspect of *product differentiation*.

Since many services are experience goods, consumers cannot assess what quality a certain service has before they buy it. Hence establishing and sustaining a successful brand image is supposed to be one of the key competitive advantages of multinational

²² United States Department of Commerce (1976), *US Service Industries in World Markets: Current Problems and Future Policy Development*, US Government Printing Office, cited in: R. Shelp (1981), 'Beyond Industrialization: Ascendancy of the Global Service Economy', in *Economic Theory: a History of Neglect* ch. 4, New York, Praeger, cited in B. Hindley and A. Smith (1984), 'Comparative advantage and trade in services', *The World Economy*, 7, p. 374.

²³ For a theoretical discussion see Markusen (1995) and Dunning (1989).

enterprises (MNEs), because it might guide consumer choice to purchase services from well-known enterprises rather than from less known ones.

Other sources of ownership advantages include product innovations, organizational and marketing systems, innovation capacity, non-codifiable knowledge, marketing, finance, know-how etc.

- 2) The foreign market must offer a **location** advantage that makes it profitable to produce the service in the foreign country rather than simply produce it in the domestic country and export it to the foreign country. Tariffs, quotas, transport costs, factor prices are obvious sources of location advantages, but also factors such as access to customers or specific production inputs, or infrastructure provisions (commercial, legal, educational, transport and communications) can be important. Hence the location of tourist hotels depends on the scenery, climate and physical amenities customers are seeking, whereas financial and insurance institutions tend to settle where there is an adequate supply of communication facilities and of suitably trained labour.
- 3) The benefits of **internalizing** transaction costs through owning a foreign affiliate rather than licensing the right to use the assets of an indigenous firm located in the country of production.

This is based on the assumption that it is less profitable for a firm which has specific advantages to lease its right to those advantages to firms in the foreign country than to become a MNE and probably incur high set-up costs, because there are costs involved in the first form of exchange; that impedes the firm from securing the full economic rent on their assets. Such (transaction) costs are search (for the right seller/buyer) costs, negotiation costs, costs of monitoring service quality, and manifold costs imposed by a possible principal-agent problem. Furthermore it offers advantages such as being able to control supplies and the conditions of sale of inputs, to control the market outlets, to engage in practices such as cross subsidization, transfer pricing etc. as an (anti-) competitive strategy and to compensate for the absence of (foreign exchange) future markets and political risk.

(In the Appendix we present a table in which Dunning put together the organization, location and internalization advantages and their relevance to selected service sectors.)

Location and ownership advantages were the main starting points for the implementation of MNEs into trade theory over the last sixteen years. It was split into two parts – one dealing with vertically integrated MNEs, the other with horizontally integrated MNEs.

Helpman and Krugman (1985) used the first form of MNEs, i.e. firms with production facilities in more than one country, with each facility producing goods of different production stages (intermediate – final goods), to analyse trade flows in the presence of MNEs.

Assuming that no trade costs whatsoever (tariffs, transport costs etc.) exist, Helpman and Krugman develop a $2 \times 2 \times 4$ model with 2 countries, 2 production factors (capital K and labour L), and four goods: two final goods, one labour-intensive, homogeneous food which is produced with K and L under constant returns to scale, another somewhat less but still labour-intensive differentiated manufactured good which is produced with K, L, and with a capital-intensive middle product Z and also with even more capital-intensive headquarter services; all available production technologies are assumed to be common knowledge in the world economy.

Starting with no MNEs, there are two countries with different factor endowments, and each is a net exporter of the good which in its production is extensively using the factor with which this country is relatively well endowed, i.e. the assumption of the classical trade theory. As long as technology is sufficient to employ all the factor endowments in both countries fully there is no need for MNEs to establish, and factor prices will actually equalize across the countries.

The crucial point in Helpman's and Krugman's theory is that, if factor endowments are such that they cannot be employed fully with a given technology, there is room for differences in factor prices, since the capital-rich country will have idle capital and hence capital will have a relatively lower price than in the labour-rich country (and *vice versa* for the labour-rich country). These differences in factor prices are an incentive for firms to partly relocate their production, that means they locate their capital-intensive part of production to the country where capital is relatively cheap, and the labour-intensive part is placed in the country where labour is relatively cheaper.

The outcome of this process is that either factor price equalization or complete specialization occur, and that the capital-rich country imports food and differentiated finished goods, but exports intermediate goods and headquarter services.

A drawback of this model is certainly that it is only suited for the examination of trade and FDI relations between countries with significant disparities in factor endowments, i.e. North-South trade and investment. As the following table points out, this type of trade and investment has only a minor share in all direct investment and trade flows.

Table 7-1

Direct investment and export flows by source and recipient country, 1987-1991
In shares of all direct investment and trade flows

	Investment	Exports
Developed to other Developed	80%	61%
Developed to less Developed	17%	15%
Less Developed to Developed	2%	15%
Less Developed to Less Developed	1%	8%

Source: Markusen and Venables (1995).

Thus, according to empirical evidence, a model of trade and FDI flows dealing with equally endowed countries, i.e. modelling trade and FDI flows between developed countries, should be superior to a model based on differences in factor endowments between countries.

In a series of papers Markusen (1995), and Markusen and Venables (1995, 1996a, 1996b) deal explicitly with horizontally integrated firms, i.e. firms with plants producing the same good in different countries, thereby obtaining results that are striking in the light of empirical evidence.

Basically, Markusen works with a $2 \times 2 \times 2$ model, with two countries (h and f) producing two goods (X and Y), using the factors land and labour (R and L), where production factors are immobile between two countries.

Y is a homogeneous good produced with constant returns to scale by a competitive industry, and it uses all of R (land) and some of L (labour) in its production. X is a homogeneous good produced with increasing returns to scale by Cournot firms, and it uses solely L for its production. The cost of producing L, which differs across countries, can be measured in units of L and can be separated in four categories: firm-specific fixed costs (F); plant-specific fixed costs (G), constant marginal costs (c) and unit shipping (transport) costs (t). There exist three types of firms, each has free entry and exit: type h firms are national firms with a single plant in the home country, type f firms have only a single plant in the foreign country and type m are multinationals maintaining plants in both countries.

First, Markusen considers the case where two countries exist that are identical in technologies, factor endowments and preferences, and where there are zero transport costs. In this case, he argues, there would only exist national firms exporting to each others' markets because no firm can afford to incur the fixed costs of a second plant. On the other hand, if trade costs are high, a multinational has lower fixed costs per market, and therefore it could outcompete national firms which face prohibitively high export costs.

At intermediate levels of transport costs the existence of multinationals depends on whether firm-specific fixed costs and transport costs are relative large compared to plant-specific fixed costs.

Furthermore Markusen shows in his model that the importance of horizontally integrated MNEs is the greater, the more two countries are similar in size, relative factor endowments and technical efficiency, this being a result that is consistent with empirical observations.

Consider for example the case of two countries being identical and with high transport costs, so that only multinationals exist. Now if the size of one country f is reduced, this causes a fall in profits of the MNEs, forcing some of them to leave the market, thus increasing the price of good X in both countries (due to higher markups due to higher concentration of firms). The decreased size of country f has a smaller impact on the profits of potential type h firms, since their sales are concentrated in the larger market, so that some type h firms might find it profitable to enter the market. At this stage of a moderate reduction in the size of country f both MNEs and type h firms coexist.

If the size of the country is reduced further, more MNEs leave the country and good X production by MNEs falls further, thus causing an increase in the price of X , additionally the demand for labour falls in country f and hence the wage rate falls, so that eventually type f firms can enter the market despite its small size, thus making MNEs obsolete.

A further fall in the size of the country finally causes type f firms to leave their market, because it is too small to be supplied profitably, so that in the end only type h firms exist which supply their home country as well as the foreign country.

Similar conclusions can be drawn using increasing differences in endowments and technology; in all cases only firms of the country advantaged in terms of size, endowments or technology are supported to exist in equilibrium, if differences and transport costs are high. The more the two countries converge the bigger is the part MNEs play, and the more are they replacing national firms and trade. Markusen and Venables (1995) refer to this as the 'convergence hypothesis'.

The generation of hybrid models out of these two models, i.e. combining vertically and horizontally integrated firms into a single model, generally underpins the theoretical results of the previous models (see Konan, Markusen, Venables and Zhang, 1996, and Markusen, 1997). Hence horizontally integrated firms are to be found when countries are similar in endowment and size and transport costs are high, whereas vertically integrated firms exist when countries are differentiated in endowments. When countries differ in endowment but are also of very different size, there is a mixture of national and (vertically integrated) MNEs.

Econometric tests of these models do not present a unified picture. Brainard's results (1997) support strongly the theoretical assumption about horizontal MNEs; MNE activities should be concentrated in countries that are similar in endowment (per capita income), and they should also be increasing in trade barriers, transport costs and corporate scale economies and decreasing in trade barriers and plant level economies.

Markusen and Maskus (1999b) tested and compared all three models – horizontally integrated and vertically integrated MNEs as well as the hybrid form – and came to the conclusion that the vertical model tested alone would show quite acceptable results, but that compared to the horizontal model, which had the most significant results, it has to be clearly rejected – just as the hybrid model, which performs better than the vertical model but significantly worse than the horizontal model.

This is at odds with the strong support the hybrid model gets in Markusen and Maskus (1999a) and Carr, Markusen and Maskus (1998), especially since the same data set is used in those three tests; however the difference in the results seems to be due to different ways of specifying the hybrid model (see Markusen and Maskus, 1999b).

The implications for services and services trade that follow from these theoretical considerations about FDI are manifold.

According to the Helpman-Krugman model of vertical FDI, investment is undertaken if there exist sufficiently large differences in factor endowments between countries. Thus a country will locate its labour-intensive part of production in the relatively labour-abundant country and its capital-intensive part in the capital-abundant country.

For services this may mean that western (capital-abundant) countries invest especially in CEEC services which are assumed to be labour-intensive. Hence it might occur that the exports of those services from the western countries to the CEECs diminish and vanish completely; it might even happen that the CEECs specialize (to some degree) in those services. On the other hand, the FDI decision based on differences in factor endowments implies also that the services- or, more importantly, goods-producing firms and subsidiaries located in the (low-skilled) labour-abundant country require a bunch of producer services for production which, because they require high-skilled labour, cannot be supplied from the host country. Thus the capital- and high-skilled-labour-abundant country has to supply its subsidiaries from abroad, which increases the exports of the producer-oriented services.

Hence the picture we get for services out of the Helpman-Krugman model of FDI is that the (low-skilled) labour-intensive services in the western countries will suffer because they are substituted by imports from the CEECs, but the high-skilled services exports will grow because of a comparative advantage of the western countries in producing these services

and because of the demand for headquarter services of the subsidiaries of western firms in the host countries.

A picture of FDI and services becomes more difficult to draw if we also include Markusen's approach in our considerations. Markusen's findings are that the more two countries converge (in income, technology), the more trade is substituted by horizontally integrated MNEs, which should in general be also valid for services producing firms. However it is an open question in Markusen's model whether the so-called headquarter services are still exported from the MNEs' home country in this case or whether even these services are substituted by MNEs.

In fact the theoretic predictions about FDI and trade flows presented above remain at a very abstract level, since they are concerned about differences in factor endowments or stages of development etc. which are easy to assume theoretically, but much harder to prove empirically. These general predictions also lose much of their value if the economy is not seen as a whole, but is divided into a set of numerous firms and consumers (which also provide the necessary labour), where each branch (set of firms) is at a different stage of development and the consumers adapt in their skills to these different stages of development.

We will now try to evaluate the effects of FDI on services trade at a more detailed level. The first thing to mention is that services differ in their tradability, therefore FDI in specific services sectors will have different effects on the trade balances of each service.

For example, FDI in retail trading is assumed to have little direct effects on the services trade balances, since it is very location-bound and retail trade services are not easily traded between two countries. It might however have indirect effects on the services and goods trade balances: Firstly, the subsidiaries might need headquarter services from their home country. Secondly, they may either demand goods from their home country, thus increasing the exports of their home country, or they may buy goods in their host country, which are then imported from their home country. Hence the net effect on services trade should be positive, due to a complementary relation between FDI and (headquarter) services trade, but FDI has an ambiguous effect in goods trade.

The trade effects of FDI in transport services are likely to be of a substitutive nature, since transport services are not location-bound, and CEEC and EU transport firms can compete with each other on the European market. Most important however is that transport services are very (low-skilled) labour-intensive, which is an advantage for the relatively labour-abundant CEECs; hence foreign investors in those countries have a significant price advantage against their competitors in the mother country, so they are able to substitute transport services imports easily, which has a direct effect on the balance of transport.

FDI in travel services, like FDI in retail trading, is location-bound and there is virtually no or only minor trade substitution to be expected, because FDI in the host country (mostly) cannot rebuild the intrinsic natural endowments of the mother country which are its sources of travel services exports. However there can be indirect effects on the travel services balance, if e.g. Austrian investors in the host country manage to attract Austrian customers.

To judge the FDI effects on trade in other services, we have to distinguish between two parts of those services: The first part consists of all services that are very location-bound, due to the need for direct interaction with the consumer (e.g. retail banking). These services are near to non-tradable services, that means they are not much traded and therefore there can be no substitution effect induced by FDI either. The second part consists of services whose production does not have to take place in the same location as the 'consumption' (e.g. planning, controlling, development of marketing strategies etc.). In this case the effects of FDI turn out to be rather ambiguous; on the one hand FDI may have a complementary effect on services trade and induce additional exports of headquarter services, on the other hand there is also a substitution effect present (when e.g. a CEEC engineer draws plans for EU firms). This makes it difficult to determine theoretically whether FDI has positive or negative effects on the services balance, thus the only remaining possibility to give a clear statement on the effects of FDI are empirical observations.

7.2 Empirical issues

Empirical investigation of the relationship between FDI (stocks) in the services sector and services trade for the CEECs is not an easy task, as we face extreme data limitations, especially regarding FDI data. Although FDI data are available for all CEECs, they are in most cases only available for a few years, i.e. time series are too short for any meaningful econometric tests. Further, FDI data and trade data are inhomogeneous: the categories are incompatible with each other, and the remedy of aggregating these categories to coinciding categories leads to an unfavourable loss of observations. Additionally, for some countries the data on FDI stocks create a further problem, because in some years FDI stocks seem to be lower than in the preceding year – a situation that seems to be quite unrealistic. Although these distortions can be explained by the movements of the exchange rates²⁴, this does not make research efforts any easier.

However, putting together the sparse data we have, we are at least able to investigate the relationship between FDI stocks and services trade for some countries and for some

²⁴ Since most FDI stocks are denominated in USD, the exchange rate of the USD is mostly blamed for creating these distortions.

producer services visually. In three graphs (for the Czech Republic, Hungary and Slovenia), to be found in the appendix, we drew a scatter plot of FDI growth rates and services imports growth rates, assuming that, if there is a substitutional effect of FDI on services trade, higher growth rates of FDI should imply lower or even negative growth rates of services imports. On the other hand, if there are complementary effects of FDI on services imports, we would expect to observe a high FDI growth rate to be correlated with a high services import growth rate.

In order to make the graphs more efficient we lagged FDI data by one period²⁵, since we assume that trade flows need some time to react to the changed FDI stock.

In general the conclusions obtained from our graphs are not conclusive or should be treated with care given the severe limitations we face; however with some goodwill we could interpret some results as showing a substitutive effect of FDI on services imports; other results indicate a complementary effect. Nevertheless these results are unsatisfactory for deriving at a clear statement about the effects of FDI in services on services trade, so that we refrain from interpreting them in a serious manner any further.

Instead we now try to move in a slightly different direction, and are going to develop a small model that will hopefully deliver more conclusive results.

We start off by assuming that demand for a specific producer service s is created by the different branches across the economy which use this service as an intermediate input in the course of their production processes. We further assume that the demand for the producer service s has a fixed, time-invariant proportion in production, i.e. a rise in the production by x per cent will raise the demand for s by x per cent; that should give a fairly good approximation according to empirical observation.

Thus we should be able to obtain a derived demand function for s (D_s) depending linearly on total production Y :

$$D_s = f(Y) = a + bY \quad (7-1)$$

Demand D_s in each year is satisfied by the production from domestic firms of s (Y_s) from which we have to subtract the exports of s (X_s) and by imports of s (M_s) from abroad. Hence we can write:

$$(Y_s - X_s) + M_s = a + bY \quad (7-2)$$

²⁵ Lagging the data by more than one period seems to be favourable in some cases, however, it leads to a loss of too many observations.

In order to get a more useful form for empirical analysis, we divide total production Y into two parts, namely in Y_s , i.e. domestic output of service s , and Y_l , which is total production minus Y_s . Now if we substitute Y_s and Y_l for Y , thereby assuming for simplicity that the shares in production are equal across the industries, we can write:

$$(Y_s - X_s) + M_s = a + bY_l + bY_s \quad (7-3)$$

From this we can put $(Y_s - X_s)$ on the left-hand side of the equation, writing the function explicitly for M_s and thus creating a tool for analysing the effects of domestic production Y_s on imports of s :

$$M_s = a + b_2Y_l + b_3Y_s + X_s \quad (7-4)$$

with $\beta_3 = (\beta_2 - 1)$.

In the case of a substitutional relation of Y_s to M_s we would expect b_3 to be negative, whereas we expect Y_l and X_s to have positive effects on M_s .

Now, exploring the effects of FDI on trade in s requires us to split domestic production of s (Y_s^d) into two parts – one part which is produced by foreign owned or controlled firms Y_s^{FDI} , and another part that is produced by domestic firms Y_s^d . In the end we derive the following equation:

$$M_s = a + b_2Y_l + b_3Y_s^d + b_4Y_s^{FDI} + X_s \quad (7-5)$$

with b_3 and $b_4 = (b_2 - 1)$.

At first sight it might seem dubious that we did not include any price effects in the derived demand function, since it might be argued that the demand for services also depends on their prices. However, since we assume that producer services are an extremely essential input in production, and since the demand for a service from a specific service provider depends much on the past experiences of the customer, on the reputation of the provider, and on the quality of the service rather than purely on its price, we expect the demand for producer services to be highly price-inelastic. This means that a service price change does not have much influence – if any at all – on the demand for this service. Therefore it seems justified to exclude any measure of price effects in our function.

Hence, theoretically equation (7-5) would be a proper basis for econometric tests of the influence of FDI on services trade. However, in practice we have to refrain from using this equation because we lack appropriate data relating to the output (or employment as a proxy for output) of foreign-controlled firms, and in those cases where we do have some

data, they either do not contain information on every needed services branch or the time series are too short. In most cases both factors combine to make the sparse information even more precarious.

To keep it from being just a formal exercise, we decided to use equation (7-4) as a basis for econometric testing, hoping to obtain results that, combined with economic interpretation, should give some valuable insights into the relation of FDI and services trade. Although equation (7-4) does not comprise the influence of FDI directly, it is implicitly contained in the production of a service (Y_s).

Thus, the possible effects of FDI depend very much on the size of the shares of foreign-controlled firms in the domestic production of a service. We assume that the higher the share of foreign-controlled firms, the higher should be a trend towards substitution of imports. On the other hand, a high share of purely domestic firms should bias estimation results towards complementary effects of FDI on services trade: first, we think that domestic producer services firms in the CEECs are still not as competitive as their foreign competitors, and therefore the substitutive pressure of the services from the domestic firms on imports is low. Second, for similar reasons FDI inflows in a specific services branch probably cannot rely as much on intermediate inputs and assistance from the already existing domestic firms, so that foreign firms investing in the CEECs have to draw on the services provided by firms outside the invested-in country.

From equation (7-4) we derive the following model for estimation

$$M_{s,t} = a_1 + b_2 Y_{l,t} + b_3 Y_{s,t} + b_4 X_{s,t} + e_t \quad (7-6)$$

with $e_t = (0, \sigma^2)$

In order to get a reasonable number of observations we first pooled data according to countries, including the Czech Republic, Hungary, Poland, the Slovak Republic and Slovenia and, second, we created another pool containing four producer services (financial services, real estate, construction, and transport and communication). These two pools allowed us, on the one hand, to estimate the effects of a change in the production of services on the trade in these services for a specific country and, on the other hand, to measure the effects of an increase in the production of a single service sector across the five countries.

The method we used for all estimations was a pooled least squares method; other methods that corrected for heteroscedasticity generally did not improve results much; additionally, because of the short time series we had for each country and services branch respectively, the variance of the error terms had to be assumed not to change much over

the period of observation, so that the supposition of a constant variance of the disturbance term seemed fairly justified.

However we had to be careful about serial correlation. This was expected to occur because of highly probable correlation between total output of the economy (less the specific services sector) and the output of the specific services sector. Hence in many estimations we detected serial correlation and when it was possible we tried to remedy this by including an autoregressive term in the estimated equation. This method generally improved estimation results significantly.²⁶

Out of the five country estimations, all estimations showed are very high R^2 (and also a very high adjusted R^2) indicating that the model specification is sufficiently good. Three results for the domestic production of a service (Y_s) were significant at a 10% level, and two of them (for the Czech Republic and Slovakia) had a negative sign, thus indicating a substitutive relation of domestic production to trade. Hence, in the case of the Czech Republic we can interpret this result as such that, since the Czech Republic is a major recipient of FDI inflows, foreign-controlled firms do have a large share in domestic production and therefore the Czech result points to a substitution of services trade through FDI inflows. Regarding Slovakia, the result has to be interpreted more cautiously: on the one hand FDI inflows to Slovakia were small, on the other hand Slovakia became increasingly isolated in the observed period of time (until 1998), so that the substitutive effect might be caused by this factor rather than by FDI.

The third significant result pertains to Slovenia and shows a complementary effect of domestic production to services trade. Like Slovakia, Slovenia is not one of the major FDI recipient countries. Therefore it might be argued that purely Slovenian services firms dominate services production, and these firms are not yet capable of putting enough substitutive pressure on services imports.

Of the four estimations concerning services, all of them showed a satisfying R^2 , but only two had significant results for Y_s (financial services and real estate). The regressions for construction and transport and telecommunications point strongly to a mis-specification of the model we used. This indeed might be caused by the disregarding of prices, which in fact might have a strong influence in the trade of construction and transport services.

The two significant results go into two different directions; whereas the result for real estate indicates a strong substitutive effect of domestic production on imports, financial services seem to have a small complementary effect on trade in those services.

²⁶ Estimation results are given in the appendix.

Regarding the estimation results as a whole it must be said that they are (with few exceptions) still unsatisfactory: first, we were not able to single out the effects of FDI explicitly, since the appropriate data were not available; second, data on trade and output are also not well suited for econometric work, mainly because of the shortness of the available time series. But as we are dealing with transition countries these problems can hardly be circumvented so far; thus the conclusions to be drawn from these data should be treated with caution.

7.3 Summary

In the past years FDI has become a more important source of delivering goods and services to foreign markets than exports, hence an investigation of the relationship of FDI inflows in the services sectors and services trade should be useful to complete the picture of the services trade in the CEECs.

Although theoretical models of FDI and trade present some clear-cut conclusions, they remain at a very abstract level: they are dealing with differences in factor endowments (e.g. Krugman and Helpman) or development stages of countries (Markusen) which are easy to consider theoretically but are much harder dealt with empirically. Hence theoretical findings on whether FDI has a substitutive or a complementary effect on services trade in the CEECs are rather ambiguous and not conclusive.

Empirical observations of FDI in services and services trade are however not less inconclusive: some weak evidence for both substitutive and complementary effects of FDI on services trade is found.

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Appendix

Table A1

Illustrations of Ownership (O), Location (L) and Internalization (I) Advantages Relevant to MNE Activity in Selected Service Sectors

	Ownership (competitive advantages)	Location (configuration advantages)	Internalization (coordinating advantages)	Foreign Presence Index (a) (US data) (b)	Organizational form
Accounting / auditing	<ul style="list-style-type: none"> - Access to multinational clients - Experience of standards required - Professional expertise - Branded image of leading accounting firms 	<ul style="list-style-type: none"> - On-the spot contact with clients - Accounting tends to be culture-sensitive - Adaptation to local reporting standards and procedures - Oligopolistic interaction 	<ul style="list-style-type: none"> - Limited inter-firm linkages - Quality control over (international standards) - Government insistence on local participation 	<ul style="list-style-type: none"> - High (92 per cent) - Little intra-firm trade 	<ul style="list-style-type: none"> - Mostly partnerships or individual proprietorships - Overseas subsidiaries loosely organized, little centralized control - Few joint ventures
Advertising	<ul style="list-style-type: none"> - Favoured access to markets (subsidiaries of clients in home markets) - Creative ability; image and philosophy - Goodwill - Full range of services - Some economies of coordination - Financial strength 	<ul style="list-style-type: none"> - On-the-spot contact with clients - Adaptation to local tastes - Needs to be close to mass media 	<ul style="list-style-type: none"> - Quality control over advertising copy - Need for local inputs - National regulation - Globalization of advertising-intensive products - To reduce transaction costs with foreign agencies 	<ul style="list-style-type: none"> - High (85 per cent) - Some intra-firm trade 	<ul style="list-style-type: none"> - Mainly 100%; some joint ventures limited non-equity arrangements
Commercial banking	<ul style="list-style-type: none"> - Access to multinational clients, foreigners abroad - Professional expertise - Access to capital - Effective distribution networks - Intrinsic value of reserve currencies 	<ul style="list-style-type: none"> - Person-to-person contact required - Government regulations - Lower costs of foreign operations - Psychic distance (Islamic banks) 	<ul style="list-style-type: none"> - Quality control - Economies of scope - Economies of coordinating capital flows - Importance of international arbitraging - Some consortia 	<ul style="list-style-type: none"> - High (virtually 100%) - Some intra firm trade in information and finance capital 	<ul style="list-style-type: none"> - Mostly branches or subsidiaries, some agencies - Some joint ventures-notably, where government insist

Table A1 continued

Computer software / data processing	<ul style="list-style-type: none"> - Linked to computer hardware - Highly technology/information intensive - Economies of scope - Government support 	<ul style="list-style-type: none"> - Location of high skills and agglomerative economies often favours home country 	<ul style="list-style-type: none"> - Idiosyncratic know-how; need for protection against dissipation - Quality control - Coordinating gains 	-	-
Construction management	<ul style="list-style-type: none"> - Size, experience and reputation - Government assistance - Low labour costs (developing country (MNEs)) 	<ul style="list-style-type: none"> - Economies of concentrating technology-intensive activities - On-the-spot interaction with clients and/or building firms 	<ul style="list-style-type: none"> - Need for complementary local assets, risk spreading on large projects - Quality control - Good deal of subcontracting 	<ul style="list-style-type: none"> - Favours exports (39%) (but often foreign receipts include local subcontracting element) 	<ul style="list-style-type: none"> - Mixture, joint ventures favoured to gain access to markets, or where partner(s) being complementary assets to the venture
Educational services	<ul style="list-style-type: none"> - Country-specific, related to stage of economic development - Experience of client needs (Japanese schools in London) 	<ul style="list-style-type: none"> - Largely invisible exports through students visiting supplying countries - Some foreign affiliates of private schools to cater for citizens of home country living abroad - Need to expose students to foreign cultures 	<ul style="list-style-type: none"> - Quality control - Integration with curricula in home country - Exposure to foreign curricula/teaching methods 	<ul style="list-style-type: none"> - Low (2%) - Little intra-firm trade 	<ul style="list-style-type: none"> - Originally 100% subsidiaries, but increasingly more joint ventures with foreign educational establishments
Engineering architecture surveying services	<ul style="list-style-type: none"> - Experience in home and other foreign markets - Economies of size and specialization - Economies of scope/coordination 	<ul style="list-style-type: none"> - Customization to local tastes and needs - Need for on-the-spot contact with customers and related procedures 	<ul style="list-style-type: none"> - Joint ventures, to gain local experience expertise - Quality control - Knowledge often idiosyncratic and tacit 	<ul style="list-style-type: none"> - Fairly high (75%) - Substantial intra-firm trade (in technology and management skills) 	<ul style="list-style-type: none"> - Mixture, but often professional partnerships - Some licensing
Information services; data transmission	<ul style="list-style-type: none"> - Highly capital and human skill intensive - Sometimes 'tied' to provision of hardware - Considerable economies of scope and scale - Quality of end product/services provided 	<ul style="list-style-type: none"> - Varies according type of information being sold and transmission facilities between countries - Where 'people-based', clients may visit home country or firm may supply services in clients' countries - News agencies are location-bound, i.e. where the news is 	<ul style="list-style-type: none"> - In case of 'core' assets need for protection from dissipation - Quality control - Substantial gains from internalizing markets, to capture externalities of information transactions - Cognitive market failure, asymmetry in knowledge 	<ul style="list-style-type: none"> - Balanced (50%) - Some intra-firm trade 	<ul style="list-style-type: none"> - Mixture, but 100% where market failure pronounced

Table A1 continued

Insurance	<ul style="list-style-type: none"> - Reputation of Insurer, image (Lloyds of London) - Economies of scale and scope: and, sometimes specialized expertise - Access to multinational clients 	<ul style="list-style-type: none"> - Need to be in close touch with the insured (e.g. life insurance and related services) - Oligopolistic strategies among larger insurers - Government prohibit direct imports; extent to which there is freedom to trade - Economies of concentration (in reinsurance) 	<ul style="list-style-type: none"> - Economies of portfolio risk spreading - Tacit knowledge - Need for sharing large scale risks (reinsurance syndication) - Government requirements for local equity participation 	<ul style="list-style-type: none"> - High (78%) - Some intra-firm trade 	<ul style="list-style-type: none"> - Mixture; strongly influenced by governments, types of insurance and strategy of insurance companies
Investment banking (brokerage)	<ul style="list-style-type: none"> - Reputation and professional skills (I.B. is an 'experience' service) - Substantial capital base - Knowledge of and interaction with international capital markets - Financial innovations 	<ul style="list-style-type: none"> - Need to be close to clients - Need to be close to international capital/finance markets, and also main competitors - Availability of skilled labour 	<ul style="list-style-type: none"> - Complex and organic character of services provided - Protection against exchange/political risks - Need to pursue global investment strategy - Quality control 	<ul style="list-style-type: none"> - High (84%) - A lot of intra-firm trade in form of control / coordination from headquarters 	<ul style="list-style-type: none"> - Mainly via 100% subsidiaries
Hotels	<ul style="list-style-type: none"> - Experience in home market in supply up-market services - Experience with training key personnel - Quality control - Referral systems - Economies of geographical specialization, access to inputs 	<ul style="list-style-type: none"> - Location bound when selling a 'foreign' service - Exports through tourists, businessmen visiting home country 	<ul style="list-style-type: none"> - Investment in hotels is capital intensive - Quality control can generally be ensured through contractual relationships (e.g. a purchase or management contract) - Governments usually prefer non-equity arrangements - Referral systems can be centrally-coordinated without equity control 	<ul style="list-style-type: none"> - Favours non-equity involvement, but exports of knowledge / management 	<ul style="list-style-type: none"> - Vary, but mainly through minority ventures or contractual relationships

Table A1 continued

Legal services	<ul style="list-style-type: none"> - Access to multinational clients and knowledge of their particular needs - Experience and reputation 	<ul style="list-style-type: none"> - Need for face-to-face contact with clients - Foreign customers may purchase services in home country - Need to interact with other local services - Restrictions on use of foreign barristers in courts - Extent of local infrastructure 	<ul style="list-style-type: none"> - Many transactions are highly idiosyncratic and customer specific - Quality control - Need for understanding of local customers and legal procedures 	<ul style="list-style-type: none"> - Low (2%) (mainly because trade in legal services is 'people-embodied') 	<ul style="list-style-type: none"> - Some overseas partnerships, but often services are provided via movement of people (clients to home country lawyers or vice versa)
Licensing	<ul style="list-style-type: none"> - (By definition) ability to supply technology; but most technology supplied by non-service firms 	<ul style="list-style-type: none"> - All exported 	<ul style="list-style-type: none"> - To protect licensor and to exploit economies of scope - Quality control 	<ul style="list-style-type: none"> - All exports (100%) - Largely intra firm, 70% in US cases 	<ul style="list-style-type: none"> -
Management, consultants and public relations	<ul style="list-style-type: none"> - Access to market - Reputation, image, experience - Economies of specialization, in particular, levels of expertise, etc. skills, countries 	<ul style="list-style-type: none"> - Close contact with client; the provision is usually highly customer-specific - MNE clients might deal with headquarters - Mobility of personnel 	<ul style="list-style-type: none"> - Quality control, fear of underperformance by licensee - Knowledge sometimes very confidential and usually idiosyncratic - Personnel coordinating advantages 	<ul style="list-style-type: none"> - Balanced (55%) - Some intra-firm trade, headquarters often coordinates assignments 	<ul style="list-style-type: none"> - Mostly partnerships or 100% subsidiaries - A lot of movement of people
Medical services	<ul style="list-style-type: none"> - Experience with advanced / specialized medicine, high-quality hospitalization - Modern management practices - Supportive role of government 	<ul style="list-style-type: none"> - Usually consumers travel to place of production; but some foreign owned hospitals or medical facilities are mobile 	<ul style="list-style-type: none"> - Quality control 	<ul style="list-style-type: none"> - Favours exports (39%) - Little intra-firm trade 	<ul style="list-style-type: none"> - A people-oriented sector; overseas operations, mainly 100% owned subsidiaries
Motion pictures (production and rental receipts); live entertainment (theatre)	<ul style="list-style-type: none"> - Experience in home markets, good domestic communication (e.g. broadcasting) facilities - Government subsidies of arts 	<ul style="list-style-type: none"> - Location bound (motion picture production) - Sometimes customers visit place of production and sometimes vice versa 	<ul style="list-style-type: none"> - Quality of film production and TV programmes - Theatre production usually involves non-equity contracts 	<ul style="list-style-type: none"> - Balances (50%) - Little intra-firm trade 	<ul style="list-style-type: none"> - Mixed - Again services embodied in people or bought by people who are internationally mobile

Table A1 continued

Regional Offices (RO)	<ul style="list-style-type: none"> - Part of MNE network; needs and function of office vary according to nature of MNE's business and extent of foreign operations 	<ul style="list-style-type: none"> - Depends on labour, office, communication costs where R.O.s are located - Work permits, taxes, etc. - Location of goods - producing units of MNEs 	<ul style="list-style-type: none"> - All advantages relate to economies of coordination, and acting as agent on part of the parent company 	<ul style="list-style-type: none"> - Entirely via FDI - Virtually all intra-firm trade 	<ul style="list-style-type: none"> - All 100% owned
Restaurants, car rentals	<ul style="list-style-type: none"> - Brand names, image of product (service) - Reputation and experience - Referral system - Economies of scale and scope - Tie up deals with airlines and hotels 	<ul style="list-style-type: none"> - Location-bound - Foreign earnings through tourists and businessmen visiting exporting countries 	<ul style="list-style-type: none"> - Franchising can protect quality control 	<ul style="list-style-type: none"> - As with hotels 	<ul style="list-style-type: none"> - As with hotels
Tele-communication	<ul style="list-style-type: none"> - Knowledge-intensive - Technology, capital, scale economies (e.g. ability to operate and international communications network) - Government support 	<ul style="list-style-type: none"> - Government regulation of trade and production - Sometimes location-bound (telephone communications) 	<ul style="list-style-type: none"> - Large costs often require consortia of firms - Quality of 'goods' part of service often need hierarchical control; otherwise service usually provided on leasing basis, or exported 	<ul style="list-style-type: none"> - Balanced (50%) - Some intra-firm trade 	<ul style="list-style-type: none"> - Mixture, but a good deal of leasing
Tourism	<ul style="list-style-type: none"> - Reputation in providing satisfactory experience goods - Economies of scope (kind of travel portfolio offered) - Bargaining power - Quality of deals made with airlines, hotels, shipping companies etc. 	<ul style="list-style-type: none"> - Need for local tour agents and support facilities - Customers initially originate from home country - Costs of supplying local facilities usually lower 	<ul style="list-style-type: none"> - Coordination of itineraries, need for quality control of ancillary services for tourists - Preferences of host governments for local support facilities - Economies of transaction costs from vertical integration 	<ul style="list-style-type: none"> - 90% plus exports either of final or intermediate services 	<ul style="list-style-type: none"> - Large tour operators have local offices; other may use agents
Transport, shipping and airlines	<ul style="list-style-type: none"> - Highly capital intensive - Government support measures, and/or control over routes of foreign carriers - Economies of scope and coordination - Linkages with goods producing firms (in shipping) 	<ul style="list-style-type: none"> - Essentially location-linking - Need for local sales office, terminal maintenance and support facilities (at airports and docks) 	<ul style="list-style-type: none"> - Logistical management - Advantages of vertical integration - Quality control 	<ul style="list-style-type: none"> - Favours exports (99%) - A lot of intra-firm trade involving non-service companies 	<ul style="list-style-type: none"> - Mostly 100% owned subsidiaries - Some consortia on TNCs.

(a) The per cent in brackets represent the proportion of sales of US foreign affiliates to US exports plus sales of foreign affiliates.
 – (b) From US Office of Technology Assessment (1986).

Source: Dunning, J. 1989, Trade and Foreign-Owned Production in Services: Some Conceptual and Theoretical Issues, in Giersch ed., *Services in World Economic Growth*, Tübingen: J.C.B. Mohr

Figure A1

Czech Republic – scatter plot of annual FDI and services trade growth rates

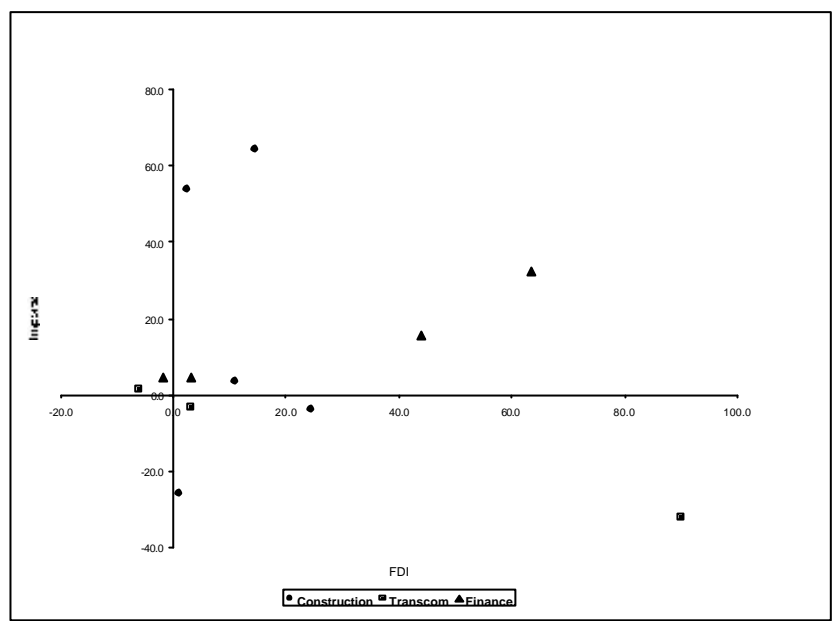


Figure A2

Hungary – scatter plot of annual FDI and services trade growth rates

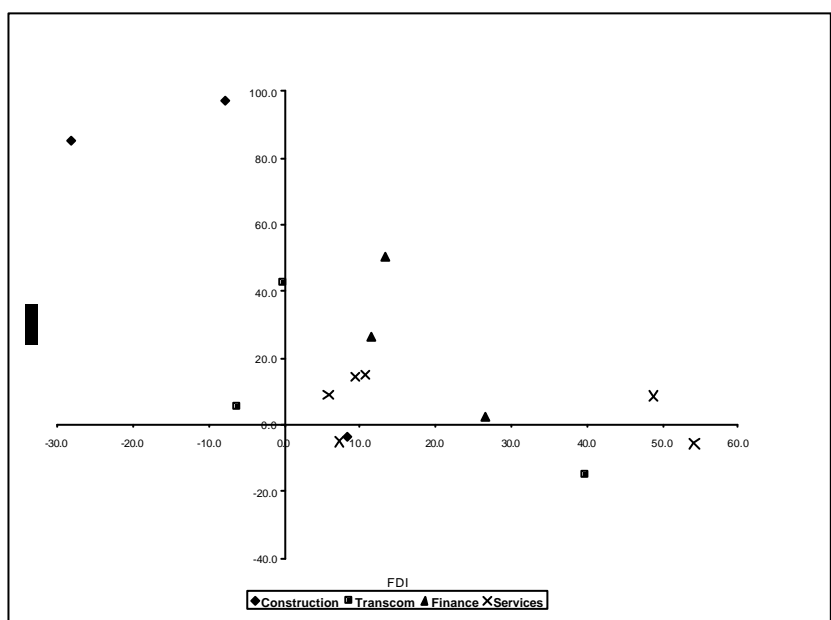


Figure A3

Slovenia – scatter plot of annual FDI and services trade growth rates

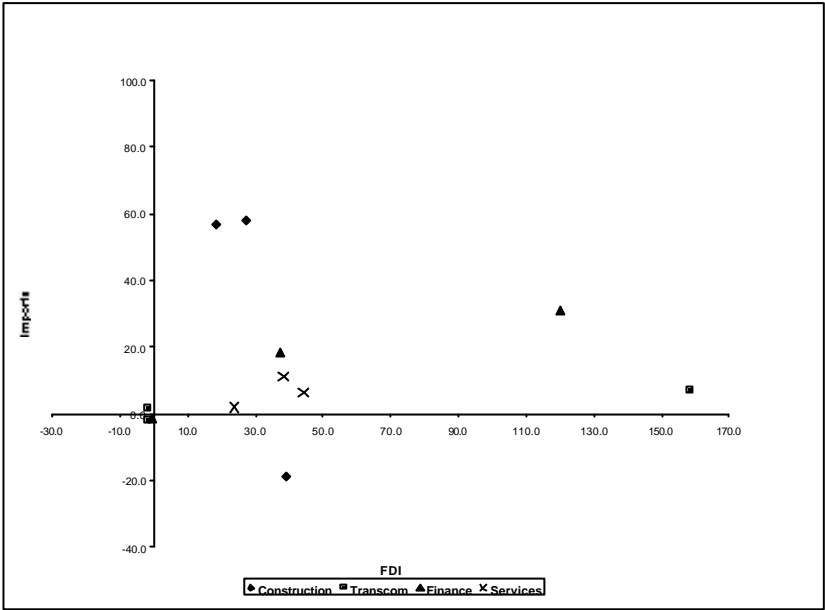


Table A2

**Pooled least squares estimations of effects of domestic production
on services imports – by country**

Regressors	Y_i	Y_s	X_s	adjusted R^2	F-test
Countries					
Czech Republic	-0.041598*** (0.0061)	-0.095312* (0.0613)	0.670833*** (0.0000)	0.96	87.50094*** (0.000000)
Hungary	0.002448 (0.9404)	-0.119725 (0.3329)	1.626548*** (0.0066)	0.93	47.40155*** (0.000143)
Poland	-0.094727 (0.2021)	-0.162406 (0.3870)	0.730885*** (0.0006)	0.96	45.91267*** (0.005045)
Slovak Republic	0.043907 (0.1124)	-0.471118*** (0.0043)	0.932752*** (0.0000)	0.80	19.23391*** (0.000178)
Slovenia	-0.011862 (0.4304)	0.167450*** (0.0020)	0.530312*** (0.0006)	0.97	216.0422*** (0.000000)

Notes: P-values in parentheses. ***, ** and * denote to a t-statistic at the one, five and ten per cent significance levels, respectively. All equations are estimated from up to eight annual observation (1991-1998) using pooled least squares method. Values of intercepts as well as of autoregressive terms are omitted in the tables.

Table A3

**Pooled least squares estimations of effects of domestic production
on services imports – by services branch**

Regressors	Y_i	Y_s	X_s	adjusted R^2	F-test
Services					
Construction	-0.001182 (0.6301)	0.012474 (0.6538)	0.721393*** (0.0000)	0.97	277.2715*** (0.000000)
Financial services	0.002209** (0.0290)	0.030858*** (0.0042)	0.828136*** (0.0000)	0.98	593.8538*** (0.000000)
Real estate etc.	-0.072858*** (0.0042)	-0.343755*** (0.0008)	1.186801*** (0.0000)	0.99	357.4523*** (0.000000)
Transport and Communications	0.007010 (0.2873)	-0.051774 (0.5350)	0.353138** (0.0158)	0.96	135.5500*** (0.000000)

Notes: P-values in parentheses. ***, ** and * denote to a t-statistic at the one, five and ten per cent significance levels, respectively. All equations are estimated from up to eight annual observation (1991-1998) using pooled least squares method. Values of intercepts as well as of autoregressive terms are omitted in the tables.

Table A4

Bulgaria: Services exports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	34.47	40.62	40.78	49.17	48.56	35.03
Services	10.83	12.97	10.92	13.73	13.15	10.24
Transport	4.00	3.88	3.77	4.42	4.41	3.66
Travel	2.84	3.73	3.61	3.91	3.63	3.57
Business Travel	.	.	0.15	0.14	0.13	0.30
Personal Travel	.	.	3.46	3.77	3.49	3.26
Other Services	3.99	5.36	3.55	5.41	5.11	3.01
Communication Services	0.25	0.23
Construction Services	1.04	0.61
Insurance Services	0.18	0.08
Financial Services	0.79	0.27
Other Business Services	3.99	5.36	3.55	5.41	2.54	1.65
Government Services nie	0.30	0.18

Table A5

Bulgaria: Services imports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	42.65	40.79	39.86	47.28	44.82	37.60
Services	11.37	12.86	9.75	12.53	11.51	9.03
Transport	4.67	4.81	4.05	4.89	4.97	4.24
Travel	2.38	2.52	1.49	2.00	2.18	1.81
Business Travel	.	.	0.11	0.03	0.04	0.03
Personal Travel	.	.	1.38	1.97	2.13	1.77
Other Services	4.32	5.54	4.21	5.64	4.36	2.99
Communication Services	0.33	0.50
Construction Services	0.13	0.18
Insurance Services	0.29	0.20
Financial Services	0.74	0.32
Other Business Services	4.32	5.54	4.21	5.64	2.72	1.65
Government Services nie	0.14	0.14

Table A6

Czech Republic: Services exports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	41.32	40.00	41.29	37.45	42.92	46.79
Services	13.71	12.95	12.93	14.12	13.46	13.19
Transport	3.60	3.12	2.81	2.30	2.49	2.39
Sea Transport	0.14	0.14	0.05	0.05	0.04	0.00
Air Transport	0.33	0.35	0.51	0.41	0.48	0.00
Other Transport	3.13	2.63	2.25	1.84	1.96	2.39
Travel	4.52	5.60	5.54	7.04	6.83	6.66
Personal Travel	4.52	5.60	5.54	7.04	6.83	6.66
Other Services	5.58	4.23	4.58	4.78	4.14	4.14
Communication Services	1.06	0.83	0.56	0.13	0.12	0.13
Construction Services	0.07	0.11	0.11	0.80	0.70	0.47
Insurance Services	0.02	0.03	0.03	0.07	0.07	0.05
Financial Services	1.28	0.22	0.10	0.25	0.35	0.40
Computer and Info Services	.	.	0.01	0.05	0.07	0.10
Royalties and License Fees	0.00	0.01	0.03	0.07	0.06	0.10
Other Business Services	3.02	2.91	3.43	3.05	2.36	2.14
Personal. Cultural and Recr. S.	.	.	0.14	0.17	0.22	0.49
Government Services nie	0.12	0.12	0.17	0.19	0.19	0.26

Table A7

Czech Republic: Services imports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	42.82	43.53	48.37	47.60	51.57	51.45
Services	10.77	11.74	9.38	10.81	10.17	9.83
Transport	2.13	2.14	1.54	1.21	1.19	1.08
Sea Transport	0.09	0.16	0.11	0.07	0.06	0.00
Air Transport	0.29	0.24	0.42	0.30	0.37	0.00
Other Transport	1.74	1.74	1.01	0.84	0.76	1.08
Travel	1.53	3.99	3.14	5.11	4.45	3.33
Personal Travel	1.53	3.99	3.14	5.11	4.45	3.33
Other Services	7.11	5.61	4.70	4.49	4.54	5.43
Communication Services	0.87	0.69	0.49	0.11	0.10	0.26
Construction Services	0.31	0.31	0.27	0.40	0.67	0.50
Insurance Services	0.12	0.18	0.22	0.16	0.15	0.21
Financial Services	1.38	0.29	0.27	0.33	0.37	0.50
Computer and Info Services	.	.	0.02	0.04	0.07	0.11
Royalties and License Fees	0.06	0.07	0.10	0.17	0.15	0.20
Other Business Services	4.34	4.07	3.04	2.99	2.47	3.08
Personal. Cultural and Recr. S.	.	0.00	0.24	0.19	0.40	0.46
Government Services nie	0.02	0.00	0.04	0.11	0.16	0.10

Table A8

Hungary: Services exports in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Goods	36.00	27.68	29.01	27.11	21.06	18.42	28.80	31.39	42.94	43.70
Services	4.43	8.72	7.56	9.14	7.36	7.51	9.56	11.07	10.66	10.34
Transport	0.21	0.13	0.15	0.04	0.17	0.12	1.00	0.92	1.10	1.37
Transport Passenger	0.02	0.06	0.06	0.09
Transport Freight	0.21	0.13	0.15	0.04	0.17	0.12	0.88	0.53	0.59	0.86
Transport Other	0.09	0.33	0.44	0.41
Travel	3.38	2.98	3.10	3.36	3.08	3.46	3.86	4.97	5.66	5.28
Business Travel	0.00	0.15	0.26	0.26
Personal Travel	3.86	4.82	5.40	5.02
Other Services	0.84	5.62	4.32	5.74	4.10	3.93	4.70	5.18	3.90	3.70
Communication Services	0.08	0.09	0.11	0.10
Construction Services	0.05	0.07	0.13	0.23
Insurance Services	0.02	0.01	0.02	0.00	0.02	0.01	0.14	0.04	0.06	0.06
Financial Services	0.22	0.46	0.64	0.33
Computer and Info Services	0.17	0.12
Royalties and License Fees	.	0.15	0.05	0.10	0.09	0.08	0.07	0.10	0.22	0.10
Other Business Services	0.72	4.83	3.73	5.12	3.82	3.67	4.00	4.28	2.33	2.48
Personal. Cultural and Recr. S.	0.13	0.19
Government Services nie	0.10	0.63	0.52	0.52	0.17	0.17	0.13	0.13	0.11	0.08

Table A9

Hungary: Services imports in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Goods	32.42	26.07	27.94	27.14	31.49	27.37	34.25	37.26	46.73	48.18
Services	5.69	7.26	5.96	7.09	6.80	7.12	8.12	7.76	8.08	8.91
Transport	1.41	0.60	0.38	0.33	0.42	0.51	0.83	0.70	0.93	0.95
Transport Passenger	0.01	0.02	0.04	0.04
Transport Freight	1.41	0.60	0.38	0.33	0.42	0.51	0.31	0.37	0.59	0.71
Transport Other	0.51	0.31	0.31	0.20
Travel	3.92	1.77	1.49	1.78	1.93	2.25	2.40	2.12	2.52	2.54
Business Travel	0.37	0.53	0.58	0.62
Personal Travel	2.03	1.59	1.95	1.92
Other Services	0.35	4.88	4.09	4.98	4.44	4.37	4.90	4.94	4.62	5.42
Communication Services	0.05	0.05	0.09	0.08
Construction Services	0.08	0.16	0.15	0.26
Insurance Services	0.16	0.07	0.04	0.04	0.05	0.06	0.07	0.10	0.19	0.18
Financial Services	0.34	0.42	0.56	0.56
Computer and Info Services	0.18	0.20
Royalties and License Fees	.	0.11	0.12	0.08	0.10	0.18	0.16	0.29	0.42	0.45
Other Business Services	.	4.30	3.60	4.56	4.07	3.93	4.04	3.78	2.82	3.46
Personal. Cultural and Recr. S.	0.08	0.10
Government Services nie	0.20	0.41	0.33	0.31	0.22	0.20	0.16	0.13	0.13	0.12

Table A10

Poland: Services exports in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Goods	15.73	26.85	18.83	16.52	15.82	19.83	19.82	19.28	21.48
Services	3.91	5.43	4.82	5.66	4.89	7.24	8.45	6.88	6.28
Transport	2.42	3.11	2.58	2.36	2.39	2.63	2.41	1.93	2.18
Transport Passenger	0.37	0.57	0.27	0.21	0.31	0.30	0.25	0.22	0.26
Transport Freight	1.51	1.93	1.71	1.61	1.58	1.84	1.66	1.27	1.40
Transport Other	0.55	0.61	0.60	0.55	0.50	0.49	0.50	0.44	0.52
<i>Sea Transport</i>	1.45	1.27	0.89	0.94
<i>Air Transport</i>	0.36	0.28	0.28	0.32
<i>Other Transport</i>	0.67	0.64	0.55	0.62
Travel	0.25	0.61	0.19	0.22	0.17	2.51	1.83	2.21	1.61
Business Travel	0.07	0.05	0.05	0.05
Personal Travel	2.44	1.77	2.16	1.56
Other Services	1.25	1.71	2.05	3.08	2.33	2.09	4.22	2.74	2.50
Communication Services	0.23	0.24	0.22	0.27
Construction Services	0.67	2.22	1.07	0.49
Insurance Services	0.17	0.21	0.19	0.18	0.18	0.16	0.58	0.36	0.56
Financial Services	0.07	0.11	0.16	0.08
Computer and Info Services	0.00	0.01	0.02	0.01
Royalties and License Fees	0.00	0.00	0.02	0.02
Other Business Services	1.08	1.50	1.86	2.90	2.16	0.89	1.00	0.84	1.01
Personal. Cultural and Recr. S.	0.02	0.02	0.03	0.03
Government Services nie	0.05	0.03	0.03	0.01

Table A11

Poland: Services imports in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Goods	15.67	20.77	19.76	16.67	19.90	20.45	21.12	24.38	28.35
Services	3.73	4.83	3.92	4.80	4.23	4.17	5.65	4.50	4.06
Transport	2.25	2.53	2.00	1.72	1.56	1.47	1.40	1.18	1.11
Transport Passenger	0.22	0.30	0.13	0.10	0.12	0.12	0.29	0.08	0.07
Transport Freight	0.51	0.42	0.58	0.30	0.39	0.37	0.39	0.45	0.42
Transport Other	1.53	1.81	1.28	1.32	1.04	0.98	0.72	0.65	0.62
<i>Sea Transport</i>	0.91	0.60	0.48	0.46
<i>Air Transport</i>	0.22	0.33	0.22	0.22
<i>Other Transport</i>	0.25	0.28	0.33	0.29
Travel	0.26	0.72	0.19	0.16	0.22	0.35	0.32	0.41	0.41
Business Travel	0.28	0.28	0.30	0.27
Personal Travel	0.07	0.04	0.11	0.14
Other Services	1.22	1.58	1.73	2.92	2.45	2.35	3.93	2.91	2.54
Communication Services	0.17	0.15	0.14	0.16
Construction Services	0.44	1.63	0.78	0.26
Insurance Services	0.06	0.05	0.06	0.03	0.04	0.25	0.58	0.49	0.59
Financial Services	0.14	0.18	0.16	0.13
Computer and Info Services	0.04	0.05	0.09	0.06
Royalties and License Fees	0.02	0.03	0.10	0.12
Other Business Services	1.16	1.53	1.67	2.88	2.41	1.15	1.18	1.04	1.08
Personal. Cultural and Recr. S.	0.01	0.02	0.03	0.04
Government Services nie	0.12	0.10	0.08	0.09

Table A12

Romania: Services exports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	18.56	20.45	22.30	22.88	24.13	21.76
Services	3.03	3.47	4.21	4.42	4.36	3.19
Transport	1.10	1.27	1.33	1.62	1.68	1.32
<i>Sea Transport</i>	.	0.24	0.31	0.38	0.20	0.18
<i>Air Transport</i>	.	0.55	0.49	0.77	0.40	0.27
<i>Other Transport</i>	.	0.45	0.47	0.41	0.94	0.81
Travel	.	1.38	1.66	1.50	1.51	0.68
Personal Travel	.	1.38	1.66	1.50	1.51	0.68
Other Services	1.18	0.83	1.22	1.31	1.17	1.19
Communication Services	.	0.15	0.19	0.21	0.25	0.25
Construction Services	.	0.09	0.39	0.15	0.10	0.10
Insurance Services	0.11	0.06	0.08	0.06	0.08	0.08
Financial Services	.	0.17	0.14	0.15	0.13	0.10
Computer and Info Services	.	0.01	0.01	0.01	0.01	0.03
Royalties and License Fees	.	0.01	0.01	0.29	0.00	0.01
Other Business Services	1.07	0.18	0.25	0.26	0.36	0.38
Personal. Cultural and Recr. S.	.	0.10	0.11	0.15	0.17	0.17
Government Services nie	.	0.07	0.05	0.03	0.07	0.07

Table A 13

Romania: Services imports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	22.84	21.82	26.74	29.87	29.79	28.64
Services	3.47	4.04	5.13	5.51	5.55	4.90
Transport	1.29	1.34	1.70	1.96	1.62	1.66
<i>Sea Transport</i>	.	0.29	0.62	0.89	0.42	0.35
<i>Air Transport</i>	.	0.18	0.18	0.21	0.20	0.28
<i>Other Transport</i>	.	0.83	0.86	0.84	0.98	1.01
Travel	.	1.49	1.96	1.88	1.95	1.20
Business Travel	.	1.05	1.47	1.27	1.34	0.73
Other Services	1.43	1.21	1.46	1.67	1.98	2.04
Communication Services	.	0.04	0.08	0.08	0.07	0.12
Construction Services	.	0.01	0.06	0.04	0.06	0.05
Insurance Services	0.13	0.07	0.07	0.08	0.10	0.12
Financial Services	.	0.15	0.20	0.17	0.17	0.13
Computer and Info Services	.	0.02	0.01	0.01	0.03	0.05
Royalties and License Fees	.	0.01	0.02	0.03	0.08	0.06
Other Business Services	1.30	0.70	0.90	1.07	1.18	1.24
<i>Other Personal. Cultural & Recr. S.</i>	.	0.04	0.07	0.10	0.16	0.15
Government Services nie	.	0.16	0.05	0.07	0.11	0.09

Table A14

Russia: Services exports in per cent of GDP

	1994	1995	1996	1997	1998
Goods	24.53	24.43	21.63	20.42	27.03
Services	3.04	3.11	3.09	3.25	4.68
Transport	1.39	1.11	0.81	0.82	1.14
Sea Transport	0.61	0.41	0.29	0.25	0.39
Air Transport	0.64	0.55	0.31	0.37	0.52
Other Transport	0.13	0.15	0.21	0.20	0.24
Travel	0.87	1.27	1.64	1.64	2.35
Other Services	0.78	0.73	0.64	0.79	1.18
Communication Services	0.11	0.14	0.13	0.14	0.20
Construction Services	0.05	0.03	0.02	0.02	0.05
Financial Services	0.03	0.02	0.02	0.03	0.04
Royalties and License Fees	0.00	0.00	0.04	0.04	0.01
Other Business Services	0.59	0.54	0.42	0.55	0.88

Table A15

Russia: Services imports in per cent of GDP

	1994	1995	1996	1997	1998
Goods	18.08	18.28	16.12	16.42	20.75
Services	5.44	5.93	4.46	4.32	5.82
Transport	1.07	0.96	0.59	0.65	0.92
Sea Transport	0.45	0.33	0.14	0.20	0.32
Air Transport	0.54	0.53	0.25	0.29	0.43
Other Transport	0.09	0.10	0.20	0.16	0.17
Travel	2.56	3.43	2.45	2.32	3.14
Other Services	1.81	1.54	1.41	1.36	1.76
Communication Services	0.07	0.09	0.09	0.08	0.13
Construction Services	0.67	0.49	0.26	0.18	0.19
Financial Services	0.02	0.02	0.02	0.09	0.09
Royalties and License Fees	0.01	0.00	0.01	0.00	0.00
Other Business Services	1.04	0.93	1.03	1.00	1.36

Table A16

Slovakia: Services exports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	45.48	48.78	49.43	46.98	49.57	52.64
Services	16.17	16.45	13.68	11.00	11.14	11.26
Transport	3.84	3.92	3.54	3.42	3.80	3.76
Transport Passenger	.	0.05	0.04	0.05	0.05	0.03
Transport Freight	.	3.81	3.48	3.35	3.71	3.69
Transport Other	.	0.07	0.02	0.03	0.04	0.05
<i>Sea Transport</i>	.	0.05	0.01	0.02	0.04	0.03
<i>Air Transport</i>	.	0.03	0.04	0.07	0.11	0.10
<i>Other Transport</i>	.	3.79	3.47	3.31	3.60	3.59
Travel	3.19	4.13	3.58	3.58	2.80	2.40
Business Travel
Personal Travel	.	4.13	3.58	3.58	2.80	2.40
Other Services	9.14	8.39	6.56	3.99	4.54	5.09
Communication Services	.	1.99	1.52	0.11	0.15	0.18
Construction Services	.	0.53	0.63	0.55	0.68	0.52
Insurance Services	.	0.12	0.01	0.03	0.07	0.06
Financial Services	.	0.46	0.66	0.56	0.47	0.26
Computer and Info Services	.	.	.	0.04	0.06	0.12
Royalties and License Fees	.	0.05	0.06	0.10	0.09	0.07
Other Business Services	9.14	4.94	3.67	2.47	2.74	3.50
Personal. Cultural and Recr. S.	.	.	.	0.10	0.19	0.30
Government Services nie	.	0.29	0.00	0.03	0.08	0.08

Table A17

Slovakia: Services imports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	53.09	48.33	50.75	59.14	60.29	64.19
Services	13.90	11.64	10.58	10.80	10.77	11.17
Transport	2.41	1.18	1.76	2.10	1.76	2.18
Transport Passenger	.	0.09	0.10	0.19	0.23	0.25
Transport Freight	.	1.04	1.60	1.86	1.48	1.91
Transport Other	.	0.05	0.07	0.05	0.05	0.02
<i>Sea Transport</i>	.	0.07	0.08	0.10	0.07	0.07
<i>Air Transport</i>	.	0.08	0.12	0.19	0.24	0.26
<i>Other Transport</i>	.	0.96	1.51	1.76	1.39	1.83
Travel	1.81	2.05	1.85	2.56	2.26	2.33
Business Travel	.	0.64	0.99	0.79	0.71	0.53
Personal Travel	.	1.41	0.85	1.77	1.54	1.80
Other Services	9.68	8.41	6.96	6.13	6.75	6.66
Communication Services	.	2.21	1.61	0.10	0.14	0.18
Construction Services	.	0.17	0.18	0.47	0.53	0.61
Insurance Services	.	0.24	0.14	0.25	0.20	0.11
Financial Services	.	0.28	0.37	0.72	0.46	0.31
Computer and Info Services	.	.	.	0.09	0.15	0.31
Royalties and License Fees	.	0.47	0.45	0.44	0.44	0.27
Other Business Services	9.68	4.67	4.00	3.73	4.48	4.57
Personal. Cultural and Recr. S.	.	.	.	0.17	0.20	0.29
Government Services nie	.	0.37	0.22	0.16	0.16	0.02

Table A18

Slovenia: Services exports in per cent of GDP

	1992	1993	1994	1995	1996	1997	1998
Goods	53.35	48.00	47.48	44.55	44.34	46.18	46.59
Services	9.74	10.98	12.55	10.79	11.27	11.22	10.49
Transport	2.20	3.52	3.38	2.69	2.55	2.56	2.75
<i>Sea Transport</i>	.	0.57	0.39	0.44	0.40	0.41	0.39
<i>Air Transport</i>	.	0.22	0.26	0.22	0.19	0.22	0.22
<i>Other Transport</i>	.	2.73	2.73	2.04	1.95	1.92	1.38
Travel	5.36	5.79	6.34	5.78	6.52	6.52	5.72
Business Travel
Personal Travel	5.36	5.79	6.34	5.78	6.52	6.52	5.72
Other Services	2.18	1.67	2.83	2.32	2.21	2.14	2.02
Communication Services	.	0.04	0.09	0.06	0.07	0.13	0.13
Construction Services	.	.	0.87	0.72	0.50	0.42	0.37
Insurance Services	0.11	0.00	0.00	0.00	0.00	0.00	0.00
Financial Services	0.00	0.05	0.05	0.04	0.06	0.06	0.04
Computer and Info Services	0.01	0.03	0.04	0.06	0.16	0.18	0.24
Royalties and License Fees	0.03	0.03	0.02	0.02	0.03	0.03	0.04
Other Business Services	2.01	1.46	1.70	1.32	1.28	1.21	1.11
Personal. Cultural and Recr. S.	0.01	0.04	0.04	0.03	0.05	0.06	0.06
Government Services nie	.	0.01	0.02	0.06	0.06	0.06	0.01

Table A19

Slovenia: Services imports in per cent of GDP

	1992	1993	1994	1995	1996	1997	1998
Goods	47.05	49.22	49.83	49.64	49.01	50.42	50.56
Services	8.29	8.03	7.85	7.43	7.54	7.98	7.86
Transport	3.51	3.07	2.91	2.32	2.14	2.00	2.07
<i>Sea Transport</i>	.	0.20	0.20	0.24	0.19	0.19	0.17
<i>Air Transport</i>	.	0.09	0.13	0.15	0.17	0.19	0.21
<i>Other Transport</i>	.	2.79	2.57	1.94	1.78	1.62	1.19
Travel	2.25	2.41	2.60	2.80	2.87	2.99	2.94
Business Travel	0.36	0.48	0.41	0.34	0.33	0.32	0.30
Personal Travel	1.89	1.93	2.19	2.46	2.54	2.67	2.64
Other Services	2.53	2.54	2.34	2.31	2.52	2.98	2.84
Communication Services	0.00	0.01	0.04	0.05	0.08	0.14	0.15
Construction Services	.	.	0.02	0.13	0.19	0.28	0.22
Insurance Services	0.13	0.01	0.01	0.01	0.01	0.01	0.01
Financial Services	0.08	0.11	0.09	0.08	0.10	0.12	0.12
Computer and Info Services	0.08	0.14	0.13	0.14	0.17	0.27	0.24
Royalties and License Fees	0.04	0.10	0.11	0.12	0.14	0.29	0.20
Other Business Services	2.08	2.02	1.73	1.58	1.64	1.65	1.68
Personal. Cultural and Recr. S.	0.10	0.08	0.09	0.10	0.12	0.15	0.16
Government Services nie	0.03	0.06	0.11	0.08	0.08	0.07	0.07

Table A20

Bulgaria: Services exports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	34.47	40.62	40.78	49.17	48.56	35.03
Services	10.83	12.97	10.92	13.73	13.15	10.24
Transport	4.00	3.88	3.77	4.42	4.41	3.66
Travel	2.84	3.73	3.61	3.91	3.63	3.57
Business Travel	.	.	0.15	0.14	0.13	0.30
Personal Travel	.	.	3.46	3.77	3.49	3.26
Other Services	3.99	5.36	3.55	5.41	5.11	3.01
Communication Services	0.25	0.23
Construction Services	1.04	0.61
Insurance Services	0.18	0.08
Financial Services	0.79	0.27
Other Business Services	3.99	5.36	3.55	5.41	2.54	1.65
Government Services nie	0.30	0.18

Table A21

Bulgaria: Services imports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	42.65	40.79	39.86	47.28	44.82	37.60
Services	11.37	12.86	9.75	12.53	11.51	9.03
Transport	4.67	4.81	4.05	4.89	4.97	4.24
Travel	2.38	2.52	1.49	2.00	2.18	1.81
Business Travel	.	.	0.11	0.03	0.04	0.03
Personal Travel	.	.	1.38	1.97	2.13	1.77
Other Services	4.32	5.54	4.21	5.64	4.36	2.99
Communication Services	0.33	0.50
Construction Services	0.13	0.18
Insurance Services	0.29	0.20
Financial Services	0.74	0.32
Other Business Services	4.32	5.54	4.21	5.64	2.72	1.65
Government Services nie	0.14	0.14

Table A22

Czech Republic: Services exports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	41.32	40.00	41.29	37.45	42.92	46.79
Services	13.71	12.95	12.93	14.12	13.46	13.19
Transport	3.60	3.12	2.81	2.30	2.49	2.39
Sea Transport	0.14	0.14	0.05	0.05	0.04	0.00
Air Transport	0.33	0.35	0.51	0.41	0.48	0.00
Other Transport	3.13	2.63	2.25	1.84	1.96	2.39
Travel	4.52	5.60	5.54	7.04	6.83	6.66
Personal Travel	4.52	5.60	5.54	7.04	6.83	6.66
Other Services	5.58	4.23	4.58	4.78	4.14	4.14
Communication Services	1.06	0.83	0.56	0.13	0.12	0.13
Construction Services	0.07	0.11	0.11	0.80	0.70	0.47
Insurance Services	0.02	0.03	0.03	0.07	0.07	0.05
Financial Services	1.28	0.22	0.10	0.25	0.35	0.40
Computer and Info Services	.	.	0.01	0.05	0.07	0.10
Royalties and License Fees	0.00	0.01	0.03	0.07	0.06	0.10
Other Business Services	3.02	2.91	3.43	3.05	2.36	2.14
Personal. Cultural and Recr. S.	.	.	0.14	0.17	0.22	0.49
Government Services nie	0.12	0.12	0.17	0.19	0.19	0.26

Table A23

Czech Republic: Services imports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	42.82	43.53	48.37	47.60	51.57	51.45
Services	10.77	11.74	9.38	10.81	10.17	9.83
Transport	2.13	2.14	1.54	1.21	1.19	1.08
Sea Transport	0.09	0.16	0.11	0.07	0.06	0.00
Air Transport	0.29	0.24	0.42	0.30	0.37	0.00
Other Transport	1.74	1.74	1.01	0.84	0.76	1.08
Travel	1.53	3.99	3.14	5.11	4.45	3.33
Personal Travel	1.53	3.99	3.14	5.11	4.45	3.33
Other Services	7.11	5.61	4.70	4.49	4.54	5.43
Communication Services	0.87	0.69	0.49	0.11	0.10	0.26
Construction Services	0.31	0.31	0.27	0.40	0.67	0.50
Insurance Services	0.12	0.18	0.22	0.16	0.15	0.21
Financial Services	1.38	0.29	0.27	0.33	0.37	0.50
Computer and Info Services	.	.	0.02	0.04	0.07	0.11
Royalties and License Fees	0.06	0.07	0.10	0.17	0.15	0.20
Other Business Services	4.34	4.07	3.04	2.99	2.47	3.08
Personal. Cultural and Recr. S.	.	0.00	0.24	0.19	0.40	0.46
Government Services nie	0.02	0.00	0.04	0.11	0.16	0.10

Table A24

Hungary: Services exports in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Goods	36.00	27.68	29.01	27.11	21.06	18.42	28.80	31.39	42.94	43.70
Services	4.43	8.72	7.56	9.14	7.36	7.51	9.56	11.07	10.66	10.34
Transport	0.21	0.13	0.15	0.04	0.17	0.12	1.00	0.92	1.10	1.37
Transport Passenger	0.02	0.06	0.06	0.09
Transport Freight	0.21	0.13	0.15	0.04	0.17	0.12	0.88	0.53	0.59	0.86
Transport Other	0.09	0.33	0.44	0.41
Travel	3.38	2.98	3.10	3.36	3.08	3.46	3.86	4.97	5.66	5.28
Business Travel	0.00	0.15	0.26	0.26
Personal Travel	3.86	4.82	5.40	5.02
Other Services	0.84	5.62	4.32	5.74	4.10	3.93	4.70	5.18	3.90	3.70
Communication Services	0.08	0.09	0.11	0.10
Construction Services	0.05	0.07	0.13	0.23
Insurance Services	0.02	0.01	0.02	0.00	0.02	0.01	0.14	0.04	0.06	0.06
Financial Services	0.22	0.46	0.64	0.33
Computer and Info Services	0.17	0.12
Royalties and License Fees	.	0.15	0.05	0.10	0.09	0.08	0.07	0.10	0.22	0.10
Other Business Services	0.72	4.83	3.73	5.12	3.82	3.67	4.00	4.28	2.33	2.48
Personal. Cultural and Recr. S.	0.13	0.19
Government Services nie	0.10	0.63	0.52	0.52	0.17	0.17	0.13	0.13	0.11	0.08

Table A25

Hungary: Services imports in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Goods	32.42	26.07	27.94	27.14	31.49	27.37	34.25	37.26	46.73	48.18
Services	5.69	7.26	5.96	7.09	6.80	7.12	8.12	7.76	8.08	8.91
Transport	1.41	0.60	0.38	0.33	0.42	0.51	0.83	0.70	0.93	0.95
Transport Passenger	0.01	0.02	0.04	0.04
Transport Freight	1.41	0.60	0.38	0.33	0.42	0.51	0.31	0.37	0.59	0.71
Transport Other	0.51	0.31	0.31	0.20
Travel	3.92	1.77	1.49	1.78	1.93	2.25	2.40	2.12	2.52	2.54
Business Travel	0.37	0.53	0.58	0.62
Personal Travel	2.03	1.59	1.95	1.92
Other Services	0.35	4.88	4.09	4.98	4.44	4.37	4.90	4.94	4.62	5.42
Communication Services	0.05	0.05	0.09	0.08
Construction Services	0.08	0.16	0.15	0.26
Insurance Services	0.16	0.07	0.04	0.04	0.05	0.06	0.07	0.10	0.19	0.18
Financial Services	0.34	0.42	0.56	0.56
Computer and Info Services	0.18	0.20
Royalties and License Fees	.	0.11	0.12	0.08	0.10	0.18	0.16	0.29	0.42	0.45
Other Business Services	.	4.30	3.60	4.56	4.07	3.93	4.04	3.78	2.82	3.46
Personal. Cultural and Recr. S.	0.08	0.10
Government Services nie	0.20	0.41	0.33	0.31	0.22	0.20	0.16	0.13	0.13	0.12

Table A26

Poland: Services exports in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Goods	15.73	26.85	18.83	16.52	15.82	19.83	19.82	19.28	21.48
Services	3.91	5.43	4.82	5.66	4.89	7.24	8.45	6.88	6.28
Transport	2.42	3.11	2.58	2.36	2.39	2.63	2.41	1.93	2.18
Transport Passenger	0.37	0.57	0.27	0.21	0.31	0.30	0.25	0.22	0.26
Transport Freight	1.51	1.93	1.71	1.61	1.58	1.84	1.66	1.27	1.40
Transport Other	0.55	0.61	0.60	0.55	0.50	0.49	0.50	0.44	0.52
<i>Sea Transport</i>	1.45	1.27	0.89	0.94
<i>Air Transport</i>	0.36	0.28	0.28	0.32
<i>Other Transport</i>	0.67	0.64	0.55	0.62
Travel	0.25	0.61	0.19	0.22	0.17	2.51	1.83	2.21	1.61
Business Travel	0.07	0.05	0.05	0.05
Personal Travel	2.44	1.77	2.16	1.56
Other Services	1.25	1.71	2.05	3.08	2.33	2.09	4.22	2.74	2.50
Communication Services	0.23	0.24	0.22	0.27
Construction Services	0.67	2.22	1.07	0.49
Insurance Services	0.17	0.21	0.19	0.18	0.18	0.16	0.58	0.36	0.56
Financial Services	0.07	0.11	0.16	0.08
Computer and Info Services	0.00	0.01	0.02	0.01
Royalties and License Fees	0.00	0.00	0.02	0.02
Other Business Services	1.08	1.50	1.86	2.90	2.16	0.89	1.00	0.84	1.01
Personal. Cultural and Recr. S.	0.02	0.02	0.03	0.03
Government Services nie	0.05	0.03	0.03	0.01

Table A27

Poland: Services imports in per cent of GDP

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Goods	15.67	20.77	19.76	16.67	19.90	20.45	21.12	24.38	28.35
Services	3.73	4.83	3.92	4.80	4.23	4.17	5.65	4.50	4.06
Transport	2.25	2.53	2.00	1.72	1.56	1.47	1.40	1.18	1.11
Transport Passenger	0.22	0.30	0.13	0.10	0.12	0.12	0.29	0.08	0.07
Transport Freight	0.51	0.42	0.58	0.30	0.39	0.37	0.39	0.45	0.42
Transport Other	1.53	1.81	1.28	1.32	1.04	0.98	0.72	0.65	0.62
<i>Sea Transport</i>	0.91	0.60	0.48	0.46
<i>Air Transport</i>	0.22	0.33	0.22	0.22
<i>Other Transport</i>	0.25	0.28	0.33	0.29
Travel	0.26	0.72	0.19	0.16	0.22	0.35	0.32	0.41	0.41
Business Travel	0.28	0.28	0.30	0.27
Personal Travel	0.07	0.04	0.11	0.14
Other Services	1.22	1.58	1.73	2.92	2.45	2.35	3.93	2.91	2.54
Communication Services	0.17	0.15	0.14	0.16
Construction Services	0.44	1.63	0.78	0.26
Insurance Services	0.06	0.05	0.06	0.03	0.04	0.25	0.58	0.49	0.59
Financial Services	0.14	0.18	0.16	0.13
Computer and Info Services	0.04	0.05	0.09	0.06
Royalties and License Fees	0.02	0.03	0.10	0.12
Other Business Services	1.16	1.53	1.67	2.88	2.41	1.15	1.18	1.04	1.08
Personal. Cultural and Recr. S.	0.01	0.02	0.03	0.04
Government Services nie	0.12	0.10	0.08	0.09

Table A28

Romania: Services exports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	18.56	20.45	22.30	22.88	24.13	21.76
Services	3.03	3.47	4.21	4.42	4.36	3.19
Transport	1.10	1.27	1.33	1.62	1.68	1.32
<i>Sea Transport</i>	.	0.24	0.31	0.38	0.20	0.18
<i>Air Transport</i>	.	0.55	0.49	0.77	0.40	0.27
<i>Other Transport</i>	.	0.45	0.47	0.41	0.94	0.81
Travel	.	1.38	1.66	1.50	1.51	0.68
Personal Travel	.	1.38	1.66	1.50	1.51	0.68
Other Services	1.18	0.83	1.22	1.31	1.17	1.19
Communication Services	.	0.15	0.19	0.21	0.25	0.25
Construction Services	.	0.09	0.39	0.15	0.10	0.10
Insurance Services	0.11	0.06	0.08	0.06	0.08	0.08
Financial Services	.	0.17	0.14	0.15	0.13	0.10
Computer and Info Services	.	0.01	0.01	0.01	0.01	0.03
Royalties and License Fees	.	0.01	0.01	0.29	0.00	0.01
Other Business Services	1.07	0.18	0.25	0.26	0.36	0.38
Personal. Cultural and Recr. S.	.	0.10	0.11	0.15	0.17	0.17
Government Services nie	.	0.07	0.05	0.03	0.07	0.07

Table A29

Romania: Services imports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	22.84	21.82	26.74	29.87	29.79	28.64
Services	3.47	4.04	5.13	5.51	5.55	4.90
Transport	1.29	1.34	1.70	1.96	1.62	1.66
<i>Sea Transport</i>	.	0.29	0.62	0.89	0.42	0.35
<i>Air Transport</i>	.	0.18	0.18	0.21	0.20	0.28
<i>Other Transport</i>	.	0.83	0.86	0.84	0.98	1.01
Travel	.	1.49	1.96	1.88	1.95	1.20
Business Travel	.	1.05	1.47	1.27	1.34	0.73
Other Services	1.43	1.21	1.46	1.67	1.98	2.04
Communication Services	.	0.04	0.08	0.08	0.07	0.12
Construction Services	.	0.01	0.06	0.04	0.06	0.05
Insurance Services	0.13	0.07	0.07	0.08	0.10	0.12
Financial Services	.	0.15	0.20	0.17	0.17	0.13
Computer and Info Services	.	0.02	0.01	0.01	0.03	0.05
Royalties and License Fees	.	0.01	0.02	0.03	0.08	0.06
Other Business Services	1.30	0.70	0.90	1.07	1.18	1.24
<i>Other Personal. Cultural & Recr. S.</i>	.	0.04	0.07	0.10	0.16	0.15
Government Services nie	.	0.16	0.05	0.07	0.11	0.09

Table A30

Russia: Services exports in per cent of GDP

	1994	1995	1996	1997	1998
Goods	24.53	24.43	21.63	20.42	27.03
Services	3.04	3.11	3.09	3.25	4.68
Transport	1.39	1.11	0.81	0.82	1.14
Sea Transport	0.61	0.41	0.29	0.25	0.39
Air Transport	0.64	0.55	0.31	0.37	0.52
Other Transport	0.13	0.15	0.21	0.20	0.24
Travel	0.87	1.27	1.64	1.64	2.35
Other Services	0.78	0.73	0.64	0.79	1.18
Communication Services	0.11	0.14	0.13	0.14	0.20
Construction Services	0.05	0.03	0.02	0.02	0.05
Financial Services	0.03	0.02	0.02	0.03	0.04
Royalties and License Fees	0.00	0.00	0.04	0.04	0.01
Other Business Services	0.59	0.54	0.42	0.55	0.88

Table A31

Russia: Services imports in per cent of GDP

	1994	1995	1996	1997	1998
Goods	18.08	18.28	16.12	16.42	20.75
Services	5.44	5.93	4.46	4.32	5.82
Transport	1.07	0.96	0.59	0.65	0.92
Sea Transport	0.45	0.33	0.14	0.20	0.32
Air Transport	0.54	0.53	0.25	0.29	0.43
Other Transport	0.09	0.10	0.20	0.16	0.17
Travel	2.56	3.43	2.45	2.32	3.14
Other Services	1.81	1.54	1.41	1.36	1.76
Communication Services	0.07	0.09	0.09	0.08	0.13
Construction Services	0.67	0.49	0.26	0.18	0.19
Financial Services	0.02	0.02	0.02	0.09	0.09
Royalties and License Fees	0.01	0.00	0.01	0.00	0.00
Other Business Services	1.04	0.93	1.03	1.00	1.36

Table A32

Slovakia: Services exports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	45.48	48.78	49.43	46.98	49.57	52.64
Services	16.17	16.45	13.68	11.00	11.14	11.26
Transport	3.84	3.92	3.54	3.42	3.80	3.76
Transport Passenger	.	0.05	0.04	0.05	0.05	0.03
Transport Freight	.	3.81	3.48	3.35	3.71	3.69
Transport Other	.	0.07	0.02	0.03	0.04	0.05
<i>Sea Transport</i>	.	0.05	0.01	0.02	0.04	0.03
<i>Air Transport</i>	.	0.03	0.04	0.07	0.11	0.10
<i>Other Transport</i>	.	3.79	3.47	3.31	3.60	3.59
Travel	3.19	4.13	3.58	3.58	2.80	2.40
Business Travel
Personal Travel	.	4.13	3.58	3.58	2.80	2.40
Other Services	9.14	8.39	6.56	3.99	4.54	5.09
Communication Services	.	1.99	1.52	0.11	0.15	0.18
Construction Services	.	0.53	0.63	0.55	0.68	0.52
Insurance Services	.	0.12	0.01	0.03	0.07	0.06
Financial Services	.	0.46	0.66	0.56	0.47	0.26
Computer and Info Services	.	.	.	0.04	0.06	0.12
Royalties and License Fees	.	0.05	0.06	0.10	0.09	0.07
Other Business Services	9.14	4.94	3.67	2.47	2.74	3.50
Personal. Cultural and Recr. S.	.	.	.	0.10	0.19	0.30
Government Services nie	.	0.29	0.00	0.03	0.08	0.08

Table A33

Slovakia: Services imports in per cent of GDP

	1993	1994	1995	1996	1997	1998
Goods	53.09	48.33	50.75	59.14	60.29	64.19
Services	13.90	11.64	10.58	10.80	10.77	11.17
Transport	2.41	1.18	1.76	2.10	1.76	2.18
Transport Passenger	.	0.09	0.10	0.19	0.23	0.25
Transport Freight	.	1.04	1.60	1.86	1.48	1.91
Transport Other	.	0.05	0.07	0.05	0.05	0.02
<i>Sea Transport</i>	.	0.07	0.08	0.10	0.07	0.07
<i>Air Transport</i>	.	0.08	0.12	0.19	0.24	0.26
<i>Other Transport</i>	.	0.96	1.51	1.76	1.39	1.83
Travel	1.81	2.05	1.85	2.56	2.26	2.33
Business Travel	.	0.64	0.99	0.79	0.71	0.53
Personal Travel	.	1.41	0.85	1.77	1.54	1.80
Other Services	9.68	8.41	6.96	6.13	6.75	6.66
Communication Services	.	2.21	1.61	0.10	0.14	0.18
Construction Services	.	0.17	0.18	0.47	0.53	0.61
Insurance Services	.	0.24	0.14	0.25	0.20	0.11
Financial Services	.	0.28	0.37	0.72	0.46	0.31
Computer and Info Services	.	.	.	0.09	0.15	0.31
Royalties and License Fees	.	0.47	0.45	0.44	0.44	0.27
Other Business Services	9.68	4.67	4.00	3.73	4.48	4.57
Personal. Cultural and Recr. S.	.	.	.	0.17	0.20	0.29
Government Services nie	.	0.37	0.22	0.16	0.16	0.02

Table A34

Slovenia: Services exports in per cent of GDP

	1992	1993	1994	1995	1996	1997	1998
Goods	53.35	48.00	47.48	44.55	44.34	46.18	46.59
Services	9.74	10.98	12.55	10.79	11.27	11.22	10.49
Transport	2.20	3.52	3.38	2.69	2.55	2.56	2.75
<i>Sea Transport</i>	.	0.57	0.39	0.44	0.40	0.41	0.39
<i>Air Transport</i>	.	0.22	0.26	0.22	0.19	0.22	0.22
<i>Other Transport</i>	.	2.73	2.73	2.04	1.95	1.92	1.38
Travel	5.36	5.79	6.34	5.78	6.52	6.52	5.72
Business Travel
Personal Travel	5.36	5.79	6.34	5.78	6.52	6.52	5.72
Other Services	2.18	1.67	2.83	2.32	2.21	2.14	2.02
Communication Services	.	0.04	0.09	0.06	0.07	0.13	0.13
Construction Services	.	.	0.87	0.72	0.50	0.42	0.37
Insurance Services	0.11	0.00	0.00	0.00	0.00	0.00	0.00
Financial Services	0.00	0.05	0.05	0.04	0.06	0.06	0.04
Computer and Info Services	0.01	0.03	0.04	0.06	0.16	0.18	0.24
Royalties and License Fees	0.03	0.03	0.02	0.02	0.03	0.03	0.04
Other Business Services	2.01	1.46	1.70	1.32	1.28	1.21	1.11
Personal. Cultural and Recr. S.	0.01	0.04	0.04	0.03	0.05	0.06	0.06
Government Services nie	.	0.01	0.02	0.06	0.06	0.06	0.01

Table A35

Slovenia: Services imports in per cent of GDP

	1992	1993	1994	1995	1996	1997	1998
Goods	47.05	49.22	49.83	49.64	49.01	50.42	50.56
Services	8.29	8.03	7.85	7.43	7.54	7.98	7.86
Transport	3.51	3.07	2.91	2.32	2.14	2.00	2.07
<i>Sea Transport</i>	.	0.20	0.20	0.24	0.19	0.19	0.17
<i>Air Transport</i>	.	0.09	0.13	0.15	0.17	0.19	0.21
<i>Other Transport</i>	.	2.79	2.57	1.94	1.78	1.62	1.19
Travel	2.25	2.41	2.60	2.80	2.87	2.99	2.94
Business Travel	0.36	0.48	0.41	0.34	0.33	0.32	0.30
Personal Travel	1.89	1.93	2.19	2.46	2.54	2.67	2.64
Other Services	2.53	2.54	2.34	2.31	2.52	2.98	2.84
Communication Services	0.00	0.01	0.04	0.05	0.08	0.14	0.15
Construction Services	.	.	0.02	0.13	0.19	0.28	0.22
Insurance Services	0.13	0.01	0.01	0.01	0.01	0.01	0.01
Financial Services	0.08	0.11	0.09	0.08	0.10	0.12	0.12
Computer and Info Services	0.08	0.14	0.13	0.14	0.17	0.27	0.24
Royalties and License Fees	0.04	0.10	0.11	0.12	0.14	0.29	0.20
Other Business Services	2.08	2.02	1.73	1.58	1.64	1.65	1.68
Personal. Cultural and Recr. S.	0.10	0.08	0.09	0.10	0.12	0.15	0.16
Government Services nie	0.03	0.06	0.11	0.08	0.08	0.07	0.07

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