The Kiel Institute for the World Economy
Duesternbrooker Weg 120
24105 Kiel (Germany)

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Service Trade Liberalization as a Handmaiden of Competitiveness in Manufacturing: An Industrialized or Developing Country Issue?

by

Rolf J. Langhammer[*]

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Service Trade Liberalization as a Handmaiden of Competitiveness in Manufacturing:
An Industrialized or Developing Country Issue?

By Rolf J. Langhammer

Abstract: This paper discusses the issue whether developing countries forego chances in world manufactured markets by protecting intermediate services against market entry of new suppliers. By scanning the empirical literature on effective rates of protection (ERP), the evidence is supportive. Yet, it seems more the indirect effect via expanding the service sector in total through liberalization and deregulation than the direct effect of lowering ERP in intermediate service industries for downstream manufacturing industries which is relevant. Developed countries on the other hand enjoy a much lower level of protection in important intermediate services like banking and telecom and thus these industries can be instrumental to help downstream manufacturing industries in adjustment and restructuring. It is argued that especially in the EU competition in intermediate services will further rise due to various EU-policy rooted factors. As a result, protection rates of services in individual EU countries will converge.

Keywords: Trade Liberalization, Services, Effective Rates of Protection.

JEL Classifications: F13, F15

Corresponding author:
Rolf J. Langhammer
The Kiel Institute for the World Economy
Duesternbrooker Weg 120
D-24105 Kiel
e-mail: rolf.langhammer@ifw-kiel.de

I. The Issue

Over the entire post-war period, both policy-induced barriers to trade and pure transaction costs due to economic distance between developing and industrialized economies have been continuously reduced. Developing countries were able to increasingly penetrate world markets with unskilled labor-intensive goods provided that they dismantled their domestic policy disincentives which inter alia resulted from implicit discrimination against exports by import substitution strategies.

In spite of undeniable achievements, specialization has been far from complete. Neither have <u>all</u> developing countries succeeded in changing their sectoral export pattern in accordance with their resource endowment. Nor have contested industries in industrialized countries while losing in world trade shares given up to competition from labor-abundant countries[1]. Remaining protection levels for these products and the structure of protection over the entire value added chain can partly explain this result. Peak tariffs were cut over proportionately in past multilateral trade negotiations and thus tariffs on finished goods and intermediate goods converged. Yet, peaks in import tariffs on manufactures and processed agricultural goods (including tariff equivalents of non-tariff measures) remained in place on both sides so that effective rates of protecting domestic value added[2] continue to deviate from the nominal rates albeit to lesser extent than in the past. Such deviation is known to create a systematic escalation of protection along with increasing stages of production protecting the close-to-the consumer labor-intensive stages in industrialized economies to the detriment of the developing countries' supply in these stages[3].

However, just focusing on the gap between effective and nominal rates of protection (ERP, and NRP, respectively) within the manufacturing sector is likely to provide an incomplete list of explanations why industrialized countries could defend market shares in vulnerable industries or successfully adjusted in contestable markets and why many developing countries failed to benefit from tariff dismantling in their major export markets. Another reason may lie in differences in degrees of regulation and protection which intermediate services are facing both in developing and

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[1] For twelve typical labour-intensive categories from the textile, clothing, leather and footwear industry (SITC 3-digit: 611, 653, 655, 658, 831, 842, 843, 844, 845, 846, 848, 851), the share of developing countries in world exports rose from 55 to 63 percent between 1991/1992 and 2001/2002 while that of developed market economies declined from 45 to 37 percent (UNCTAD Handbook 1994, 2004).

[2] See the seminal work of Corden (1971).

[3] See UNCTAD (2000) which confirms the impact of tariff peaks in the EU, Canada, and the US, on the escalation effect and rising effective rates of protection with rising degree of processing.

industrialized economies. With ongoing "slicing up of the value added chain", growing disembodiment of services due to technological innovations in the IT-sector, and the sourcing of production stages out of companies, services gain a larger share in intermediates than in the past. Such services comprise infrastructure services like transport facilities, financial intermediates as banking and insurances, IT-services, advertising, wholesale and retail trading, real estate services, to name but a few.

In some cases, service supply in developing countries is rudimentary because of lack of physical infrastructure, such as an inadequate road network leading to prohibitively high transport costs (Limao, Venables 2001). But even with a reasonable endowment, a poor management, inappropriate pricing and high barriers against market entry of new transport suppliers can make infrastructure services inefficient for downstream industries. Policy responsibility seems to be more responsible for inefficiencies in less physical capital-intensive business services such as financial services. For instance, scrapping import substitution regimes in developing countries can lead to high depreciation rates of the installed capital stock in domestic market-oriented industries and require fresh capital for financing a new capital stock in export-oriented industries. A highly regulated and protected banking sector may be unable to support this process by timely lending. On the other hand, changing the supply structure in industrialized economies toward manufactured products which are less vulnerable toward competition from labor-abundant countries will be facilitated and accelerated by efficient and competitive banking services[4].

It is the purpose of this paper to screen existing empirical studies on tariff equivalents for intermediate services in both industrialized and developing countries and to assess their likely impact on ERPs for downstream close-to-consumer industries if intermediate services are added to manufactured intermediates. Cross-country comparisons should help to assess whether it is more the assumedly low level of protection of intermediate services in industrialized countries than the lack of such openness in developing economies which accounts for the barriers towards even more success of developing countries in labor-abundant manufactures.

There are two special policy aspects which warrant attention. First, it is arguable that in many countries regulations in intermediate services are not necessarily trade-impeding if market access is generally restricted for both domestic and foreign suppliers alike. Hence, in this case, barriers are non-discriminatory and the critical issue is the insufficient level of service activities rather than

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[4] See the study of Arnold et al. (2006) for the Czech Republic which yields a sizable improvement of the competitiveness of the manufacturing sector due to deregulation and liberalisation of service trade.

distortions in the allocation of service supply between domestic and foreign competitors (OECD 2004, Dee, 2006). Beyond such market entry barriers, there will be violations of national treatment leading to a less favorable treatment of foreign suppliers in service markets than incurred by domestic suppliers. Second, in assessing the allocation effects of liberalizing trade in services, one has to distinguish between across-the-board liberalization (horizontal commitments in the GATS terminology) and industrial policy targeted liberalization, that is concentrating liberalization on specific sectors (sectoral commitments in the GATS terminology). In the EU Treaty, for instance, priority in liberalization of trade in services is given to intermediate services in order to improve the competitiveness of the industrial sector (see Messerlin 2001:140). In the EU context, liberalization would include both the completion of the single market, for instance, by anchoring the home country principle in banking services[5], and the opening of the market to non-European-suppliers.

The paper is structured as follows: Chapter II discusses empirical findings from assessing barriers to trade in intermediate services (non-discriminatory and discriminatory) in selected developing and industrialized countries and their likely implications regarding the competitiveness of downstream industries. Chapter III departs from the findings of Chapter II and assesses the relative weight of the hypothesis of industrialized countries' competitive advantage vs. developing countries' competitive disadvantage.

Chapter IV relates to the relevance of the findings for EU service trade liberalization.

Chapter V concludes on the results.

II. Barriers in Intermediate Services: What Estimates on Trade Restrictions and Tariff Equivalents Suggest

Previous attempts to quantify qualitative information on service trade regulations mostly depart from the so-called inventory approach pioneered by Hoekman (1995) and refined later in numerous sector studies, for instance in Findlay and Warren (2000). Qualitative information is transformed into a quantitative index score based on assumptions about differences in the degree of restrictiveness of certain measures. The outcome of such inventories may be generally controversial and admittedly arbitrary but less so within service industries than between them and less so within specific categories of policy regulations and modes of supply than between them. Therefore, these

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[5] Services can be supplied under the legal framework of the EU home country in EU partner countries provided that common minimum requirements on standards are met. This understanding is based on the famous Cassis de Dijon ruling of the European Court.

indices are useful in two respects: as a condensed form of genuine information and as a right-hand variable in regression analyses when other determinants of service trade such as productivity, prices or costs are controlled for by other variables. Regression coefficients form the base for calculating tariff equivalents where the tax base is either the price of a service delivered by cross-border trade (Mode 1 in the GATS). Alternatively, production factors are taxed if the mode of supply is commercial presence of companies (capital) or movements of persons (labor)[6]. Using a direct way, index scores themselves (without being used as explanatory variables in regression analyses) can be transformed into tax equivalents if an assumption is made about the tax equivalent of the highest or lowest score of the index on restrictions. The more advanced way to tax equivalents uses coefficients from cross-country regressions which are multiplied by the index measures for sample countries. The advantage of the econometric estimates is that tax equivalents for out-of-sample countries can be assessed once quantitative index scores have been measured for these countries[7].

As mentioned earlier, this paper sees its motivation of measuring tariff equivalents for services in the impact of service trade protection on the ERPs of downstream manufacturing industries using services as intermediates. In this context, it is not only the magnitude of the average tariff equivalent in intermediate services and its difference to the average tariff equivalent for intermediate goods which determines this impact. Equally relevant is the share of intermediate services relative to intermediate goods. If the share is low, eventually because of a high degree of non-discriminatory regulation of services and/or development level-induced barriers to service provision, even a large difference in tariff equivalents between intermediate services and intermediate goods will not have much impact on the magnitude of ERPs for downstream industries. Table 1 reports shares of intermediate services in total intermediate supply to selected industries for two "benchmark" countries from the OECD region (Germany) and from the group of advanced developing countries (Malaysia). The choice of these two countries has not only been determined by data availability with respect to input-output tables and comparability of industries. The two countries are also benchmark cases for in-between service orientation in their income groups. Germany, unlike the UK, the Netherlands or the US, is not a traditional service supplier or exporter but an strong industry-based economy. Nor is Malaysia an important service provider. It is known as a low-tariff country in manufactures with an equally strong manufactured (and primary commodity) production base for exports. As relatively open economies, both countries face

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[6] These are mode of supply 3 and mode of supply 4, respectively.

[7] Techniques of running through the various stages from inventories and indices of restrictiveness to econometric analyses and finally into computable general equilibrium models are described in more detail in Findlay and Warren (2000), McGuire (2003) and OECD (2004).

increasing competition from low-skilled low wage cost countries and therefore need both structural change toward less vulnerable industries and support from an efficient service sector to reduce their vulnerability to foreign competition in contested markets.

Table 1–Share of Intermediate Services in Total Intermediate Supplies in Selected Industries in Germany and Malaysia 1990 and 2000 in percent

Manufacturing Industries	Germany		Malaysia	
	1991	2000	1990	2000
Food, beverages and tobacco	24.4	30.9	3.4	1.8
Textiles, leather, and the products thereof; pulp, paper and printing	26.8	32.8	12.4	8.1
Chemical products, petroleum and petrol products	27.0	24.7	6.1	2.4
Metal products	20.5	20.8	8.7	5.2
Machinery	21.4	26.2	10.8	3.1

Source: Federal Statistical Office Germany, Input-Output tables 1991- 2000 (downloadable at: http://www-ec.destatis.de/csp/shop/sfg/bpm.html.cms.cBroker.cls?cmspath=struktur,sfgsuchergebnis.csp&action=newsearch&op_EVASNr=startswith&search_EVASNr=815);
Federal Statistical Office Germany, Aggregated Input-Output table 2000;
Asian International Input-Output table 1990, Institute of Developing Economies statistical data series Nr. 81, Tokyo;
Asian International Input-Output table 2000, Institute of Developing Economies statistical data series Nr. 90, Tokyo; own calculations.

Differences are striking with respect to levels, changes over time and sector specifics.

First, the share of intermediate services in total intermediates has been significantly lower in Malaysia than in Germany during the nineties. Second, while the share has generally been rising over time in Germany (with the exception of the chemical industry), the share has even further declined in Malaysia from an already low initial level. Third, sectoral differences are more pronounced in Malaysia than in Germany, eventually indicating more variance in the level of regulations between service sectors in Malaysia than in Germany if we assume that the importance of intermediate services for specific manufacturing industries is similar in industrialized and emerging markets (like Germany and Malaysia). Notwithstanding sectoral differences and changes over time, the first aspect is the most important one. It indicates that the role of intermediate services even in an emerging market is so much smaller than in industrialized countries relative to other intermediate industries that this cannot only be explained by income level differentials. Instead, we assume policy restrictions in services to be more severe in developing countries than in industrialized countries or, to put it differently, that the internal terms of trade between service and

non-service activities are more distorted to the detriment of service activities in developing countries than in industrialized countries[8].

Table 2–Estimates of Restrictiveness Indices for Selected Services and Countries[a]: Non-Discriminatory Measures

Country	Accountancy Services	Architectural Services	Banking Services	Distribution Services	Engineering Services	Legal Services	Maritime Services	Tele-communication Services
India	**100.0**	10.0	16.7	58.8	0.0	26.5	89.8	82.9
Philippines	95.9	20.4	50.0	21.6	0.0	31.1	61.0	28.6
Belgium	91.0	51.0	0.0	69.6	6.1	64.4	52.5	21.4
Japan	91.0	30.6	45.8	76.5	67.4	**100.0**	52.5	9.3
Austria	87.0	88.0	0.0	19.6	**100.0**	**100.0**	45.8	28.6
Portugal	83.6	53.1	0.0	19.6	88.2	64.4	28.8	66.4
France	78.7	47.1	0.0	72.1	12.3	65.2	45.8	10.7
South Korea	78.7	0.0	66.7	**100.0**	0.0	34.1	**100.0**	74.6
Canada	71.0	**100.0**	0.0	18.1	55.1	92.4	32.2	30.0
Germany	70.7	61.2	0.0	38.2	96.8	88.6	67.8	10.6
New Zealand	67.2	10.2	0.0	0.0	0.0	37.9	37.3	7.1
Hong Kong	66.7	35.7	12.5	9.8	36.8	22.7	32.2	44.3
Spain	66.6	73.5	0.0	29.4	80.9	92.4	66.1	45.6
Denmark	66.4	5.1	0.0	35.3	6.1	45.5	28.8	7.1
United States	66.4	52.0	0.0	0.0	56.6	72.7	61.0	7.1
Brazil	65.6	26.5	4.2	4.9	19.6	-	81.3	44.3
Netherlands	62.5	0.0	0.0	36.8	45.3	30.3	52.5	6.4
Thailand	62.3	0.0	0.0	22.1	19.6	30.5	47.4	91.4
Singapore	59.0	0.0	37.5	9.8	6.1	22.7	37.3	73.3
Sweden	58.2	0.0	0.0	27.5	6.1	35.6	59.3	21.4
Greece	57.4	20.4	0.0	19.6	24.5	30.3	47.4	55.9
United Kingdom	57.4	0.0	0.0	19.6	12.3	53.0	22.0	0.0
Australia	51.6	10.2	0.0	9.8	18.4	80.3	45.8	9.5
Mexico	45.1	15.3	0.0	0.0	18.4	65.2	61.0	49.3
Italy	42.0	53.1	0.0	53.9	76.0	53.0	62.7	29.3
Luxembourg	37.9	0.0	0.0	19.6	39.2	-	37.3	35.7
Chile	33.6	21.4	**100.0**	21.6	0.0	-	44.1	18.7
South Africa	32.8	0.0	0.0	9.8	6.1	-	-	82.9
Finland	31.3	5.1	0.0	19.6	6.1	7.6	40.7	0.0
Malaysia	29.5	16.3	95.8	35.3	40.4	38.6	89.8	52.4
Turkey	29.5	67.3	16.7	24.5	87.0	77.3	27.1	**100.0**
Switzerland	24.6	17.3	0.0	62.7	24.5	73.5	35.6	42.9
Indonesia	0.0	16.3	25.0	36.8	25.7	50.0	74.6	73.8
Ireland	-	-	0.0	19.6	-	-	54.2	41.4
Median:								
OECD Country	66.4	30.6	0.0	22.1	24.5	64.8	45.8	21.4
Non-OECD Country	60.7	15.8	20.9	21.6	12.3	31.1	61.0	62.9

Source: Australian Government Productivity Commission (2001), Canberra
(http://www.pc.gov.au/research/rm/servicesrestriction/index.html), own calculations
[a] Based on available information of restrictions in place as at December 31, 1997

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[8] Service activities would then share this problem with the agricultural sector which also faces domestic policy discrimination in developing countries while being preferred in industrialised countries.

Given the magnitude of the gap, it seems unlikely that policy distortions are targeted only against the foreign supply of services. Instead, we assume that distortions restrict total supply including potential domestic supply.

This is why in the following we discuss restrictiveness indices calculated by the Australian Government Productivity Commission (2001) separately for non-discriminatory measures which impede domestic and foreign suppliers alike in establishing and operating service activities on the one hand (Table 2) and for measures which are discriminatorily applied against foreign suppliers only on the other hand (Table 3). The issue is whether there is reason to assume that both non-discriminatory and discriminatory measures or one of them differ systematically with respect to whether it is a developing or an industrialized country applying the measure. For that reason we calculate median country scores for each group defined as the initial OECD countries (thus subsuming the two later OECD members South Korea and Mexico under the non-OECD group[9]) and the rest of countries (non-OECD). In measures against all suppliers, a OECD median country is not necessarily less restrictive than a developing country. In five of the eight service categories shown in Tables 2 and 3, non-OECD countries were less restrictive than OECD countries concerning non-discriminatory measures or almost at the same level. Yet, in two very important intermediate services, banking and telecommunication services, plus in maritime services, a median developing country applied strongly more restrictive practices against both domestic and foreign suppliers than an industrialized countries[10]. In banking, most OECD countries and also some developing countries applied no non-discriminatory restrictions at all making the gap to the relatively few countries imposing restrictions very large. Furthermore, the country distribution of restrictions is uneven among the eight categories. Except for Austria, keeping peak positions in two categories, all other peak countries topped the list in one category only and were spread over OECD and non-OECD countries alike.

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[9] Data are from 1997 just after the two countries had joined the organisation (1996 and 1994 respectively. It is likely that by that time the two countries had not yet implemented all standards and recommendations set by the OECD.

[10] Testing for the significance of differences between median OECD country and median non-OECD country, both the Wilcoxon/Mann-Whitney test as well as the median chi-square test confirm the significance of differences at the 1 percent level for banking, telecommunication and legal services for discriminatory and non-discriminatory measures, and for maritime services and discriminatory measures. For engineering services, differences for both type of measures are statistically significant at the 5 percent level, while the same level applies for differences in accountancy services only if discriminatory measures are concerned.

Table 3–Estimates of Trade Restrictiveness Indices for Selected Services and Countries[a]: Discriminatory Measures

Country	Accountancy Services	Architectural Services	Banking Services	Distribution Services	Engineering Services	Legal Services	Maritime Services	Tele-communication Services
Indonesia	**100.0**	82.7	86.3	66.9	63.3	93.2	73.7	91.7
Malaysia	75.1	92.4	67.8	94.1	60.3	94.4	56.7	94.4
South Africa	61.1	34.9	34.4	12.9	28.3	-	-	55.6
Philippines	59.9	88.5	70.1	94.3	51.4	**100.0**	**100.0**	88.9
Turkey	57.5	70.3	59.2	19.1	65.9	75.0	88.5	92.2
Austria	53.7	69.7	12.8	42.8	64.4	54.4	46.0	0.0
Italy	53.4	53.4	12.8	47.3	5.3	83.0	42.6	0.0
Thailand	52.9	37.8	70.7	**100.0**	22.7	77.8	98.9	**100.0**
Sweden	46.8	53.7	12.8	42.8	52.2	34.3	52.6	0.0
Australia	44.5	40.3	22.0	21.7	13.3	35.8	60.8	0.0
Chile	43.3	28.4	20.8	22.9	82.1	-	80.2	0.0
South Korea	42.0	58.8	43.0	21.9	39.4	76.5	63.7	92.8
Singapore	41.2	24.5	48.3	14.0	34.1	78.5	21.7	28.3
Mexico	39.1	85.8	31.1	32.3	**100.0**	62.6	64.9	83.9
Denmark	36.8	3.2	41.7	53.5	7.8	64.0	42.9	0.0
Canada	35.8	27.8	12.9	42.9	16.2	49.1	48.6	83.9
Luxembourg	34.2	24.5	12.8	37.1	8.7	-	29.7	0.0
Brazil	34.0	28.7	90.8	64.8	65.8	-	61.9	28.3
Switzerland	33.7	43.4	14.3	50.7	33.8	59.3	53.3	0.0
New Zealand	33.7	**100.0**	11.4	17.4	64.6	80.1	52.4	0.0
Germany	30.4	0.8	12.8	42.8	26.6	44.5	42.3	0.0
Portugal	27.6	80.6	12.8	47.3	51.4	46.0	37.3	55.6
Japan	27.3	35.2	11.5	17.9	14.9	44.2	55.2	0.0
Greece	25.8	76.6	12.8	67.6	51.4	62.4	30.0	55.6
India	24.4	16.9	**100.0**	51.8	32.9	71.8	74.7	83.9
United States	22.9	33.7	11.5	47.9	26.0	55.5	90.7	0.0
Belgium	21.0	52.1	12.8	42.8	1.0	22.9	42.0	27.8
Hong Kong	19.9	40.3	10.1	7.2	17.2	44.2	66.2	0.0
Spain	18.3	53.4	12.8	42.8	25.3	34.4	42.6	55.6
France	12.8	8.1	12.8	42.8	1.0	84.6	42.6	44.4
Finland	7.7	3.2	12.8	58.0	15.6	27.2	42.6	0.0
Netherlands	5.5	8.7	12.8	42.8	1.0	35.2	42.6	0.0
United Kingdom	3.2	20.5	12.8	42.8	13.8	32.2	37.6	0.0
Ireland	-	-	12.8	42.8	-	-	42.1	44.4
Median:								
OECD Country	30.4	40.3	12.8	42.8	16.2	47.6	42.6	0.0
Non-OECD Country	42.7	39.1	58.1	42.1	45.4	77.8	66.2	83.9

Source: Australian Government Productivity Commission (2001), Canberra

   http://www.pc.gov.au/research/rm/servicesrestriction/index.html), own calculations

   [a] See footnote a in Table 2

As concerns discriminatory measures against foreign imports for services (market access) or foreign suppliers in the market (national treatment), the regional pattern of restrictions is clearer. Except for architectural services where the median OECD country was more restrictive than the median non-OECD country and distribution services (almost same level), the median developing country discriminated more strongly against foreign supply than the OECD country, again especially in telecommunication and banking. As in non-discriminatory restrictions, peak country positions are distributed over various countries, with the Philippines as the most restrictive country in two service categories. In terms of magnitude, non-discriminatory measures have been found to be more important than discriminatory measures. This supports the conclusion that policy discrimination acts often more against the service sector in general than against the foreign supply component of services and that abandoning restrictions would signal reallocation of resources from non-service sectors to service sectors.

How relevant are these findings for the initial issue whether or not downstream manufacturing industries in developing countries can benefit from service deregulation in terms of their competitiveness? It is important to note that this issue cannot be simply equated with the hypothesis that deregulation helps the manufacturing sector in total and contributes to its expansion. To the extent that services are intermediates and by being deregulated enhance the competitiveness of the manufacturing sector, this sector would indeed expand its activities. This is equivalent to a rising ERP of these industries. Yet, many services are also either intermediates for other services or final products directly absorbed by domestic and foreign consumers. In this function, it would be the service sector itself which would expand, and probably more than the manufacturing sector if we take the low Malaysian share of intermediate services in total intermediate sales to manufacturing industries as typical for developing countries.

A first step to assess the impact of service protection on the manufacturing sector is to discuss available estimates of tax equivalents of service industries and to compare them with import tariff equivalents of manufacturing goods. Dihel (2005a: Table 1) shows estimates for trade-weighted import tariffs in selected manufacturing goods and tax equivalents of discriminatory measures in few service industries of eleven developing and transformation countries. In typical intermediate services like banking, telecommunication and electricity, tax equivalents for discriminatory measures are often but not always found to be higher than import tariffs on goods. Differences, however, are moderate. One has to take in account that both manufacturing and service industries include products for final demand by foreign und domestic consumers and not only intermediates.

Yet, assumed that the median estimates for both sectors are representative for import taxes on intermediate goods and services, into the calculation of ERPs for downstream industries which includes intermediates would mostly lead to rising tariff escalation and rising ERPs in these industries. However, this is not confirmed when changes in ERPs due to considering intermediate services are estimated (ibid: Table 3). If one derives from the sample the median values of ERPs in manufacturing industries without and with intermediate services from fifteen industries for each of the eleven countries, the finding is that in six countries (Malaysia, Thailand, Morocco, Bulgaria, Croatia and Romania) ERPs are already negative without including services. This implicit taxation of manufacturing industries gets stronger if intermediate services are included (Table 4)[11]. In the five other countries, an initially positive ERP shrinks, in two cases (Chile and Russia) to zero. This result invites two conclusions. First, for the first group of countries import tariffs on intermediate goods have been higher than tariffs on finished goods. Second, for all sample countries tax equivalents on intermediate services have been higher than import tariffs on intermediate goods. Manufacturing industries in these countries could thus win more in terms of abandoning the implicit taxation of their valued added by lowering the level of protection of intermediate services than by lowering the level of protection of intermediate goods.

Under the hypothesis that it is the service sector which benefits the most from dismantling discriminatory and non-discriminatory barriers in services, the impact of including intermediate services for ERPs in downstream service industries warrants special attention. Based on eight services, the calculation of ERPs for the median service industry with and without intermediate services brings a clear result (Table 4). In all sample countries, the median service industry suffers either from implicit taxation or enjoys no protection (Albania, Croatia) if intermediate services are excluded. By including intermediate services, implicit taxation rises much higher than in manufacturing. Thus, highly protected intermediate services seem to cause more damage for the competitiveness of downstream services than for the manufacturing industries. This underlines the importance of deregulation for the development of intra-services transactions and the service factor in total.

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[11] Taking averages instead of median values does not shape this finding. See also Dihel (2005b).

Table 4–Estimates on Effective Rates of Protection of Manufacturing and Service
Industries with and without Intermediate Services for the Median and Average
Industry in Selected Developing Countries

Country	ERP	Median		Average	
		Manufacturing Industry	Service Industry	Manufacturing Industry	Service Industry
Malaysia	without Services	-0.05	-0.06	-0.09	-0.06
	with Services	-0.07	-0.16	-0.10	-0.15
Thailand	without Services	-0.02	-0.08	-0.07	-0.06
	with Services	-0.04	-0.14	-0.08	-0.13
Brazil	without Services	0.05	-0.03	0.06	-0.03
	with Services	0.02	-0.10	0.03	-0.11
Chile	without Services	0.01	-0.01	0.01	-0.02
	with Services	0.00	-0.05	-0.01	-0.07
Morocco	without Services	-0.01	-0.04	-0.03	-0.04
	with Services	-0.03	-0.11	-0.05	-0.12
Zambia	without Services	0.03	-0.01	0.10	-0.01
	with Services	0.01	-0.05	0.08	-0.08
Russia	without Services	0.02	-0.01	0.02	-0.01
	with Services	0.00	-0.06	0.01	-0.11
Albania	without Services	0.10	0.00	0.08	0.00
	with Services	0.06	-0.06	0.04	-0.08
Bulgaria	without Services	-0.02	-0.04	0.00	-0.04
	with Services	-0.06	-0.47	-0.04	-0.44
Croatia	without Services	-0.01	0.00	0.03	-0.01
	with Services	-0.03	-0.10	0.01	-0.20
Romania	without Services	-0.01	-0.01	0.02	-0.01
	with Services	-0.04	-0.15	-0.02	-0.19

Source: Dihel (2005a), own calculations

Is it possible to identify manufacturing industries and service industries across the eleven sample countries which are over proportionately affected by policy barriers in service industries? Table 5 tries to answer this question by displaying the ERPs with and without services in individual industries for the median country. Again, unsurprisingly, by including intermediate services, either protection of all manufacturing industries declines or taxation rises. Taking the percentage point changes as a yardstick of how important the intermediate service is for the level of protection, the typical labor-intensive sectors like leather, textiles, and wood products are most severely affected with changes of 4-5 percentage points. In the textiles industry, protection shrinks by two thirds, while the most highly protected sector, leather, incurs a loss of protection of more than a quarter of the initial level. Service regulation and protection thus impedes just those industries in the median developing country which are potential export industries. Again, the situation is even worse in the service industries which incur rises in taxation from 1-3 per cent to 18-20 per cent due to including intermediate services accounting for 20-38 per cent of all inputs used in manufacturing industries in an average developing country.

Using comparable OECD data on tax equivalents of discriminatory measures for industrialized economies, it emerges that – as already shown before – the largest gap in policy measures applied against foreign supply between OECD and Non-OECD countries is in communication services and financial services (Table 6). In financial services, this gap between high barriers in a median non-OECD country and low barriers in median OECD country is almost 10:1, for the OECD in total about 5:1. In communication services, OECD data suggest zero measures in the median OECD country and a level of protective measures in the OECD in total which amounts to only 30 percent of the level in the median non-OECD country. It is also confirmed that in other services like trade services and business services levels of protection are found more similar between the two groups of countries with large inter-country variation.

Table 5–Estimates on Effective Rates of Protection in Median and Average Developing Countries for Selected Manufacturing and Service Industries[a]

Industry	ERP	Median	Average
Manufacturing			
Beverages and tobacco products	without Services	-0.04	-0.02
	with Services	-0.05	-0.05
Food products nec	without Services	-0.02	-0.04
	with Services	-0.04	-0.07
Forestry and wood products	without Services	0.01	0.03
	with Services	-0.03	0.01
Paper products, publishing	without Services	0.01	0.03
	with Services	0.03	0.03
Mineral products	without Services	-0.01	-0.02
	with Services	0.00	0.00
Textiles	without Services	0.06	0.04
	with Services	0.02	0.01
Leather products	without Services	0.19	0.14
	with Services	0.14	0.10
Chemical, rubber, plastic products	without Services	0.00	0.00
	with Services	-0.03	-0.02
Mineral products nec	without Services	-0.01	0.02
	with Services	-0.01	0.00
Base metals and metals nec	without Services	0.01	0.01
	with Services	-0.01	-0.01
Motor vehicles and parts	without Services	0.04	0.04
	with Services	0.01	0.00
Transport equipment nec	without Services	-0.01	-0.04
	with Services	-0.04	-0.07
Electronic equipment	without Services	-0.03	-0.02
	with Services	-0.06	-0.04
Machinery and equipment	without Services	-0.05	-0.03
	with Services	-0.07	-0.05
Manufacturers nec	without Services	0.02	-0.01
	with Services	-0.02	-0.04
Services			
Electricity	without Services	-0.01	-0.02
	with Services	-0.20	-0.28
Trade	without Services	-0.02	-0.02
	with Services	-0.08	-0.13
Sea transport	without Services	-0.05	-0.06
	with Services	-0.14	-0.20
Air Transport	without Services	-0.02	-0.02
	with Services	-0.18	-0.23
Communication	without Services	-0.01	-0.01
	with Services	-0.08	-0.09
Financial services nec	without Services	-0.01	-0.02
	with Services	-0.10	-0.14
Business services	without Services	-0.01	-0.01
	with Services	-0.06	-0.07
Other services	without Services	-0.03	-0.04
	with Services	-0.06	-0.07

Source: Dihel (2005a), own calculations
[a] Based on the country sample: Malaysia, Thailand, Brazil, Chile, Morocco, Zambia, Russia, Albania, Bulgaria, Croatia and Romania

Country	Trade services	Communication services	Financial services	Business services
Median Non-OECD Country	2.3	9.0	3.2	4.5
Australia	0.6	0.0	3.5	2.8
France	5.2	2.7	0.5	0.9
Japan	2.3	0.0	0.1	6.6
United States	2.3	0.0	0.1	7.4
Median OECD Country	2.3	0.0	0.3	4.7
OECD in total	2.7	2.7	1.7	5.8

Table 6–Discriminatory Tax Equivalents of the Median Non-OECD Country Median OECD Country and Selected OECD Countries in Service Industries

Source: OECD (2003; 2004), own calculations

III. Developing Countries' Disadvantages vs. Developed Countries Advantages in Intermediate Services: What Matters More for the Competitiveness of the Manufacturing Sector?

It may not appear overly surprising that developing countries overall impose larger restrictions against trade in intermediate services than industrialized countries.

The list of forces driving protection is long comprising for instance infant industry arguments, strategic industrial policy targets, defense of social policies, the wish to control foreign commercial presence and pressure from domestic vested interests to defend rents. In two respects, the Asian crisis of 1997 was helpful to cast light on both the origin and the effects of service trade protection before and after the outbreak. First, in financial services, restrictions against foreign supply helped local banks to support excessive lending for investment which after the collapse of bound exchange rates proved obsolete because of becoming victims to "double mismatches" of currency and maturity distribution. Protection drove a wedge between local banks without access to foreign capital and thus were exposed to market exit on the one hand and foreign-controlled banks on the other hand which rapidly withdrew from the market and shifted parts of the adjustment burden to foreign donor institutions. Second, after the crisis, local banks escaped into herd behavior and denied local companies badly need fresh loans (credit crunch).

In non-crisis times, inefficient intermediate services have impeded sectoral structural change which became urgent in developing countries, for instance either after periods of strong real appreciation (Balassa-Samuelson-Effect) or after implementing structural adjustment programs which included unilateral trade liberalization in manufacturing industries. In both cases, fresh capital would have

been necessary to improve financial and physical infrastructure in order to enhance the process of factor reallocation.

There is another argument underlining the importance of intermediate services as stumbling blocks or stepping stones for collecting the competitive advantages from manufacturing industries. Trade liberalization and other reforms in developing countries which change economic reforms often not only imply sectoral reallocation of factors of production but also spatial reallocation. Internal terms of trade change to the benefit of non-urban areas outside the portside processing areas which were typical for early import substitution activities. To be successful, such wider spatial distribution of manufacturing activities requires intermediate services bridging economic distances. This does not only include transport and communication facilitates but comprises also the integration of informal and formal domestic financial markets in rural and urban areas. Trade deregulation in these services would help to both improve the quality of existing services and open the gate to new services, not necessarily with foreign suppliers alone but with joint ventures or mergers and acquisition between local and foreign suppliers. As discussed earlier, liberalizing service trade by dismantling discriminatory measures would first of all help the service sector itself to expand.

Yet, there is a companion policy required. Infrastructure services will primarily require commercial presence as mode 3 (in the GATS terminology) to be enhanced if the substitution potential between different modes of supply is technically limited. Developing countries must therefore be prepared to guarantee rights of establishment to foreign suppliers in infrastructure services and this is what many developing countries still deny in order to protect public companies or parastatals with non-profit objectives. It can therefore be assumed that in these sectors non-discriminatory regulations impeding both domestic and foreign private suppliers alike are most important and that discriminatory (trade) restrictions matter less. However, in recent years many developing countries have launched privatization programmes also encompassing these sectors. To the extent that privatization not only meant state monopolies substituted for by private monopolies, gains for consumers and producers have probably been collected by the service sector and by manufacturing industries. It is therefore not unlikely that more recent data would show the gap between industrialized and developing countries in trade measures against foreign service suppliers shrinking as concerns the mode 3. Notwithstanding this mode, technological innovations in mode 1 (cross-border trade) will have also contributed to making the border between foreign and local supply of intermediate services more porous than in the past.

In OECD countries in which on average commercial presence has never been as restricted as in developing countries, recent impulses to further opening of markets have probably come through technological innovations in cross-border trade. However, home biases can be expected to be stronger in this mode than in mode 3 as long as interaction between producer and consumer of financial services are only possible via net services.

To be brief, developing countries can do much more to improve their competitiveness in manufacturing by freeing service intermediates from discriminatory and non-discriminatory restrictions than industrialized countries can do to act against such competitive pressure by further opening the service sector. It is likely that some OECD countries, namely Anglo-Saxon countries are more advanced in giving the service sector the policy impulse toward expansion than other OECD countries, namely Germany, Italy or Japan known as countries focusing on the manufacturing sector. As this dichotomy means drawing a dividing line through the EU, the special context of EU integration in liberalizing service intermediates deserves special attention.

IV. Liberalizing Intermediate Services in the EU. Does Deep Integration help EU Manufacturing?

Available estimates on service protection in the EU are far from conclusive. Messerlin (2001:324-346) presents estimates of protection of three services (French film industry, passenger air transport and telecommunications) ranging from 40 to 100 percent, whereas Hoekman (2000) assesses protection rates no more than double the average merchandise protection. That would translate into protection rates no higher than 10-15 percent. Estimates of restrictiveness indices (non-discriminatory) provided by the Australian Government Productivity Commission (2001) and partly reported in Warren and Findlay (2000) again yield large variances between relatively lowly protected sectors like telecom services and banking (relative to the median OECD country) and professional services (accountancy services and legal services) in which protection seems to have been much higher. Results for trade restrictions (discriminatory measures) point into the same direction. In banking services for which estimates from different sources can be compared, tax equivalents estimated for instance by Park (2002) are much higher for EU countries like Germany or France (23 and 25 percent, respectively) than for Mexico (3 percent) or Thailand (9 percent). The consensus view, however, sees tax equivalents of trade restrictions in services in the range of the Hoekman estimates, that is relatively close to levels of protection of merchandise trade (except agriculture).

There are a number of developments in the EU which suggest a downward trend in EU protection rates, a converging trend of service trade protection between individual EU member states and support from intermediate services to facilitate adjustment processes in the manufacturing sector.

First, there is the presumption from empirical estimates and case studies reported also in Messerlin (2001) that in the EU services supplied by cross-border trade or commercial presence are not as strongly protected as professional services supplied by movements of natural persons or by consumption abroad (the latter, for instance, relevant in health services). This is partly due to the traditionally low degree of labor mobility within the EU relative to capital mobility and goods trade but particularly due to the long cumbersome and still unfinished process to strengthen or even introduce price competition, to eliminate market entry barriers set by domestic lobby groups and to mutually recognize diplomas and other requirements among member states. Rights of establishment of companies have been more strongly enforced than rights of individuals to move within the EU in order to supply services. In fear that new EU member states from Central and Eastern Europe would circumvent restrictions against in-migration, for instance, they were allowed to establish companies in old member states but were discouraged by some member states to provide services as natural persons.

Second, while the first issue holds in relative terms (compared to other services and service modes), cross-country mobility of persons is on the rise mainly as a result of a slow process of desegmentation of labor markets in the EU and a mismatch between labor demand and supply in different member states. Furthermore, once diplomas get EU-wide accepted and once cumulative study achievements all over Europe are in place and the Bologna process of anchoring BA and MA diplomas in all EU countries is implemented, some barriers to movement of natural persons for providing services will be rapidly dismantled. The same holds for access barriers in professional services and health services. For reasons of hard budget constraints, public authorities such as public health insurers will increasingly be inclined to accept services provided outside national borders under home country rules if these rules guarantee orderly supply[12]. The issue for domestic vested interests defending their markets against low labor costs from the new member states, for instance, will be to insist on minimum standards which can be protectionist if they practically exclude low-cost competitors. As medical services, for instance, are inputs for manufacturing industries if employers pay part of public health insurance premia competition from the new

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[12] See Mattoo, Rathindran (2006) for estimating the savings effect for US health insurance of medically treating US patients abroad. Hoekman and Mattoo (2006) see these services as an important issue in multilateral trade negotiations.

member states matters. This competition will be the tougher the more employers can technically resort to mode 1 supply (cross-border trade) thus circumventing the regulation-loaded modes 2 and 4 (consumption abroad and movement of natural persons). Professional services which today in Europe are often still not subject to price competition or competition at all (for instance bans against advertising in legal services) but earn their income from state-decreed fees will be exposed to competition. Once one of the four freedoms of the single market, the right of establishment, will be consequently enforced against traditional domestic "guild" laws, competition will rise. Recent debates on the right of EU-wide pharmacies listed as public companies to open pharmacies in Germany where by domestic laws only natural persons can run pharmacies point into this direction.

Third, next to intensifying service competition by liberalizing trade in the two modes commercial presence and consumption abroad, there is strong technical cost-reducing innovation in voice-mail communication linking internet, cellular phone, and fixed-line network. These innovations spread across national boundaries. The EU Commission supports such innovation by rejecting claims of national telecom companies against cross-border mergers and acquisitions.

Fourth, the more the EU pushed by individual member states water the country of origin principle in the EU Services Directive against mode 4 supply, the more it is likely that private capital will move to the more labor-abundant EU periphery and invest in mode-1 supply of services. To the extent that substitution elasticities between the modes are non-zero, mode 1 supply will benefit from such implicit incentives and become the backbone of a net-based EU-wide capital-intensive supply of services exchanged between companies and between companies and consumers. Language barriers which used to be relevant in the past will vanish with English accepted as *lingua franca.* Suppliers will take national habits and preferences into account when offering services via the net thus strongly deepening the internal market.

Fifth, unlike in goods trade, there are still remnants of national sovereignty in service trade against non-EU countries jointly enforced with Community sovereignty. Unsurprisingly, such remnants cluster in mode 4 (Langhammer, 2005). Regardless of whether or not multilateral trade negotiations come to a successful end, such sovereignties are incompatible with the core principle of a common trade policy in goods and services. Consequently, they will be phased out thus again deepening the service market in the EU.

Sixth, in recent years, the European Economic Space which includes an important service supplier outside the EU such as Switzerland has widened the scope of real sector integration from the

manufacturing sector to services and thus has removed further barriers to deepening a Europe-wide service market.

To sum up, it is likely that time series estimates of tariff equivalents for EU intermediate services which could take account of both recent policy measures and technological progress towards an integrated European service market would not only show a declining trend in barriers but also convergence between EU member states relative to the mid-nineties. The latter reflects a situation which had already been assumed in the estimates of indices of restrictiveness on banking services by McGuire and Schuele (2000) and other studies who presented the EU as a single entity based on data from the second half of the nineties.

V. Concluding Remarks

The literature on quantifying discriminatory and non-discriminatory barriers to market access in services unanimously stresses how thin the empirical base is, how much more heterogeneous services are and how much less straightforward the link between prices and production is relative to manufacturing. Perfect competition even in seemingly standardized services is said to be more the exception than the rule. In fact, the diversity of approaches to gauge the triangular interaction between trade, structural change and growth with the service sector as a center piece is huge[13]. This general caveat is fully acknowledged but it should not deter empirical research from bridging and narrowing the gap between the amount of knowledge which exists for the manufacturing sector concerning the triangular interaction on the one hand and for the service sector on the other hand.

This gap has been found large in trade policies when it comes to the question whether the results out of applying one of the standard tools of research on trade policy-induced discrimination (or privileges), the ERP method, have to be revised if we include services as intermediates for the downstream industries next to intermediate goods. Traditional knowledge departs from escalation effects to the detriment of finishing touch or assembly value added both in developing and industrialized countries. In the former group, escalation has rooted in past import substitution and infant industry strategies while in the latter group escalation originates from defensive protectionist policies in favor of unskilled labor.

Motivation from including the service sector in ERP estimates comes from various sources. First, the services are the growing sector everywhere but simultaneously are subject to strong domestic

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[13] See the survey of the literature by Hoekman (2006).

rent-seeking activities to stem tidal waves of global sourcing and technological change as the two forces pushing competition. Second, it is stunning that many developing countries with abundant unskilled labor fail to benefit from this resource endowment in global markets while on the other hand industrialized countries can defend market shares in such sensitive sectors by restructuring and innovating their products and cutting their costs of production. It is argued that the superior endowment of industrialized countries with competitive services is part of the success to reallocate resources within industries. Third, trade policy treatment of services differs largely between the two group of countries and has proven to be one of the major stumbling blocks in the Doha Round.

The three issues have triggered the question whether developing countries forego success in downstream industries because they burden them with highly protected and inefficient intermediate services and/or whether the industrialized countries can more easily absorb the adjustment pressure from market opening to foreign competition in labor-intensive industries because they host more competitive intermediate services.

Scanning the empirical literature allows for some general answers which should be cautiously interpreted because of country sample selection biases.

First, in fact, developing countries impose an additional tax on their downstream industries by protecting their intermediate services[14]. This level of protection seems higher than that of intermediate manufactures. Yet, the assumed escalation effect with positive ERPs in downstream industries (without intermediate services) is rare. In many cases, downstream industries are not subsidized but taxed, perhaps because of import substitution strategies in intermediate industries and capital goods.

Second, the additional discrimination effect arising from including intermediate services does not seem to be very large. This is probably due to the fact that we look at trade restrictions that is barriers which discriminate against foreign supply only. The major negative effect regarding the efficiency of intermediate services, however, seems to come from non-discriminatory restrictions against market access per se. This suggests an indirect effect from dismantling these restrictions for downstream industries to be more important than the direct effect. The indirect effect consists of an expansion of the service sector in general with new services becoming available, a rise in the share of intermediate services in total intermediates and through these changes a positive effect for downstream industries which can choose between more suppliers of services and a wider range of

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[14] Such protection can materialize by not allowing foreign companies to import foreign inputs such as skilled personnel. While such policy is often motivated by the developing countries' objective to protect skilled domestic labor Markusen et al. (2005) show that protection is counterproductive. Foreign firms in intermediate services would contribute to lower the cost of the service in final goods production and thereby increase the relative importance of the final goods sector which uses services. This would lead to higher real wages for skilled domestic labor being complements but not substitutes to skilled foreign labor.

services. The direct effect by raising the ERP of downstream industries through lowering the protection of their traditional intermediate service suppliers seems smaller than the indirect effect. Hence, it is primarily the service sector itself which benefits from dismantling barriers to market access. This becomes also evident from the finding that the service sectors suffers more from protected intermediate services than the manufacturing sector. Within the manufacturing sector, the typical labor-intensive industries would gain the most if protective barriers in intermediate services would be removed.

Third, unlike in developing countries, industrialized countries enjoy a more comfortable position concerning the efficiency of their intermediate services. Protection levels are lower and the higher share of services in total intermediates suggest that further liberalization will perhaps benefit the downstream industries more than the service sector itself relative to the developing countries where his impact is seen reverse. The important issue in industrialized countries is whether trade policy explicitly discriminates between the four modes of supply in favor of cross-border supply and against labor movement (mode 4), but partly also against commercial presence and consumption abroad, for instance in professional service like accounting, law services, and health services. Such discrimination gives clear allocation signals towards investing into distance-bridging telecom innovation and towards capital movements into those countries whose labor supply is not allowed to move to provide cross-border person-to-person services. With the not-yet-completed EU single market for services, this third issue is very relevant for Europe.

Fourth, Europe's downstream industries can look forward to various developments which will enhance their competitive position against developing countries' supply just because of intensified competition in intermediate service. Here, it is primarily the right of establishment as one of the four freedoms in the EU single market coupled with the home country rule principle which will force national law for intermediate services to adjust and to abandon traditional privileges. But also the most controversial mode of supply, labor movement, will be deregulated once differences in labor shortages in individual member states rise and social allowances for unemployed shrink. This market pressure cannot be resisted by a further segmentation of national labor markets.

To conclude, service trade liberalization is foremost a handmaiden of competitiveness in manufacturing in developing countries. However, this role is likely to be fulfilled less directly via the ERP mechanism but more indirectly via the expansion of the service sector itself and the positive consequences for more and better services for the manufacturing sector. Competing industries in industrialized countries owe their ability to adjust and to resist decline partly to their more efficient intermediate services but this adjustment is very much facilitated by the refusal of

developing countries to abandon non-discriminatory and discriminatory measures against market access in their service sectors. To put this into a Doha Round context, developing countries would be well advised to see service trade liberalization in their economies as an important contribution to collect more gains from their endowment advantages in unskilled labor-intensive manufacturing.

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