

## FIW-Arbeitspakte

### 1. Dienstleistungen

#### 1.1 Datenbasis zum Handel mit Dienstleistungen

1.1.1 Pindyuk, O., Wörz, J., „Trade in Services: Note on the Measurement and Quality of Data Sources“.

This note gives a comprehensive overview of the currently available international databases on trade in services. Notwithstanding problems in data collection arising from the very wide definition of trade in services (i.e. the four GATS modes in contrast to what is traditionally considered as trade in merchandise goods), we identify a considerable room for improvement of the data situation also with respect to Balance of Payments based data. In this paper we survey IMF, OECD, Eurostat and OENB data at the most detailed sector level. We further give a short descriptive overview of Austria's relative position in service trade flows compared to its major trading partners.

#### 1.2 Abschätzung des Handelspotenzials und der Wettbewerbsfähigkeit Österreichs im

##### Dienstleistungssektor

1.2.1 Brandicourt, V., Schwellnus, C., Wörz, J., „Austria's Potential for Trade in Services“.

We estimate the potential for trade in services in a 2-step approach using a gravity model for a sample of bilateral service trade flows in individual service categories between 65 countries over the period 2000 to 2005. In particular, we focus on the Austrian economy's potential for untapped trade in services which appears to be substantial. While Austria's travel services are reaching their potential, there is still ample room for exports of commercial services. Our analysis further points to the fact that this lack of exploiting the potential arises less from legal and institutional features as measured by OECD regulation indicators, but rather from other structural features of the Austrian economy.

1.2.2. Wörz, J., „Austria's Competitiveness in Trade in Services“.

Trade in services is a rapidly growing phenomenon. Consequently, the question of individual countries' competitiveness in trade in services is of increasing importance. In this paper we describe patterns of competitiveness in services sectors for EU members over the period 1995 to 2005, differentiating between 11 individual service activities. We find a clear East-West divide in general and especially for Austria's strengths and weaknesses in the services sector. Austria's competitiveness lies in traditional, yet globally declining sectors such as transport and travel and is weak in industries such as insurance, computer and information, communication services and royalties and licence fees. The latter two industries are characterized by above-average levels of competitiveness within the EU. We then investigate the influence of factors such as labour productivity, unit labour costs, industry size and skill endowments for services sector competitiveness in the EU member states.

### 1.3 Liberalisierung

#### 1.3.1 Francois, J., Pindyuk, O., Wörz, J., „Trade Effects of Services Trade Liberalization in the EU“.

This paper gives a quantitative assessment of possible trade effects resulting from different trade liberalization scenarios within the EU. The simulations are based on the GTAP model, a computable general equilibrium model. We use the GTAP database and own estimates of protection in the service sector. We compare different scenarios, which differ in the extent of their liberalization (linear versus sector country and specific cuts in existing trade barriers, including all sectors versus only selected sectors). Our findings point towards larger gains from more comprehensive cuts (i.e. including all service sectors) and larger gains for the – up to date more restricted – new EU members.

#### 1.3.2 Fritz, O., Streicher, G., „Trade Effects of Service Liberalization in the EU – Simulation of Regional Macroeconomic Effects for Austria.“

Based on simulations with a computable general equilibrium model the impacts of service liberalization policies on trade flows were estimated by wiw. Given these trade effects resulting changes in value added and employment on a regional level were simulated using a multiregional multisectoral model for Austria (*MultiREG*). Because net exports changed very little, the impact of trade liberalization policies on the Austrian value added turned out to be rather small: While in the short-run value added declines somewhat, the impact is positive in the long-run; value added, however, increases only by 0.3 percent.

#### 1.3.3 Nowotny, K., Palme, G., „Fokus Ostintegration: Grenzüberschreitende Dienstleistungserbringung in die neuen EU Länder“.

Diese Studie bietet einen detaillierten Überblick über die Internationalisierungsaktivitäten von Dienstleistungsunternehmen mit begrenztem Marktradius in der Grenzregion Österreichs zu den "neuen" EU-Mitgliedstaaten (NMS) auf Basis einer in Kooperation mit Statistik Austria durchgeführten Unternehmensbefragung. Die untersuchten Dienstleistungsunternehmen weisen hierbei eine ähnliche Internationalisierungsneigung auf wie in vergleichbaren Studien (13%). Diese unterscheidet sich jedoch relativ stark nach Sektoren und Unternehmensgröße. Der Großteil der Dienstleistungen wird über die temporäre Entsendung von Arbeitskräften erbracht. Mehr als die Hälfte der international tätigen Unternehmen erbringt Dienstleistungen auch auf den Märkten der NMS, das Potential der dynamischen Ökonomien Mittel- und Osteuropas als Absatz- und Bezugsmarkt wird jedoch noch nicht von allen Unternehmen realisiert. Die in einigen Sektoren geltenden reziproken Übergangsfristen für die Entsendung von Arbeitskräften spielen hierfür jedoch nur eine untergeordnete Rolle.

#### 1.3.4 Wolfmayr, Y., „Trade Barriers in Services and Competitive Strengths in the Austrian Service Sector - An Analysis at the Detailed Sector Level“.

This study provides a thorough and detailed analysis of the competitiveness of the Austrian service sectors. It combines several industry classifications reflecting different structural features and international regulatory regimes that might be relevant for a sector's export potential and international competitiveness. These features are the skill and factor intensity, the intrinsic tradability and different regulatory regimes in international trade. For the first time this study applies a newly developed taxonomy of services which represents the different degrees of openness to services trade as reflected by the willingness of countries to submit full or partial commitments under the GATS. The analysis found a clear dominance of activities characterized by unfavourable sector characteristics in terms of skills and factor inputs. Furthermore, the structural change towards high-skilled labour intensive and knowledge intensive service sectors was found to be rather slow. At the detailed sector level, the analysis highlighted "consultancy, legal, accounting, book-keeping and market research services", the "renting of machinery and equipment sector", as well as "engineering, architectural activities and technical

testing and analysis" as the most promising fields of activity in the group of high-skilled sectors already facing a relatively liberal international trade regime. The results were less favourable for the group of computer services. Within the group of sectors facing medium regulated trade regimes the R&D sector exhibited a very dynamic development paired with a good, but deteriorating competitive position. Insurance services were found to hold a weak and strongly deteriorating competitive advantage in terms of relative unit labour costs. At the same time the productivity gap to some of the European countries was found to be extremely wide. The growth performance of financial services which face the most regulated international trade regime was weak as was the competitive position.

## 1.4 Produktionsnahe Dienstleistungen und Warenexport

1.4.1 Bayerl, N., Fritz, O., Hierländer, R., Streicher, G., „Exports, Services and Value Added - A National, International and Regional Analysis for Austria“. (auch im Paket Wettbewerbsfähigkeit enthalten)

Austrian business cycles are strongly dependent on the development of foreign exports. The paper deals with two important issues in this context: What is the impact of foreign exports on total growth in the Austrian economy? A more and more globalized economy implies that the share of foreign imports in the production of export commodities increases. This suggests that the contribution of foreign exports to domestic growth will diminish over time – this hypothesis will be tested in the paper. In addition, the results for Austria will be compared with those for other countries in the EU as well as the OECD. Export activities are not evenly distributed over space: While some regions are more specialized in the production of commodities for the domestic market, other regions are much more dependent on foreign exports. In the paper, the regional economic consequences of the value-added impacts of foreign exports will be analysed. The paper will make use of national input-output tables for the years 1995, 2000 and 2003 as well as input-output tables for OECD countries to examine the national economic impacts of foreign exports and an international comparison. Furthermore, a multiregional model for Austria ("MultiREG") will be applied for estimating the corresponding regional impacts.

1.4.2 Wolfmayr, Y., „Producer Services and Competitiveness of Manufacturing Exports“.

The paper examines the role of service inputs in shaping the competitiveness of the manufacturing sector. It first estimates an export market share function of 18 manufacturing industries for 16 OECD-countries over the period 1995 to 2000. The service linkage variables are derived from Input-Output tables. The results point to a positive and highly significant impact of international service linkages in high-skilled, technology-driven industries that explains about 40 percent of the overall increase in the market share. While there is a clear differential impact across the different types of (consuming) manufacturing industries, the type of service input is not relevant. The second part of the paper estimates the impact of outsourced services as well as in-house services on total factor productivity growth in Austrian manufacturing, based on an approach suggested by Feenstra - Hanson (1999). The results suggest a positive and significant impact of services outsourcing on TFP growth that is higher in the high-skilled intensive manufacturing industries. In contrast to the findings for export market shares, the distinction between the types of service inputs is highly relevant for the results on TFP growth, which stresses the role of knowledge intensive business services (KIBS) as important producers and transmitters of technology, innovations and knowledge (technological and knowledge spillovers). The impact of in-house services could not be precisely estimated.

## 2. Direktinvestitionen

### 2.1 Aktive Direktinvestitionen

2.1.1 Altzinger, W., „The Profitability of Austrian Foreign Direct Investment – Reinvestment or Repatriation?“.

Austrian foreign direct investment (FDI) increased quickly since 1992. The profitability of these investments did improve over the full period under consideration (1992 to 2005). In particular investments in Central and Eastern Europe became rather profitable. In 2005 total annual profits translate into an average return on equity (RoE) of 8.3%. However, returns differ to a large extent by regions. They are 5.1% and 9.7% for EU-14 and for CEE-5 respectively. The age of investment is the main determinate of profitability. Interestingly, there are strong differences between Greenfield investments and M&As. While the latter are always more profitable in EU-15 this is not the case for affiliates in CEE. In these countries we can observe a time-dependent development. During the first years of investments M&A are more profitable than Greenfield investments. However, the latter become more rewarding by older vintages. We further examine if profits are either reinvested (and thereby contribute to the existing stock of capital in the host country) or repatriated (and thereby improve the performance of home countries). The paper shows that patterns differ substantially by countries and over time. The share of reinvestment is much higher in CEE than in EU-15. Moreover, M&A show much higher rates of repatriation than Greenfield investments independent of host countries.

2.1.2 Egger, P., „Bilateral FDI Potentials for Austria“.

Trade economists have for long considered gravity models to estimate unexhausted potentials for bilateral trade. Similar to the discrepancy between "normal" and "actual" bilateral trade, one may ask the question about the difference between "normal" and actual bilateral multinational activity. However, with multinational activity, zero bilateral data and heteroscedasticity are very important, even more so than with trade data. Therefore, this paper suggests using generalized linear rather than log-linear models to specify "normal" FDI and obtain estimates of unexhausted FDI potentials. I use panel data on Austria's bilateral multinational activity across 25 countries and 7 country-blocs, 4 sectors and 13 years to illustrate the disadvantage of log-linear model estimation at quasi-maximum likelihood estimation.

2.1.3 Falk, M., Hake, M., „A Panel Data Analysis on FDI and Exports“.

The present paper investigates the link between exports and the outward FDI stock using a panel of industries and seven EU countries for the period 1973-2004. In particular, we use the panel causality tests developed by Holtz-Eakin, Newey, and Rosen (1988). Estimates using system GMM estimators show that exports cause FDI but not vice versa. The long-run elasticity of the outward FDI stock with respect to exports is 0.78 and highly significant. Separate estimates by destination country yields the same result that exports cause outward FDI but the effect is only significant for the CEE countries and other developed countries (i.e. United States, Japan, Canada, Switzerland, Norway, etc.).

2.1.4 Falk, M., „Determinants of the Trade Balance in Industrialized Countries“.

This paper investigates the determinants of the trade balance using panel data for 32 industrialized and emerging economies for the period 1990–2007. The results based on fixed effects models and linear mixed models allowing for random slope coefficients, show that the trade balance as a percentage of GDP is significantly positively related to real foreign GDP per capita of the trading partners. Real domestic GDP per capita has a negative effect on the trade balance. A real depreciation of the real exchange rate index leads to an improvement of the trade balance. However, in countries with a negative trade balance and/or a large positive net foreign direct investment position the trade balance is much less sensitive to movements in the real effective exchange rate index.

### 2.1.5 Falk, M., „Testing Gibrat's Law for European Multinational Enterprises“.

This paper investigates the link between firm size and growth for European multinational enterprises based on the AMADEUS firm-level database. Using data for about 20,000 firms for the period 2000 - 2004, we find that firm size has a significant negative impact on firm growth of the multinational enterprises. This holds when growth and its level are measured in terms of employment or turnover. Estimates for seven broad industry groups reveal that the negative relationship can be observed in all industries with higher effects in business services and in the investment goods industry. Furthermore we find that the average year of foundation of the foreign affiliates has a positive impact on the growth of the parent companies.

### 2.1.6 Hunya, G., „Austrian FDI by main Countries and Industries“.

Austria is not among the top global investors, but it is an important regional player in Central and Southeast Europe. Will it keep that position, or will the regional player develop into a global player? This is the question for the future. Based on OeNB data we have found no indication for Austrian FDI expanding outside Europe. We only observe a shift of new FDI within the CEECs to the East and Southeast. As these are fast growing regions, they provide a good opportunity of internationalization for Austrian companies in the next future. Meanwhile, opportunities in even faster growing Asian countries may be missed. Looking at the relationship between FDI growth on one hand and labour productivity, capital productivity and profitability of subsidiaries on the other, we identified the profitability of subsidiaries as the factor most related to the growth of Austrian outward FDI. As a conclusion of the analysis in this paper, policy may have two tasks. One is to encourage companies that are not active internationally to invest abroad. But one can hardly expect that smaller companies go beyond the neighbouring countries. Therefore, another objective could be to support companies to grow beyond SME size because concentrated capital is necessary to enter more remote investment targets. While financial services and some manufacturing industries have internationally active larger companies, other industries may be hindered in their expansion by small firm size and scarcity of knowledge. Especially high-tech industries may need more venture capital and coaching.

## 2.2 Outsourcing/Offshoring

2.2.1 Falk, M., Wolfmayr, Y., „The Impact of Outward FDI in Central and Eastern Europe on Employment in the EU-15 Countries“.

This paper has examined the home market effects of outward FDI into the CEE region based on the AMADEUS firm-level database. In particular, we investigated the substitution possibilities between foreign affiliate employment and parent company employment by distinguishing between manufacturing and non-manufacturing between the period 2000 and 2004. Despite fears of job losses in the home market due to outward FDI into the countries of central and Eastern Europe we find only limited evidence for the substitution of jobs between the parent companies in the EU15 and their affiliates in the CEEC. In particular we find that substitution possibilities are higher between employment in affiliates in high-wage countries and in the parent company than that of affiliate employment in the CEE region and parent company employment.

2.2.2 Falk, M., Wolfmayr, Y., „International Outsourcing and Productivity Growth“.

This study investigates the impact of international outsourcing to low- and high income countries on total factor productivity growth based on manufacturing industry data for 14 OECD-countries from 1995 – 2000. We find that the broad measure of international outsourcing of material inputs to low-income countries is significantly negatively related to productivity growth. Furthermore, while the narrow measure of international outsourcing of materials is not significant, purchased services from abroad have a significant and positive effect on TFP growth. In particular, international services outsourcing accounted for 20 percent of the growth of total factor productivity in the manufacturing sector in the selected OECD-countries.

2.2.3 Koller, W., Stehrer, R., „Outsourcing and Employment: A Decomposition Approach“

In this paper we study the employment effects of changes in the levels and patterns of outsourcing in the Austrian economy over the periods 1995-2000 and 2000-2003. Based on an input-output framework we apply a hierarchical decomposition analysis to disentangle the employment effects of changes in labour productivity, technical input coefficients and final demand components. Outsourcing is modelled as changes in the shares of domestically produced intermediates. For this some further details can be derived by distinguishing between intermediate imports of energy, material and service products or according to educational intensities of the imported intermediate products. Following this approach first allows to study the direct and indirect effects of changes in the levels and structures of outsourcing. Second, the framework takes account of all 60 sectors (products) of the economy and thus also includes employment effects of service offshoring. Third, we also calculate the employment effects for three employment groups distinguished by educational attainment levels. This paper thus provides a comprehensive picture of employment effects of outsourcing in the Austrian economy.

## 2.3 Passive Direktinvestitionen

### 2.3.1 Bellak, C., Leibrecht, M., Stehrer, R., „Policies to attract Foreign Direct Investment: An industry-level analysis“

This paper analyzes policies to attract Foreign Direct Investment (FDI) based on a sample comprising the US plus six EU countries (US-plus-EU-6) and four Central and Eastern European Countries (CEEC-4). The analysis draws on industry-level data for 1995-2003. A Dynamic Panel Data approach is used to isolate important country- and industry-level determinants of FDI inward stock. The estimated baseline model derived is used to assess the scope for FDI attraction policies. The scope for FDI is defined as the difference between the FDI inward stock received by a country-industry-pair, as implied by the baseline model ("estimated FDI"), and the inward FDI stock which could be realized if a certain "best practice" policy were carried out ("potential" FDI). The results show how different policy variables contribute to closing the gap between estimated and potential FDI. The countries in our sample fall into two groups: In the CEEC-4 an increase of R&D expenditures in GDP would result in a substantial increase in FDI, while in the US-plus-EU-6 an improvement of their unit labor cost position, e.g. via increases in labor productivity, and improvements in their tax position would attract additional FDI.

### 2.3.2 Falk, M., „Effects of Foreign Ownership on Innovation Activities - Empirical Evidence for 12 European Countries“.

In the present study we investigate the relationship between foreign ownership and innovation activities using the firm-level data of the third Community Innovation Survey (CIS) covering 12 European countries. Probit estimates based on 28,000 firms observations show that foreign-owned firms are more innovative than domestic firms, particularly in the New EU Member States. However, results from the Blinder-Oaxaca decomposition of the differences in the percentage of innovating firms between foreign-owned and domestic firms reveals that the differences are mainly due to the different firm characteristics rather than the differences in coefficients. In particular, the dominance of foreign-owned firms in the largest firm size group is the main factor contributing to the gap in the percentage of innovators between foreign-owned firms and domestic firms. Furthermore, using the fractional logit model, we find that in the New EU Member States, foreign ownership has a positive and significant impact on the share of market novelties as well as on the share of new products in turnover. In this case, the results from the Blinder-Oaxaca decomposition analysis indicate that the ownership difference in the share of innovative sales is not due to the differences in the observed firms' characteristics.

### 2.3.3 Sieber, S., „Österreichs Attraktivität für ausländische Direktinvestitionen sowie als Standort für Headquarters-Funktionen“.

Der Schwerpunkt der Studie ist - primär auf Basis eines Fragebogens - die Ermittlung der Attraktivität Österreichs als Standort für Headquarters-Funktionen von international orientierten Unternehmen. Analysiert werden Unterschiede und Gemeinsamkeiten in den Bestimmungsgründen von Standortentscheidungen, in der Wertung der tatsächlichen Attraktivität des Standorts Österreich sowie in der Beschäftigungsentwicklung von drei Unternehmenstypen: ausländische multinationale Unternehmen (MNU) mit Headquarters-Funktionen (HQ-F) in Österreich, ausländische MNU ohne HQ-F in Österreich und österreichische MNU. Alle drei Typen geben eine steigende Beschäftigungsentwicklung an, dieser "positive Headquarters-Effekt" untermauert die Bedeutung von HQ-F am Standort Österreich. Als wichtige Standortkriterien für die Ausübung von internationalen HQ-F am Standort Österreich werden die "Verfügbarkeit von qualifiziertem Personal" sowie das "Ausbildungsniveau" genannt. Regional überwiegen bei HQ-F in Österreich die weltweite Ausübung und die Ausübung für die 10 neuen EU-Mitgliedstaaten, bzw. für die restlichen osteuropäischen Länder. Weiters deuten die Ergebnisse der Unternehmensbefragung darauf hin, dass die Einführung der Gruppenbesteuerung im Jahr 2005 zur Absicherung des Headquarters-Standorts beigetragen hat. Aufgabe einer zukunftsorientierten Wirtschaftspolitik ist es weitere Verbesserungen im Bereich der besonders wichtigen Standortkriterien "Verfügbarkeit von qualifiziertem Personal" sowie "Ausbildungsniveau" voranzutreiben. Um die Wettbewerbsfähigkeit des Headquarters-Standorts Österreich auch für die Zukunft zu sichern, sollten neue Wettbewerbsvorteile - beispielsweise durch die Unterstützung der Ansiedelung von F&E-Funktionen in Österreich - aufgebaut werden, noch bevor die bestehenden Vorteile - aufgrund der Nähe zu Osteuropa - verbllassen.

## 2.4 Skalenertragsintensität und Transportkosten als Motive der Internationalisierung

### 2.4.1 Bellak, C., Riegler, R., „Proximity-Concentration Trade-Off“

Betrachtet man die großen Industrieunternehmen in Österreich, weisen diese einen sehr unterschiedlichen Internationalisierungsgrad auf. Diese Heterogenität der großen Industrieunternehmen wirft die industriepolitisch relevante Frage auf, warum manche Unternehmen mittels Direktinvestitionen internationalisieren, während sich andere auf das Exportieren beschränken. Fragt man nach der Erklärungen für unterschiedliche Internationalisierungsgrade, hat neben vielen anderen Gründen der „Proximity - Concentration Trade-off“ in der Literatur Bedeutung erlangt. Ziel dieser Studie ist es, diesen „Proximity - Concentration Trade-off“ für drei ausgewählte österreichische Industrieunternehmen, welche die drei oben genannten Gruppen von Unternehmen repräsentieren, genauer zu dokumentieren: Agrolinz als ein Unternehmen, welches ausschließlich exportiert, Wienerberger als ein Unternehmen, welches ausschließlich über Tochtergesellschaften internationalisiert und die Voest als ein Unternehmen, welches beide Aktivitäten setzt. Die Auswahl der Unternehmen erfolgt anhand der Produkteigenschaften, welche durch hohe Transportkosten und hohe Skalenerträge in der Produktion gekennzeichnet sind. Es wird ermittelt, welche Rolle die Faktoren „proximity“ und „concentration“ als Determinanten der Entscheidung zur Direktinvestition spielen. Die Ergebnisse zeigen, dass die Skalenerträge und die Transportkosten sowie die Struktur bzw. die Größe bzw. die Kenntnis des Gastlandmarktes bestimmd für die Wahl der Alternativen „Direktinvestitionen und Exporte“ als Form der Auslandsmarktbearbeitung sind. Keines der untersuchten Unternehmen wird seine Internationalisierungsstrategie in absehbarer Zukunft verändern.

## 2.5 Österreichs Multinationaler Unternehmen (MNUs) und deren Handel

### 2.5.1 Altzinger, W., „Österreichs Multinationalen Unternehmen (MNUs) und deren konzernexterne und - interner Handel“.

The study analyses the development of foreign trade of Austrian Multinational Enterprises (MNE) for the period 1992-2005. During this period MNE account for about 54% of total exports and 46% of total imports. Both shares are roughly constant over the full period. Whilst the trading sector shows huge trade deficits (10.8 bn EUR or 4.0% of total GDP in 2005) the manufacturing sector performs rather very well. However, foreign (inward) and domestic owned (outward) MNE show quite different patterns. Whilst both groups of MNE realized increasingly higher trade surpluses over the full period (finally, in 2005 the surplus was 7.6 bn EUR and 8.4 bn EUR for outward and inward MNE respectively) intra-firm trade was far more intensive for inward compared to outward MNE. Generally, it seems to be the case that foreign MNE streamline their production chain much more intensively than outward MNE do. In particular, bilateral intra-firm trade is more intensive in this group of MNE. Hence it can also be expected that such kind of intensive specialisation provides these enterprises also with a competitive edge. Finally, the concentration of overall trade is enormous. The Top-10% of all MNE account for 61% of total MNE exports and 73% of total MNE imports. The concentration of intra-firm trade is even stronger. In particular this fact raises the question if policy measures and subsidies should focus that much on these already well-performing MNE. An alternative strategy would be to focus economic policies on measures which "nurture the superstars of the future".

### 3 Wettbewerbsfähigkeit

#### 3.1 Verflechtungen in der österreichischen Außenwirtschaft

3.1.1 Felderer, B., Grohall, G., Haefke, C., Schuh, U., Skriner, E., „Verflechtungen in der österreichischen Außenwirtschaft“.

Die Analyse (mit einem „Constant Market Shares“ Modell) über die Wettbewerbsfähigkeit und Struktur hat ergeben, dass sich in der österreichischen Außenwirtschaft mit Gütern in den vergangenen Jahren die Wettbewerbsfähigkeit verschlechtert hat. Es zeichnen sich auch strukturelle Probleme ab. Hier erscheint es notwendig, neue Märkte zu erobern und das Produktangebot der internationalen Nachfrageentwicklung anzupassen. Das Ergebnis der Untersuchung (mit vektorautoregressiven Prozessen) über die Zusammenhänge im österreichischen Außenhandel zeigt, dass die Exporte kleiner Dienstleistungsbranchen ein Vielfaches an Warenexporten mit sich ziehen. Signifikante Impulse kommen von der Transportbrache, von den Bau- und Finanzdienstleistungen, den EDV- und Informationsdienstleistungen, den Exporten von Patenten und Lizenzen, den sonstigen unternehmensbezogenen Dienstleistungen und vom Bereich operationales Leasing. Das Ergebnis des Gravitationsmodels ist, dass die österreichische Exportwirtschaft in Länder mit einem hohen Einkommen mehr exportiert, dass eine Verringerung der Distanz um 5 Prozent mit einer Steigerung der Exporte um 5 Prozent gerechnet werden kann und dass die Grenzen innerhalb der EU kaum handelsmindernd sind. Werden Grenzkontrollen vermindert, so wirkt sich dies positiv auf die Reisezeit aus.

#### 3.2 Wertschöpfungsintensität österreichischer Exporte

3.2.1 Bayerl, N., Fritz, O., Hierländer, R., Streicher, G., „Exports, Services and Value Added - A National, International and Regional Analysis for Austria“. (auch im Modul Dienstleistungsexport enthalten)

Austrian business cycles are strongly dependent on the development of foreign exports. The paper deals with two important issues in this context: What is the impact of foreign exports on total growth in the Austrian economy? A more and more globalized economy implies that the share of foreign imports in the production of export commodities increases. This suggests that the contribution of foreign exports to domestic growth will diminish over time – this hypothesis will be tested in the paper. In addition, the results for Austria will be compared with those for other countries in the EU as well as the OECD. Export activities are not evenly distributed over space: While some regions are more specialized in the production of commodities for the domestic market, other regions are much more dependent on foreign exports. In the paper, the regional economic consequences of the value-added impacts of foreign exports will be analysed. The paper will make use of national input-output tables for the years 1995, 2000 and 2003 as well as input-output tables for OECD countries to examine the national economic impacts of foreign exports and an international comparison. Furthermore, a multiregional model for Austria (“MultiREG”) will be applied for estimating the corresponding regional impacts.

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