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Policy Note

Pattern, Determinants and Dynamics of Austrian Service Exports – A Firmlevel Analysis

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Abstract

Most firm-level research on the characteristics and strategies of globalized firms focuses on manufacturing industries while firm-level evidence on trade in services is still rare and has just recently begun to emerge. This study uses an unique dataset of Austrian service exporting firms over a four-year period to add to this literature. We show that service export participation is very low and highly concentrated among a few firms and that service exporters are on average larger and more productive than non-exporters. We also find that firm productivity increases with the number of export markets served. The detailed analysis on the export premium suggests the self-selection of firms as well as learning effects from exporting for export starters. The dynamic analysis reveals that the rate of export exits is high for export starters in the first year of exporting, especially for firms of small size. Movements into and out of exporting are however less frequent than moving in and out of individual markets. Entry and exit of markets (extensive margin) is an important component of overall export flows, especially for less popular markets, overall, however the intensive margin of trade contributes most. Analysis based on a Heckman sample selection specification including firm characteristics as well as the standard gravity variables on geographical characteristics of destination markets confirm this finding. In particular, distance to the destination market, firm productivity as well as destination market characteristics (market size, policy environment) significantly influence the probability of exporting but even more so the volume of service trade flows. Results from the counterfactual analysis suggest that export market growth and policy reforms produce the relative strongest impact on the entry into new markets. Hence, this decomposition of overall export growth into contributions attributable to the extensive and intensive margin allow for new insights for economic policy.

Keywords: service trade, firm-level evidence, export productivity premium, intensive and extensive margin of trade, gravity model, firm heterogeneity, sample selection, market coverage

JEL-codes: C 12, C 21, D 22, F 14, L 80, C 15, L 20

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Policy Brief

Pattern, Determinants and Dynamics of Austrian Service Exports – A Firm-level Analysis*

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Introduction

The increased availability of micro-datasets has given rise to a very active research area on the characteristics and strategies of globalized firms. It started with the empirical research of Bernard and Jensen (1995; 1999) for the USA and has been expanded to analyses for other countries by numerous authors. Most of this research focused on manufacturing industries. Firm-level evidence on trade in services is still rare and has just recently begun to emerge (for an overview see: Wagner, 2012). Our analysis on Austrian service exports adds to this literature and provides a rich number of new stylized facts.

We base our study on a detailed dataset from the Oesterreichische Nationalbank (OeNB) on Austrian firms for the period 2006 to 2009 providing information on exports of services by destination country as well as details on important firm characteristics such as sector affiliation, FDI activities, ownership status, employment and total sales. The data is the result of merging three different data sources: (i) the Austrian Trade in Services Survey, (ii) the Austrian Structural Business Survey data of all active enterprises (i.e. registered in the Austrian company register) as well as (iii) the OeNB's company database.

Based on this rich dataset we first analyze service trade participation, the concentration of trade flows and the market coverage of service exporting firms (number of markets served by firms). Next, we put the focus on the exporter premium by comparing service exporters to non-exporters and investigate on the "self-selection" and the "learning-by-exporting" hypotheses of firm participation in international trade. We also examine the change in the market coverage of firms and link this to firm characteristics, including productivity. Furthermore, the panel structure of the data covering the years 2006 to 2009 allows us to study dynamic issues. We analyze the survival patterns of Austrian service exporters and then proceed to study the contribution of the extensive and intensive margin to overall Austrian service exports. This give us the possibility to answer the question to which extent Austrian service export growth is related to an intensification of existing export relations of surviving and continuing exporters (intensive margin) or to the entry/exit of exporters in different

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markets (extensive margin). The years covered by the dataset allow us to specifically analyze the behaviour of the intensive and the extensive margin in the year 2009 when international trade (albeit more in goods than in services) was hit sharply by the economic crisis. Finally, we estimate a firm-level gravity-sample selection model that accounts for both entry and exit of firms in export markets and the change of already established exports. In addition, we illustrate the estimated impact of the main determinants by quantifying several counterfactual scenarios.

We begin by summarizing the most important findings and will then discuss some of the policy implications.

Major findings

Export participation and concentration

Very low trade participation: Only a very small fraction of firms (3.5 percent) engages in international trade of services. This is comparable to other small countries, but a lot lower than for goods trade (17.4 percent). This may be related to the fact that manufactured goods are more tradable across borders than services. Another, but related, explanation could be that other modes of international supply, such as foreign direct investments are more important than cross-border exports of services. A final interpretation is that the sunk costs of exporting (e.g. higher entry costs related to the higher uncertainty about the "product" quality for services due to their intangible nature, higher bureaucratic restrictions, special authorizations or tougher regulations) could be higher in service trade. This would show up in the data as a higher productivity premium than in manufacturing to cover these additional costs.

The participation rate is highest in "transportation services" (10.5 percent), "information and communication services" (7.3 percent) and "professional, scientific and technical activities" (5.1 percent). The participation rate in service trade is relatively high in manufacturing (6.6 percent). The manufacturing sector exports 15.7 percent of total service exports and imports 24.6 percent of total service imports.

Trade participation correlates positively with firm size, active foreign direct investments of the firms and the foreign ownership status of the firms. The relationship is more pronounced for the manufacturing sector service traders.

The most common pattern for Austrian service traders is the simultaneous export and import of services. Exporting only is more common than importing only among traders from the service sector. In the manufacturing sector the pattern "service importing only" is more prevalent than "service exporting only".

Strong export concentration: Service trade is highly concentrated among a few firms. The degree of concentration is similar to that found for goods trade in earlier studies. The Top-1% of exporters accounts for a share of 47.3 percent of total exports and the Top-5% for a share of 72.3 percent.

Many firms export to only one market: Almost a quarter of firms exports to only one market. The main first service export destination for most firms is Germany. The median number of markets served is 4. This is higher than was found for goods trade in other countries. The findings further suggest a clear positive correlation between firm size and number of export markets served.

Firm heterogeneity and the decision to export

High exporter productivity and size premium, self-selection and "learning-by-exporting": In line with theoretical prediction service exporters are larger and more productive than non-exporters. Table 1 indicates that exporters are 2.3 times more productive than non-exporters. We also find a clear ranking of firm size and productivity from established exporters to new exporters to exiting exporters. Size advantages are higher in the manufacturing sector while the productivity advantage is higher in the service sector. The descriptive results suggest "learning-by-exporting" effects for new exporters as well as the self-selection of firms into the export of services.

The productivity premium and the average productivity are higher for service exporters from the service sector selling "genuine" services than for service exporters from the manufacturing sector selling service packages along with their manufactured products. While this is no direct proof it suggests that entry costs of exporting – first time entry into exporting but also for firms expanding to more and to less traditional markets – are larger for service traders than for goods traders. For this argument to hold, we have to assume that manufacturers that are engaged in service trade are also successful goods exporters.

Table 1: Estimated productivity premium of Austrian service exporters

		Productivity level	Productivity growth
New exporters (post entry)	} vs non-exporters	2.04	1.17
Established exporters		2.32	0.90
New exporters (pre-entry)	} vs exporters to 1 market	1.53	1.16
Exporters to 2-5 markets		1.41	.
Exporters to 6-10 markets		2.05	.
Exporters to 11-25 markets		2.46	.
Exporters to 26 or more markets		2.66	.

Source: OeNB, Statistics Austria, WIFO calculations. – The export premium is calculated from an OLS regression of the log of productivity on export status (market coverage classes), year, industry fixed effects and firm size as controls.

Market coverage premium: The analysis finds significant differences also within the group of service exporters with respect to market coverage. Firms exporting services to a greater number of markets are larger and more productive. Firms with higher market coverage are also more likely to be active as foreign direct investors. The market coverage premium is higher in the service sector than in the manufacturing sector suggesting higher fixed costs of exporting to multiple markets in services.

Service export entry, exit and survival

High exit rates for export starters in the first year: The probability of non-exporting firms to start exporting is very small (0.16 percent). Firms that enter and exit several times ("switching firms") have a probability of 6.5 percent to export again after one year of non-exporting. This probability drops to 4 percent after 2 years. Most of them remain in the non-exporting status.

New exporters have less stable export relationships than established exporters. The probability of new exporters to exit from exporting after one year is 28 percent and comparatively high, but such exits become much less likely in the second year of exporting. The probability is reduced to roughly 10 percent (Table 2). This points to the importance of continuing exporting over the first years. Of course, these results reflect mostly the behaviour of small and medium sized firms (SMEs), large firms have much more stable export relationships and a higher probability of entry.

Table 2: Entry, exit and survival in foreign markets

	Non-exporters	Stoppers	Starters	Continuing
	Percentage shares			
Non-exporters				
t-1	99.84	0.00	0.16	0.00
t-2	99.70	0.02	0.15	0.13
Stoppers				
t-1	93.48	0.00	6.52	0.00
t-2	87.20	2.66	4.11	6.04
Starters				
t-1	0.00	28.00	0.00	72.00
t-2	34.83	9.70	1.24	54.23
Continuing				
t-1	0.00	7.76	0.00	92.24
t-2	8.04	5.85	0.42	85.70

Source: OeNB, Statistics Austria, WIFO calculations.

Gradual changes in market coverage: Many firms only serve one market and for these firms it is most common to leave market coverage unchanged. In general, most service exporters add markets in a very gradual way and it is most common to add only one destination. As the market coverage reaches a level of about 7 markets adding more destinations occurs more often. There is no comparable analysis for Austrian trade in goods. Comparisons to evidence for goods trade in other countries suggest a clearly higher likelihood of changes in the number of markets in service export relations.

The contribution of entry, exit and survival in foreign markets to Austrian service export growth

Prevalence of the intensive margin also during crisis year 2009: The decomposition of service export growth into the contribution of entering, exiting and surviving firms in foreign markets finds support for the prediction that export growth should be largely driven by continuing firms (Table 3). Most of the change in exports occurs within existing trade relations in a given year (intensive margin), newly created or destroyed relations (extensive margin) account for a small fraction of the overall net export change.

The detailed firm-level data on Austrian service exporters also suggest that most of the service trade collapse in 2009 was due to the decline in existing trade relations rather than firms stopping to export in specific markets or all-together. Overall, the reactions of exporters to the crisis of 2009 fit very well into the patterns of a typical year. We do not record a higher than usual share of harder-to-reverse firm exits – due to credit shortages for instance.

Table 3: Decomposition of service export growth by export status

	Decomposition of growth (percentage points)	
	2007	2009
Starters	7.2	4.2
Increasers	22.1	15.0
Decreasers	-14.3	-28.4
Stoppers	-3.4	-4.6
Net entry	3.9	-0.4
Net continuing	7.8	-13.3

Source: OeNB, Statistics Austria, WIFO calculations.

Gross flows reveal very dynamic pattern: Net export flows conceal the very dynamic pattern in the gross flows of entries and exits (as they mostly cancel out). The focus on gross flows also reveals a large amount of export creation even during the crisis (and conversely a large amount of export destruction in years of high export growth): over 6,000 firms started to export or entered a new market in the crisis year and a quarter of firms still was able to increase cross-border sales of services.

Entry and exit more common in less traditional markets and for small firms: We find that export dynamics in each individual destination are also to a large part due to variations in existing export relations. New entries or exits account only for a small fraction of overall exports. Trade relations, however, are much more stable in more popular export destinations while exits and entries are much more common in less popular markets and the extensive margin is more relevant for less important export markets.

Smaller firms have less stable export relations and the extensive margin is more relevant for small service exporting firms. The stability of export relations and the importance of the intensive margin clearly increase with firm size.

Austrian foreign direct investors have more stable export relations and service export growth of active foreign direct investors is again mostly driven by the intensive margin.

The determinants of firms' decision to export and the volume of service exports

Primacy of large and productive firms: The econometric analysis on Austrian firm-level service exports to potential 37 destination countries based on the Heckman selection model confirms the theoretical predictions on firm heterogeneity and self-selection of firms into export destinations (Melitz, 2003; Chaney, 2008). In particular, we find that large and productive firms both exhibit a higher probability of exporting and, if positive, a higher volume of service exports to specific destination countries.

Important role of (physical) trade barriers, market size and market regulations: Our findings highlight the important role of (physical) trade frictions in restricting service trade. Economic policy as well as destination market size also affect the export activities of service exporters both at the extensive and intensive margin of trade. While restrictive market regulations hamper new firm entries and existing trade relations, bigger export markets broaden the exporter base and intensify established relations.

Policy implications

Our results have a number of policy implications. First the analysis suggests considerable heterogeneity across different firms that need to be taken into account by policy makers. The evidence suggests a large productivity and a significant size premium for service exporters over non-exporters. Given these performance differences it is important for policy makers to know whether these are the drivers of internationalization or the result of internationalization processes. While only of a descriptive nature and not suited for any causal inference, our results suggest both, a self-selection of high productivity firms into service exporting and additional productivity gains for export starters from exporting.

Optimal framework conditions to enhance productivity of firms, firm growth and export participation

Self-selection: Overall, the results confirm that exporting is associated with considerable entry costs. Only highly productive companies are able to compete successfully on international markets. For the design of public policies that aim at increasing export participation the important policy question is what policy environment fosters more firms to reach the threshold levels of productivity and firm size to make them fit for internationalization and to self-select into internationalization? In this case, more broadly based policy measures to enhance firms' efficiency (e.g. learning and education, innovation, deregulation of product and labour markets) might be most suited to promote international engagement of Austrian firms in service exports.

Firm size: Furthermore, since many firm characteristics that foster the internationalization decision of companies are related to firm size (e.g. managerial capabilities, organizational and governance structures, financial capacities) it will be crucial for policy to provide conditions to allow small firms to grow. The firm growth literature finds more dynamic growth of US firms in comparison to European firms and also relative to Austrian firms (Hözl, 2011). This suggests that there are important barriers to firm growth which still need to be identified properly to indicate the most important market failures.

Firms with high export potential: While there are significant differences between non-exporters and exporters, the empirical analysis also reveals that some non-exporters share similar characteristics (same size, same productivity) with exporters. These are firms with a high internationalization potential. From a policy perspective it will be important to know, why these failed to "self-select" into exporting. Did it depend on the specific products, specific regulations and norms or on firm behaviour? Even if the latter is the main problem, it needs to be acknowledged that policies specifically targeting such firms will most likely always run into problems of ex-ante selection ("picking eligible firms" to avoid windfall profits for firms that would have started exporting even without public support) and the rationale for such policies is most convincing with respect to obstacles related to informational and financial constraints. In general, policies focusing on the cure of market failures (information and knowledge problems, missing insurance markets, venture capital etc.) and not on selective support of firms are potentially most rewarding.

Focus on survival of export relations and trade deepening

Productivity and size premia are not only important for the first decision to export, but are also most relevant for firms' decisions on the type of destination markets, the number of markets served as well as the survival of export relations. From a policy perspective, maximizing the number of export entries should not be the main measure of export success, survival of export relations and the extent of trade deepening is much more relevant. Our findings suggest that the contribution of the intensive margin (changes in existing export relationships) is most important for export growth dynamics, while the contribution of net entry is only marginal. Survival of export relationships is a necessary requirement for trade deepening and export growth, as poor survival prevents deepening from taking place. The duration of export relations thus has a profound impact on long-term export dynamics. Hence, survival in export markets is the key for "learning-by-exporting", export deepening and export growth.

The risk of failure in exporting is higher for small firms and export starters as they are potentially closer to the productivity thresholds. Most exits occur in the first year and become less likely the longer the firm survives. Exits could be due to informational uncertainties about the true fixed costs of exporting and thus describe overconfidence of management. However this is just a conjecture and in-depth research on the reasons of export failures is needed to assess the main determinants of unsuccessful internationalization. Only then, detailed policy prescriptions can be given. Policy could most likely support firms in mitigating costs related to

export start-ups (administrative procedures, costs of obtaining information, search costs for finding foreign partners). Public support to cover part of the marketing expenses which are of particular relevance in the service sector due to the higher uncertainty about the "product" quality for services could also help. The design of such policies however, must be such as to target only those firms that need support. In any case, our findings suggest a differentiation and a scaling of public measures and public support by firm size and by export status of the firms (new exporters versus established exporters). Again, more general framework policies to increase the efficiency and growth of firms (business environment including education, innovation and sound deregulations) should be most rewarding.

Increase market coverage and foster expansion to high growth emerging markets

High entry costs into more difficult markets: Our findings suggest that firms increase their market coverage in a very gradual way, especially if they are smaller and serve only a small number of export markets. Firms serving only one foreign market are very sluggish to add more. We find a strong relation of firm size and productivity with the number of markets served. Hence, again, the firms' efficiency and size are the central lever to promote increases in market coverage of service exporters as well as entry into more difficult emerging markets and the same general policy recommendation applies: focus on an improvement of framework conditions that foster productivity and competitiveness (financial system, education system, regulations, innovation in services).

Traditional export promotion may facilitate exports to difficult markets, such as export credit schemes. It has been shown that such policies may be effective both for the intensive and extensive margin (for Austria see: Egger and Url, 2006; Badinger and Url, 2012), however large firms as well as manufacturers have been shown to be more likely to make use of export credit guarantees as they are more likely to export to those "difficult" countries. The direct relevance of export guarantees to the service sector is low, but they can effectively promote service trade indirectly through manufacturing exports with high service content. Export starters and small firms concentrate on geographically closer locations, meaning that any support schemes for this group of firms should concentrate on these markets.

Markets with high export potential: Based on medium-term GDP projections from the IMF World Economic Outlook our analysis suggests that the highest service export potentials for Austrian firms are concentrated in Extra-EU countries. In particular, increases in service exports are most pronounced in new extra-EU markets comprising Australia, Brazil and New Zealand (Table 4). Service exports have the potential to increase by more than 50 percent in high growth emerging countries, such as Russia, Turkey and the Ukraine. Pronounced market size expansions in these countries are expected to induce substantial export growth for Austrian service firms along the extensive and intensive margins of trade. Our results reveal the strongest impact of entry into markets (extensive margin) mainly in new and less popular export destinations. Specifically, for Austrian service exporters the highest contribution to export growth from newly built trade relations is exhibited in less popular export markets within

the EU like the Baltic countries, Malta and Luxembourg (14 percent for service firms and 24 percent for manufacturing firms). A similar dynamic adjustment along the extensive margin can be observed in Australia, Brazil and New Zealand (new markets in the Extra-EU region). Overall, adjustments within continuing trade relations (intensive margin) contribute most to export growth across all destinations, whereby the highest increases on the intensive margin are expected for exports to neighbouring countries.

Table 4: Export potentials and contribution from internal and external margin from market size projections

	Change in exports	Contribution intensive margin	Contribution extensive margin
	As percent	As percent of overall change	
Service sector			
Neighbouring countries	8.40	96.0	4.0
Traditional export markets in the EU	13.02	90.4	9.6
Traditional export markets Extra-EU	51.39	90.2	9.8
New export markets in the EU	8.78	85.5	14.5
New export markets Extra-EU	83.28	86.6	13.4
Total	12.57	92.9	7.1
Manufacturing sector			
Neighbouring countries	8.52	90.2	9.8
Traditional export markets in the EU	14.58	81.6	18.4
Traditional export markets Extra-EU	55.99	83.0	17.0
New export markets in the EU	9.05	75.5	24.5
New export markets Extra-EU	95.89	80.2	19.8
Total	15.06	85.3	14.7

Source: OeNB, Statistics Austria, WIFO calculations. - Neighbouring countries: Czech Republic, Germany, Hungary, Italy, Liechtenstein, Slovakia, Slovenia and Switzerland; Traditional export markets in the EU: Belgium, Croatia, Finland, France, Great Britain, Netherlands, Poland, Romania, Spain and Sweden; Traditional export markets Extra-EU: Japan, Russia, Turkey, Ukraine and USA; New export markets in the EU: Cyprus, Denmark, Estonia, Greece, Ireland, Latvia, Lithuania, Luxembourg, Malta and Portugal; New export markets Extra-EU: Australia, Brazil and New Zealand.

The possible impact of policies

Potential impact of policies aiming at productivity improvements and firm growth: Our simulations on the basis of the gravity equation suggest that policies aiming at increasing the size and the productivity of least performing firms (lowest 10 percent) to the mean values of the sample would yield a pronounced increase in service exports specifically to neighbouring countries by 4 percent for firms in the service sector and 7 percent for manufacturing service exporters (Table 5). Moreover, this policy (based on export shares) has the potential to increase the number of exporters in traditional, and new export markets and to also intensify existing trade relations. For both service (around 97 percent) and manufacturing firms (around 95 percent) the major contribution is assigned to adjustments of existing trade relationships, while starting new trade relations occurs at a much smaller scale. In part this could be due to higher uncertainty and incomplete information in service trade inducing

exporters to start with very small transactions in new markets. As entry involves small quantities, especially in more distant and difficult markets, the extensive margin contributes much less to overall exports. While the expansion along the extensive margin is balanced across traditional and new export destinations for firms in the service sector, the pattern for manufacturing firms shows a higher contribution of the extensive margin in new markets. Supposedly lower productivity and size thresholds for manufacturing firms compared to “genuine” service traders could be one explanation as these enable them to be present in more markets and also to serve more distant ones more easily.

Table 5: Potential impact of policies aiming at productivity improvements and firm growth

	Promotion of less productive firms					
	Change in exports	Contribution intensive margin	Contribution extensive margin	Change in exports	Contribution intensive margin	Contribution extensive margin
	As percent	As percent of overall change		As percent	As percent of overall change	
	Service sector			Manufacturing sector		
Neighbouring countries	4.28	98.5	1.5	7.42	97.1	2.9
Traditional export markets in the EU	3.87	97.5	2.5	6.53	95.8	4.2
Traditional export markets Extra-EU	3.65	97.3	2.7	6.29	95.6	4.4
New export markets in the EU	3.45	97.3	2.7	5.76	95.4	4.6
New export markets Extra-EU	3.13	97.5	2.5	5.62	95.3	4.7
Total	4.14	98.3	1.7	7.10	96.8	3.2

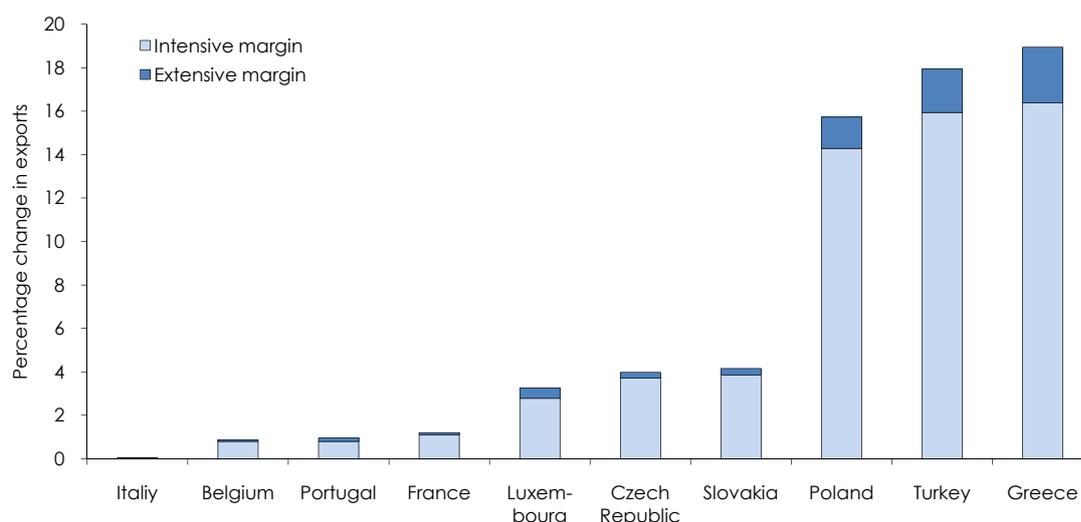
Source: OeNB, Statistics Austria, WIFO calculations. - Neighbouring countries: Czech Republic, Germany, Hungary, Italy, Liechtenstein, Slovakia, Slovenia and Switzerland; Traditional export markets in the EU: Belgium, Croatia, Finland, France, Great Britain, Netherlands, Poland, Romania, Spain and Sweden; Traditional export markets Extra-EU: Japan, Russia, Turkey, Ukraine and USA; New export markets in the EU: Cyprus, Denmark, Estonia, Greece, Ireland, Latvia, Lithuania, Luxembourg, Malta and Portugal; New export markets Extra-EU: Australia, Brazil and New Zealand.

It is important to note that the export potentials indicated by this experiment are substantial if one accounts for the fact that it only includes productivity improvements and firm growth for the least productive and the smallest firms in the sample, i.e. firms that are only marginal contributors to total service export growth. Policy incentives focusing on the promotion of large and productive firms that are already the most intensive traders would exhibit substantial higher potential export growth. In the extreme case of increasing the productivity of the Top-10% firms to the observed maximum productivity and size level, exports could be raised to as much as the 6-fold level for service firms and about 3 fold for manufacturing firms. Since many of the high productivity firms are already high scale exporters in the baseline scenario, the role of the extensive margin is further dwarfed, even though this export promotion would allow service exporters to enter new markets in the Extra-EU region and within the EU, which can only be served at higher costs. The substantial difference to the potentials raised for the low productivity firms underlies the primacy of large and productive firms which account for a large share of total service exports in Austria and thus, downscale the export potential of small and less productive firms in a direct comparison. The policy

design however, needs to consider the contributions of small and less productive firms to ensure a broad base of service exporters and to enhance export participation by these firms.

Focusing on the policy environment for services: Furthermore, substantial – but sound – liberalizations of product market regulations in the service sector yield the potential of reinforced service exports in existing trade relationships and moreover also the potential to broaden the export base. In particular, export destinations with currently the most restrictive policy environments, like Greece, Turkey and Poland, would enclose more Austrian service exporters. Further potentials for regulatory improvements are given for the Slovak and the Czech Republic. This suggests that efforts in negotiations concerning service liberalizations should be directed to trading partners with high market regulations as Austrian service exporting firms can yield the highest trade benefits there. Moreover, leaving aside Greece for its intensive economic problems, the results suggest that it is possible to reap a large proportion of the overall export growth by focusing attention to Turkey and Poland, two countries which exhibit the most restrictive policy environments at the moment. In particular, the remarkable potential increase in exports by service firms to those two countries contrasts strongly with the export potentials in other markets (Figure 1). Additionally, this policy design fosters Austrian service exporters to broaden the exporter base in these markets, which are currently served at higher costs. Moreover, as the Slovak and Czech Republic are important export destinations for Austrian service exporters in terms of the export share and the neighbouring status negotiations on market regulation reforms could result in stable and intensified export relations and export growth by 4 percent.

Figure 1: Change in overall exports and contribution of intensive and extensive margin from improvements in market regulation indices in most restrictive destination markets - services



Source: OeNB, Statistics Austria, WIFO calculations.

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