

FIW Research Reports 2009/10 N° 01  
October 2009

Policy Note

# Characteristics of exporting and non-exporting firms in Austria

Johannes Pöschl, Robert Stehrer and Roman Stöllinger

---

## Abstract

---

In this study we provide detailed evidence on the importance and performance of exporters compared to non-exporters in Austrian manufacturing, based on firm level data. The results are in line with those found in other studies pointing towards the exceptional role of exporting firms with respect to various size and performance measures. We provide both descriptive as well as econometric evidence on these 'export premia' along these lines and further present a brief comparison with results found for other countries. Our findings however also suggest the existence of quite large differences across industries with respect to the export premia which deserves further attention.

---

The FIW Research Reports 2009/10 present the results of four thematic work packages 'Microeconomic Analysis based on Firm-Level Data', 'Model Simulations for Trade Policy Analysis', 'Migration Issues', and 'Trade, Energy and Environment', that were commissioned by the Austrian Federal Ministry of Economics, Family and Youth (BMWFJ) within the framework of the 'Research Centre International Economics' (FIW) in November 2008.



## Policy Brief

# Characteristics of exporting and non-exporting firms in Austria

**Authors:** **Johannes Pöschl** email: [poeschlj@wiiw.ac.at](mailto:poeschlj@wiiw.ac.at)  
**Robert Stehrer** email: [stehrer@wiiw.ac.at](mailto:stehrer@wiiw.ac.at)  
**Roman Stöllinger** email: [stoellinger@wiiw.ac.at](mailto:stoellinger@wiiw.ac.at)

**Financing of the study:** This study benefited from the financial support of the “Forschungsschwerpunkt Internationale Wirtschaft” (FIW), Work Package N°1 : Microeconomic Analysis based on Firm-level Data including Issues of Firm Location, FDI Decisions, Trade Flows and Labour Markets

**Period:** March 2009 to September 2009

---

## Objective of the study: Pinpoint importance and performance of Austrian exporters

This study provides detailed evidence on the importance and performance of exporters compared to non-exporters in Austrian manufacturing based on firm level data. The results are in line with those found in other studies: exporting firms are larger in terms of sales and employment and also more productive than non-exporters. This size and performance advantages of exporters over non-exporters along several dimensions, for which we find ample evidence in Austria, has become known as ‘export premia’. The study also provides estimates of the export concentration in the Austrian manufacturing sector.

---

## To export or not to export ...

... is a question many Austrian firms have to decide upon at some stage. Based on the theoretical background of a new strand in trade theory emphasising heterogeneity among firms (including those of the same industry), the 'new new trade theory', we explore the characteristics and performance of Austrian manufacturing exporters, based on a firm sample covering approximately 6,000 firms. Access to data on individual manufacturing firms, including their export status, allows tackling new interesting questions including the export participation of firms, the performance of exporters and export concentration.

### Industry export participation

For the manufacturing sector as a whole 56% of firms are exporters. But in several industries the export participation (i.e. the share of firms engaged in exporting) is much higher exceeding 80% in 13 industries out of 23 (Table 1).

**Table 1: Export participation in Austrian industries (2006)**

Industry	Total number of firms	Share of exporters
Food, beverages and tobacco	1197	27.99%
Textiles	144	85.42%
Wearing apparel	82	75.61%
Leather	24	83.33%
Wood	604	50.99%
Pulp and paper	82	91.46%
Publishing and printing	452	66.37%
Refined petroleum	4	50.00%
Chemicals	127	89.76%
Rubber and plastic products	223	89.69%
Non-metallic mineral products	337	41.54%
Basic metals	94	97.87%
Fabricated metal products	1055	53.84%
Machinery and equipment	539	89.61%
Office machinery and computers	6	66.67%
Electrical machinery	144	80.56%
Radio, TV, communication	51	90.20%
Precision & optical instruments	256	49.22%
Motor vehicles	92	89.13%
Other transport equipment	21	85.71%
Manufactures n.e.c.	766	39.43%
Recycling	26	80.77%
<b>Total manufacturing</b>	<b>6326</b>	<b>55.91%</b>

Export participation is particularly high in the basic metals and paper industries as well as the radio, TV and communication industry.

There are also a number of industries, including the food and beverages industry, where export participation is remarkably low. Moreover, industries with a larger number of firms tend to have lowest export participation rates.

***“Manufacturing export participation has increased only slightly in the period 2002-2006.”***

Many of the export-orientated industries, in particular those where high export participation is coupled with a high export intensity of individual firms turn out to show a revealed comparative advantage (RCA).

Another interesting finding is that global manufacturing export participation has increased only slightly over the period 2002-2006, less than 1 percentage point annually. This could suggest that in Austria the dynamic development of aggregate manufacturing exports is driven mainly by the intensification of export activities of incumbent exporters.

### Exporters are bigger and perform better

The size and performance advantage of exporters over non-exporters is commonly referred to as 'export premium'. Similar to the results for other countries, we find ample evidence for the existence of such export premia in the Austrian manufacturing sector along several dimensions.

**Table 2: Estimated export premia in the Austrian manufacturing sector**

Size measures	
Sales	3.56
Wage sum	2.66
Employment	2.16
Investment	3.75
Performance measures	
Labour productivity	1.66
Wages	1.23
Investment intensity	1.72

Note: Labour productivity is measured per employee

For example, sales and investments of exporters surpass those of non-exporters by a factor of more than 3.6 (Table 2). In terms of employment this 'export premium' is of order 2.7. An export premium is also observed in

firm performance: exporters are more productive, pay higher wages to their employees and are more inclined to invest.

The productivity premia of exporters over non-exporters amounts to 1.66, the wage premium is 1.23. All export premia found for Austrian manufacturing firms are in line with results found for other countries.

*“Employees participate from the export premium but the lion share of the productivity advantage seems to be retained by exporters.”*

The results on the productivity and wage premium suggest that exporters are 66% more productive than non-exporters but pay wages only higher by 23%. Higher wages could reflect higher average skill levels in exporting firms, an aspect on which we lack information. The difference between the productivity and the wage premium could suggest either higher profits or higher capital costs. At the industry level we find that the productivity premia (as well as the capital intensity premia) vary much more across industries than the wage premium. This would suggest the existence of profits at least in industries with comparatively high productivity premia.

Despite these limitations the relative size of the productivity and wage premium can be used as a rough proxy for the distribution of economic rents in exporting firms. Consequently, employees participate from the export premium but the lion share of the productivity advantage seems to be retained by exporters.

### Export concentration

Another interesting aspect is the degree of export concentrations. We find that in Austrian manufacturing (though only calculated approximately for reasons of data availability) the top 1% of exporters, i.e. the superstar exporters, already account for no less than 42% of manufacturing exports (Table 3).

*“If only one of the superstar exporters would go out of business on average 0.7% of aggregate manufacturing exports would be lost.”*

If one considers the top 5% and 10% of firms respectively, the export shares increase to 73% and 87% respectively. This implies that if only one of the superstar exporters would go out of business, on average 0.7% of aggregate manufacturing exports would be lost. Austrian manufacturing appears to be less concentrated compared to most other European countries. Typically internationalisation reinforces concentration tendencies thereby contributing to productivity gains on an industry level.

**Table 3: Export concentrations in Europe**

	Top 1%	Top 5%	Top 10%
Germany	59	81	90
France	68	88	94
United Kingdom	42	69	80
Italy	32	59	72
Hungary	77	91	96
Belgium	48	73	84
Norway	53	81	91
<b>Austria</b>	<b>42</b>	<b>73</b>	<b>87</b>

Source: Ottaviano – Mayer: The Happy Few, wiiw-calculation. Austrian export sales had to be estimated.

### From productivity to exporting and export promotion

The existence of an export premium as such leaves open the question of causality. In this context the causal relationship between firm productivity and export activity has received most attention. Evidence from other European countries and the U.S. indicate that the causality goes from productivity to exporting with no evidence for systematic learning effects from exporting. These results support the idea that more productive firms self-select themselves into exporting as is proposed by recent theoretical literature on firm heterogeneity and trade. More productive firms – and only these – engage in international trade because their cost advantage allows them to cover fixed costs of exporting.

### Policy implications

This likely direction of causality is a central theme when it comes to policy. Despite the fact that our data did not allow us to address the causality issue we can rely on the robust results from other countries. A causality going from productivity to exporting implies that the export premia found for Austrian firms is not the result from export activities. Rather higher productivity must be seen as

a prerequisite for exporting. This result has implications for the appropriate policy instruments to be used. Given that more productive firms self-select themselves into exporting without additional productivity gains from exporting, general framework policies seem more appropriate than pure export promotion policies if the objective is to foster industry productivity and competitiveness. These general framework policies could include for example public investment in education since bigger, more productive firms are characterized by being on average more capital intensive and employing a higher skilled workforce (capital-skill complementarity), as has been shown for other European countries.

Traditional export promotion policies, including export credit schemes, may facilitate export operations of firms, especially those targeting difficult markets. Export promotion policies may be justified by the level playing field argument since most industrialised countries have explicit export promotion policies, including export credit schemes. Such policies give support to Austrian exporters for particular transactions and they are apt to give them a competitive advantage or restore a level playing field in a competitive situation. They are, however, unlikely to contribute much to productivity growth.

***“Given that more productive firms self-select themselves into exporting without additional productivity gains from exporting, general framework policies seem more appropriate than pure export promotion policies if the objective is to foster industry productivity and competitiveness.”***

Another question related to export promotion measures is to what extent they are to the benefit of incumbent (and often already large) exporters and to what extent they are capable of inducing export entrance of new exporters.

If the policy objective is to increase export participation in Austrian manufacturing, export promotion in the form of public support for start-up costs of exporting could help potential new exporters. Start-up costs of exporting include information gathering about foreign markets and marketing expenses for

new export goods. As any additional cost element they constitute a barrier to trade, in particular for smaller firms. In Austria the “Go International” - initiatives offering firms with export ambitions financial support to partially cover information and marketing costs (e.g. trade fairs) goes in this direction. Again, due to the self-selection forces such policies should be designed in a way which ensures that windfall profits for firms that would have started exporting anyway are avoided.

An additional positive effect of policies that induce export entrance of firms is that it counteracts concentration tendencies. As was pointed out above, internationalisation is likely to increase productivity at the industry level due to the reallocation of market shares to more productive firms and the exit of the least productive firm. This implies a concentration tendency with potential implications for competition. A potential downside to high concentration, including export concentration, is that the consequences of a default of a superstar exporter could be severe not only for exports but also employment. In times of crisis dependency on few exporting firms might put pressure on policy makers to avoid such a scenario.

In summary, the choice of the appropriate policy instruments depends on the objective. General framework policies might be the appropriate tool if the policy intends to foster productivity and competitiveness of Austrian industries. Traditional export promotion schemes may prove useful if the objective is to support exporters in a competitive situation. This could be an issue mainly for incumbent exporters in difficult markets. If the policy objective is to increase the number of exporters, policy makers may wish to provide public funds for new exporters to cover start-up costs of exporting.

**Corresponding Author:**

Robert Stehrer  
Senior Researcher  
Telefon: +43 1 5336610-47  
Email: [stehrer@wiw.ac.at](mailto:stehrer@wiw.ac.at)

This policy brief is commissioned work by the Federal Ministry of Economy, Family and Youth in the context of the FIW project. The contents are the responsibility of the authors only.