

Catch-up in agro-food trade of Hungary and Slovenia with Austria

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Abstract - Trade types and competitiveness of Hungarian and Slovenian agro-food trade with Austria are investigated. We apply the extended Gehlhar and Pick's approach to analyze the extent of trade specialization, price competition, quality competition and one-way trade. In Hungarian matched two-way agro-food trade the prevalence is on successful price competition and on successful quality competition suggesting comparative advantages for Hungarian agro-food products vis-à-vis Austria. In Slovenian matched two-way agro-food trade the prevalence is on unsuccessful price competition and on unsuccessful quality competition suggesting comparative trade disadvantages vis-à-vis Austria.¹

INTRODUCTION

There is limited research available to investigate the catching-up process in successful trade types competition between new and old European Union (EU) member states. While one might expect that trade opening, free trade and association agreements, and EU membership have induced substantial changes in structures of trade flows and trade types, there are rare studies on trade patterns in trade types potentially caused by these processes. We investigate the magnitude and dynamics of agro-food trade during adjustment processes between the two new EU member countries (Hungary and Slovenia, respectively) and Austria. The agro-food trade has been selected, because it has been one of the most sensitive issues in the EU enlargement process for Central and Eastern European (CEC) transition countries. Hungary is a net agro-food exporter, while Slovenia is a net agro-food importer. We analyze trade types and competitiveness focusing on possible price and quality competition catching-up. We want to assess whether the European enlargement processes have induced catch-up for Hungary and Slovenia in successful price and successful quality competition in agro-food trade with Austria. To investigate trade types and successful competition, we combine literature on intra-industry trade (Greenaway et al., 1994) with export-to-import unit values and trade balance approaches (Aiginger, 1997; Ulff and Nielsen, 2000; Gehlhar and Pick, 2002). Export-to-

import unit values indicate product quality differences between exported and imported products. We have extended Gehlhar and Pick's (2002) approach employing insights from intra-industry trade literature to disentangle the one-way directions of trade from the price competition and quality competition in the two-way bilateral trade.

METHODOLOGY

Trade types, competition and the dynamics in catching-up process in successful price and successful quality competition in two-way trade are analyzed. We disentangle the one-way trade from the two-way trade. Within two-way trade data, unit values of exports and imports by products have been used for assessing product quality. Gehlhar and Pick (2002) employ the unit export-import value difference and the trade balance by product to categorize trade flows in four competition categories:

Category 1. $TB_{i,j} > 0$ and $UVD_{i,j} < 0$

Category 2. $TB_{i,j} < 0$ and $UVD_{i,j} < 0$

Category 3. $TB_{i,j} > 0$ and $UVD_{i,j} > 0$

Category 4. $TB_{i,j} < 0$ and $UVD_{i,j} < 0$

where the trade balance (TB) is difference between the value of the i -th product exports from a home country (in our case Hungary and Slovenia, respectively) to the j -th partner country (in our case Austria) and the value of the i -th product imports to the home country from the j -th partner country. The unit value difference (UVD) is calculated as difference between the export unit value and the import unit value. Trade balances indicate successful or unsuccessful competition in trade, and export-import unit values determine price or non-price competition. The four competition categories (Categories from 1 to 4) are applied only on the *two-way* trade flows satisfying the simultaneous conditions of the unit value difference and the trade balance by product. In the two-way trade flows, in the first and third categories the home country i is successful in price competition (trade surplus at lower export than import unit value) and in non-price competition (trade surplus at higher export than import unit value), respectively, and vice versa in the second and fourth categories, where the home country is unsuccessful in price competition (trade deficit at higher export than import unit value) and in non-price competition (trade deficit at lower export than import unit value).

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DATA AND EMPIRICAL RESULTS

The paper analyses the trade types, competition, and catching-up processes in the bilateral Hungarian and Slovenian agro-food with Austria. We use detailed trade data from OECD for the years 1993-2003. The agro-food trade is defined by EU-Commission (1999). The agro-food trade data sample consists of 255 items at four-digit level in the Standard International Trade Classification (SITC) system. Looking at bilateral agro-food trade, Hungary experiences surplus, but on the other hand, Slovenia experiences deficit in this trade with Austria.

Table 1. Agro-food trade with Austria, 1993-2003.

	Total agro-food trade (mean value in million dollars)				Share of two-way trade (in %)	
	Hungary		Slovenia		Hungary	Slovenia
	Export		Import			
Mean	197.0	75.2	21.4	127.6	89	66
Coefficient of variation	9.5%	23.9%	19.1%	12.5%	4.0%	10.6%

Source: Own calculations based on OECD database.

The two-way trade dominates between the trading bilateral partners (Table 1). The proportion of the two-way trade for the Slovenian bilateral trade with Austria is slightly lower than for the similar Hungarian bilateral trade.

To evaluate trade types and competition categories within the matched two-way trade flows we identify categories of price competition and categories of quality competition (Table 2). The two-way trade flows are presented for the four competition categories with Hungary and Slovenia, respectively, as the base trade destinations. For both Hungary and Slovenia the first and second price competition categories remain more significant than the third and fourth quality competition categories. Hungarian trade with Austria has been catching-up in the successful quality competition in the two-way trade flows. Within the Hungarian two-way trade with Austria, there is a shift away from successful price competition (i.e. the first category) towards successful quality competition (i.e. the third category). The second category is much more significant for Slovenia. For Hungary, the third quality competition category has increased over time and thus has strengthened its significance. These development patterns can be described as successful quality competition, where the Hungarian trade surplus was achieved under a higher export than import unit value. Successful quality competition is relatively less significant in Slovenian trade with Austria indicating difficulties in the Slovenian agro-food sectors to find quality and niche export products. The fourth quality competition category is the least significant category in Hungarian two-way trade with Austria. By contrast, the fourth unsuccessful quality competition category is more significant than the third successful quality competition category in Slovenian two-way trade with Austria.

Table 2. Two-way trade patterns with Austria (%).

Category of trade	Hungary		Slovenia	
	1993	2003	1993	2003
1 Successful price competition	58.7	43.3	17.3	15.5
2 Unsuccessful price competition	15.9	15.2	54.4	67.2
3 Successful quality competition	11.7	38.1	2.0	4.1
4 Unsuccessful quality competition	13.7	3.4	26.3	13.2

Source: Own calculations based on OECD database.

CONCLUSIONS

For both Hungary and Slovenia, the two-way agro-food trade with Austria is more significant than the one-way trade. Within the two-way trade for Hungary, the prevalence is on the first category of successful price competition and on the third category of successful quality competition. Hungary has experienced a certain catching-up in successful quality competition in agro-food trade. For Slovenia, the second category of un-successful price competition is more significant than the first category of successful price competition. This suggests possible costs and price disadvantages for Slovenian agro-food sectors. Within the quality competition categories, the fourth un-successful quality competition category is more significant than the third successful quality competition category, suggesting lack of quality competition in the Slovenian agro-food sector.

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