



THE COMPETITIVENESS OF CONIFEROUS AND NON-CONIFEROUS LOGS IN SLOVAKIA

Martina Kalamárová

Ján Parobek

Erika Loučanová



THE PRESENTATION CONTENT

- Introduction
- Methods
- The competitiveness analyses in Slovakia
- Conclusion



INTRODUCTION

- The competitiveness analysis of the selected wood commodities:
 - coniferous logs
 - non-coniferous logs
- The European Union countries for the period 2009 to 2013
- A multidisciplinary approach to the competitiveness
- The competitiveness of a country, a region, a sector, a company and a product
- Different methods to identify and measure the comparative advantages



METHODS

- RCA indices:
 - Balassa concept (1965,1977,1989)
 - Vollrath (1991)
- The data necessary for the analysis and calculation of competitiveness indicators (information on production, export and import) – international statistical databases as UN COMTRADE, EUROSTAT and FAOSTAT



METHODS

Index	Calculation	Comparative advantage
RCA I	$RCA I = X_{ij} / X_{nj}$	$RCA I > 0$
RCA II	$RCA II = (X_{ij} / X_{it}) / (X_{nj} / X_{nt}) = (X_{ij} / X_{nj}) / (X_{it} / X_{nt})$	$RCA II > 1$
RCA III	$RCA III = (X_{ij} - M_{ij}) / (X_{ij} + M_{ij})$	$0 < RCA < 1$
RCA IV	$RCA IV = (X_{ij} / X_{it}) / (M_{ij} / M_{it}) = (X_{ij} / M_{ij}) / (X_{it} / M_{it})$	$RCA IV > 1$
RCA V	$RCA V = \ln (X_{ij} / X_{it}) / (M_{ij} / M_{it}) * 100 = \ln (X_{ij} / M_{ij}) / (X_{it} / M_{it}) * 100$	$RCA V > 0$
RCA VI	$RTA = RXA - RMA = (X_{ij} / X_{it}) / (X_{nj} / X_{nt}) - (M_{ij} / M_{it}) / (M_{nj} / M_{nt})$	$RCA VI > 0$
RCA VII	$\ln RXA = \ln RCA II$	$RCA VII > 0$
RCA VIII	$RC = \ln RXA - \ln RMA$	$RCA VIII > 0$

X=export, i=country (Slovakia), j=commodity/industry (coniferous and nonconiferous logs), n=set of countries (EU), M=import, t=a set of commodities (or industries).



THE COMPETITIVENESS ANALYSIS

In the Slovak Republic (MPSR, 2014):

- Wood logging in 2013 7,837,067 m³
- Logging of coniferous wood 52,7 % (4,131,064 m³)
- Logging of non-coniferous wood 47,3 % (3,706,226 m³)

Coniferous logs:

- The total amount of export 1,012,000 m³
- The total amount of import 298,000 m³

Non-coniferous logs:

- The total amount of beech logs export 73,185 m³
- The total amount of beech logs import 208 m³
- The total amount of oak logs export 30,586 m³
- The total amount of oak logs import 407 m³



THE COMPETITIVENESS ANALYSIS

Indices Used		2009	2010	2011	2012	2013
Coniferous logs	RCA I	0,1186	0,1670	0,1246	0,1448	0,0726
	RCA II (RXA)	3,9848	5,5637	4,2079	4,8761	2,3952
	RCA III	0,9322	0,9609	0,9756	0,5744	0,4679
	RCA IV	17,9474	31,7887	49,7399	2,1683	1,7112
	RCA V	210,8876	248,0598	269,5362	76,6763	62,9454
	RCA VI (RTA)	3,8308	5,4310	4,1419	3,2165	1,1538
	RCA VII	1,3825	1,7163	1,4370	1,5843	0,8735
	RCA VIII (RC)	3,2536	3,7360	4,1558	1,0778	0,6572
Non-coniferous logs	RCA I	0,0401	0,0427	0,0468	0,0416	0,0386
	RCA II (RXA)	1,3483	1,4228	1,5804	1,4004	1,2716
	RCA III	0,5702	0,7040	0,8340	0,8098	0,8130
	RCA IV	2,2993	3,6471	6,7723	5,5785	6,0143
	RCA V	81,5461	110,8921	147,2769	132,0702	140,9062
	RCA VI (RTA)	0,5884	0,8036	1,1071	0,8758	0,8413
	RCA VII	0,2988	0,3526	0,4577	0,3367	0,2402
	RCA VIII (RC)	0,5734	0,8312	1,2058	0,9819	1,0836



CONCLUSION

The results of the competitiveness analyses:

RCA I and RCA V - RCA VIII ... positive values

RCA II and RCA IV ... values greater than 1

RCA III ... values in the range of 0-1



a competitive advantage of the Slovakia to EU countries within the coniferous and non-coniferous logs





Thank you for your attention

Martina Kalamárová, PhD.

Jan Parobek, PhD.

Erika Loučanová, PhD.

Technical University in Zvolen, Faculty of Wood Science and Technology,

Department of Marketing, Trade and World Forestry,

T. G. Masaryka 24, 960 53 Zvolen, Slovak Republic

contact email: martina.kalamarova@tuzvo.sk