

THE MEASUREMENT OF CONCENTRATION OF BANKING SECTOR

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Indicators to Measure the Absolute Concentration

The most commonly used indicators to measure the absolute concentration of the banking sector are:

- Concentration Ratio (CR),
- Herfindahl-Hirschman index (HHI).

Concentration Ratio

The concentration ratio of m strongest banks in the sector is calculated as:

$$CR_m = \sum_{i=1}^m s_i, \quad \text{pre } i = 1, 2, \dots, m, \quad m \in \langle 1; n \rangle.$$

where $s_i = \frac{q_i}{Q}$ is the market share

Concentration Ratio

To consider the degree of concentration according to the four most powerful companies in the industry (CR_4) by the Federal Trade Commission in the USA the industry is:

- *unconcentrated* - if the 4 strongest companies produce less than 25% of industry output
- *moderately concentrated* - if the four most powerful companies produce at least 25% and less than 50% of industry output
- *concentrated* - if the 4 strongest companies in the industry producing at least 50% of industry output

Herfindahl-Hirschman Index

Herfindahl-Hirschman Index (*HHI*) is a convex function of the market shares of all firms in the industry. This rate is defined as the sum of squares of market shares:

$$HHI = \sum_{i=1}^n (s_i)^2$$

Classification of the degree of concentration introduced the European Commission (EC) in the EU Horizontal Merger Guidelines under the Council Regulation:

- *unconcentrated* - if the *HHI* is less than 0.1,
- *moderately concentrated* - if the *HHI* is from 0.1 to 0.2,
- *concentrated* - *HHI* is greater than 0.2.

Analyses of Banking Sector

Calculated values of concentration ratios CR_4 and HHI data for commercial banks on next indicators:

- Equity capital in EUR
- Amount of credits in EUR
- Deposits in EUR
- Staff
- Labor costs in EUR
- Net profit for the year in EUR
- Net fee and commission yield in EUR
- Income before tax in EUR