



FINAP – test

Name:

1. By using the Altman model, you have prepared the 2015 bankruptcy forecast for 20 companies based on 2015 financial statements. At the end of 2016, you verified the success rate of these forecasts. Based on the table with actual and estimated groupings (B = bankruptcy, N = non-bankrupt), compile a classification matrix and determine the overall model accuracy, model sensitivity and model specificity.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Reality	B	B	B	B	B	B	B	B	B	B	N	N	N	N	N	N	N	N	N	N
Model	B	B	B	B	B	B	B	N	N	N	N	N	N	N	B	N	N	B	N	N

2. Use shift-share analysis to break down the employment change in the *services sector* in the Central Bohemian Region.

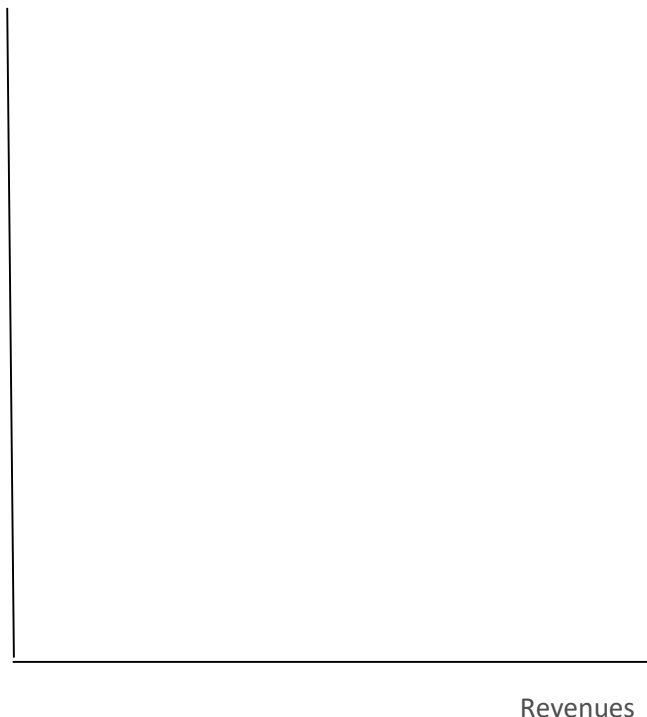
(in thousands of employees)	Central Bohemian Region		Czech Republic		
	2004	2008	2004	2008	
Agriculture	30	20	200	160	
Industry	150	180	1,400	1,550	
Building industry	50	60	430	480	
Services	320	340	2,650	2,810	
Total	550	600	4,680	5,000	





3. The company has sales of CZK 180m and variable (proportional) costs of CZK 120m at a fixed cost of CZK 40m. Calculate

- a) the operating leverage and the degree operating leverage;
- b) the break point for zero profit;
- c) the break point for the required return of 5%;
- d) break-even point for cash flow, provided the depreciation is CZK 25m.
- e) In the graph show the evolution of the cost-to-revenue ratio of total, variable and fixed costs, depending on revenues, and the break-even point for zero profitability and the break-even point for required 5% profitability.



4. Theory

- a) What is the purpose of shift-share analysis?
- b) Explain the principle of the nearest neighbour classification method.
- c) What is the purpose of ROC curves? What is the shape of the ROC curve of the ideal classification model?