

QF603 HOMEWORK2 WANGHAOTONG

Q1.a If  $\ln(\text{Operating Margin})$  is 0 [hypothetically speaking, this is close to impossible in practice], what is predicted  $\ln(\text{EPS/price})$  for a firm in the wholesale trade industry?

Answer: We can tell from the table directly, the answer is -3.6332

Q1.b If  $\ln(\text{Operating Margin})$  is 0, what is predicted  $\ln(\text{EPS/price})$  for a firm in the services industry?

Answer: if  $\ln(\text{operating margin})=0$ , then  $\text{operating margin}(x)=1$

The answer is  $-3.6332 + (-0.2630) = -3.8962$

Q1.c What is the effective “y-intercept” for a firm in the Services industry?

Answer: The answer is  $-3.6332 + (-0.2630) = -3.8962$

Q1.d What is the effective “y-intercept” for a firm in the Mining industry?

Answer: The answer is  $-3.6332 + (-0.045) = -3.6782$

Q2.a For a 1 unit increase in  $\ln$  operating margin, by how much does predicted  $\ln(\text{E/P ratio})$  change by for a firm in the omitted control group (Wholesale Trade industry)

Answer: 0.2399

Q2.b For a 1 unit increase in  $\ln$  operating margin, by how much does predicted  $\ln(\text{E/P ratio})$  change by for a firm in the Mining industry?

Answer:  $0.3526 + 0.2399 = 0.5925$

Q2.c What is the effective slope coefficient for a firm in the mining industry?

Answer:  $0.3526 + 0.2399 = 0.5925$

Q2.d Assume that  $\ln$  operating margin = 1. What is predicted  $\ln(\text{E/P ratio})$  for a firm in the Retail Trade industry?

Answer =  $-3.6108 + (-0.2019) + (0.2399 - 0.0927) * 1 = -3.8199 + 0.1472 = -3.6655$