

02441 Applied Statistics and Statistical Software

Exercise 5A - Forbes

This dataset holds several facts about 77 companies selected from the Forbes 500 list for 1986. This is a 1/10 systematic sample from the alphabetical list of companies. The Forbes 500 includes all companies in the top 500 on any of the criteria, and thus has almost 800 companies in the list. Companies are often interested in how to increase sales. Many of the variables are skewed { a common occurrence with financial data { which suggests that much of the data are better analyzed after taking logarithms. For this study one should take the log of Sales and Assets.

Variable name	Description
Company	Company Name
Assets	Amount of assets (in millions)
Sales	Amount of sales (in millions)
Market.Value	Market Value of the company (in millions)
Profits	Profits (in millions)
Cash.Flow	Cash Flow (in millions)
Employees	Number of employees (in thousands)
Sector	Type of market the company is associated with

1. Investigate the relation between $\text{Log}(\text{Sales})$ predicted by $\text{Log}(\text{Assets})$

```
# Code here
```

2. Include Sector as a discrete factor in the model - what is your conclusion?

```
# Code here
```

3. Are other variables significant?

```
# Code here
```