> setwd('C:/Users/guanz/Desktop/JIW2/Week8')

> dataset2014 <- read.csv('Data2000MM/2014dataset.csv')

> dataset2015 <- read.csv('Data2000MM/2015dataset.csv')

> dataset2016 <- read.csv('Data2000MM/2016dataset.csv')

>

> #2014 individual

> fit2014ind <- lm(IndRTPMM ~ IndPremiumPMM + IndCostsPMM, data=dataset2014)

> summary(fit2014ind)

Call:

lm(formula = IndRTPMM ~ IndPremiumPMM + IndCostsPMM, data = dataset2014)

Residuals:

Min 1Q Median 3Q Max

-178.807 -26.129 5.219 24.349 282.544

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) -43.75707 8.89600 -4.919 1.27e-06 \*\*\*

IndPremiumPMM -0.16122 0.03493 -4.615 5.30e-06 \*\*\*

IndCostsPMM 0.30061 0.01751 17.164 < 2e-16 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 49.97 on 400 degrees of freedom

(89 observations deleted due to missingness)

Multiple R-squared: 0.4725, Adjusted R-squared: 0.4698

F-statistic: 179.1 on 2 and 400 DF, p-value: < 2.2e-16

> #2015 individual

> fit2015ind <- lm(IndRTPMM ~ IndPremiumPMM + IndCostsPMM, data=dataset2015)

> summary(fit2015ind)

Call:

lm(formula = IndRTPMM ~ IndPremiumPMM + IndCostsPMM, data = dataset2015)

Residuals:

Min 1Q Median 3Q Max

-228.79 -32.50 1.48 32.72 626.82

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) -95.98960 12.99530 -7.386 7.35e-13 \*\*\*

IndPremiumPMM -0.10481 0.04646 -2.256 0.0246 \*

IndCostsPMM 0.35603 0.01926 18.490 < 2e-16 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 59.72 on 451 degrees of freedom

(76 observations deleted due to missingness)

Multiple R-squared: 0.5212, Adjusted R-squared: 0.5191

F-statistic: 245.5 on 2 and 451 DF, p-value: < 2.2e-16

> #2016 individual

> fit2016ind <- lm(IndRTPMM ~ IndPremiumPMM + IndCostsPMM, data=dataset2016)

> summary(fit2016ind)

Call:

lm(formula = IndRTPMM ~ IndPremiumPMM + IndCostsPMM, data = dataset2016)

Residuals:

Min 1Q Median 3Q Max

-265.91 -25.83 -3.29 27.31 711.54

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) -90.11679 15.67316 -5.75 1.73e-08 \*\*\*

IndPremiumPMM -0.26845 0.05036 -5.33 1.61e-07 \*\*\*

IndCostsPMM 0.48123 0.01732 27.78 < 2e-16 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 63.02 on 417 degrees of freedom

(56 observations deleted due to missingness)

Multiple R-squared: 0.7117, Adjusted R-squared: 0.7103

F-statistic: 514.7 on 2 and 417 DF, p-value: < 2.2e-16

>

>

> #2014 individual

> fit2014ind2 <- lm(IndCostsPMM ~ IndRTPMM + IndPremiumPMM, data=dataset2014)

> summary(fit2014ind2)

Call:

lm(formula = IndCostsPMM ~ IndRTPMM + IndPremiumPMM, data = dataset2014)

Residuals:

Min 1Q Median 3Q Max

-418.87 -62.53 -22.55 38.77 908.72

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 45.26203 19.71731 2.296 0.0222 \*

IndRTPMM 1.41088 0.08220 17.164 <2e-16 \*\*\*

IndPremiumPMM 0.95100 0.06141 15.487 <2e-16 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 108.3 on 400 degrees of freedom

(89 observations deleted due to missingness)

Multiple R-squared: 0.6527, Adjusted R-squared: 0.6509

F-statistic: 375.8 on 2 and 400 DF, p-value: < 2.2e-16

> #2015 individual

> fit2015ind2 <- lm(IndCostsPMM ~ IndRTPMM + IndPremiumPMM, data=dataset2015)

> summary(fit2015ind2)

Call:

lm(formula = IndCostsPMM ~ IndRTPMM + IndPremiumPMM, data = dataset2015)

Residuals:

Min 1Q Median 3Q Max

-508.74 -61.06 -16.56 46.64 916.33

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 39.33007 25.30823 1.554 0.121

IndRTPMM 1.21106 0.06550 18.490 <2e-16 \*\*\*

IndPremiumPMM 0.99597 0.07229 13.778 <2e-16 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 110.1 on 451 degrees of freedom

(76 observations deleted due to missingness)

Multiple R-squared: 0.6593, Adjusted R-squared: 0.6577

F-statistic: 436.3 on 2 and 451 DF, p-value: < 2.2e-16

> #2016 individual

> fit2016ind2 <- lm(IndCostsPMM ~ IndRTPMM + IndPremiumPMM, data=dataset2016)

> summary(fit2016ind2)

Call:

lm(formula = IndCostsPMM ~ IndRTPMM + IndPremiumPMM, data = dataset2016)

Residuals:

Min 1Q Median 3Q Max

-704.93 -46.71 -3.40 34.86 1172.76

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 23.40544 27.23788 0.859 0.391

IndRTPMM 1.34903 0.04856 27.779 <2e-16 \*\*\*

IndPremiumPMM 1.01201 0.07169 14.117 <2e-16 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 105.5 on 417 degrees of freedom

(56 observations deleted due to missingness)

Multiple R-squared: 0.7916, Adjusted R-squared: 0.7906

F-statistic: 792.1 on 2 and 417 DF, p-value: < 2.2e-16