

HW 1

Trailblazers
October 9, 2016

This is something like a notebook. You can work with data and text at the same time. Things chunks are for code

```
print("I am in a chunk.")
```

```
## [1] "I am in a chunk."
```

By default they echo the code and then produce the result.

You can turn off the echo and just see the result.

```
## [1] "No Echo"
```

```
View(RealPrices)
```

```
## Error in as.data.frame(x): object 'RealPrices' not found
```

```
summary(RealPrices)
```

```
## Error in summary(RealPrices): object 'RealPrices' not found
```

now plot Year and Real Price (test)

```
plot(RealPrices$Year)
```

```
## Error in plot(RealPrices$Year): object 'RealPrices' not found
```

now plot Year and short ton production

```
plot(RealPrices$Year, CoalMarket$ProductionKShortTon)
```

```
## Error in plot(RealPrices$Year, CoalMarket$ProductionKShortTon): object 'RealPrices' not found
```

more plots

```
plot(RealPrices$Year, RealPrices$RealPriceMBTU)
```

```
## Error in plot(RealPrices$Year, RealPrices$RealPriceMBTU): object 'RealPrices' not found
```

```
plot(RealPrices$Year, RealPrices$RealPriceMBTU)
```

```
## Error in plot(RealPrices$Year, RealPrices$RealPriceMBTU): object 'RealPrices' not found
```

```
plot(RealPrices$RealPriceMBTU, CoalMarket$ProductionKShortTon)
```

```
## Error in plot(RealPrices$RealPriceMBTU, CoalMarket$ProductionKShortTon): object 'RealPrices' not found
```

Demand Curve

```
plot(CoalMarket$ProductionKShortTon, RealPrices$RealPriceMBTU)
```

```
## Error in plot(CoalMarket$ProductionKShortTon, RealPrices$RealPriceMBTU): object 'CoalMarket' not found
```

now Multiple (linear) Regression

```
FirstRegression<- lm(CoalMarket$ProductionKShortTon ~ RealPrices$RealPriceMBTU)
```

```
## Error in eval(expr, envir, enclos): object 'CoalMarket' not found
```

```
summary(FirstRegression)
```

```
## Error in summary(FirstRegression): object 'FirstRegression' not found
```

```
plot(FirstRegression)
```

```
## Error in plot(FirstRegression): object 'FirstRegression' not found
```

now elasticities

```
ElastForm<- lm(log(RealPrices$Year) ~ log(RealPrices$RealPriceMBTU), data= RealPrices)
```

```
## Error in is.data.frame(data): object 'RealPrices' not found
```

```
summary(ElastForm)
```

```
## Error in summary(ElastForm): object 'ElastForm' not found
```

```
plot(ElastForm)
```

```
## Error in plot(ElastForm): object 'ElastForm' not found
```

Percent Form

```
PercentForm <- lm(Year ~ log(RealPriceMBTU), data=RealPrices)
```

```
## Error in is.data.frame(data): object 'RealPrices' not found
```

```
summary(PercentForm)
```

```
## Error in summary(PercentForm): object 'PercentForm' not found
```

```
plot(PercentForm)
```

```
## Error in plot(PercentForm): object 'PercentForm' not found
```

Regression Real Prices and Production

```
SecondRegression<- lm(CoalMarket$ProductionKShortTon ~ RealPrices$RealPriceMBTU)
```

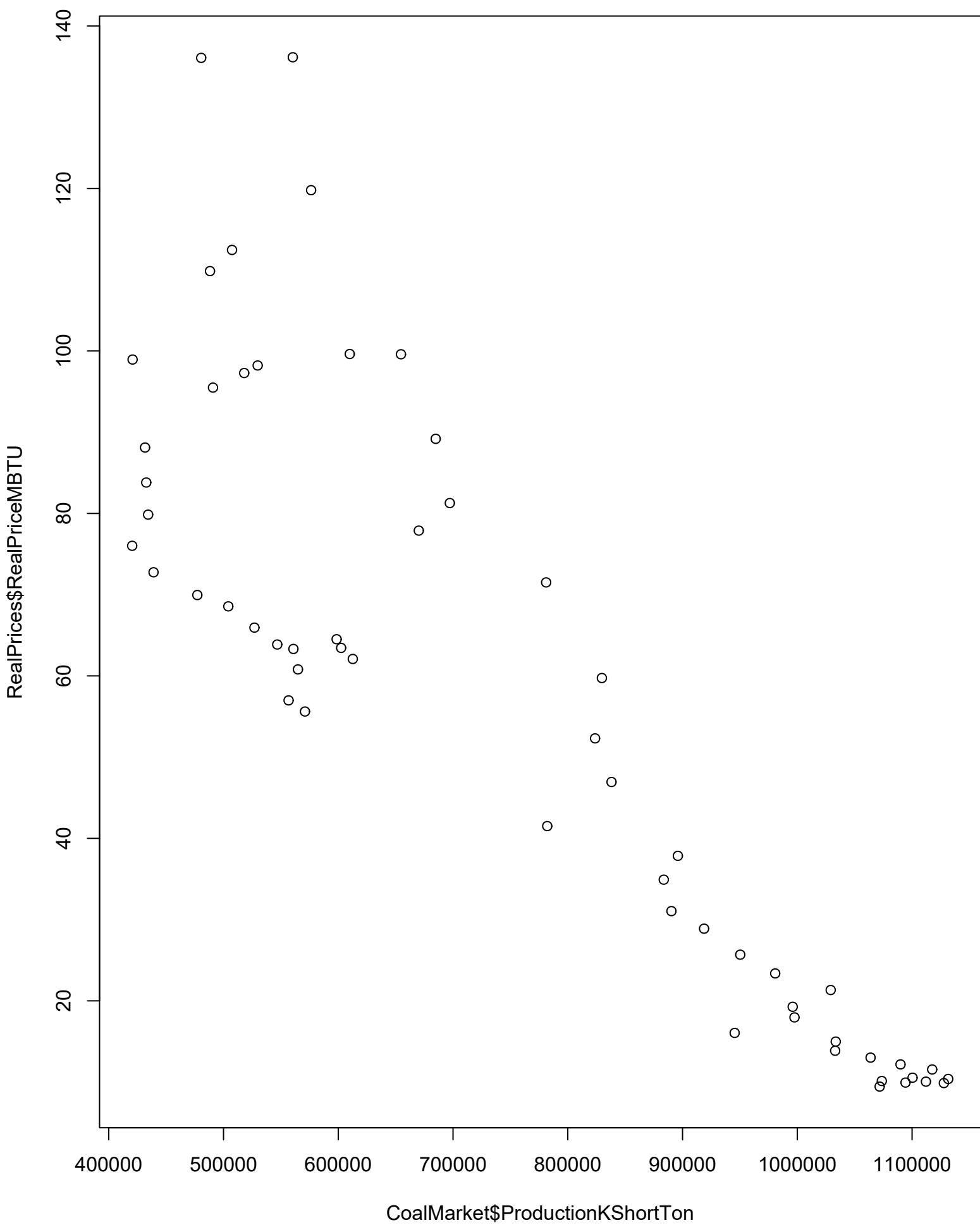
```
## Error in eval(expr, envir, enclos): object 'CoalMarket' not found
```

```
summary(SecondRegression)
```

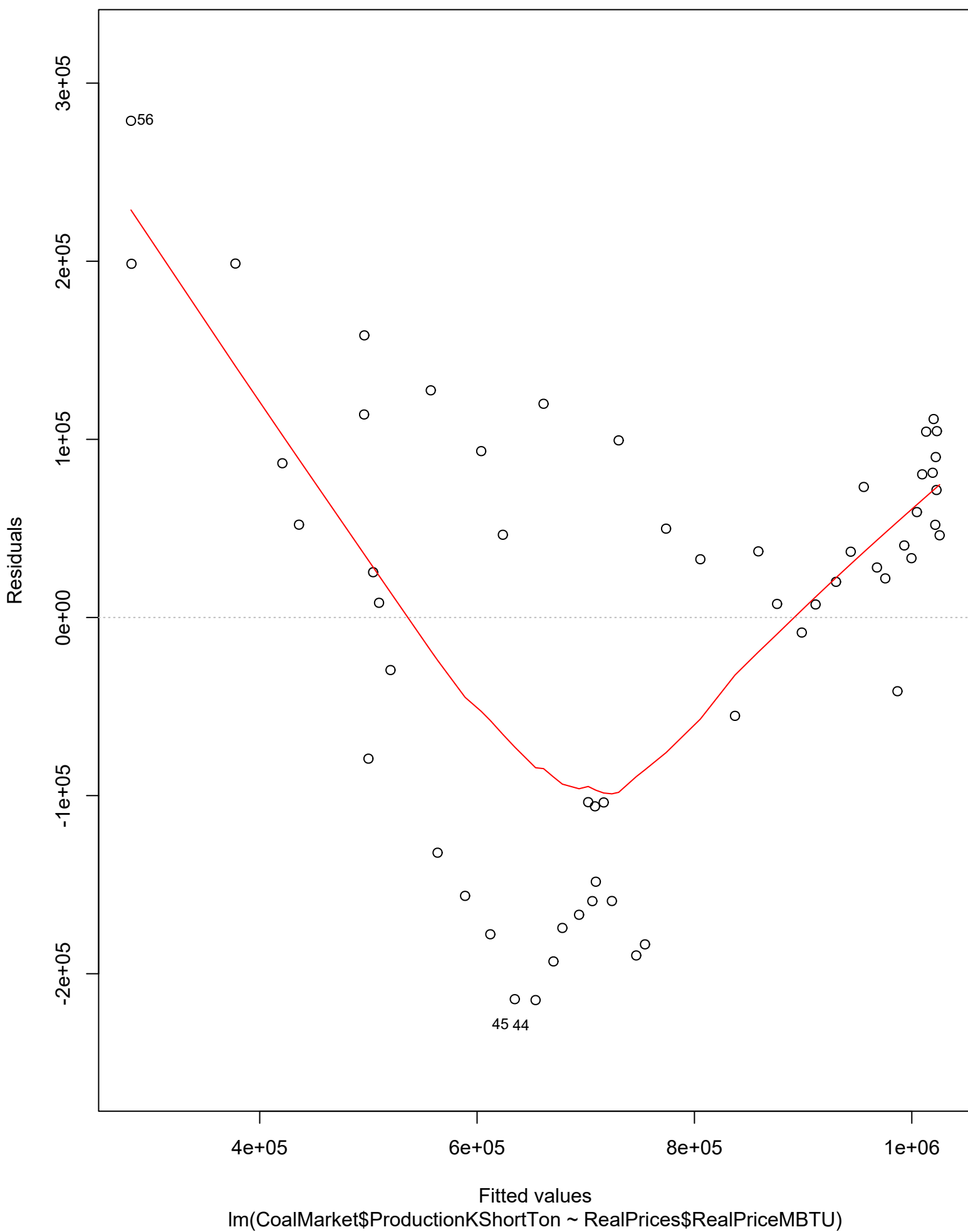
```
## Error in summary(SecondRegression): object 'SecondRegression' not found
```

```
plot(SecondRegression)
```

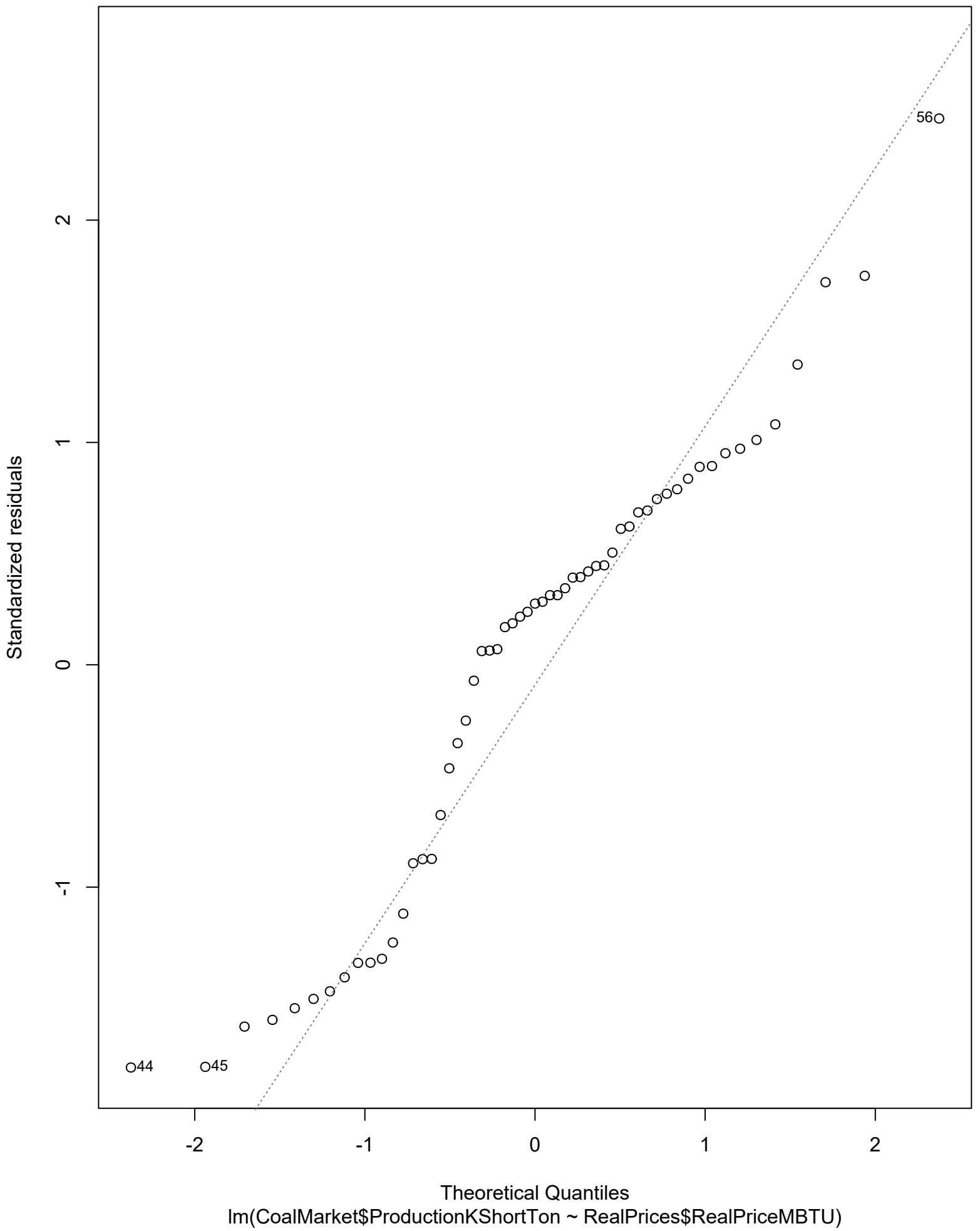
```
## Error in plot(SecondRegression): object 'SecondRegression' not found
```



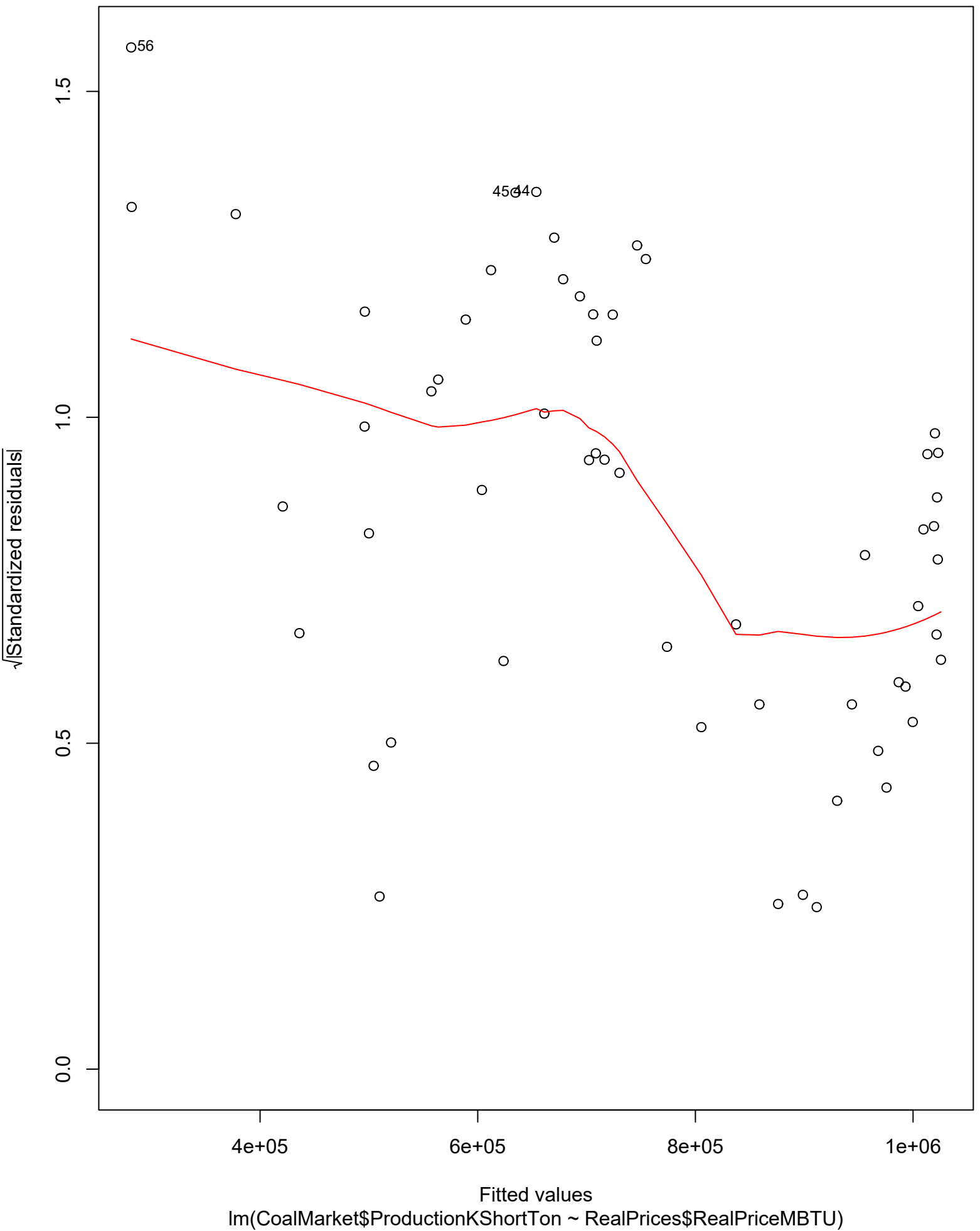
Residuals vs Fitted



Normal Q-Q



Scale-Location



Residuals vs Leverage

