Influence of colonialism on today's economies

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Abstract

abstract

```
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------------------- tidyverse 1.3.0 --

## v ggplot2 3.2.1     v purrr   0.3.3
## v tibble  2.1.3     v dplyr   0.8.4
## v tidyr   1.0.2     v stringr 1.4.0
## v readr   1.3.1     v forcats 0.4.0

## -- Conflicts ------------------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(dplyr)
library(janitor)
```

```
##
## Attaching package: 'janitor'

## The following objects are masked from 'package:stats':
##
##     chisq.test, fisher.test
```

```
library(ggplot2)
library(haven)
```

```
data4 <- read_dta("C:/Users/faria/Desktop/INF2178/Problem Sets/problemset5/maketable4.dta")
```

```
excolonies <- tibble(country=data4$shortnam,
                     samples=data4$baseco,
                     dummy_africa=data4$africa,
                     dummy_asia=data4$asia,
                     dummy_neu=data4$rich4,
                     settler_mortality=data4$logem4,
                     expro_pro=data4$avexpr,
                     gdppc=data4$logpgp95,
                     gdppw=data4$loghjypl
                     )%>% subset(samples==1)
```

```r
mortalgdp <- lm(gdppc~settler_mortality, data=excolonies)
summary(mortalgdp)
```

```
##
## Call:
## lm(formula = gdppc ~ settler_mortality, data = excolonies)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.7545 -0.5386  0.1412  0.4607  1.4059
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)       10.73057    0.36718  29.224  < 2e-16 ***
## settler_mortality -0.57297    0.07616  -7.523 2.66e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7604 on 62 degrees of freedom
## Multiple R-squared:  0.4772, Adjusted R-squared:  0.4688
## F-statistic:  56.6 on 1 and 62 DF,  p-value: 2.659e-10
```

```r
mortalexpro <- lm(expro_pro~settler_mortality, data=excolonies)
summary(mortalexpro)
```

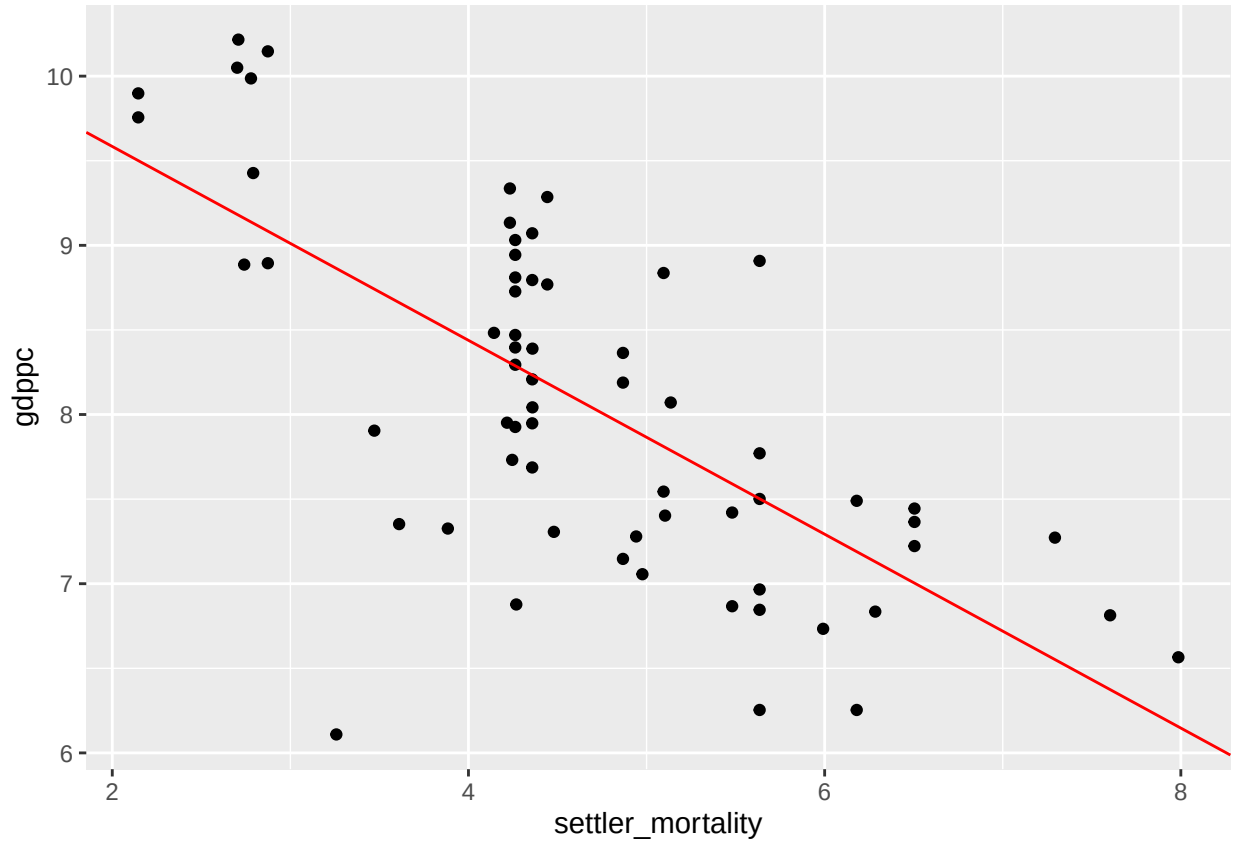
```
##
## Call:
## lm(formula = expro_pro ~ settler_mortality, data = excolonies)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.6606 -0.9922  0.0280  0.8266  3.3566
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)         9.3414     0.6107   15.30  < 2e-16 ***
## settler_mortality  -0.6068     0.1267   -4.79 1.08e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.265 on 62 degrees of freedom
## Multiple R-squared:  0.2701, Adjusted R-squared:  0.2584
## F-statistic: 22.95 on 1 and 62 DF,  p-value: 1.077e-05
```

```r
coef(mortalgdp)["settler_mortality"]/ coef(mortalexpro)["settler_mortality"]
```

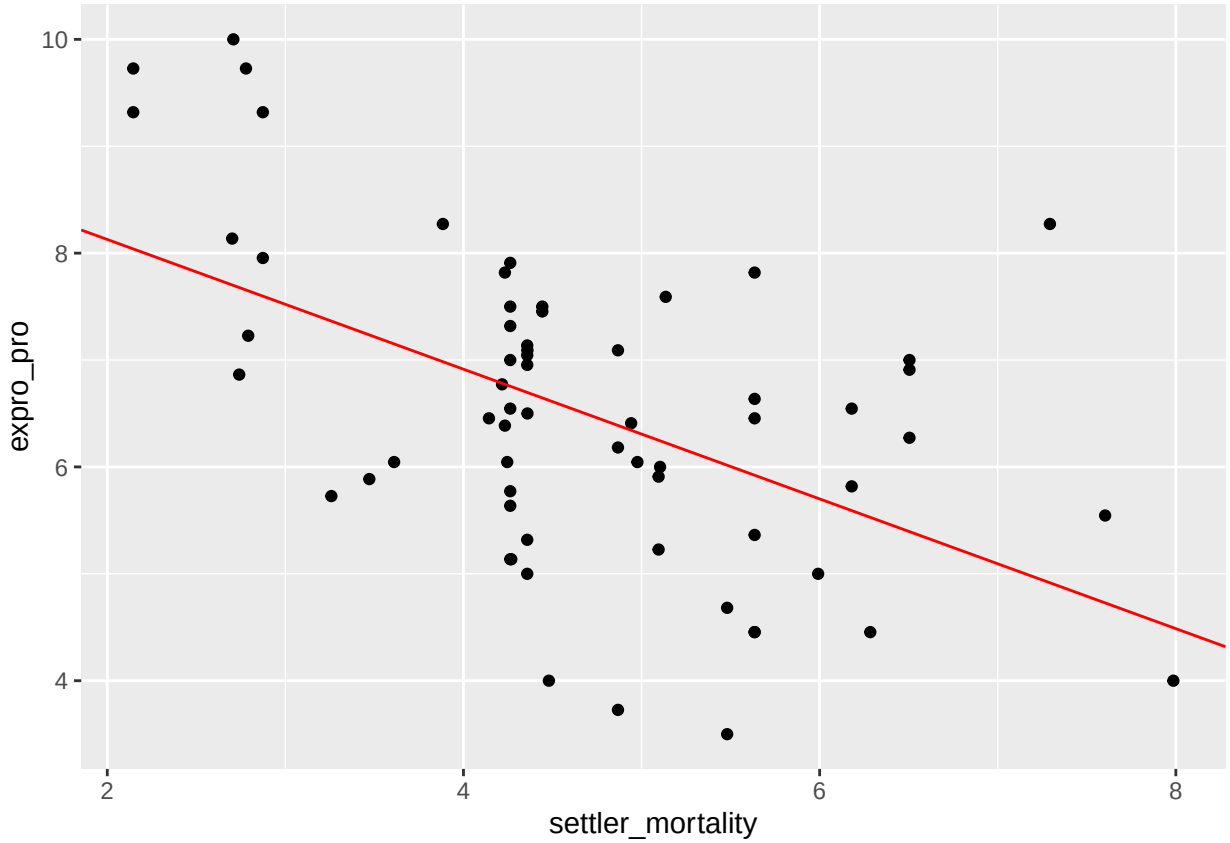
```
## settler_mortality
##         0.9442794
```

```r
#coef(mortalexpro)["settler_mortality"]/ coef(mortalgdp)["settler_mortality"]=1.059
```

```
ggplot(data=excolonies)+
  geom_point(mapping=aes(x=settler_mortality,
                         y=gdppc))+
  geom_abline(intercept = 10.73,
              slope=-0.5729, color="red")
```




```
ggplot(data=excolonies)+
  geom_point(mapping=aes(x=settler_mortality,
                         y=expro_pro))+
  geom_abline(intercept = 9.3414,
              slope=-0.6068, color="red")
```




```
first_stage <- lm(expro_pro~settler_mortality, data=excolonies)
smortal_hat <- first_stage$fitted.values
second_stage <- lm(gdppc~smortal_hat, data=excolonies)

summary(second_stage)
```

```
##
## Call:
## lm(formula = gdppc ~ smortal_hat, data = excolonies)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.7545 -0.5386  0.1412  0.4607  1.4059
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)   1.9097     0.8233   2.320   0.0237 *
## smortal_hat   0.9443     0.1255   7.523 2.66e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.7604 on 62 degrees of freedom
## Multiple R-squared:  0.4772, Adjusted R-squared:  0.4688
## F-statistic:  56.6 on 1 and 62 DF,  p-value: 2.659e-10
```