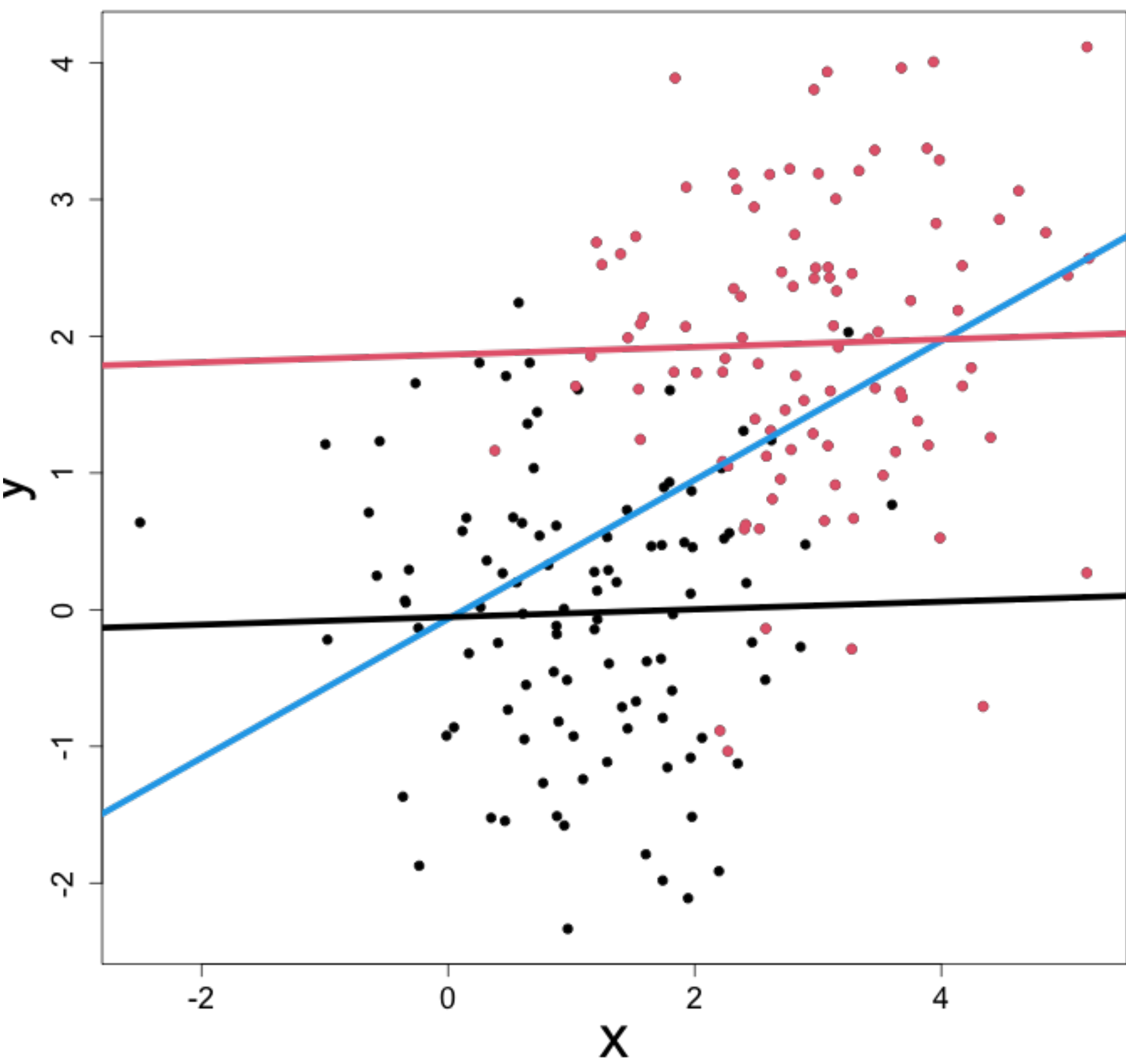


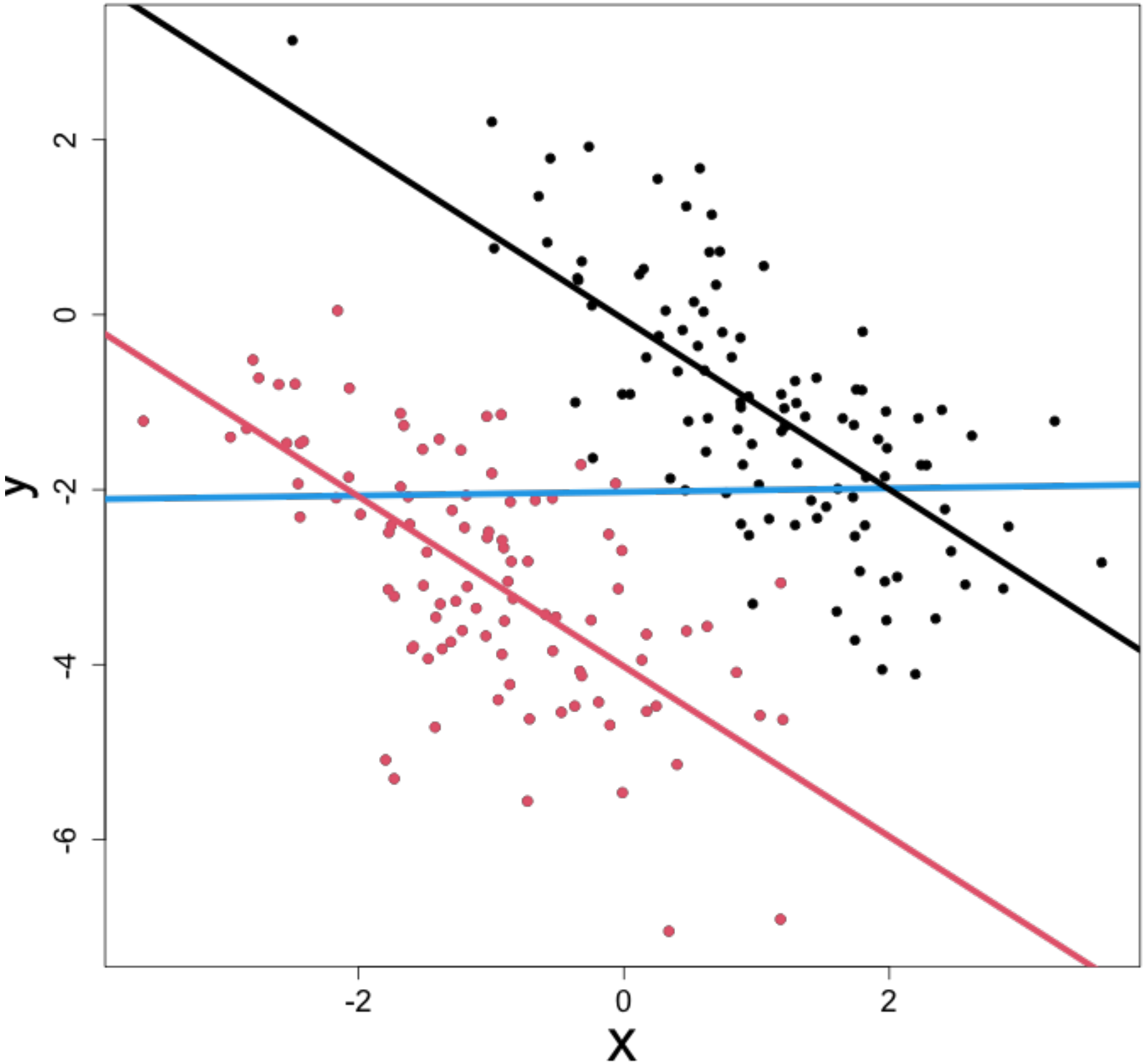


Confounders effect on the slope  $\beta_{yx}$



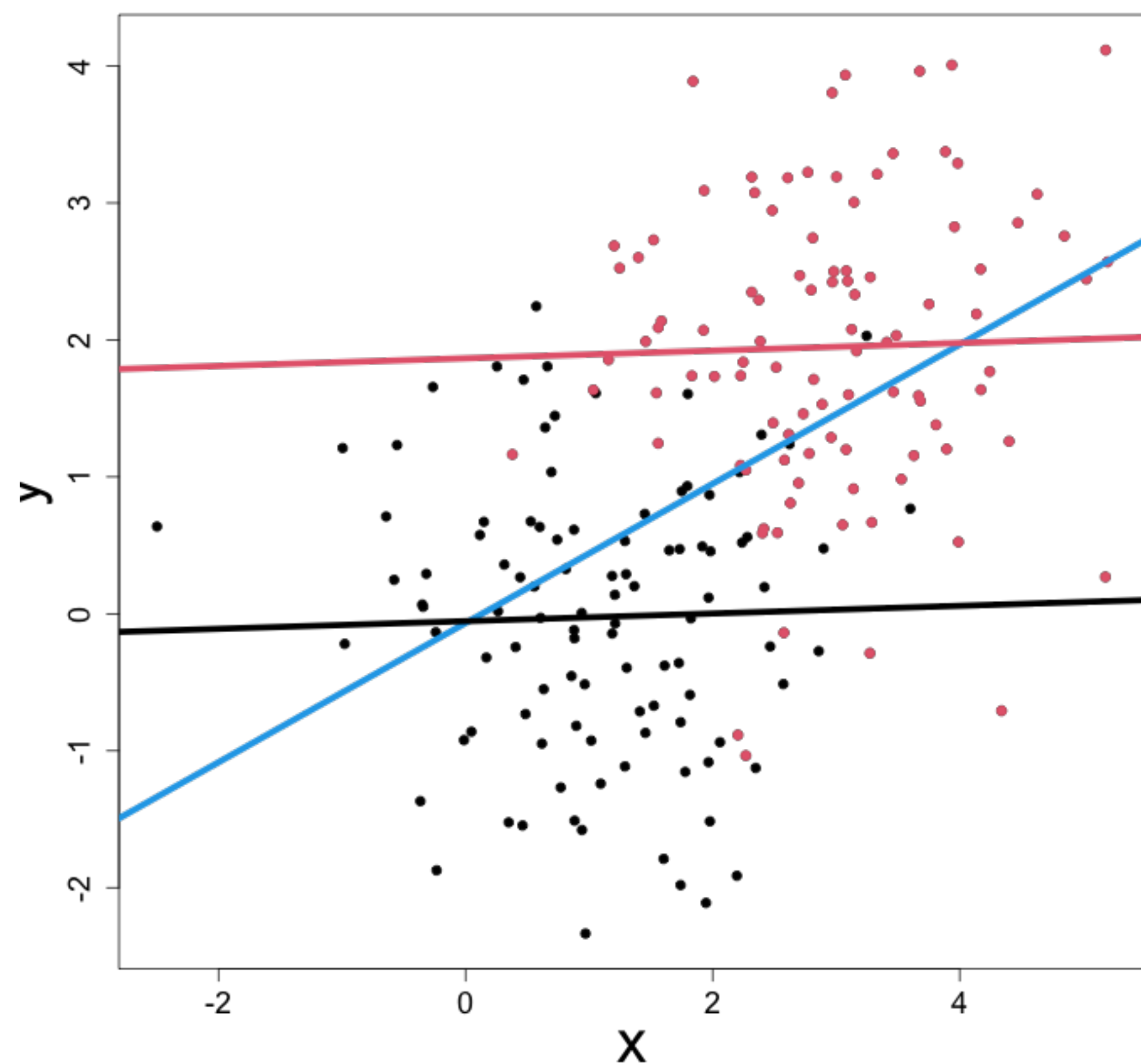
Effect on y is created by z

Effect on y is hidden by z

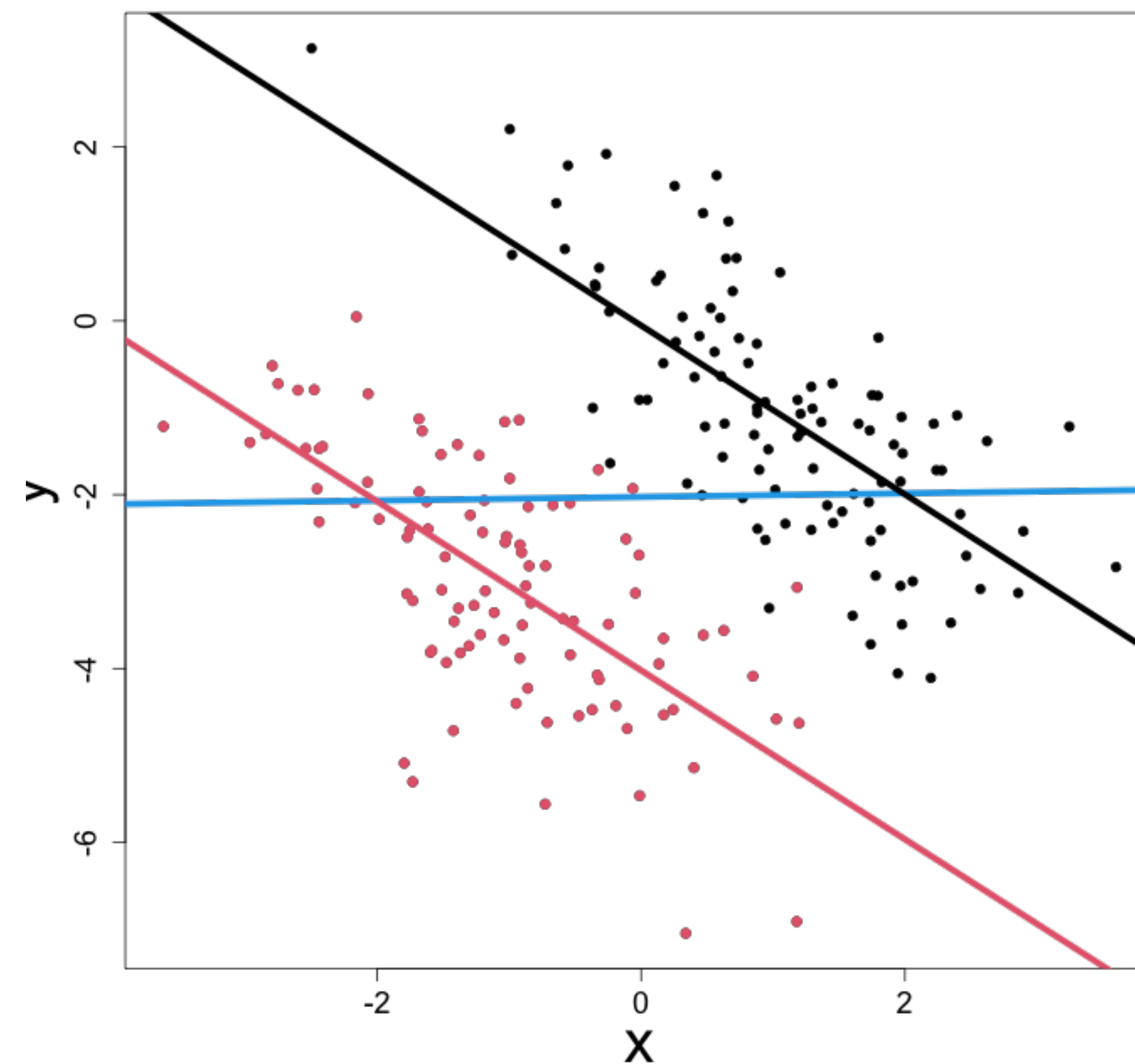


# Confounders effect on the slope $\beta_{yx}$

Effect on y is created by z



Effect on y is hidden by z



# Examples of forks or confounders

- This is the quintessential “control” variable.
- Most variables are included in the model under the assumption that they are confounders and need have their effects taken into consideration.
- Conditioning on  $z$ , the causal effect of  $x$  on  $y$  can be estimated without bias

