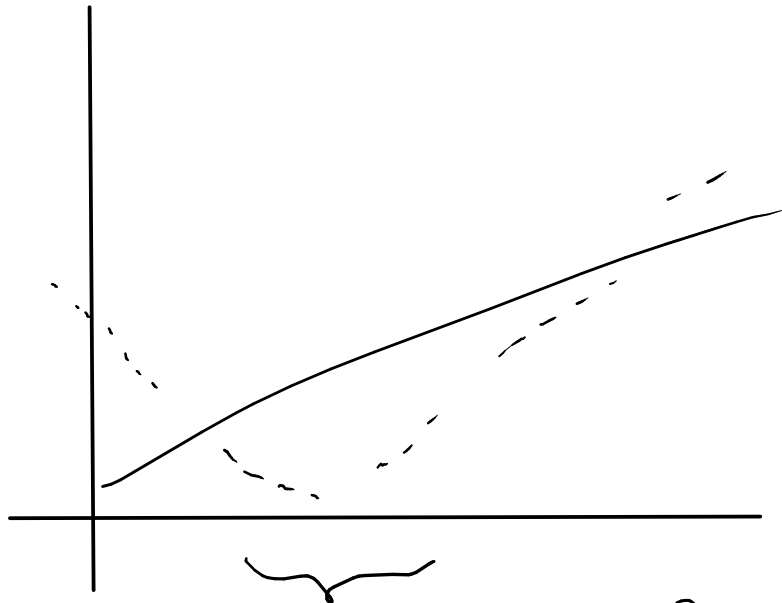


$\underbrace{\quad}$
 $\text{var}(X)$ small. $R^2 \rightarrow 0$
 model is correct but $R^2 \approx 0$



$\underbrace{\quad}$
 $\text{var}(X)$ large. $R^2 \rightarrow 1$
 Model is wrong but $R^2 \approx 1$