a) $\alpha = 0$

price coefficients:

	$\beta = 0$	$\beta = 1$	$\beta = 5$	$\beta = 10$
$\alpha = 0$	−0.98	−0.97	−0.97	−0.98

→ close to −1

price ≠ endogenous, as event does not influence sales directly

R^2:

	$\beta = 0$	$\beta = 1$	$\beta = 5$	$\beta = 10$
$\alpha = 0$	0.79	0.81	0.93	0.98

→ $R^2 \uparrow$ for $\beta \uparrow$

for higher β → variation in sales increases explained by the price

b) $\beta = 0$

price coefficients:

	$\beta = 0$	$\beta = 1$	$\beta = 5$	$\beta = 10$
$\alpha = 0$	-0.98	-0.97	-0.97	-0.98
$\alpha = 1$	-0.97			
$\alpha = 5$	-0.94			
$\alpha = 10$	-0.91			

→ close to -1

price ≠ endogenous, as the event only affects sales, not price

omission of Event ⇏ corr(error, price)

R^2:

	$\beta = 0$	$\beta = 1$	$\beta = 5$	$\beta = 10$
$\alpha = 0$	0.79	0.81	0.93	0.98
$\alpha = 1$	0.72			
$\alpha = 5$	0.24			
$\alpha = 10$	0.08			

$R^2 \downarrow$ for $\alpha \uparrow$

large estimation uncertainty

high α → a lot of variation in sales due to the event

c) $\alpha = \beta = 0, 1, 5, 10$

price coefficients:

	$\beta=0$	$\beta=1$	$\beta=5$	$\beta=10$
$\alpha=0$	−0.98	−0.97	−0.97	−0.98
$\alpha=1$	−0.97	−0.87		
$\alpha=5$	−0.94		−0.27	
$\alpha=10$	−0.91			−0.09

see endogeneity

Omission of Event ⟶ Corr(error, price)

R^2 :

	$\beta=0$	$\beta=1$	$\beta=5$	$\beta=10$
$\alpha=0$	0.79	0.81	0.93	0.98
$\alpha=1$	0.72	0.71		
$\alpha=5$	0.24		0.21	
$\alpha=10$	0.08			0.06