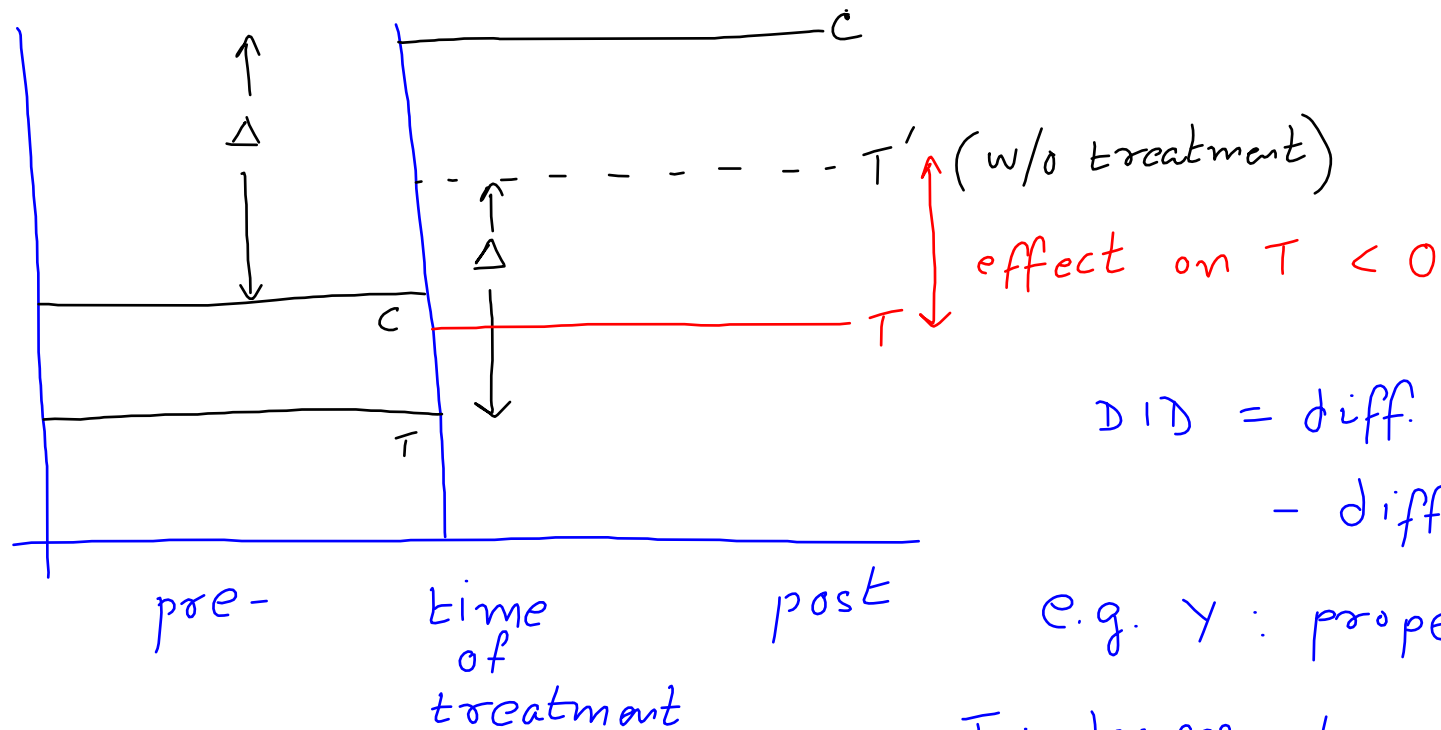


Difference-in-differences (DID)

2 groups $\rightarrow$ treated (T) and control (C)

2 pds. $\rightarrow$ pre- and post-treatment

Y



$$\text{DID} = \text{diff. in } T - \text{diff. in } C$$

e.g. Y : property values

T : houses close to inc.

C : " away

DID estimates often obtained from linear regression models :

$$Y = \beta_0 + \delta_0 \text{post} + \beta_1 \text{treat} + \delta_1 \text{treat} \times \text{post} + u$$

$\downarrow$
 dummy
 post = 1 for
 post-treatment pd.
 0 o/w

$\downarrow$
 dummy
 treat = 1 for T
 & 0 o/w

	Pre	Post	Post - Pre
C	β_0	$\beta_0 + \delta_0$	δ_0
T	$\beta_0 + \beta_1$	$\beta_0 + \delta_0 + \beta_1 + \delta_1$	$\delta_0 + \delta_1$
T - C	β_1	$\beta_1 + \delta_1$	δ_1