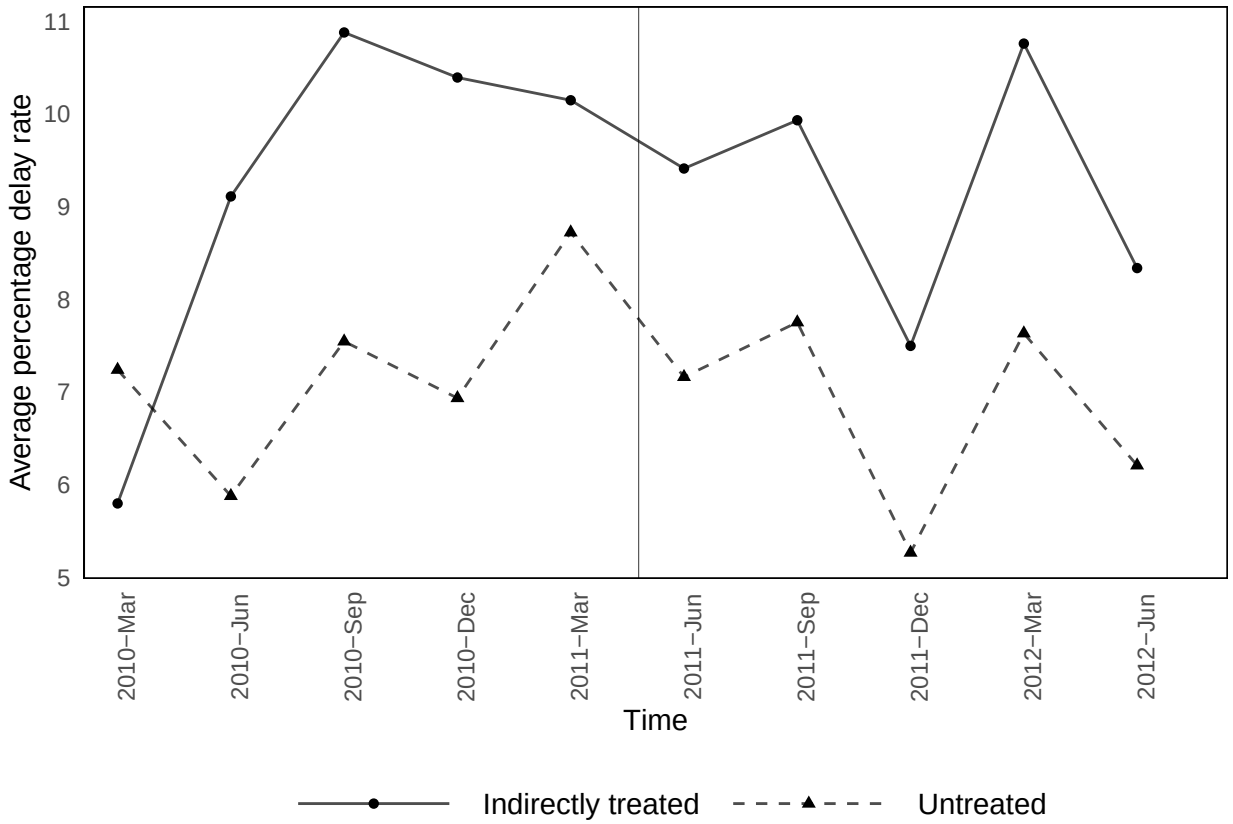
Parallel Trends (Indirectly Treated): QuickPay (2009-2012)

Mar 08, 2023

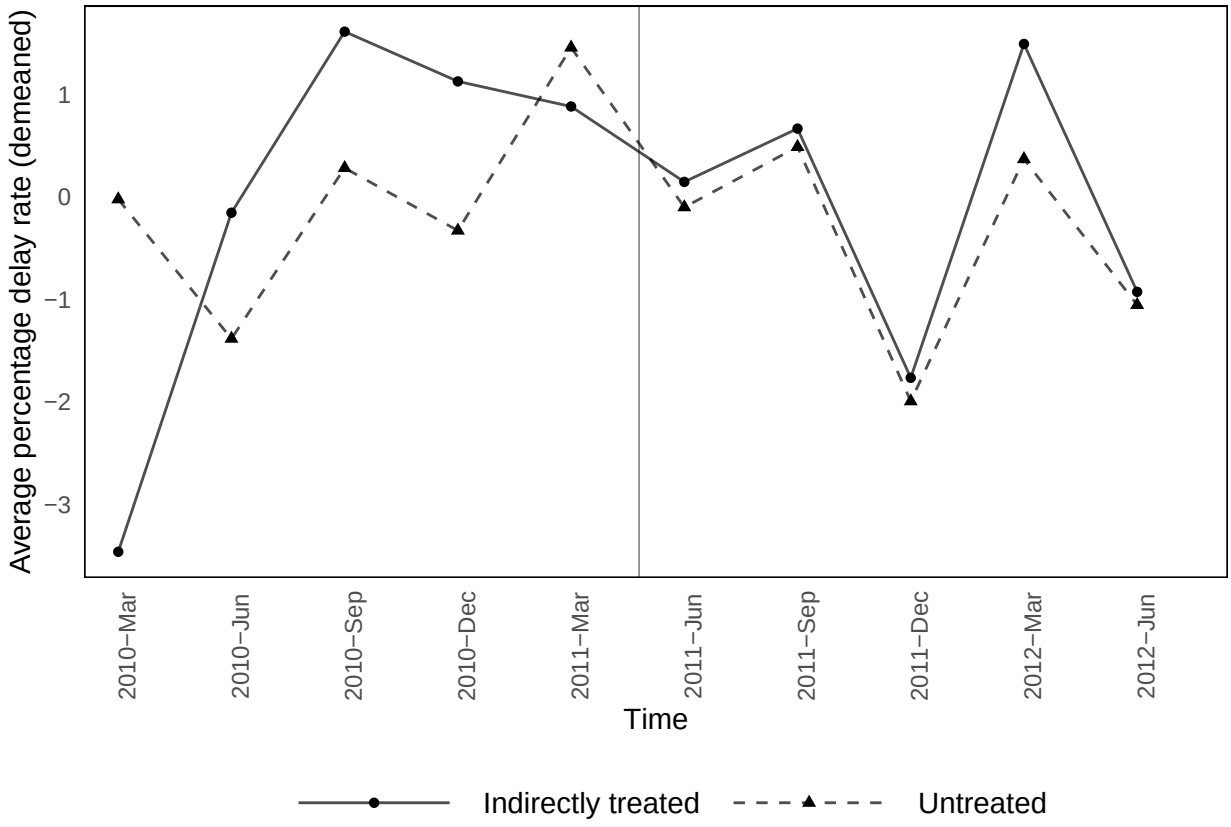
1 Indirectly Treated Projects

- Checking Parallel Trends for Indirectly Treated Projects
- Sample restricted to large projects only. Formally,
- Indirectly Treated = 1 if Treat_i = 0 and Num Small Projects > 0
- Indirectly Treated = 0 if Treat_i = 0 and Num Small Projects == 0
- Indirectly Treated = NaN if Treat_i = 1

1.1 Percentage delay rate



1.2 Percentage delay rate (demeaned)



1.3 Parallel Trends Test

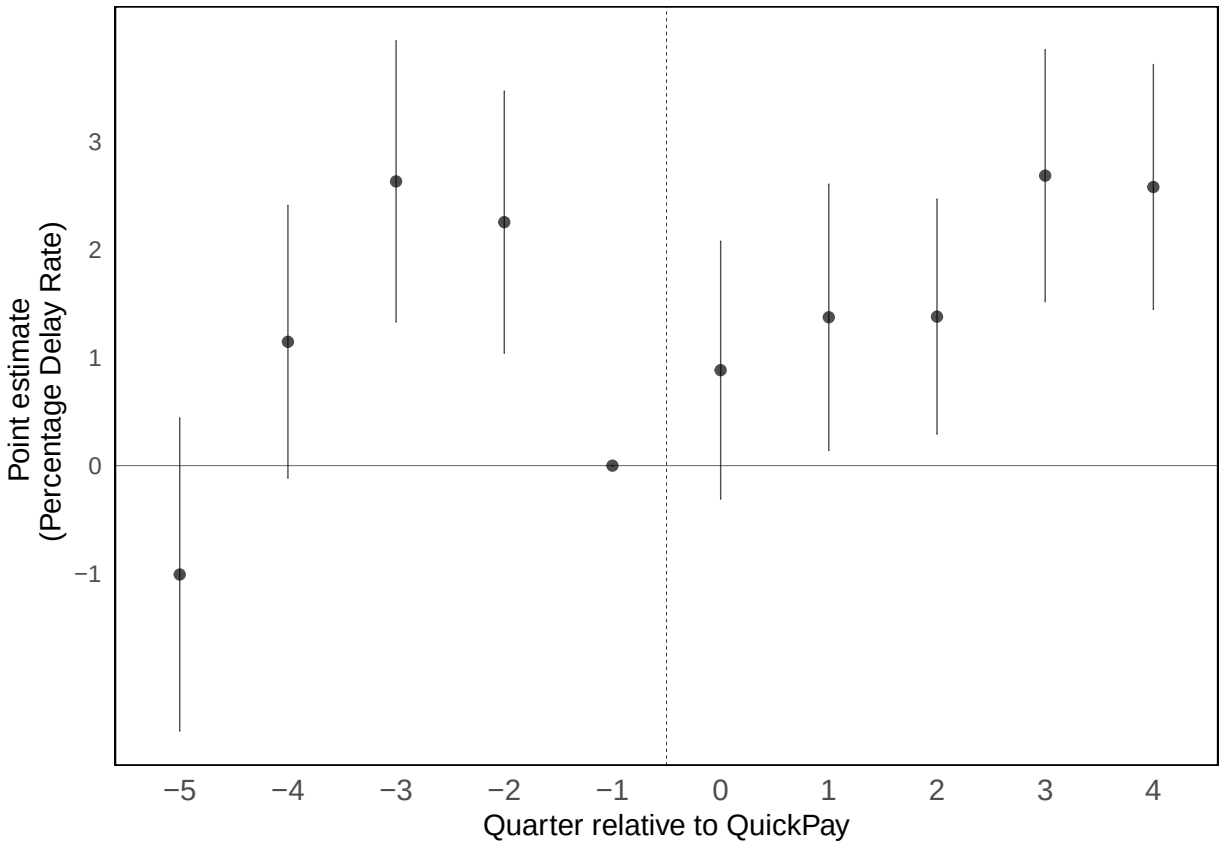
Table 1: Linear Time Trend Before QuickPay

	$PercentDelay_{it}$				
	(1)	(2)	(3)	(4)	(5)
$IndirectTreat_i$	1.61	−0.31	−0.33	1.44*	1.20
	(1.02)	(0.81)	(0.81)	(0.81)	(0.81)
$QuarterNum$	0.53***	−3.94***			
	(0.11)	(0.89)			
$IndirectTreat_i \times QuarterNum$	0.17	−0.14	−0.14	−0.07	−0.03
	(0.21)	(0.17)	(0.17)	(0.18)	(0.18)
Constant	5.04***	97.77***			
	(0.53)	(4.23)			
Duration, Budget, Bids	No	Yes	Yes	Yes	Yes
$Post_t \times$ (Duration, Budget, Bids)	No	Yes	Yes	Yes	Yes
Project stage	No	Yes	Yes	Yes	Yes
Time fixed effects	No	No	Yes	Yes	Yes
Task fixed effects	No	No	No	Yes	Yes
Industry fixed effects	No	No	No	No	Yes
Observations	42,623	40,650	40,650	40,650	40,650
R^2	0.003	0.34	0.34	0.39	0.40
Adjusted R^2	0.003	0.34	0.34	0.38	0.38

Note: *p<0.1; **p<0.05; ***p<0.01
Each observation is a project-quarter.
SEs are robust and clustered at the project level.
Observations are for quarters before quickpay.

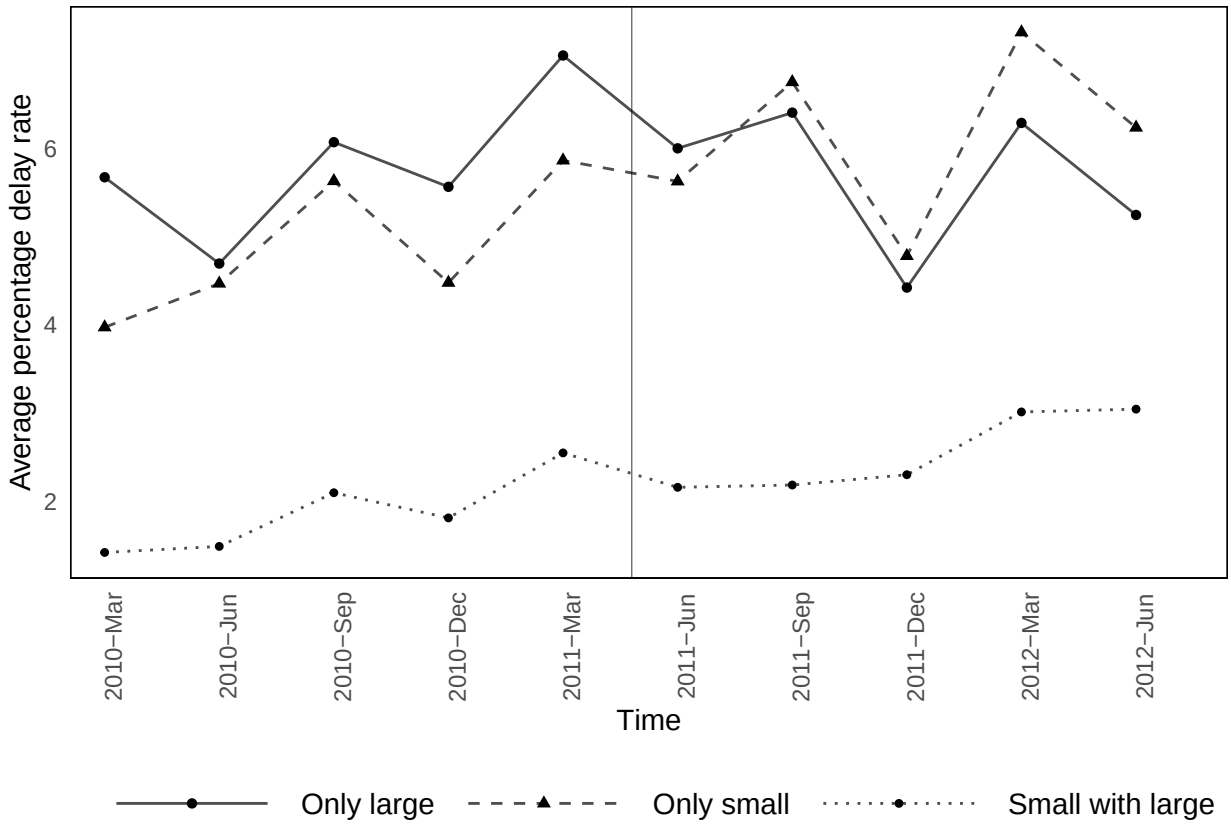
1.4 Event study

$PercentDelay_{it} = \beta_0 + \beta_1 IndirectTreat_i + \beta_2 IndirectTreat_i \times Quarter_t + Controls + \gamma_{task} + \theta_{naics} + \lambda_{quarter} + \epsilon_{it}$



2 Treatment Categories

- Remove indirectly treated large projects.
- Treat Category = "Only small projects" if Treat_i = 1 & Num Large Projects == 0
- Treat Category = "Both small + large projects" if Treat_i = 1 & Num Large Projects > 0


Average percentage delay rate
6
4
2
2010−Mar
2010−Jun
2010−Sep
2010−Dec
2011−Mar
2011−Jun
2011−Sep
2011−Dec
2012−Mar
2012−Jun
Time
Only large
Only small
Small with large

2.1 De-meaned perentage delay rate