

Appendices

Stata- Code used for empirical analysis

```
//First step, introduce excel data and get the data ready

destring A year province D Edu dualcredit KM SubsidyYuan SubsidyYuan
patent Carbonemissiontonkm Carbonemissionton Carbonemission
GDPbillions Valueaddedofthesecondarysec RD FDIbillions FDI10000
FDIGDP IND PD LevelofeconomicdevelopmentGD EC S, replace
encode province,g(Province)
xtset Province year

// Taking logarithms for some data

ln_subsidy=ln(SubsidyYuan+1)
gen ln_CarbonEmission=ln(Carbonemissiontonkm+1)
replace FDIbillions=FDIbillions*100000000
gen ln_FDIbillions=ln(FDIbillions+1)
replace GDPbillions=GDPbillions*100000000
gen ln_GDPbillions=ln(GDPbillions+1)

//Winsorization

winsor2 ln_CarbonEmission ln_FDIbillions ln_GDPbillions ln_subsidy Edu
winsor2 patent
rename ln_CarbonEmission_w lncarbon_w
gen flnsubsidy_w=F.ln_subsidy_w
gen flncarbon_w=F.lncarbon_w
gen fpatent_w=F.patent_w

//Create year dummy and post variable

tab year, gen(year_dummy)
gen post = 0
replace post = 1 if year>=2017
gen timetrend = year - 2017
tab Province, gen(Province_dummy)
```

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gen interaction=flnsubsidy_w*post
// Descriptive statistics
summarize Carbonemissiontonkm patent post timetrend sub
ln_FDIbillions_w EC PD IND Edu ln_GDPbillions_w, detail
// Correlation coefficient analysis
corr lncarbon_w patent_w post timetrend ln_subsidy ln_FDIbillions_w
ln_GDPbillions_w EC PD IND Edu
//VIF test
reg flncarbon_w interaction post timetrend flnsubsidy_w ln_FDIbillions_w
ln_GDPbillions_w EC PD IND Edu_w
vif
// Direct impact H1a
xtnbreg fpatent_w post timetrend ln_FDIbillions_w ln_GDPbillions_w
EC PD IND Edu_w, re iterate(100)
xtnbreg fpatent_w post timetrend ln_FDIbillions_w ln_GDPbillions_w
EC PD IND Edu_w, fe iterate(100)
ppmlhdfe fpatent_w post timetrend ln_FDIbillions_w ln_GDPbillions_w
EC PD IND Edu_w, abs(Province) vce(cluster Province)
// Direct impact H1b
reghdfe flncarbon_w post timetrend ln_FDIbillions_w ln_GDPbillions_w
EC PD IND Edu_w, abs(Province) vce(cluster Province)
xtreg flncarbon_w post timetrend ln_FDIbillions_w ln_GDPbillions_w
EC PD IND Edu_w, fe robust
//Moderating effect H2a
xtnbreg fpatent_w interaction post flnsubsidy_w timetrend
ln_FDIbillions_w ln_GDPbillions_w EC PD IND Edu_w, fe iterate(100)
//Moderating effect H2b
reghdfe flncarbon_w interaction flnsubsidy_w post timetrend
ln_FDIbillions_w ln_GDPbillions_w EC PD IND Edu_w, abs(Province)

```

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vce(cluster Province)

//Event study

xtreg flncarbon_w year_dummy5-year_dummy11 timetrend
ln_FDIbillions_w ln_GDPbillions_w EC PD IND Edu_w, fe robust
xtnbreg fpatent_w year_dummy5-year_dummy11 timetrend flnsubsidy_w
ln_FDIbillions_w ln_GDPbillions_w EC PD IND Edu_w,fe iterate(100)
```