Package: ParallelTrendsPlot (via r-universe)

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Type Package

Title Experimental Package: Plots to diagnose parallel trends in DID regression with additional control variables.

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Description Experimental Package: Plots to diagnose parallel trends in DID regression with additional control variables.

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

Depends restorepoint, glueformula, dplyr, ggplot2

Repository https://skranz.r-universe.dev

RemoteUrl https://github.com/skranz/ParallelTrendsPlot

RemoteRef main

RemoteSha 9d247316b97bd68f7ba6f49af198d9ef218df25d

Contents

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parallel.trends.data	*Creates a data frame used for generating plots to diagnose parallel trends for difference-in-difference regressions with additional control variables*

Description

The resulting data frame can be directly passed to parallel.trends.plot or be used to generate a more customized manual plot.

Usage

```
parallel.trends.data(
  df,
  timevar = "t",
  yvar = "y",
  treatdummy = "treat",
  expdummy = "exp",
  treat_exp_dummy = NULL,
  cvars = NULL,
  extravars = NULL,
  add.no.control = TRUE,
  constant.type = c("means", "zero")[1]
)
```

Arguments

df	The data frame used for the DID regression
timevar	Name of the time variable, e.g. "year"
yvar	Name of the dependent variable
treatdummy	Name of the 0-1 dummy variable indicating whether the observation belongs to the treatment group
expdummy	Name of the 0-1 dummy variable indicating whether the observation is in an experimental period, i.e. a period in which the treatment group gets treatment.
treat_exp_dummy	
	Optional name of the interaction variable treatdummy * expdummy. If not given a column with name "treat_exp_dummy" is added to the data frame.
cvars	Names of the additional control variables used in the DID regression.
extravars	Names of variables that are not used in the regression but shall be included in the returned data frame.
add.no.control	If TRUE (default) add rows that are used for a parallel trends diagnostic plot that assumes that no control variables are added.

Value

A data frame that can be passed to parallel.trends.plot. Essential columns are .t, .y, .group, .exp, .mode. Note that the data frame only contains rows that have no NA for the specified columns.

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parallel.trends.plot	*Generates plots to diagnose parallel trends for difference-in-difference regressions with additional control variables*

Description

Generates plots to diagnose parallel trends for difference-in-difference regressions with additional control variables

Usage

```
parallel.trends.plot(
  pt.dat,
  facet.mode = ".mode" %in% colnames(pt.dat),
  add.exp.line = c("first", "all", "none")[1],
  exp.line.opt = list(color = "black")
)
```

Arguments

pt.dat	A data frame as returned by the function parallel.trends.data
facet.mode	If TRUE generate a facet plot with one facet for trends of control group and experimental group with and without correction of the control variables
add.exp.line	How shall vertical lines be added to indicate the experimental periods? "first" means a line at the first experimental period, "all" means a line at all experimental periods. Use "none" to add no lines
exp.line.opt	Arguments passed to geom_vert to customize the vertical lines.

Value

A ggplot object

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