



# Network Analysis: Bilateral Investment Treaty Violations

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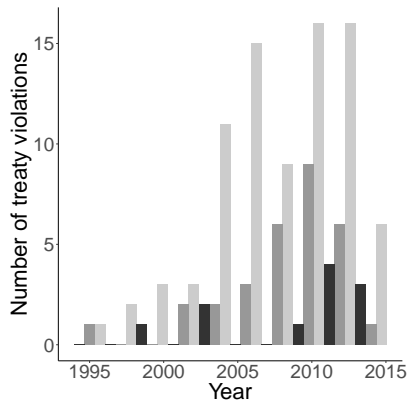
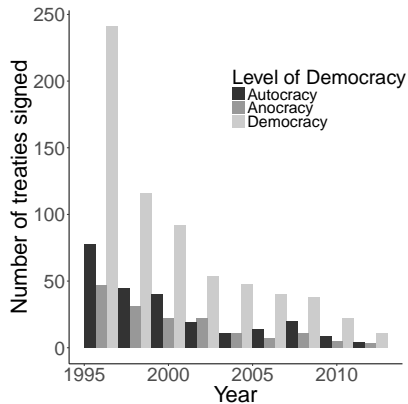
## Investment treaty data: Basic overview.

```
1 # show biggest "suers" (origin country of plaintiff)
2 head(sort(rowSums(BITadjMatTotalMatrix), decreasing = T))
3 # show biggest violators (countries that pass potentiall
  expropriating policies)
4 head(sort(colSums(BITadjMatTotalMatrix), decreasing = T))
```

United States	United Kingdom	Spain	Venezuela	Italy	Turkey
38	30	15	13	12	10

Argentina	Netherlands	Ecuador	Germany	Czechslovakia	Italy
33	13	12	11	10	10

Empirically, democracies sign, and violate, investment treaties more frequently (and importantly, more disproportionately).



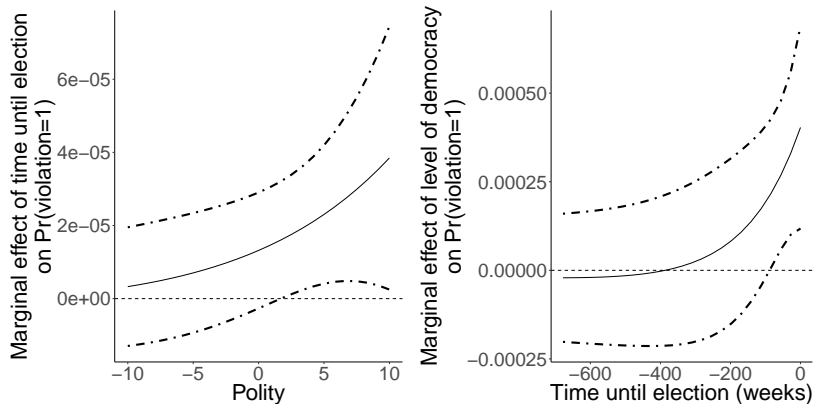
Puzzle: Why?

If elections are what make democracies democratic, and democracies are good treaty partners, then lack of elections should increase violations?

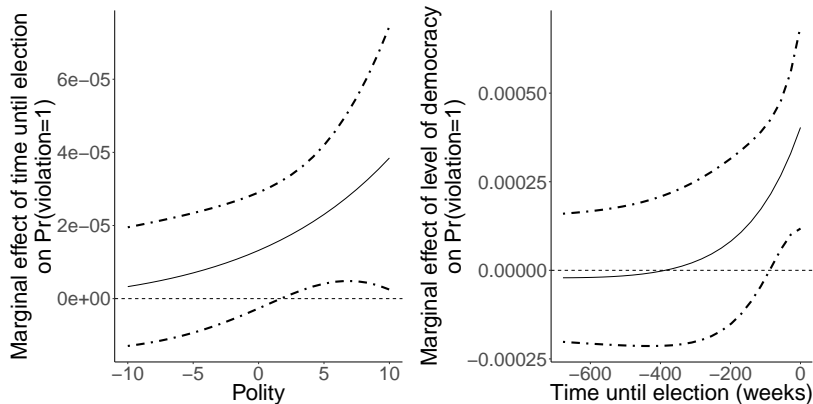
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NO!

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Maybe arbitration timing is strategic (i.e.  $\rightarrow$  elections), and litigation is driven by the relationship between the two countries involved in the treaty?

## Investment treaty network: Network overview.

```
1 # check proportion of present edges from all possible edges in  
  the network.  
2 # for a directed network  
3 ecount(yGraph)/(vcount(yGraph)*(vcount(yGraph)-1))  
4 # very little violations in general, so unsurprising
```

```
[1] 0.01820728
```

```
1 reciprocity(yGraph)  
2 # doesn't seem like passing expropriating policies  
3 # leads to other countries to sue, and then pass expropriating  
  policies
```

```
[1] 0
```



# Investment treaty network: Latent Distance Model.

