

A and B Evidence from C

Your Name

March 16, 2020

Outline

1. Introduction
2. Background
3. Data
4. Empirical strategy
5. Results
6. References

Introduction

- ▶ Creating slides using Beamer look difficult but actually simple and easy.
- ▶ Another advantage is that we can save time organizing font size, style, etc.

Background

- ▶ There are numerous ways to change the style in Beamer¹.
- ▶ For example, this website introduces several themes.

¹footnote is also available

Background: Historical development in Japan

- ▶ Japan's history is (Donaldson and Storeygard 2016).

Econometric Model (tentative) I

- Fixed effects regression: at the province level to control for time- and cluster-invariant trends.

$$Y_{itj} = \beta_0 + \sum_{c=-2}^2 \beta_c loss_{tj} + \gamma X1_{itj} + \theta X2_{0j} \times D_t + \alpha_t + \alpha_j + \epsilon_{itj}$$

- Y_{itj} refers to a health outcome for child i in DHS year t in cluster j (HAZ or incidence of dengue)
- Forest loss is defined as a change from a forest to non-forest state, as either 1 (loss) or 0 (no loss)
- There are five forest loss variables: forest loss two years before birth ($loss - 2$), one years before birth ($loss - 1$), in child's year of birth ($loss0$), one year after birth ($loss + 1$), and two year after birth ($loss + 2$)
- β_c provides estimates of the effect of forest loss for two year before and two year after child's year of birth.

Econometric Model (tentative) II

- ▶ $X1_{itj}$ is a vector of control variables that affect to health outcome.
- ▶ $X2_{0j}$ is a vector of cluster-level variables at the initial period.
- ▶ D_t is a time dummy.
- ▶ $X2_{0j} \times D_t$ allow clusters with different initial values to have different time trends.
- ▶ ϵ_{itj} is the error term.

Future Research

- ▶ Get Landsat (forest loss) data and calculate the annual forest loss for each DHS cluster among the periods.
- ▶ Combine them with DHS datasets.

Future Research, ctd

- ▶ Given that location of forest loss is potentially nonrandom and confounding economic trends may be associated with health outcomes.
- ▶ For example, economic development and urbanization in particular have also been linked to deforestation (Greenstone and Jack 2015).
- ▶ Nighttime light from cities or towns have been found to be a proxy for economic activity (if data quality is low) (Donaldson and Storeygard 2016).

References I

Donaldson, Dave, and Adam Storeygard. 2016. "The View from Above: Applications of Satellite Data in Economics." *Journal of Economic Perspectives* 30 (4): 171–98.
<https://doi.org/10.1257/jep.30.4.171>.

Greenstone, Michael, and B. Kelsey Jack. 2015. "Envirodevonomics: A Research Agenda for an Emerging Field." *Journal of Economic Literature* 53 (1): 5–42. <https://doi.org/10.1257/jel.53.1.5>.