Summary

- Submarine cables are undersea digital bridges that allow ideas and information to move across space.
- Submarine cables are expensive infrastructure investments and their high costs raise the question about their economic returns, especially in developing countries.
- Namely, do submarine cables stimulate the trade in services and hence facilitate economic diversification in connecting countries?
- Using a novel data set for connecting the world countries by submarine cables, this study considers the variation in the number of submarine cables as well as the timing of connection to identify the effects of submarine cables.
- To deal with endogeneity, two novel instruments are developed.
- The results confirm that submarine cables stimulate services trade in some sectors.
- Benefits to developing countries are higher where more sectors expand their services trade and no sectors lose.

Methodology

- Estimate the following equation using panel data econometrics:
  \[ \ln(\text{trade}_{it}) = \beta_0 + \beta_1\ln(N\text{Cable}_{it}) + \beta_2\ln(GDP_{it}) + \beta_3\ln(goods\text{ trade}_{it}) + \beta_4\ln_Remoteness_{it} + \beta_5\ln(GA\text{T}_{it}) + \beta_6\ln(Rule\ of\ Law_{it}) + \mu_i + \eta_t + \epsilon_{it} \]
  
- In the above equation: I stands for exporter, t stands for year
- But endogeneity may be a problem for instance due to reverse causality:
  
  Data

- Raw submarine cables is obtained from TeleGeography.
- World services trade data are obtained from the OECD (OECD-WTO BATS Database).
- Other control variables are obtained from the World Bank and CEPII.

Results

- Submarine cables are the cheapest, most reliable, and efficient way to connect countries to broadband internet.
- Submarine cables lead a large drop in broadband prices.
- This paper finds evidence that submarine cables lead to higher trade in services especially in developing countries.
- This suggests a catch-up effect and higher gains from laying submarine cables in developing countries.

Conclusions