Econ 280 - Computation project

MUKUL GUPTA

October 2025

1 Replication

Paper: Alfaro, Laura & Chanda, Areendam & Kalemli-Ozcan, Sebnem & Sayek, Selin, 2004. "FDI and economic growth: the role of local financial markets," Journal of International Economics, Elsevier, vol. 64(1), pages 89-112, October

Research Question: The paper examines whether higher financial development (e.g., credit availability, market liquidity) amplifies FDI's impact on growth, i.e. whether countries with better financial systems can exploit FDI more efficiently. The paper uses cross-country data from 1975-1995 and leverages an empirical strategy (described below) to argue that countries with higher financial development (measured by availability of credit & financial markets liquidity) witnessed a larger impact of FDI on growth.

2 Empirical Strategy

The empirical strategy will involve the following steps:

1. Compile data on financial development indicators from the World Bank Financial Structure Database, country-level metrics from World Bank World Development Indicators, and control variables (e.g., demographics, political risk ratings) from multiple sources for a panel of 56 countries.
2. Examine the causal relationship between FDI & economic growth:

   The paper runs the following regression (one for each of the six Finance variables):

   $$GROWTH_i = \beta_0 + \beta_1 FDI_i + \beta_2 FDI_i * FINANCE_i + \beta_3 FINANCE_i + \beta_4 CONTROLS_i + \epsilon_i$$

   Dependent variable: Year-on-Year real per capita GDP growth for country i
   Key Independent variable: FDI as a share of GDP for country i

   Finance: List of key financial development indicators for country i:

   - Liquid liabilities of the financial system (LLY): equals currency plus demand and interest bearing liabilities of banks and non- financial intermediaries divided by GDP.
   - Commercial-central bank assets (BTOT): equals the ratio of commercial bank assets divided by commercial bank plus central bank assets.
   - Private sector credit (PRIVCR): equals the value of credits by financial intermediaries to the private sector divided by GDP.
   - Bank credit (BANKCR): equals the credit by deposit money banks to the private sector as a share of GDP (it does not include non-bank credit to the private sector).
   - Stock market liquidity (SVALT): measured as the value of stock trading relative to the size of the economy

- Capitalization (SCAPT): average value of listed domestic shares on domestic exchanges in a year as a share of the size of the economy (the GDP).

Controls: Initial GDP, Schooling, population growth, Government consumption, regional dummys, inflation, trade volume, institutional quality etc.

3 Structure of the dataset

1. **World Bank Financial Structure Database:** Provides data for all financial development indicators
2. **World Bank World Development Indicators:** Provides data for annual per capita GDP, FDI, investment, consumption, and several controls
3. **Institutional quality data:** From International Country Risk Guide (ICRG)

4 Replicating figure 1 from the paper

A scatter plot of FDI as a share of GDP and Private Credit as a share of GDP. Each dot represents a country's average real per capita GDP growth between 1975-1995 and the average private credit as a share of GDP for the same period. The scatter plot indicates that both variables are positively correlated.

Figure 1: FDI and Private Credit as a share of GDP