Firms, Investors, and Global Capital Allocation

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Global Capital Allocation: Concepts

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Global Capital Allocation

The basic question of how capital is allocated globally

Who gets it? Who provides it? Which risks are shared? Which new risks are created?

▶ Benefits:
  ▶ Transfer capital from savers to productive users
  ▶ Share risks, diversify
  ▶ Equilibrate exchange rates, safe interest rates, cost of capital

▶ Problems:
  ▶ Capital flights, crises, and endogenous amplification of risks
  ▶ Unequal access to capital: global capital markets not a level playing field
  ▶ System can be gamed: multinationals and tax havens
Why do we care about allocating capital

- Suppose countries (or firms) \( i \) and \( j \) have the same production technology: \( f(A,K) \)

- But \( K_j < K_i \). Should capital flow from \( i \) to \( j \)? Does it in practice?

- If \( f' > 0 \) and \( f'' < 0 \) and the cost of capital \( R \) is positive, then one simple prediction is yes, until the marginal product of capital is equalized

- A simple frictionless benchmark: global capital should be allocated to those countries and firms that are more productive and have a lower capital stock
So Many Interesting Issues Start From Here

- **Risk**: what if the two investments differ in risk ex-ante?

- **Wasteful default and expropriation**: maybe returns to capital depend on identity of investor

- **Frictions**: capital is largely allocated by institutional investors (mutual funds, banks), firms (foreign direct investment), and governments (official flows). What are their objectives?

- **Firm ability to raise capital**: raising capital comes with costs beyond the variable user cost. Fixed costs: accounting systems, roadshows to familiarize investors, lawyers and bankers
Global Risk Sharing: The Frictionless Benchmark

- Frictionless benchmark of world CAPM:

  *We all hold a safe asset and the world portfolio of all risky assets*

- Some assets are not traded (e.g. my future labor earnings) \(\Rightarrow\) tilt my portfolio toward assets that are negatively correlated with my risks

- As we’ll see...the data are very far from this: home-country and currency bias
Theories of Deviations from Frictionless Benchmark

My investment allocation is driven by covariance of investments with my sources of risk

\[ \text{Cov}(M_{t+1}, R_{t+1} | \tau_t | I_t) \]

1. **Information Frictions:** e.g. I might have better information on investments that are closely related to me (same country, my same industry)

2. **Transaction costs:** e.g. I might receive lower returns on some assets than others (expropriation risk for foreign investors)

3. **Different (Perceived) Sources of Risk:** benchmark frictionless model has misspecified risk, maybe domestic assets in domestic currency are a good hedge for my risks
Duality Between Investor and Firm Problem

- Stock of assets is not constant. Firms and government choose what to issue.

- If investors have biases and markets are effectively segmented, firms and governments might cater to the biases to reduce cost of capital.

  *If U.S. investors only want to buy assets in dollars, European firms might issue bonds in dollar to tap into U.S. supply of capital.*

- Unequal access: only large firms might have the economic ability to issue in multiple currencies. Global market dominated by large firms.

- What are the distributional consequences of opening up the capital account?
The Role of Government in Global Risk Sharing

- Governments are a large part of global capital allocations:
  - Private market: sovereign debt borrowers, investors via sovereign wealth funds
  - Official market: development aid, but also strategic investment (Marshall plan, China Belt and Road Initiative)

- Key role of government in the provision of “safe assets”:
  - The International Monetary System is fundamentally about the creation of safe assets in a world with plenty of risky assets
  - U.S. and the dollar are current hegemon, but the system is not static
A Short History of the International Monetary System

1870

1920

WWI

1923

Keynes

Gold Scarcity

Genoa Conference

Gold Standard

1931

Gold Exchange Standard £ & $

Britain Goes off Gold

1933

US Goes off Gold

Bretton Woods Conference

1944

Bretton Woods $

1971

Nixon Shock

US Floats Against Gold

1973

Floating Exchange Rates $"n

1920

WWI

1931

1933

1944

1971

1973

Keynes Gold Scarcity (1923)

Nurkse Instability (1961)

Triffin Dilemma (1961)

Kindelberger World Banker (1961)

Eichengreen Multipolar World? (2011)

Source: Farhi Maggiori (2018)
International Role of a Currency

- Dollar used in capital allocations that do not involve the U.S. as lender or borrower

- Some important consequences:
  - Outsized role of U.S. monetary policy in global transmission
  - Large distributional effects of the dollar exchange rate, e.g. original sin
  - Complementarity with firms’ pricing decision in good markets
  - Advantages and disadvantages for the U.S. economy
Capital Flights and Crises

Four generations of models:

1. Foreign capital attacks a currency peg when country has insufficient reserves

2. Multiple equilibria, attacks can come out of the blue as foreign capital vastly exceeds country resources
   
   Motivated by ERM crisis of early 1990s

3. Currency balance sheet mismatches endogenously lead to a crisis
   
   Motivated by Asian financial crisis of 1997

4. Foreigners are "flighty" and imperfect substitute to domestic investors
   
   Motivated by sudden stops and EMs central bank practitioners
Unwanted Capital Flows: Theory

Recent theoretical work focused on reasons we should tame capital flows:

▶ Some important externalities:
  ▶ Pecuniary: agents do not internalize the effect of their actions on market prices (e.g. capital flows move exchange rates)
  ▶ Demand: agents do not internalize the effect of their spending on aggregate demand and supply (e.g. my spending on goods creates labor demand for you)
  ▶ Network: agents do not internalize the effect of their financial linkages on overall system stability

Optimal policy can involve:
  ▶ Capital controls
  ▶ Foreign exchange intervention
  ▶ Financial regulation

All these policies have one thing in common: the need to know who owns what
Unwanted Capital Flows: Policy

- Central bank practice in emerging market was long ahead of theory
- Only recently the IMF moved its stance on capital controls and FX intervention
- The empirical evaluation of these policies still in its infancy
- Similarly, central banks and regulators now have lots of micro data. How should it guide policy? An exciting set of issues for research
References


