

Discussion of Caballero and Simsek,
“A Model of Fickle Capital Flows and
Retrenchment: Global Liquidity Creation and
Reach for Safety and Yield”

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Standard View (Straw Man) _____

- Suppose volatile and low asset prices detrimental
- Volatile capital flows can generate large drop in asset prices and increase volatility
- Optimal to limit capital flows

This Paper

- Suppose volatile and low asset prices detrimental
- Outflows of foreign capital generates drop in asset prices
- “Retrenchment” of domestic capital abroad keep asset prices up
- Optimal cooperative policy does not limit capital flows
- Uncooperative policy: Taxing inflows from foreigners to maximal extent

My Discussion

- Review model and main mechanism
- Capital controls are about net flows, not gross flows
- What makes capital flows fickle?
- Read European debt crisis through lens of model

Environment

- $t = 0, 1, 2$
- Continuum of countries, individual shock $\omega_i \in \{0, 1\}$
- Agents:
 - Active investors:
 - Preferences: $\mathbb{E}[u(c_0) + c_1 + c_2]$
 - Endowed with one unit consumption good, η_i units risk free asset, can invest to create risky asset at $t = 0$
 - Passive entrepreneurs:
 - Preferences: $\mathbb{E}[c_2]$
 - Endowed with one unit risky asset at 1
- Assets:
 - Risky asset: pays R at 1 if $\omega_i = 1$ and get R at 2 if $\omega_i = 0$
 - Risk free asset: pays 1 at 1

Active Investor's Problem

$$\max u(c_0) + \sum_{\omega} \pi(\omega)[c_1(\omega) + c_2(\omega)]$$

subject to

$$c_0 + x_{loc} + x + qy = 1 + q\eta$$

$$c_1(1) = x_{loc}R + [\pi p + (1 - \pi)R] + y, \quad c_2(1) = 0$$

$$c_1(0) + px'_{loc} = x_{loc}R + [\pi p + (1 - \pi)R] + y, \quad c_2(0) = x'_{loc}R$$

Individually Optimal to Invest Abroad Only _____

If $p < R$ then optimal to have $x_{loc} = 0$

- Let $MV(\omega)$ be marginal value of wealth at $t = 1$
 - If no crisis: $MV(1) = 1$
 - If crisis: $MV(0) = \frac{R}{p} > 1$; good investment opportunities in crisis
- Foreign investment pays relatively more when have good new investment opportunities

$$\text{Cov}(\text{return on } x, MV(\omega)) > \text{Cov}(\text{return on } x_{loc}, MV(\omega))$$

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- **Is it socially optimal or capital controls beneficial?**

Equilibrium Price Determination

- Let \bar{x} : foreign inflows at 0
- Let x : domestic outflows at 0
- Market clearing, $x'_{loc} = \bar{x} + x_{loc} + e$, and budget constraint

$$c_1(0) + px'_{loc} = x_{loc}R + [\pi p + (1 - \pi)R + y] \Rightarrow px'_{loc} = \text{active wealth}$$

give

$$p = \frac{\text{active wealth}}{e + \text{foreign selling}} = \frac{\eta + x[\pi p + (1 - \pi)R + x_{loc}p]}{e + \bar{x}}$$

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- More foreign inflows at 0 decrease price at 1 in crisis

$$\bar{x} \uparrow \Rightarrow p \downarrow$$

- Domestic outflows at 0 + retrenchment have opposite effect

$$x \uparrow \Rightarrow p \uparrow$$

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- Imposing symmetry

$$p = \frac{\eta + x(1 - \pi)R}{e + x(1 - \pi)}$$

- Since $R > 1$: higher x increases p

Cooperative Policy: No Capital Controls _____

$$\max \lambda \sum \pi(\omega)[ep(\omega)] + (1 - \lambda) \left\{ u(c_0) + \sum_{\omega} \pi(\omega)[c_1(\omega) + c_2(\omega)] \right\}$$

subject to implementability conditions (active budget constraints and euler equations) and

$$p(0) = \frac{\eta + x(1 - \pi)R}{e + x(1 - \pi)}$$

- Since p increasing in x no restrictions to inflows

With Asymmetric Countries: Controls May Be Optimal

- Suppose two groups of countries: DM and EM
- EM have higher returns: $R^{EM} > R^{DM}$
- Price in EM:

$$p = \frac{\text{active wealth}}{e + \text{foreign selling}} = \frac{\eta + x^{DM}[\pi p + (1 - \pi)R^{EM} + x_{loc}p]}{e + \bar{x}^{EM}}$$

- Since higher returns, \bar{x}^{EM} larger than x^{EM} so it may be optimal to impose some restrictions on inflows

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- **Key lesson:**
Capital controls are about net flows, not gross flows

Non-Cooperative Policy

$$p = \frac{\eta + x[\pi p + (1 - \pi)R]}{e + \bar{x}}$$

- Still optimal to have outflows, $x_{loc} = 0$ if $p < R$ and no restrictions imposed by other countries
- But want to limit inflows to push up p
- Equilibrium: every country set controls on inflows so x low

Welfare Relative to “Stable” Economy ---

Contrast allocation with crisis to one without

- Over-investment

$$u'(1-x) = (1-\pi)[(1-\pi)R + \pi p] + \pi \frac{R}{p} [(1-\pi)R + \pi p] > R$$

- Active investors are better off with crisis
- They obtain large return in crisis

How to Think About Causes of Volatility of Capital Flows?

- Two types of agents:
 - Passive-unsophisticated investors: invest mainly domestically (home bias), think of entrepreneur in paper
 - Active-sophisticated investors: small number but marginal
- Theory:
 - Randomness in passive-unsophisticated understandable
 - Can you get similar results with shocks to e ?
 - But active-sophisticated?
 - Existing theories of non-fundamental fluctuations in capital flows do not fit into story
 - Coordination problem (Cole-Kehoe), no differential returns
 - Information?
- Data:
 - Do sophisticated investors increase exposure to asset in crisis?
 - Do sophisticated investors realize high returns in crisis?

Example: European Crisis

- Pre crisis:
 - Flows into Southern Europe (SE) from Northern Europe (NE)
 - SE banks diversified their portfolios
- During crisis (suppose it is not about fundamentals)
 - NE banks sell SE bonds
 - SE banks increased their exposure to domestic gov't debt
 - Retrenchment keep prices for going too low

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 - Retrenchment keep prices from going too low
- NE banks irrational? What account for differential behavior?
 - Financial repression (Chari, DAVIS, Kehoe)
 - Better treatment of domestic residents (Broner, Martin, Ventura)

But main mechanism still operating: if SE banks invested in SE bonds lower net-worth so lower prices in crisis

Effect of Flows on Prices: Net vs. Gross ---

Standard macroprudential principle:

Inflows ex-ante influence asset prices ex-post

- Initial inflows allow gov't to increase debt
- This set up premises for crisis
- Paper abstracts from this channel

Effect of Flows on Prices: Net vs. Gross _____

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- But net flows matter (asymmetric case)
- If SE banks invested in SE bonds lower net-worth so lower prices in crisis

Conclusion

- Nice paper
- Makes stark point about how retrenchment is stabilizing
- Capital controls are about net positions not gross ones
- Understand reason behind fickleness of capital flows
(taken as given here)