Internationalizing Like China

by Clayton, Dos Santos, Maggiori and Schreger

Discussion by

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The Paper in a Nutshell

- Analysis of the opening-up process of China's domestic bond market
- Document slow/gradual regulatory change + foreign capital inflow
- Rationalise facts with dynamic model of opening-up and reputation-building
- Test model on time series measure of reputation, extend model to competition

Impressive paper! I learned a lot

Facts

- Gradual relaxation of cost of access to onshore market for past 20 years
  1. fast growth of inflows in 2010s
  2. deliberate selection on investor type
- Process not without setbacks (2015-16 & 2022-?)
- Focus on gov't bond market
  $\rightarrow$ *currency dominance requires supply of safe & liquid govt liabilities*

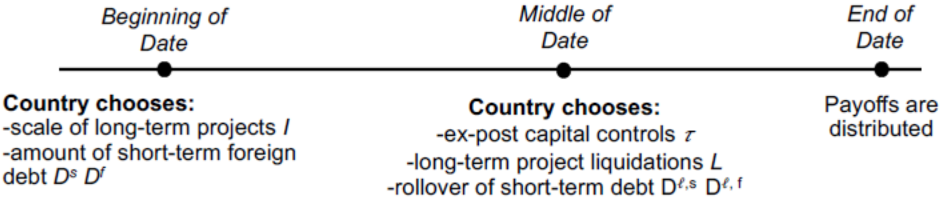
Model

- Dynamic reputation model à la Phelan (2006), Amador and Phelan (2021)
- Government may impose ex-post capital controls
- Domestic bank
  - uses foreign short-term debt to fund long-term investment
  - rolls debt over s.t. collateral constraint & costly liquidation
- Foreign investors (s, f)
  - downward-sloping price schedule

$$D = \frac{R\,\mathbb{E}[1-\tau \mid M] - \overline{R}}{\kappa} \qquad \Leftrightarrow \qquad R = \frac{\overline{R} + \kappa D}{\mathbb{E}[1-\tau \mid M]}$$

  - require collateral to roll debt over (tighter if f)
  - price expected capital outflow tax τ & reputation M

Model Timing



Optimal Policy

Committed government

- maximises domestic bank's payoff
- letting in flighty investors
  - $\downarrow$ net worth multiplier and leverage (ceteris paribus)
  - $\uparrow \times 2$ inflows at same marginal R (which depends on M)

  $\Rightarrow$ opening-up threshold M^*

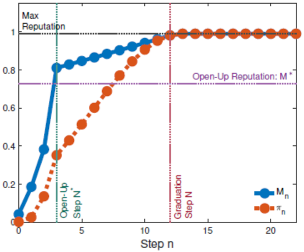
Opportunistic government trades off of imposing capital controls

- $\uparrow$ current payoff
- $\downarrow$ continuation value of losing all its reputation after revealing its type

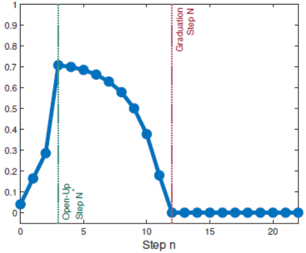
$\Rightarrow$ graduation step Markov equilibrium

- opening-up to f makes reputation $\uparrow\uparrow$ (haircuts $\uparrow$ means benefit from capital controls $\downarrow$)
- when reputation is high, *graduation*: opportunistic gov't reveals its type

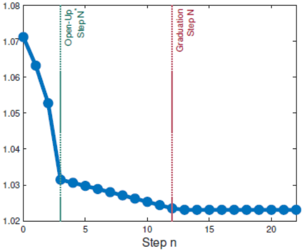
Graduation step Markov equilibrium



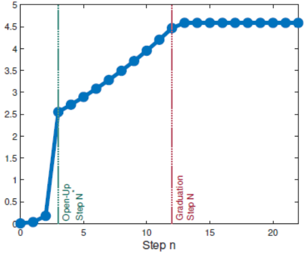
(a) Reputation M and Beliefs π



(b) Mimicking Probability m



(c) Interest Rate R



(d) Debt Issuance D

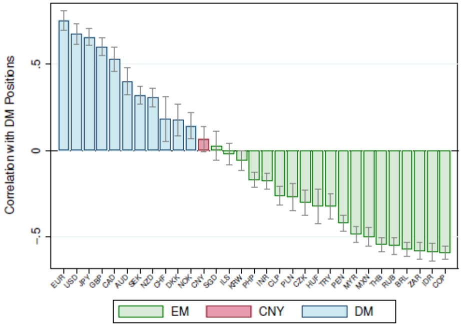
Measuring Reputation

- They measure

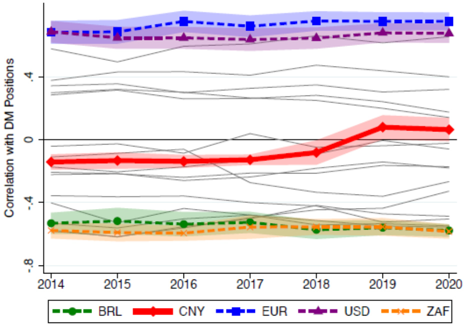
$$\rho_{C,\mathrm{DM}} := \mathrm{corr}_i(\alpha_{C,i}, \alpha_{\mathrm{DM},i})$$

- In the model, for a pair of countries C, C'

$$\rho_{C,\mathrm{DM}} > \rho_{C',\mathrm{DM}} \quad \Leftrightarrow \quad M_C > M_{C'}$$



(a) Cross-Section of Estimates in 2020



(b) Time Series

Bottomline

- Application of dynamic reputation model to heterogeneous buyers/lenders
- Extensions: competition among currency issuers, two-way capital flows
- **Big, main question: is this the right model/story for China?**

Is this the right story for China?

- Yes, for the 2015-16 mini-crisis episode
  - model step $\approx$ crisis, interval between steps $\approx$ good times where nothing is learned
  - China resisted imposing controls on capital outflows for foreigners (but did take other measures)
  - consistent with evidence on investors' worries over outflow controls
  - capital quickly flew back in afterwards

- Not sure, for remaining period
  - Model is a story about demand & endogenous debt constraints
  - China would like to borrow lots, does not because of bad reputation
  - Facts point to voluntary, ex-ante closedness to inflows
    $\rightarrow$ *capital controls as "walls" or "gates" (Klein 2012)*

Internationalisation Tradeoff

- Why so closed, for so long?
  - FX management & independent monetary policy
  - macro-prudential approach to under-developed financial system
    - → RMB ranks low (relative to country size) in FX/gov't bond turnover & liquidity, debt denomination, global payments (Eichengreen et al. (2017))

- Tradeoff between
  (1) currency internationalisation & financial openness
  (2) policy control/independence, financial stability

- Balance shifting towards (2), but what's the (main) driver?
  - market-based financial sector develops
  - gross borrowing needs $\uparrow$
  - **this paper**: reputation $\uparrow$ $\Rightarrow$ time-series evidence on portfolio shares correlation

Reputation and DM flows

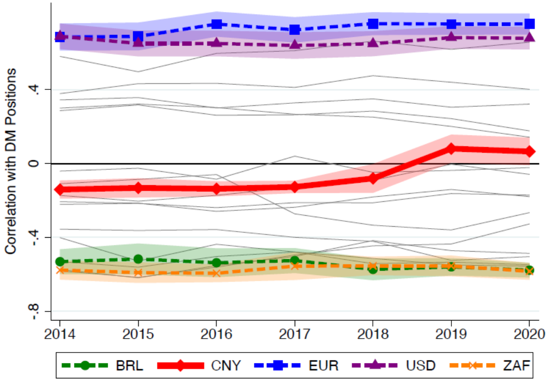
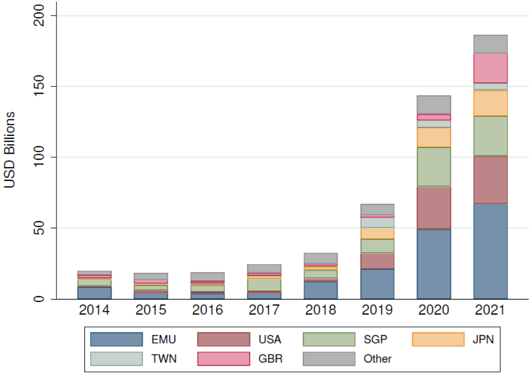


Figure A.I: Geography of Private Holders of Renminbi Bonds



Further (minor) comments

- Model works well for alternating, myopic governments that lack commitment
  - natural framework to study default/depreciation
  - can we apply it to stable, forward-looking Chinese government?
    - slow, careful opening-up policy may suggest otherwise

- Flighty investors modelled with larger haircuts
  - how close is this to the "fickle" capital flows in Caballero and Simsek (2018)?

Conclusion

Brilliant paper!

- Tractable yet insightful dynamic reputation model
  - consistent with facts on gradual opening-up & China's "graduation" from EM
- Important, granular data on staggered investor entry & portfolio weights
- Challenge remains to tell this story apart from others