Frankfurt School
FS-UNEP Collaborating Centre
for Climate & Sustainable Energy Finance

Will Crowdfunding Contribute to Financial Development in Developing Countries?

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Background & Approach

Background: Discussion with Policymaker

- Rising popularity of crowdfunding ("Democratization" of fund raising (e.g. Harrison 2013) and Financial Crisis (e.g. Bruton et al. 2015))
- CF as a chance to "leapfrog" banks and other institutions in the context of financial system development (e.g. World Bank 2013)

- Our understanding of CF: direct & uncollateralized lending without a financial intermediary

Our Approach: Analysis based on literature

- CF Industry trends
- Modern Banking Theory

So far: unlikely that this "leapfrogging" will happen

Main Findings

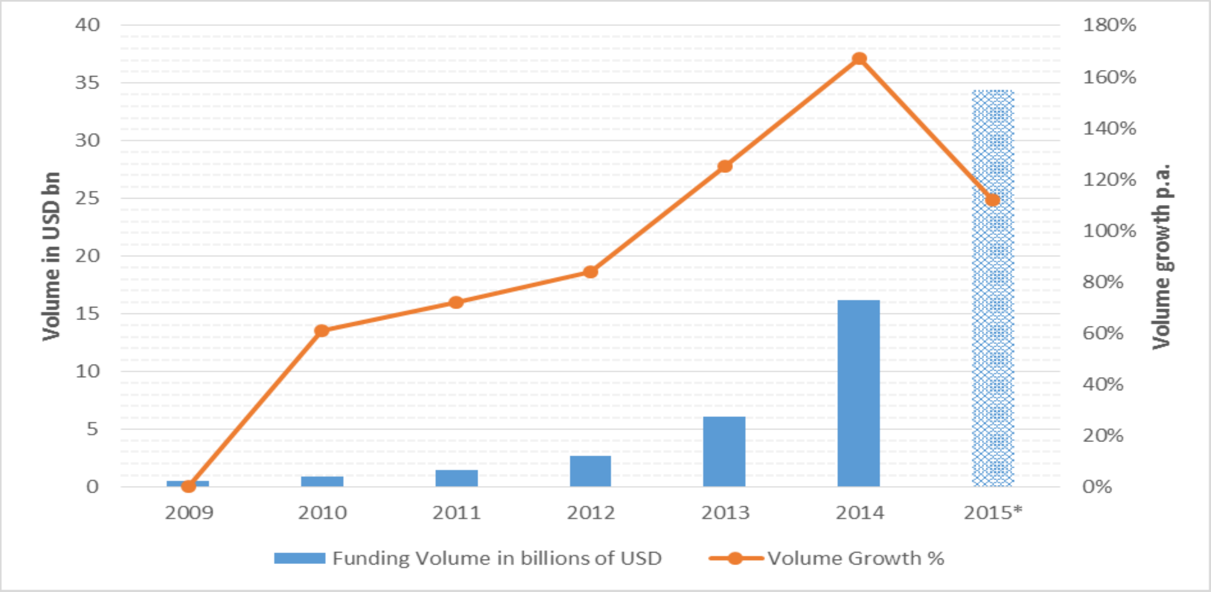
Why do we expect "leapfrogging" to be unlikely?

- CF trends in mature markets: in part banking sector weakness
- CF has not (yet) demonstrated ability to address:
    - Moral hazard
    - Adverse selection

  better / more costs efficient than banks.

- In our view: Reasons for lower level of banking development suggest that potential for CF in developing countries is rather lower than higher.

Popularity of CF

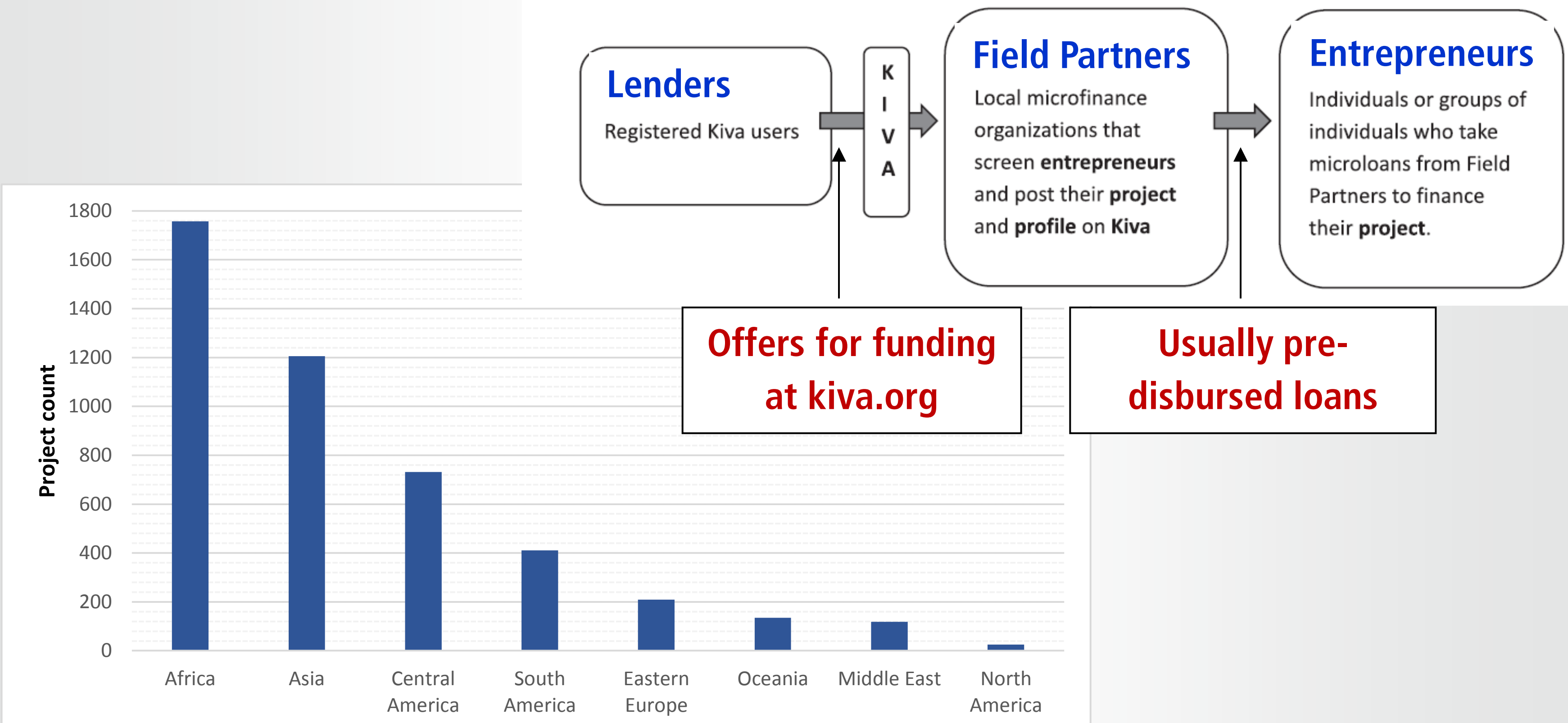


Strong growth

- …but still small
- 80% in North America and Europe
- Mainly P2P
- Mainly small consumer lending to prime and near prime borrowers

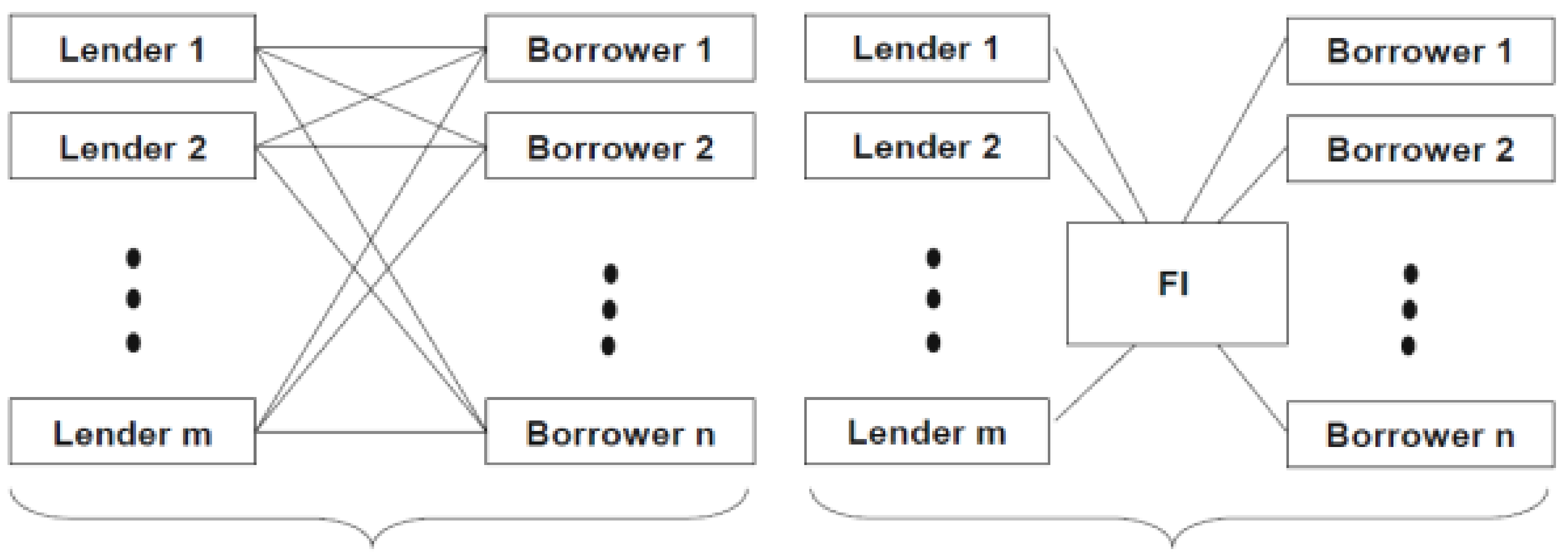
- Crowd-investors?: Morse, 2014: 80% of total US P2P lending from institutional investors such as hedge funds or pensions funds

CF Loans Originated in Developing Countries – case of kiva



Transaction Costs: Direct vs Indirect Finance

DIRECT FINANCE | **INDIRECT FINANCE**



Transaction costs
(c = costs per transaction)

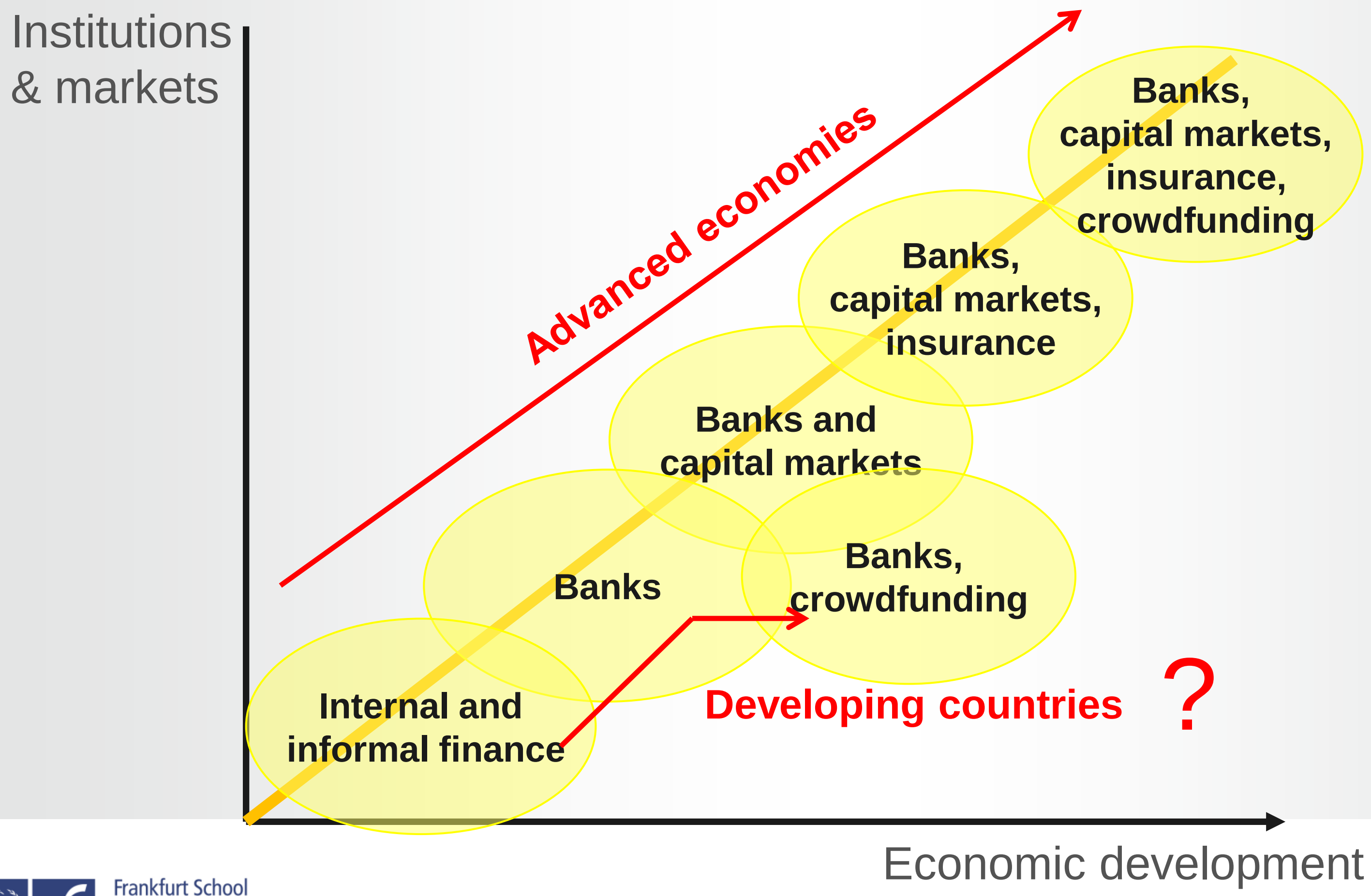
$$m \cdot n \cdot c$$

(informal finance, capital market finance, crowdfunding)

$$(m+n) \cdot c$$

(banks, other intermediaries, (e.g. regulated MFIs)

A View on Financial Development



A Theory Perspective

Role/advantage of intermediated finance	**CF**
▪ Maturity transformation (Diamond and Dybvig,1983)	no
▪ Lot size transformation (Diamond 1984)	yes
▪ Securitization	no

Key: dealing with consequences of Asymmetric Information

- Moral hazard & adverse selection
    1. Banks save on monitoring costs
    2. Banks depositors don’t have to monitor banks

But Why Do We Observe the Rise in CF?

Some drivers

- Transaction costs (outreach etc.) falling due to the internet (see above)
- Weakness of banking (underperformance on the monitoring)
- Banks became risk averse in the crises (monitoring more costly for some borrowers)

… trends

- tendencies of "re-intermediation
- models of cooperation (e.g. kiva)

Mechanisms to deal with asymmetric Information

Stage of development	Key mechanisms mitigating asymmetric information problems	Costs	Size
Informal financial sector			
- Family and friends	Symmetric information, reputation	Low	Small
- Professional service providers (moneylenders, deposit collectors)	Screening, monitoring	High	Small
Banks	Monitoring (via final borrowers), reputation (via depositors)	Low	Large
Capital markets	Reputation	Low	Large (for those wit[h] reputation), Non-existent (for borrowers without reputation)
Crowd funding	???	Transaction: Low Asym. Info.: High	Small

Role of CF in Financial System Development

Challenges

- In the past banks were unable to address moral hazard & adverse selection (borrowers & depositors) in a successful (& cost effective) way
- Then why would CF be able to address this (better than banks) ?
- Indeed, the difficulties in developing countries might even be more severe:
  - Enough suitable borrowers? (able to provide information on creditworthiness?)
  - Enough depositors? (often do not even trust in banks, why in illiquid, not diversified and therefore highly risky assets, institutionals are less engaged in DCs)
  - Internet penetration tends to be low

Conclusions and Outlook

- In our view the **lack of financial development in developing countries** may **rather signal less** as compared to more **potential** for crowdfunding
- Mechanisms to **address moral hazard & adverse selection** may be tested in the future (e.g. the role of block-chains in the context of monitoring and reputation)
- Can **re-intermediation of crowdfunding** be an alternative that might be more promising to play a role in financial system development? (But would that still be crowdfunding, rather than web-based microfinance?)
- If CF platforms emerge in developing countries support and **cooperation may be suitable to deal with moral hazard and adverse selection**

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