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FINANCIAL INCLUSION FOR SUSTAINABLE DEVELOPMENT

Does financial inclusion foster financial stability?

Financial inclusion and financial stability: a win-win situation?

Tania López and Adalbert Winkler

Introduction / Motivation

What do we know? (Literature Review)

Our analysis

Conclusions

Introduction / Motivation

2008: financial crisis – not only in the traditional banking / financial sector

2010: G-20 meeting in Seoul calls for efforts fostering financial inclusion

2015: World Bank/IMF-Spring meeting calls for universal access by 2020

Policy makers push financial inclusion shortly after the system revealed its highest degree of fragility:

The greatest paradox of modern financial history?

Introduction / Motivation

No, because

financial inclusion has benefits outweighing the risks associated with participating in the formal financial sector

financial inclusion contributes to financial stability

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What do we know? – Theory

Financial inclusion contributes positively to financial stability mainly due to

diversification effects on the asset side (Diamond 1984) **and**

the expansion of „cheap" and „reliable" retail deposits on the liability side (compared to „volatile" wholesale funding (Huang and Ratnovski 2011)**), limiting risk taking on the asset side** (Craig and Dinger 2013)

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What do we know? – Theory

Financial inclusion has a negative impact on financial stability because

it involves a deterioration of lending standards (Dell'Arrica and Marquez 2006)

What do we know? – Empirical evidence

Financial inclusion contributes positively to financial stability

Diversification benefits (Case study, Chile – Adasme et al. 2006)
Financial inclusion variable: loan size
Financial stability variable: loan loss distribution
Implication: Extension of small loans is associated with „significantly lower risk“ than extension of large loans

What do we know? – Empirical evidence

More stable deposit base (Cross-country analysis – 95 countries – Han and Melecky 2013)

Financial inclusion variable: Composite index of access to deposits (Honohan 2008)

Financial stability variable: Maximum drop in deposit growth in the period 2006-2010

Implication: Better access to deposits is associated with a smaller drop in deposit growth, i.e. financial stability

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What do we know? – Empirical evidence

Financial soundness benefits (Cross-country analysis – 168 - 65 countries – Morgan and Pontines 2014)

Financial inclusion variable: Share of SME loans in loan portfolio of commercial banks

Financial stability variable: Z-score, non-performing loan ratio

Implication: A higher share of SME loans is associated with a higher Z-score and a lower NPL

Our analysis

Cross-country analysis
(60, 91 countries, IMF Financial Access database)

Financial inclusion variable:
Number of borrowers served by the banking sector
- growth rate over the pre-crisis period 2004-2007
- as a percentage of the working age population in 2007

Financial stability variable:
Drop in credit growth 2007 – 2009 (Lehman event)

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Research questions:

Question	Answer
Does progress in financial inclusion follow the cyclical patterns of credit growth?	Yes
Does progress in financial inclusion mitigate the fall in credit growth (financial instability) after the Lehman default?	No
Does the level of financial inclusion mitigate the fall in credit growth (financial instability) after the Lehman default?	Some evidence: Yes

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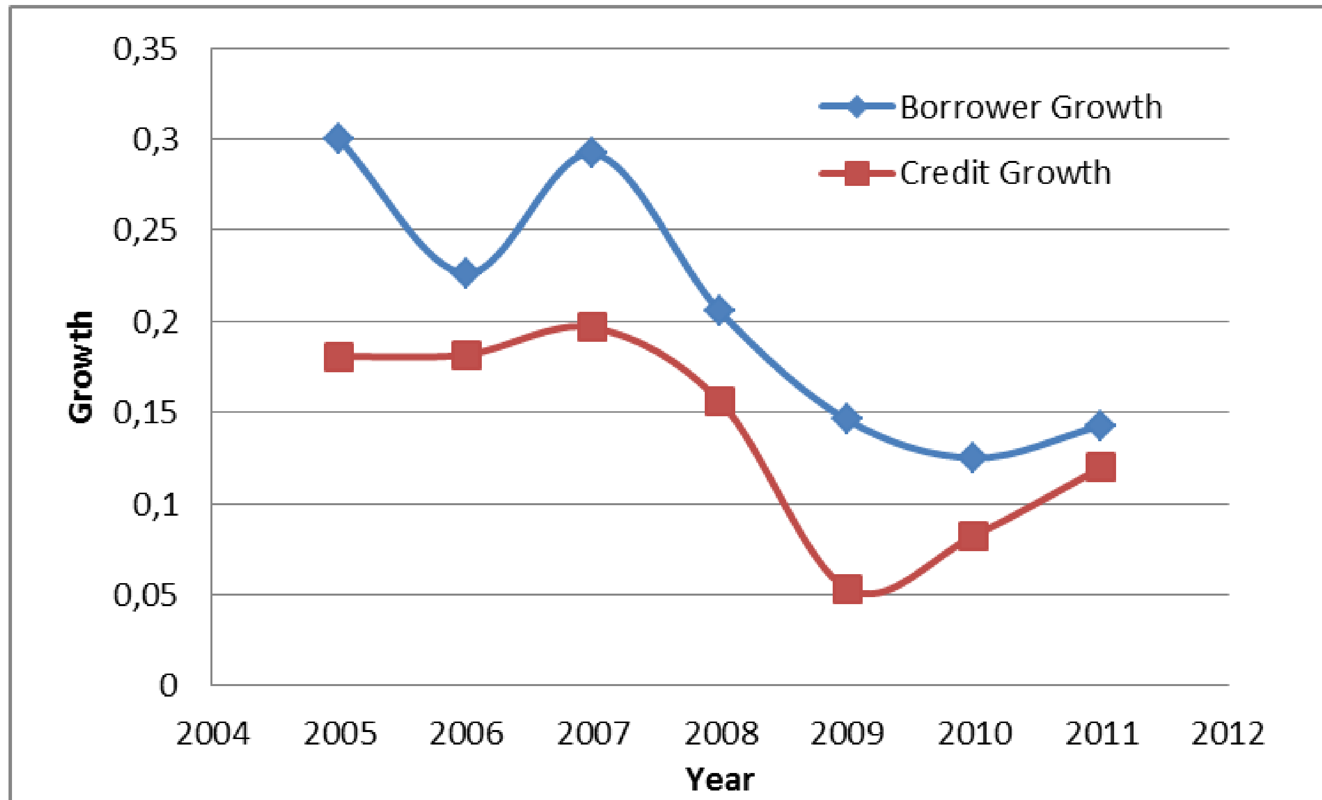
Borrower and credit growth (mean)



63 countries
Algeria, Argentina, Azerbaijan, Bangladesh, Belize, Bolivia, Botswana, Burundi, Cabo Verde, Chile, Colombia, Comoros, Democratic Republic of Congo, Egypt, Equatorial Guinea, Gabon, Georgia, Ghana, Guatemala, Guinea, Haiti, Honduras, Israel, Italy, Kenya, Kosovo, Republic of, Kuwait, Lebanon, Lesotho, Libya, FYR Macedonia, Madagascar, Malaysia, Maldives, Moldova, Mozambique, Myanmar, Namibia, Paraguay, Peru, Poland, Portugal, Qatar, Rwanda, Samoa, San Marino, Saudi Arabia, Seychelles, Sierra Leone, Singapore, Suriname, Swaziland, Tajikistan, Tanzania, Thailand, Timor-Leste, Tunisia, Turkey, United Kingdom, Uruguay, Venezuela, Zambia, Zimbabwe

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Results

Progress in financial inclusion does not enhance financial stability, if controlling for the size of the boom

	DROPCREDITGROWTH 0709		
INCLUSION0407	0.229**	0.000	-0.247
	(2.22)	0.00	(-0.62)
Financial Stability Indicators (pre-crisis)			
CREDIT GROWTH 0407		0.981***	0.785**
		(3.67)	(2.25)
INTERCREDITBORRW0407			0.704
			(0.74)
CONCENTRATION07	-0.00466**	-0.00390*	-0.00450*
	(-2.04)	(-1.97)	(-1.79)
Macroeconomic Variables			
GDPGROWTH0407	0.0166**	0.00245	0.00258
	(2.32)	(0.33)	(0.35)
Structural Variables			
POPULATION07	-0.125**	-0.077	-0.092
	(-2.37)	(-1.29)	(-1.31)
KAOPEN	0.024	0.0359**	0.0390**
	(1.37)	(2.36)	(2.43)
_cons	1.332**	1.051*	1.315*
	(2.43)	(1.87)	(1.77)
N	***60***	***60***	***60***
R-square	***0.401***	***0.534***	***0.543***

t statistics in parentheses
** p<0.10, **p<0.05, *** p<0.01*

The following variables are included as controls but fail being significant: Z-score, liquidity, loans-to-deposit ration, inflation and GDP per capita.

Results

Higher level of financial inclusion moderates credit cycles:

If borrower share is about 88% the impact of credit growth on the drop in credit growth is zero.

	DROPCREDITGROWTH 0709
SHARE BORROWERS 07	0.1560
	(1.44)
Financial Stability Indicators (pre-crisis)	
CREDIT GROWTH 0407	1.239***
	(8.08)
INTERSHARE 07CREDIT GRW	-1.411**
	(-2.52)
KAOPEN	0.0211*
	(1.86)
_cons	0.1870
	(0.56)
N	*91*
R-square	*0.561*

t statistics in parentheses
** p<0.10, **p<0.05, *** p<0.01*

Conclusions

- Financial inclusion seems to follow a pro-cyclical pattern
- Raising the level of financial inclusion does not contribute to making financial systems more stable
- Having a high(er) level of financial inclusion has some moderating impact on financial instability, depicted as credit boom-bust cycles.

Conclusions

- Caution is warranted in making statements that financial inclusion fosters financial stability
- The case for financial inclusion has to be based on other arguments

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Does financial inclusion foster financial stability?

Thank you very much for your attention!

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