Impact of Financial Inclusion on Financial Stability
A Literature Overview

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Agenda

Financial inclusion ↔ financial stability?

- **Financial inclusion** = access for individuals and businesses to "***useful and affordable financial products and services that meet their needs*** *– transactions, payments, saving, credit and insurance – delivered in a responsible and sustainable way*" [World Bank; CGAP]

- **Financial stability** = "*condition in which the **financial system** [i.e. financial intermediaries, markets and market infrastructures] is **capable of withstanding shocks** and the unravelling of financial imbalances*" [ECB]

- **Stable financial system** = "*capable of efficiently allocating resources, assessing and managing financial risks, …*" [World Bank]

→ Two policy objectives ≠ upfront complementary

- Financial inclusion development over time
  - Based on World Bank's Findex dataset

Reference periods

2011-2021

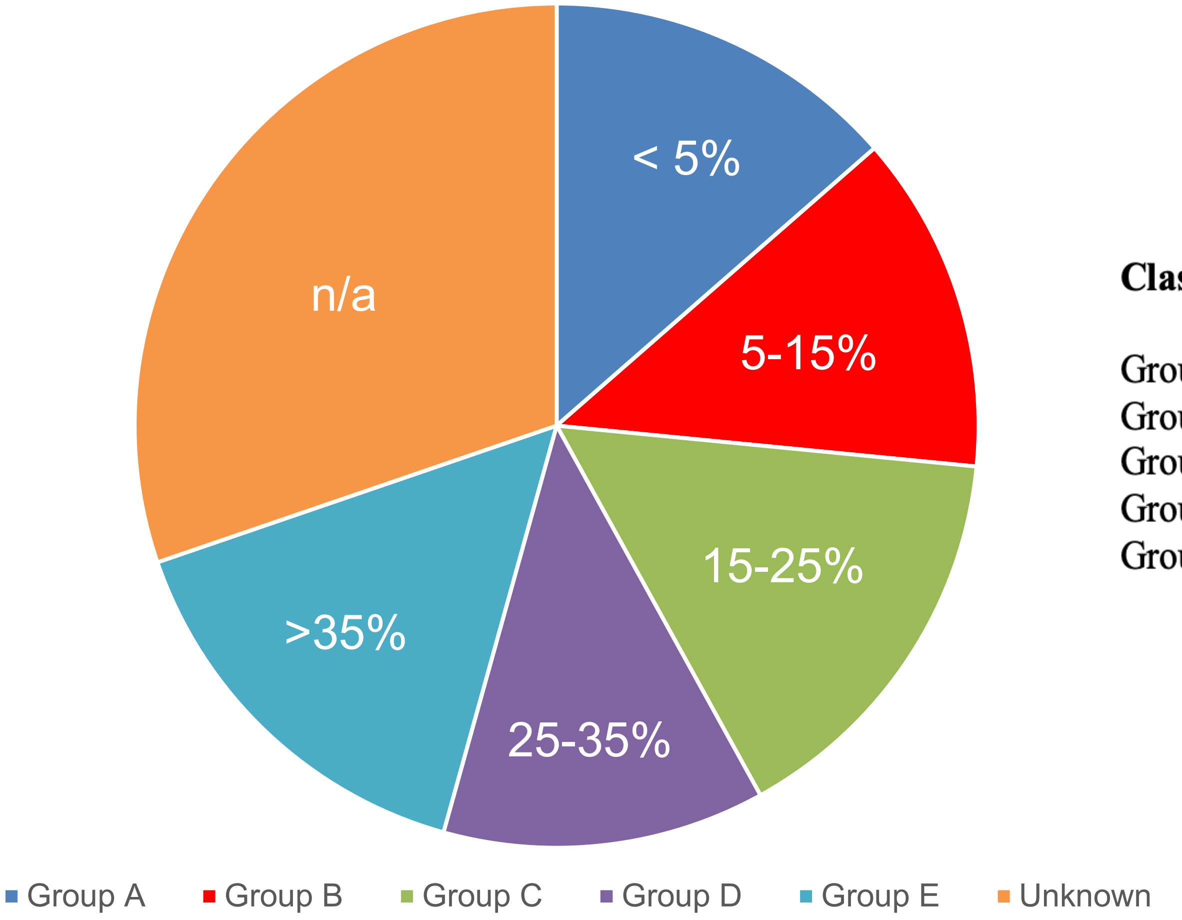
2017-2021

↔

Increase in financial inclusion at starting year of reference period vs. ending year of reference period

Group A: increase < 5%
Group B: increase = 5-15%
Group C: increase = 15-25%
Group D: increase = 25-35%
Group E: increase > 35%

- Financial inclusion development over time – **2011-2021**



Classification criteria regarding increase of financial inclusion:

Group A – increase is smaller than 5%
Group B – increase is equal to or higher than 5% and smaller than 15%
Group C – increase is equal to or higher than 15% and smaller than 25%
Group D – increase equal to or higher than 25% and smaller than or equal to 35%
Group E – increase higher than 35%

I. Introduction – 2011-2021

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Group A
Afghanistan
Australia
Austria
Belgium
Canada
Croatia
Denmark
Estonia
Finland
France
Germany
Israel
Jamaica
Japan
Lebanon
Malta
Netherlands
New Zealand
Singapore
Slovenia
Sweden
United Kingdom

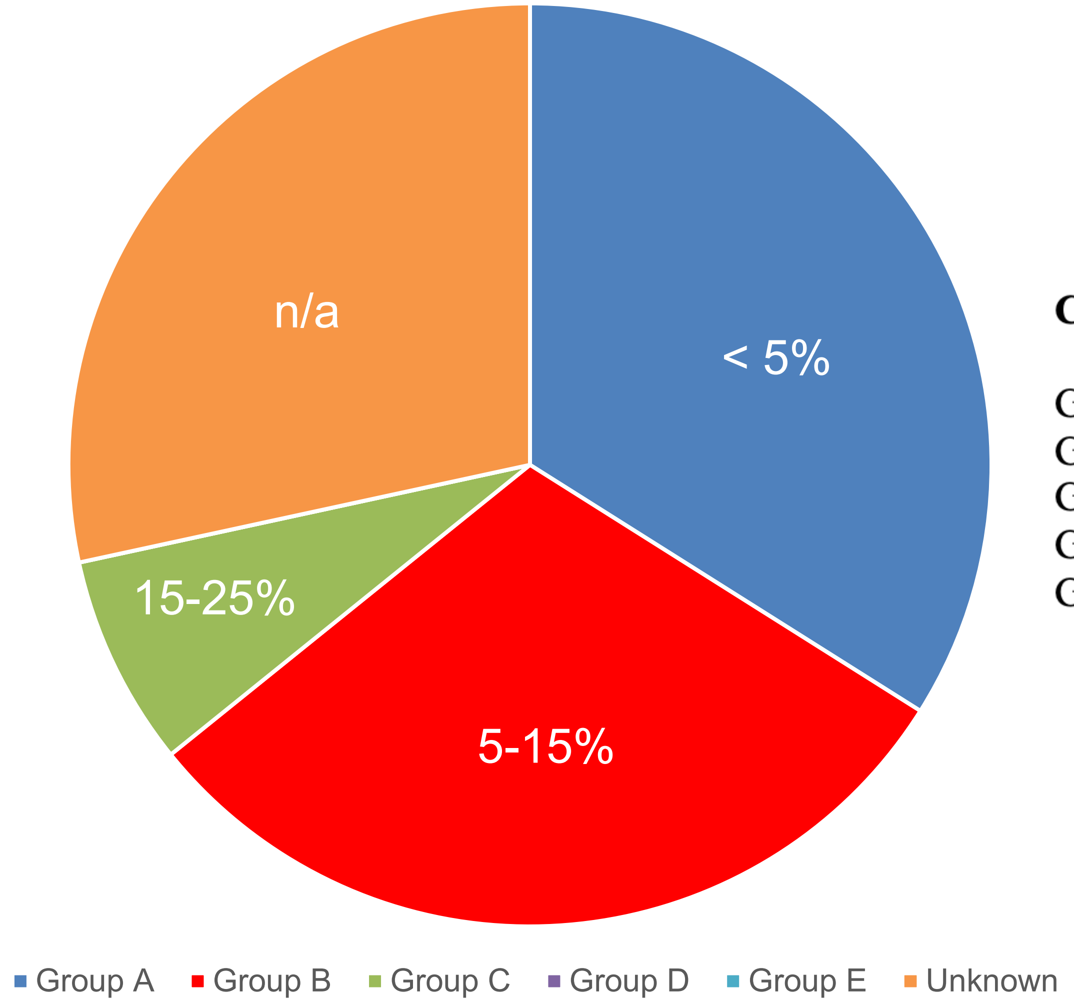
Group B
Algeria
Cyprus
Czech Republic
Dominican Republic
Hong Kong
Iraq
Ireland
Korea, Rep.
Kosovo
Lao PDR
Latvia
Mauritius
Nicaragua
North Macedonia
Pakistan
Portugal
Slovak Republic
Spain
Taiwan, China
United States
West Bank and Gaza

Group C
Albania
Bangladesh
Bosnia and Herzegovina
Burkina Faso
Costa Rica
Egypt, Arab Rep.
El Salvador
Greece
Honduras
Hungary
Iran, Islamic Rep.
Jordan
Lithuania
Malaysia
Mongolia
Nigeria
Panama
Philippines
Romania
Sierra Leone
Sri Lanka
Thailand
Turkey
Uzbekistan
Zimbabwe

Group D
Brazil
Bulgaria
Cambodia
China
Colombia
Ecuador
Guinea
Indonesia
Italy
Liberia
Malawi
Nepal
Paraguay
Poland
Saudi Arabia
Serbia
South Africa
Tanzania
United Arab Emirates
Zambia

Group E
Argentina
Armenia
Benin
Bolivia
Cameroon
Chile
Congo, Rep.
Gabon
Georgia
Ghana
India
Kazakhstan
Kenya
Kyrgyz Republic
Mali
Moldova
Peru
Russian Federation
Senegal
Tajikistan
Togo
Uganda
Ukraine
Uruguay
Venezuela, RB

- Financial inclusion development over time – **2017-2021**



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I. Introduction – 2017-2021

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Group A		
Afghanistan	Indonesia	Saudi Arabia
Albania	Iran, Islamic Rep.	Singapore
Algeria	Iraq	Slovenia
Australia	Israel	South Sudan
Austria	Italy	Spain
Bangladesh	Japan	Sweden
Belgium	Kenya	Switzerland
Burkina Faso	Korea, Rep.	Taiwan, China
Canada	Latvia	Tajikistan
Costa Rica	Lebanon	Tunisia
Cyprus	Malaysia	United Arab Emirates
Denmark	Malta	United Kingdom
Dominican Republic	Mauritius	United States
Egypt, Arab Rep.	Netherlands	West Bank and Gaza
Estonia	New Zealand	Zambia
Finland	Nicaragua	
Germany	Pakistan	
Honduras	Panama	
Hong Kong	Paraguay	
India	Portugal	

Group B		
Armenia	Ireland	Tanzania
Benin	Jordan	Thailand
Brazil	Kosovo	Togo
Bulgaria	Kyrgyz Republic	Turkey
Cambodia	Lao PDR	Uganda
Chile	Lithuania	Uruguay
China	Malawi	Uzbekistan
Colombia	Mali	Venezuela, RB
Cote d’Ivoire	Mongolia	Zimbabwe
Croatia	Nepal	
Czech Republic	Nigeria	
Ecuador	North Macedonia	
El Salvador	Peru	
France	Poland	
Gabon	Romania	
Georgia	Russian Federation	
Ghana	Senegal	
Greece	Sierra Leone	
Guinea	Slovak Republic	
Hungary	Sri Lanka	

Group C
Argentina
Bolivia
Bosnia and Herzegovina
Cameroon
Congo, Rep.
Kazakhstan
Liberia
Moldova
Philippines
Serbia
South Africa
Ukraine

II. Context of the research project

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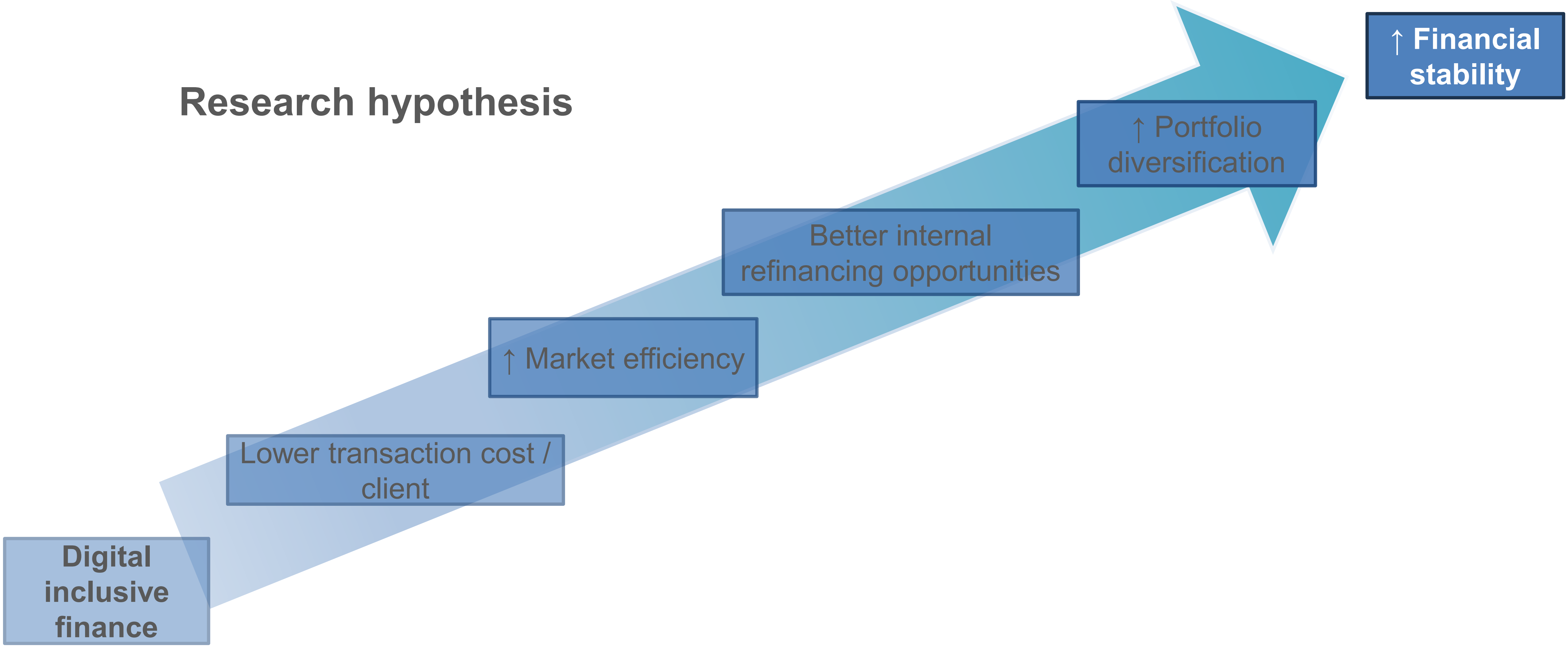
- **Background**
  - **AFI StabFI research project:**
    - **Financial inclusion = accepted regulatory goal** in AFI member countries
    - Difficult economic environment / **“polycrisis”** → danger for **financial stability**
    - **Risk of changing priorities to the detriment of financial inclusion**

II. Context of the research project

Research hypothesis



II. Context of the research project

- **Methodology:**
  - **Literature review**
    - Assessment of existing empirical and theoretical studies

      → *Presentation today*

  - **Empirical assessment**
    - Comparing datasets against each other: financial inclusion vs. IMF financial soundness indicators (as representing financial stability)
      - Test-run in preparation: FI data collection based on Worldbank's Findex database
      - Later: more sophisticated data comparison

III. Literature overview

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- **Preliminary remark:**
  - Databases used: SSRN, databases subscribed to by uni.lu, top financial journals
  - So far no A+ finance journals dealing with subject matter as focus
  - Low degree of academic coverage in top publications
  - Empirical studies mostly Working Papers, Policy Releases
  - Lack of “academically accepted evidence”

III. Literature overview

a) Impact of financial inclusion on financial stability

(22 empirical, 9 theoretical studies assessed)

- Positive impact: 26 publications
- Negative impact: 6 publications

b) Impact of financial inclusion on market efficiency

(1 empirical, 2 theoretical studies assessed)

- Positive impact: 3 publications

c) Impact of de-risking on financial inclusion

(4 empirical, 4 theoretical studies assessed)

- Negative impact: 8 publications

Positive impact:

- ***Increase and diversification of bank deposits***
  - Ahamed/Mallick (2017); Nguyen/Thi Du (2022), Han/Melecky (2017), Morgan/Pontines (2014), Gortsos (2016), Khan (2011), Rahman (2014), Dema (2015), Hannig/Jansen (2010), Mehrotra/Yetman (2015), García (2016)
- ***Improvement in nonperforming loan ratio***
  - Nguyen/Thi Du (2022), López/Winkler (2019), Morgan/Pontines (2014)
- ***Lower costs of providing services & higher operating efficiency***
  - Ahamed/Mallick (2017), Tissot/Gadanecz (2017)
- ***Prevention of unregulated credits by unbanked***
  - Fungáčová/Weil (2014), Rahman (2014)
- ***Reduction of inflation***
  - Oahn/Van/Dinh (2023): for low developed countries also El Bourainy/Salah/Sherif (2021)
- ***Increase competitiveness in the banking sector & improve financial stability***
  - Jungo et al. (2022), Feghali et al. (2021), Tan (2023)
- ***Increase in GDP / economic growth***
  - Emara/El Said (2021), Bruhn/Love (2014), Kehra et al. (2021)

III. Literature overview

a) Impact of financial inclusion on financial stability

Negative impact:

- ***Lack of diversification of deposits / rapid expansion***
  - Amatus/Alireza (2015), Gortsos (2016), García (2016)
- ***Increase in non-performing assets***
  - Morgan/Pontines (2014), Barik/Pradhan (2021)
- ***Erosion of credit standards bank reputational risk, and inadequate regulation of MFIs***
  - Morgan/Pontines (2014), Barik/Pradhan (2021), García (2016)
- ***Cause of inflation in high financial development countries***
  - Oahn/Van/Dinh (2023)
- ***Increase of access to credit increase - financial stability risk***
  - Sahay et al. (2015)
- ***Lower bank deposits reduce profitability and weaken monetary policy independence***
  - Carare et al. (2022)

III. Literature overview
a) Impact of financial inclusion on financial stability

Contradictory findings:

- ***Impact on diversification of deposits***
  - Positive impact : 11 publications
  - Negative impact : 3 publications
- ***Impact on non-performing assets***
  - Positive impact : 3 publications
  - Negative impact : 2 publications
- ***Impact on inflation***
  - Positive impact: 1 publications
  - Negative impact: 1 publications
- ***Impact on Banking Profitability and Competitiveness***
  - Positive impact : 5 publications
  - Negative impact : 2 publications

→ Lack of "academically accepted evidence"

III. Literature overview
b) Impact of financial inclusion on market efficiency

Positive impact:

- ***Financial inclusion leads to market efficiency***
  - Chinoda/Mashamba (2021)
- ***Financial inclusion prompts financial services providers to provide more market info***
  - Barajas et al. (2020)
- ***Financial inclusion impacts financial development and contributes to the economy***
  - Chinoda/Mashamba (2021); Barajas et al. (2020)
- ***Monetary transmission creates more efficient financial markets***
  - Shaktikanta Das (2021)

→ Lack of Research and Publications

III. Literature overview

c) Impact of de-risking on financial inclusion

Negative impact:

- ***Isolate communities from global financial system***
  - Durner/Shetret (2015)
- ***Increased financial exclusion leads to money laundry and terrorism financing***
  - Durner/Shetret (2015); IFC (2017); Rella (2019)
- ***Increased financial exclusion leading to financial illicit flows***
  - IFC (2017); Rella (2019); Rose (2019); OECD (2015); Lee (2022)
- ***Reduces banks' ability to serve customers, threaten remittances and increase financial exclusion***
  - IFC (2017); Rella (2019); La Cours (2022); OECD (2015)
- ***Enhances activities in non-regulated segment of society***
  - Rella (2019)

→ **Impact of De-Risking on Financial Stability?**

IV. Open questions and issues

- **Data** availability, consistency and reliability
- **Positive impact of FI on FS?** And if so, what are the driving aspects?
- Digital financial inclusion ↔ **market efficiency**
- What is the **influence of the current polycrisis** on the relationship between financial inclusion and financial stability?
  - What role plays **digitalisation** in the context of financial inclusion and financial stability?

    → New findings compared to existing literature

IV. Open questions and issues

- If our hypothesis is proven → what is the **role of regulation**?
  - How must regulation be construed to implement de-risking and other financial stability-related measures and financial inclusion at the same time?

- **National** level vs. **international** comparison

V. Conclusion

- Huge **gaps in empirical research** on the topic
  - Often (at a first glance) contradictory conclusions

- Positive impact of financial inclusion on market efficiency
- Negative impact of de-risking on financial inclusion

- Impact of **current polycrisis** (starting with pandemic in 2019/20; wars in several places of the world; economic recession) not yet reflected in existing literature

Topic of crucial importance for policy-making to avoid increase of financial exclusion

Thank you!

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Impact of Financial Inclusion on Financial Stability
Data Challenges & Empirical Assessments

Prof. Dr. Dirk Zetzsche

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Data Challenges

- General challenges
  - Defining a common data approach across AFI members
  - Double counting
  - Incomplete data / data availability / data consistency (over time)
- Inclusive finance = MSMEs; low degree of datafication
- Data standards costly to develop → data reliability (FinDex?)
- Regulators to define core data needs for their national priority

Empirical Assessments

- Lack of uniform standards and regions
- Research underdeveloped
- Main challenge: uniform output data
- Definitional issue: What is financial inclusion?

Thank you!

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