Cross-border Lending by International Banks

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Outline of the Presentation

1. **Introduction**

2. **Rise of the South**

3. **Substitution effects during the GFC**

4. **Fintech and the future of global banking**

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4. Fintech and the future of global banking

Evolution of Cross-border Bank Lending

- Cross-border bank lending rapidly expanded during last decades
  - Cross-border bank claims worldwide doubled between 2001 and 2014
  - Significant rise in cross-border bank flows to and from the South
  - South expansion accompanied by the growth of other financial flows

- Cross-border lending characterized by boom and bust patterns
  - Prominent example: GFC with large expansion and subsequent collapse
  - Prior to the GFC, flows to developing countries mainly originated by global banks in high-income countries
  - Change in the global financial landscape after the GFC
    - Rise of South-South flows
    - Use of alternative sources of finance (bond markets, domestic loans)
    - Emergence of fintech businesses

Benefits and Costs

- Cross-border lending can benefit both borrowers and lenders
  - Savings channeled to more productive investment opportunities
  - International risk diversification
  - Ease financial constraints and compensate for volatility of domestic credit
  - Adoption of good policies and better governance practices
  - Improve efficiency of the domestic banking system
  - Literature: Agenor (2003), Goldberg (2009), Gourinchas and Jeanne (2009), De Haas and Van Lelyveld (2010), Allen et al. (2011)

Benefits and Costs

- It can also pose threats to financial stability
  - Cut of foreign lending
  - Cross-border bank flows more volatile than other types of cross-border flows or than lending by foreign affiliates
  - Spillovers and contagion through the exposition to new shocks
  - Literature: García-Herrero and Martínez Pería (2007), Levchenko and Mauro (2007), Popov and Udell (2012), Buch and Goldberg (2014), Feyen et al. (2014)

Drivers of Cross-border Banking

- Pull factors (domestic conditions)
  - Macroeconomic conditions
  - Sound institutions
  - Regulatory arbitrage
  - Geographical and cultural distances
  - Literature: Buch et al. (2009), Papaioannou (2009), Siregar and Choy (2010), Brüggemann et al. (2011), Houston et al. (2012), Muller and Uhde (2013), Aiyar et al. (2014)
- Push factors (global shocks)
  - Global financial and monetary policy stances
  - Conditions in core financial centers
  - Global liquidity
  - Literature: Cetorelli and Goldberg (2011), Herrman and Milahjek (2013), Landau (2013), Rey (2013), Claessens et al. (2014), IMF (2014), Bruno and Shin (2015)

Data

- Cross-border bank claims
  - Capture all reported cross-border positions between any two economies transacted via the global banking system
  - Stocks at a given point in time
  - Source: BIS locational data (confidential data for background work)

- Cross-border flows of syndicated loans
  - Capture direct cross-border lending through which a group of financial intermediaries provides funds to single borrowers
  - Syndicated loans represented up to a third of total cross-border loan claims during 1995-2012 (Cerutti, Hale, and Minoiu, 2015)
  - Flows based on transaction-level information
  - Source: SDC Platinum

- Databases are not directly comparable in terms of volume

Country Classification

- The North
  - G-7 economies
  - 15 other Western European economies
- The South
  - Economies not included in the North
- Offshore financial centers excluded from the sample

Main Findings

1. Cross-border lending by banks constitute a substantial part of international capital flows

2. Whereas the U.S. and Western Europe have accounted for most of this activity, the South has been gaining ground since 1990s

3. South expansion has allowed these economies to complement domestic markets and widen their available funding sources

4. But cross-border lending can also act as a transmission mechanism of external shocks (e.g. GFC)

Main Findings

5. The GFC hit balance sheets of global banks, affecting domestic and cross-border activities w/spillovers to developing countries

6. Firms reacted to GFC by switching across different markets
   - Move toward bond markets
   - In developing countries, firms also switched toward domestic banks

7. Due to these switches, the global financial activity during the crisis declined less than the collapse in cross-border lending

8. At the aggregate level, South-South lending experienced the fastest growth after the GFC
   - Vis-à-vis North-South, South-North, and North-North

9. Post crisis characterized by the emergence of fintech companies, acting in parallel to traditional banking services

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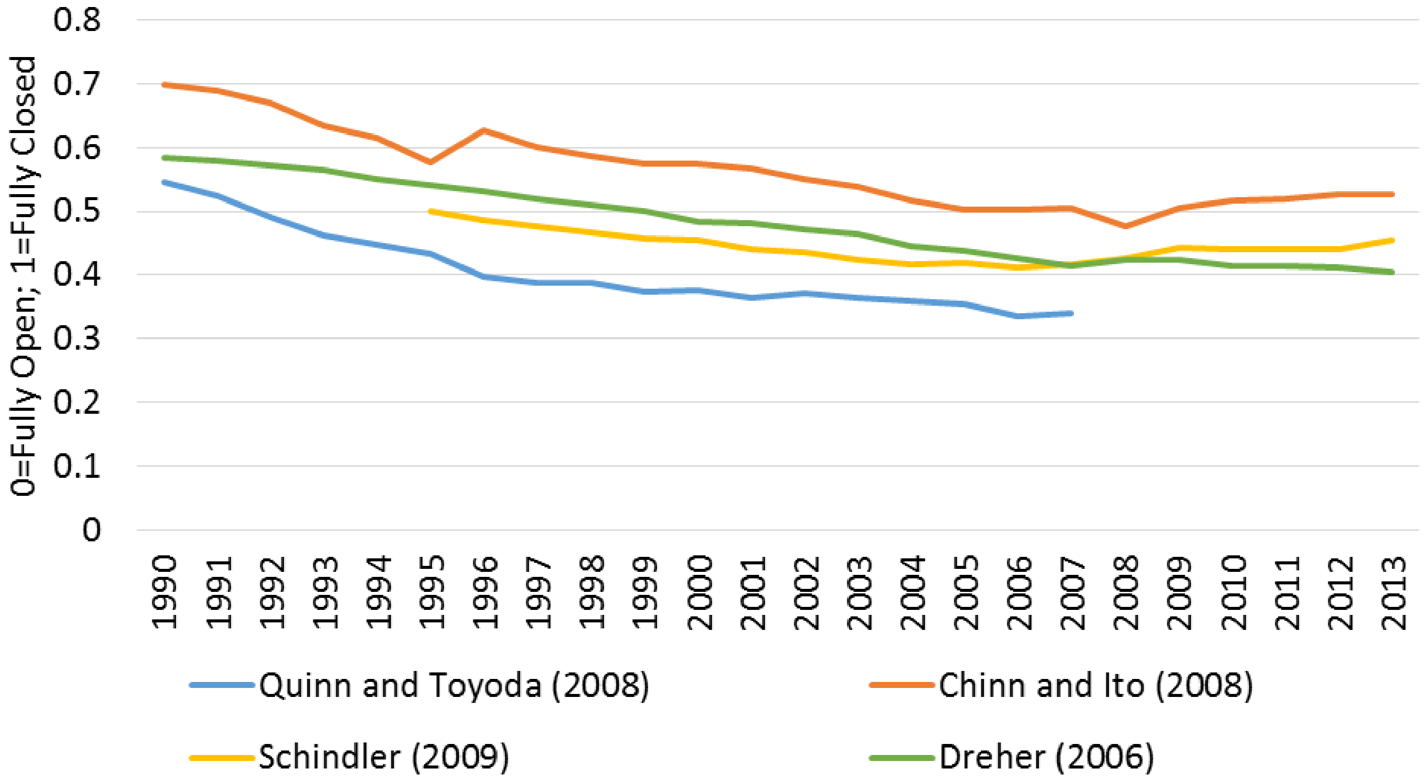
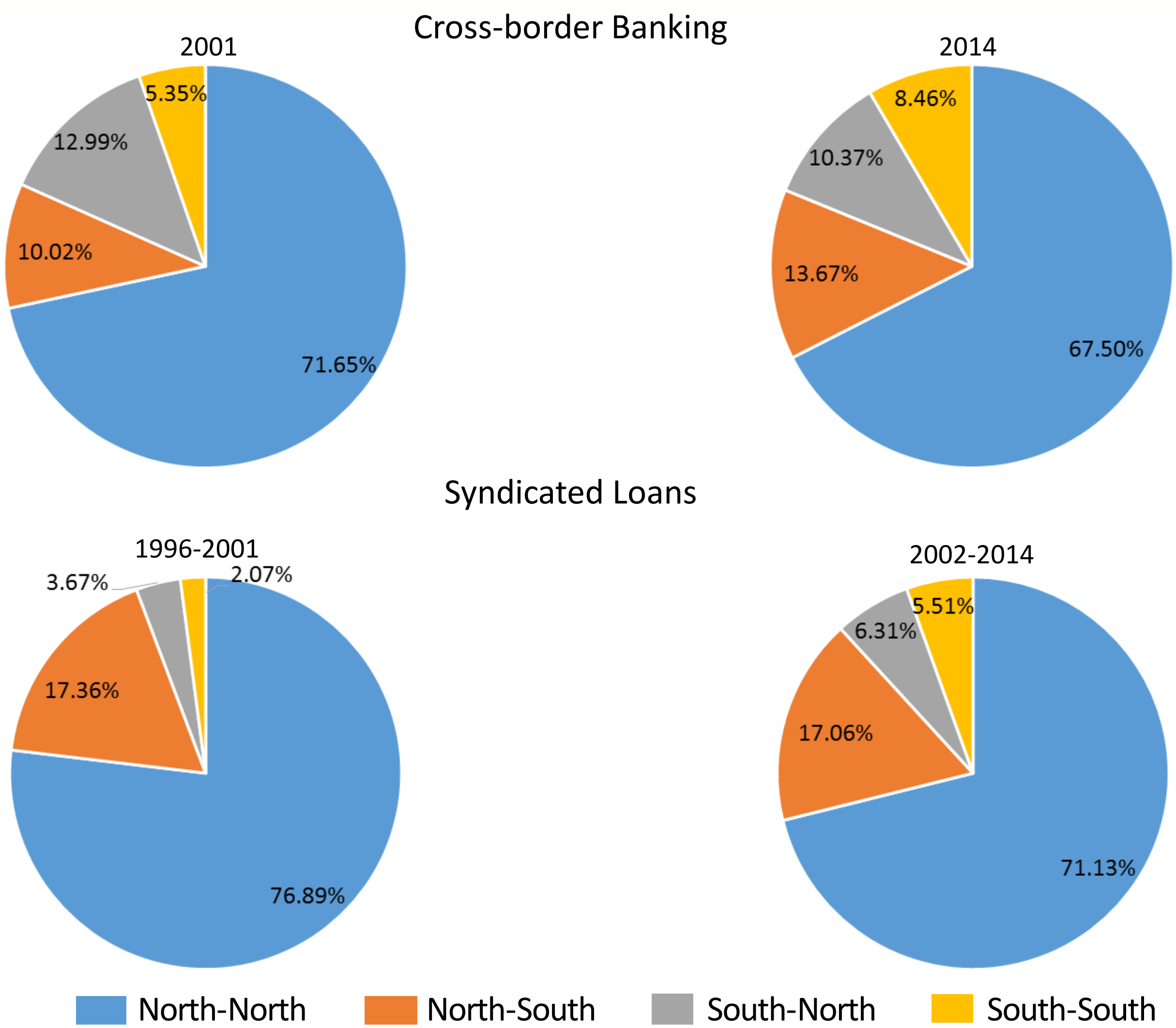
Increasing Financial Liberalization of the South



Notes: Capital account and current account restriction indicators for the average economy in the South

Sources: Dreher (2006), Quinn and Toyoda (2008), Chinn and Ito (2008), Schindler (2009)

Rapid Expansion of South-South Lending, But Still Small

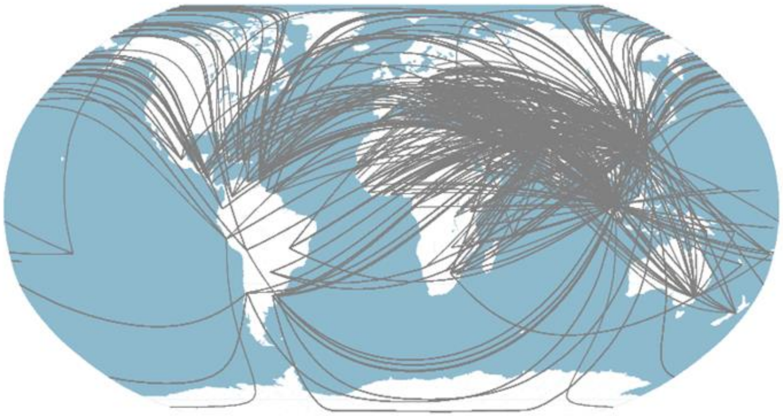


Source: Broner et al. (2016)

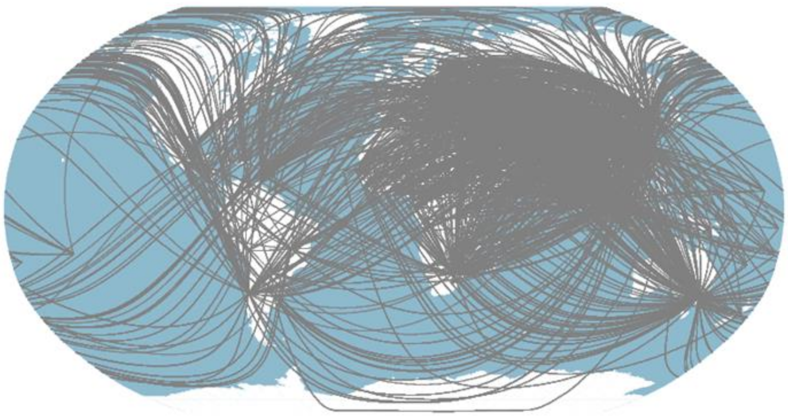
New South-South Connections

Cross-border Banking

2001

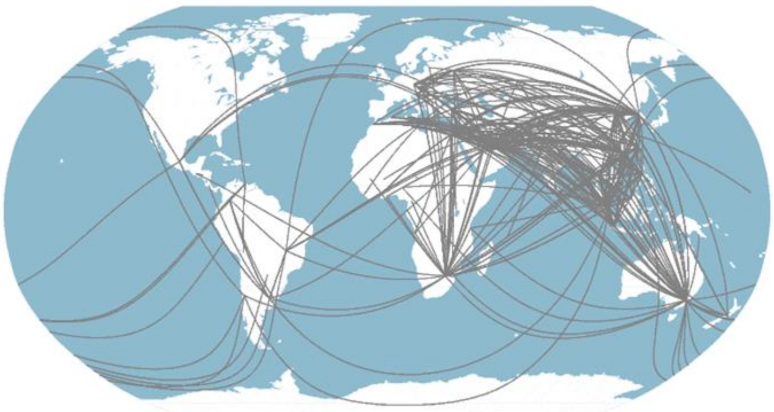


2014



Syndicated Loans

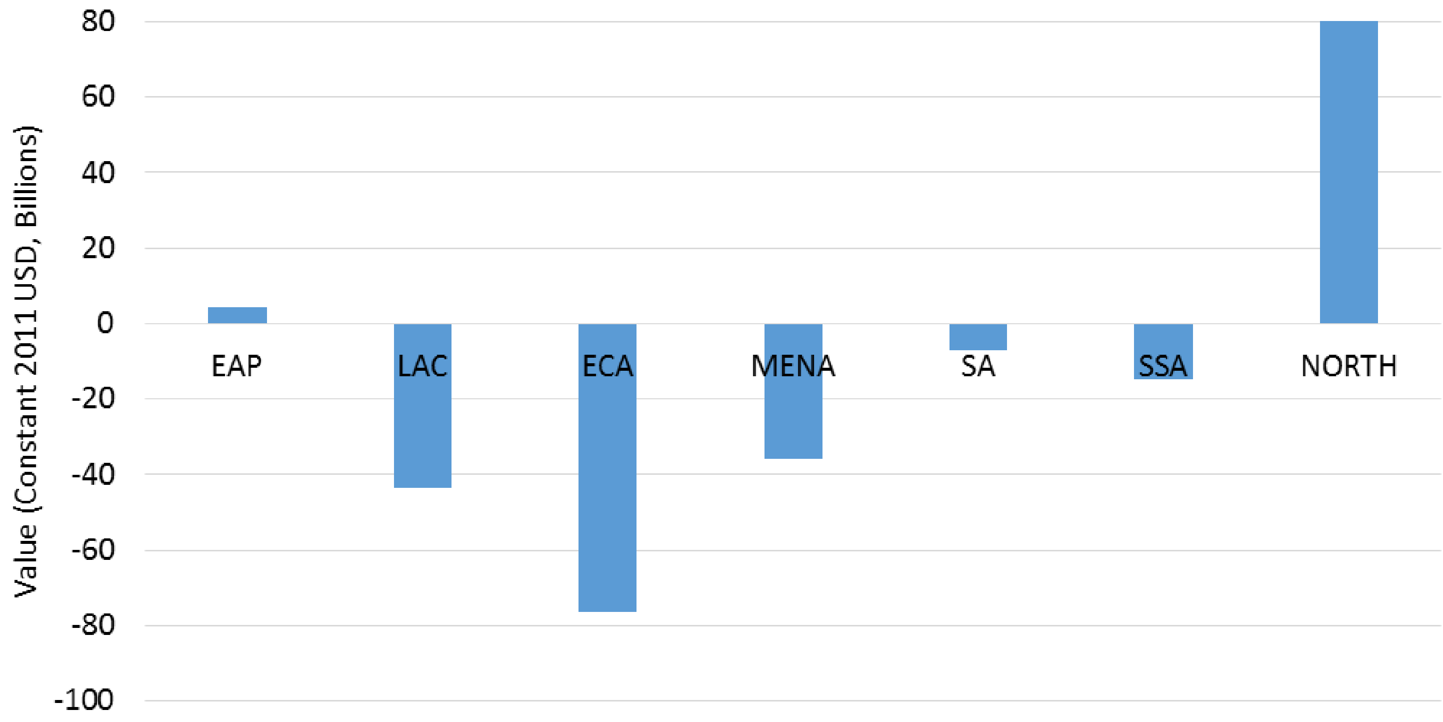
1996-2001



2002-2014

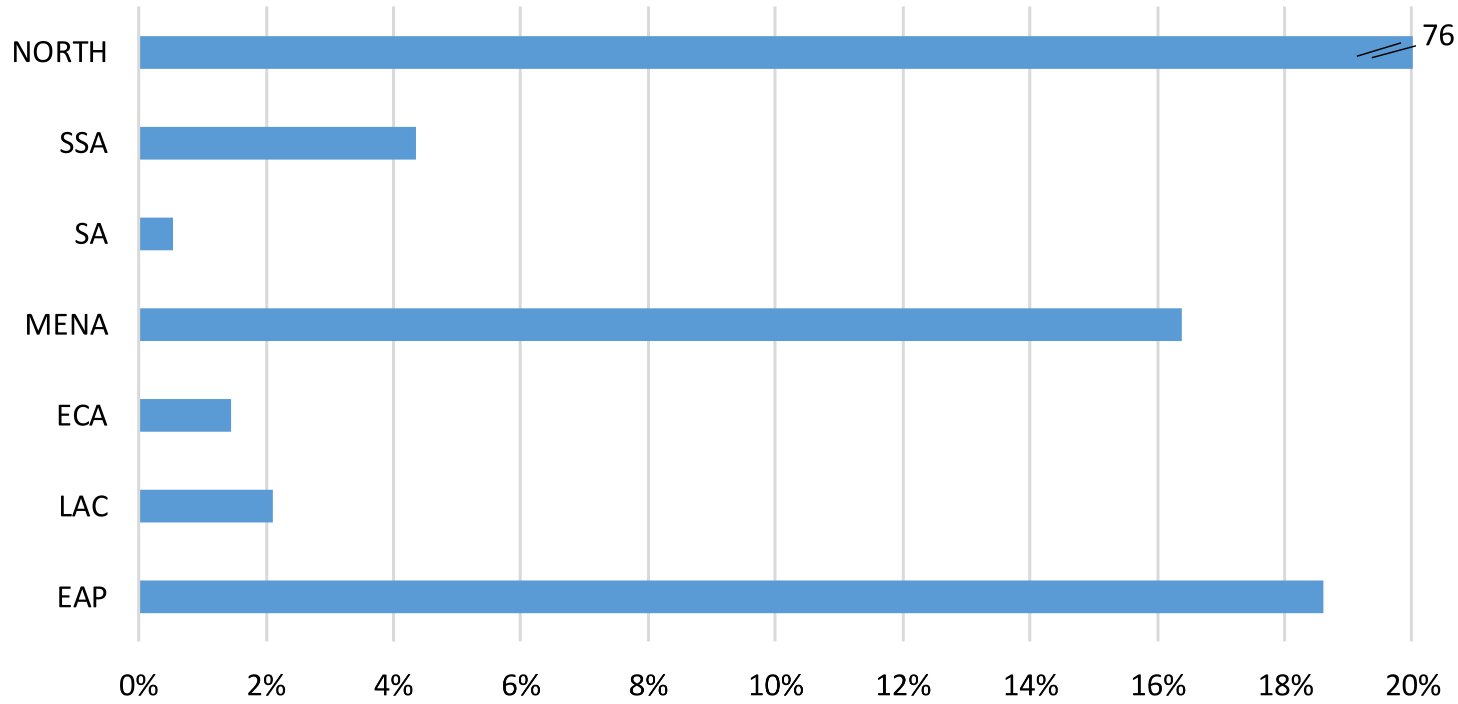
Source: Broner et al. (2016)

South Regions Are Net Capital Importers, Except EAP



Notes: Average value of syndicated loan net outflows for the period 2001-14. Intra-regional flows are not included
Source: SDC Platinum

EAP and MENA Leaders in Intra-regional Integration



Notes: Average share of intra-regional syndicated loans over total syndicated loans for the period 2001-14
Source: SDC Platinum

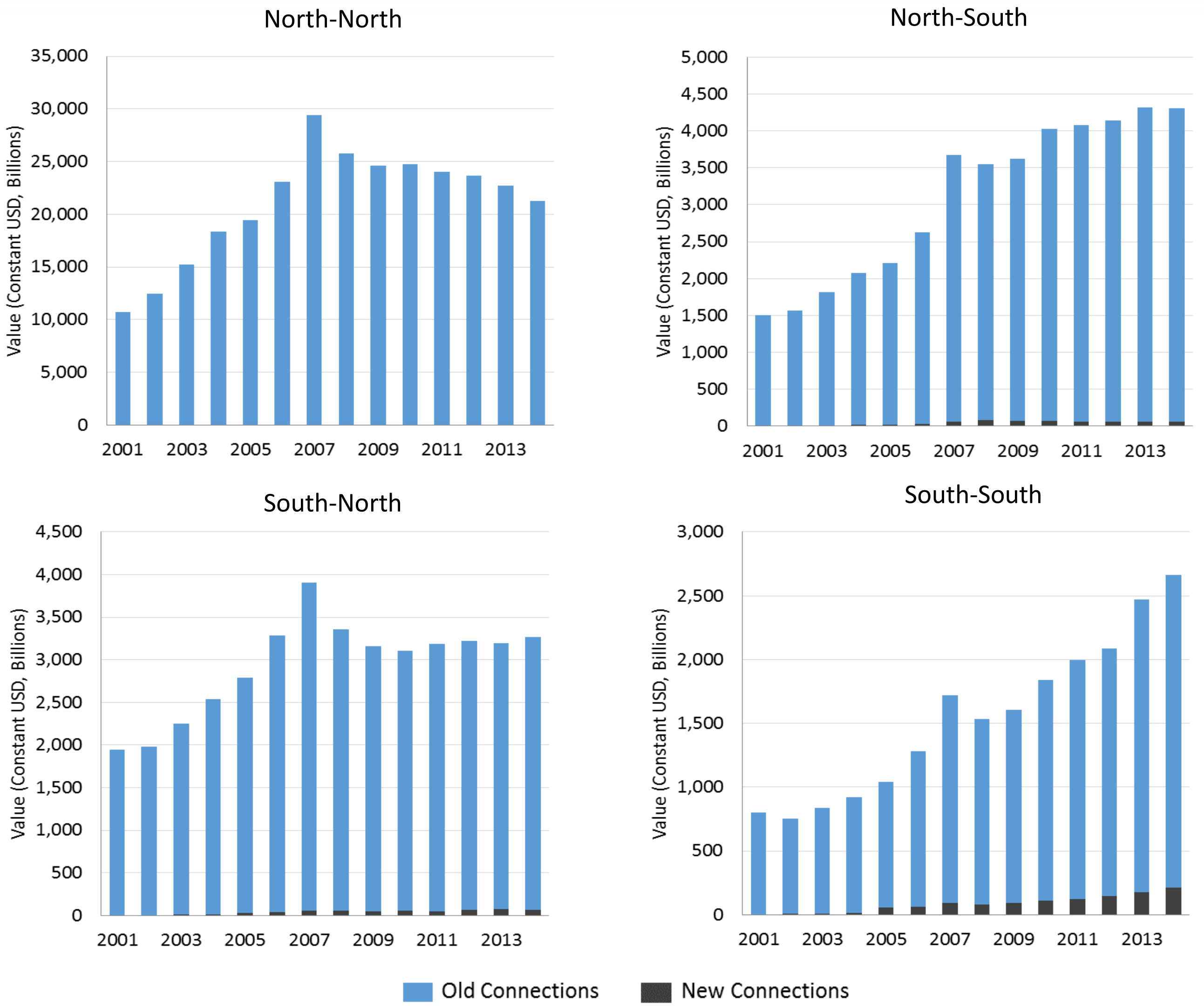
GFC: Change in Global Finance

- Before the GFC
  - Period of increasing financial globalization
  - Dominated by growth of North-South cross-border lending

- During the GFC
  - Retrenchment in cross-border bank lending
  - Global cross-border bank claims declined from about $36 trillion in 2007 to $32 trillion in 2009

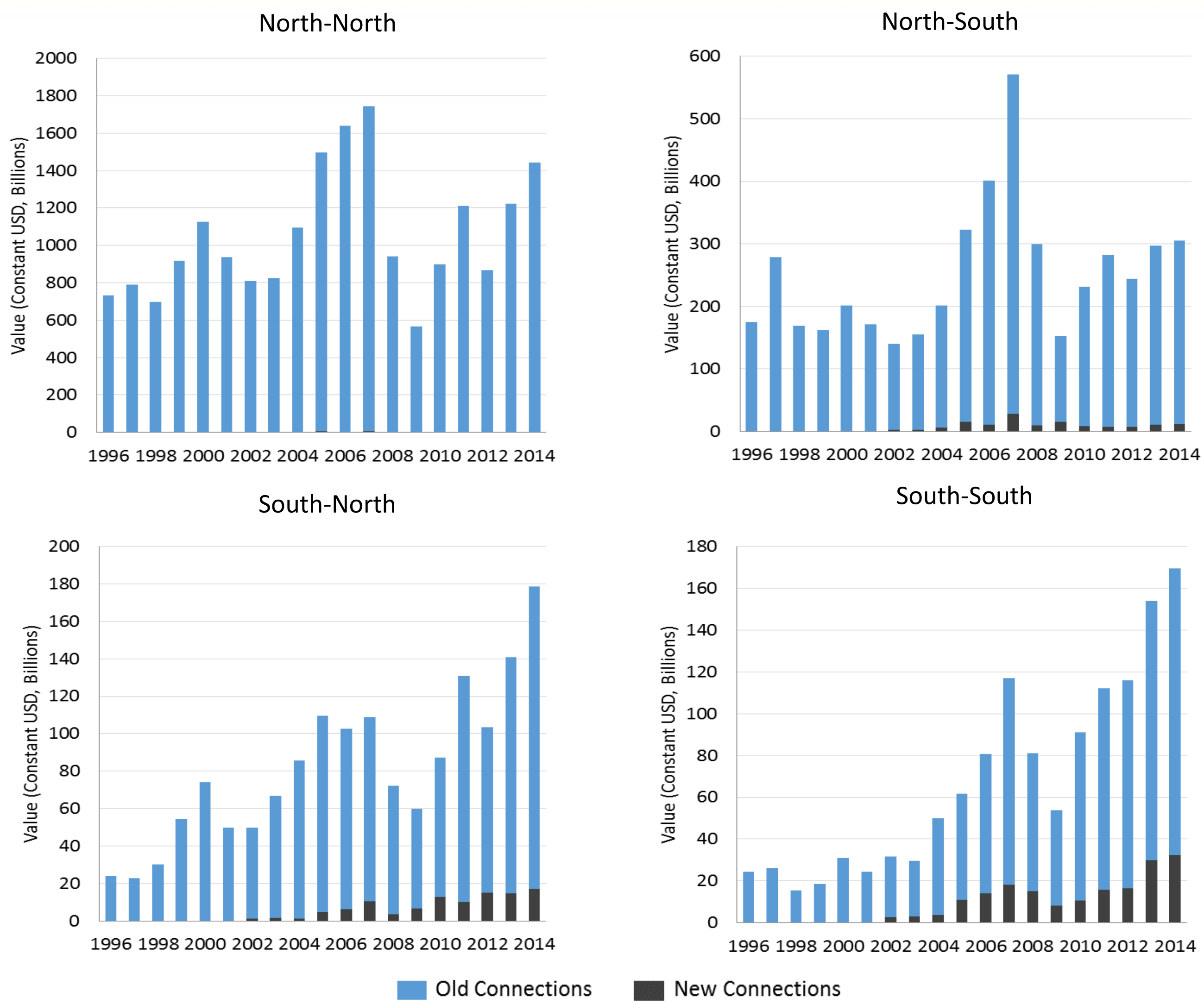
- After the GFC
  - Increase of formal restrictions to capital mobility
  - Change in the nature of cross-border banking
    - Declining role of the North as a source of financing
    - Acceleration of South-South lending
    - Trend toward regionalization

Acceleration of South-South Bank Claims



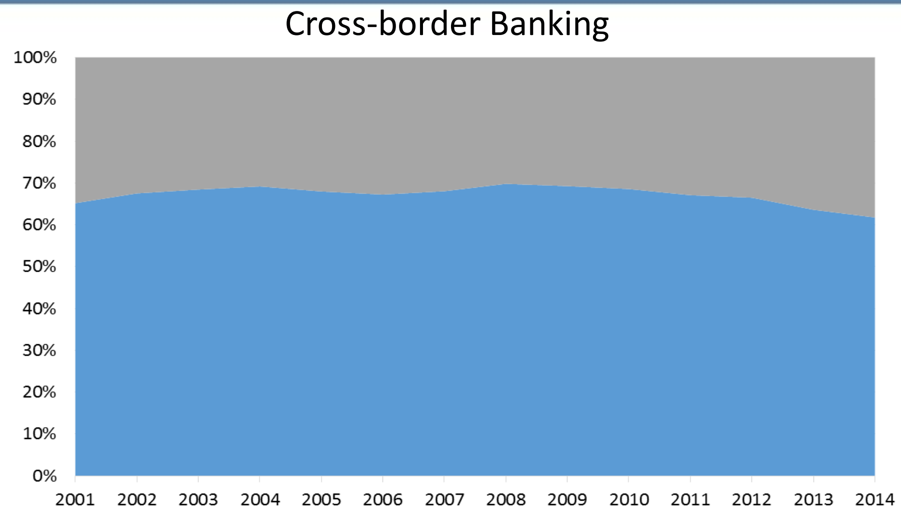
Source: Broner et al. (2016)

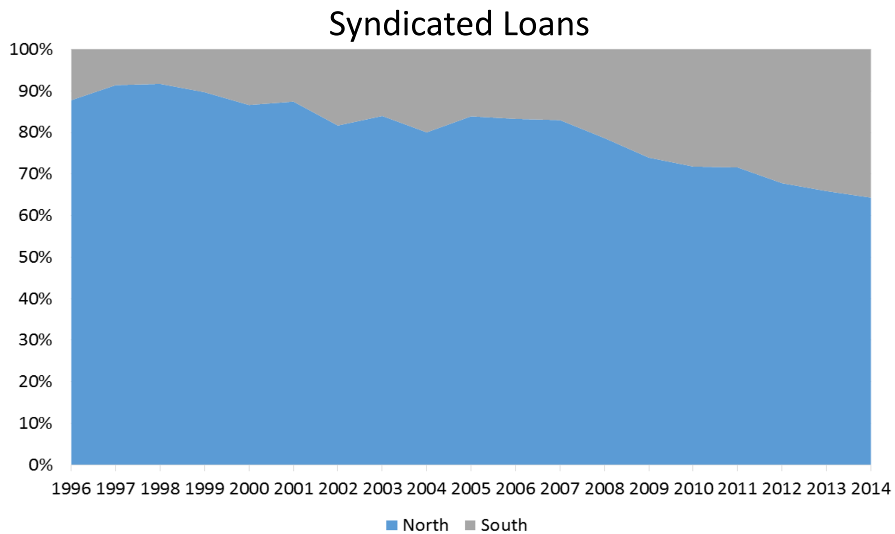
Acceleration of South-South Syndicated Loans



Source: Broner et al. (2016)

Increasing Role of the South as a Lender to the South





Notes: Role of North and South economies as providers of funds to the South

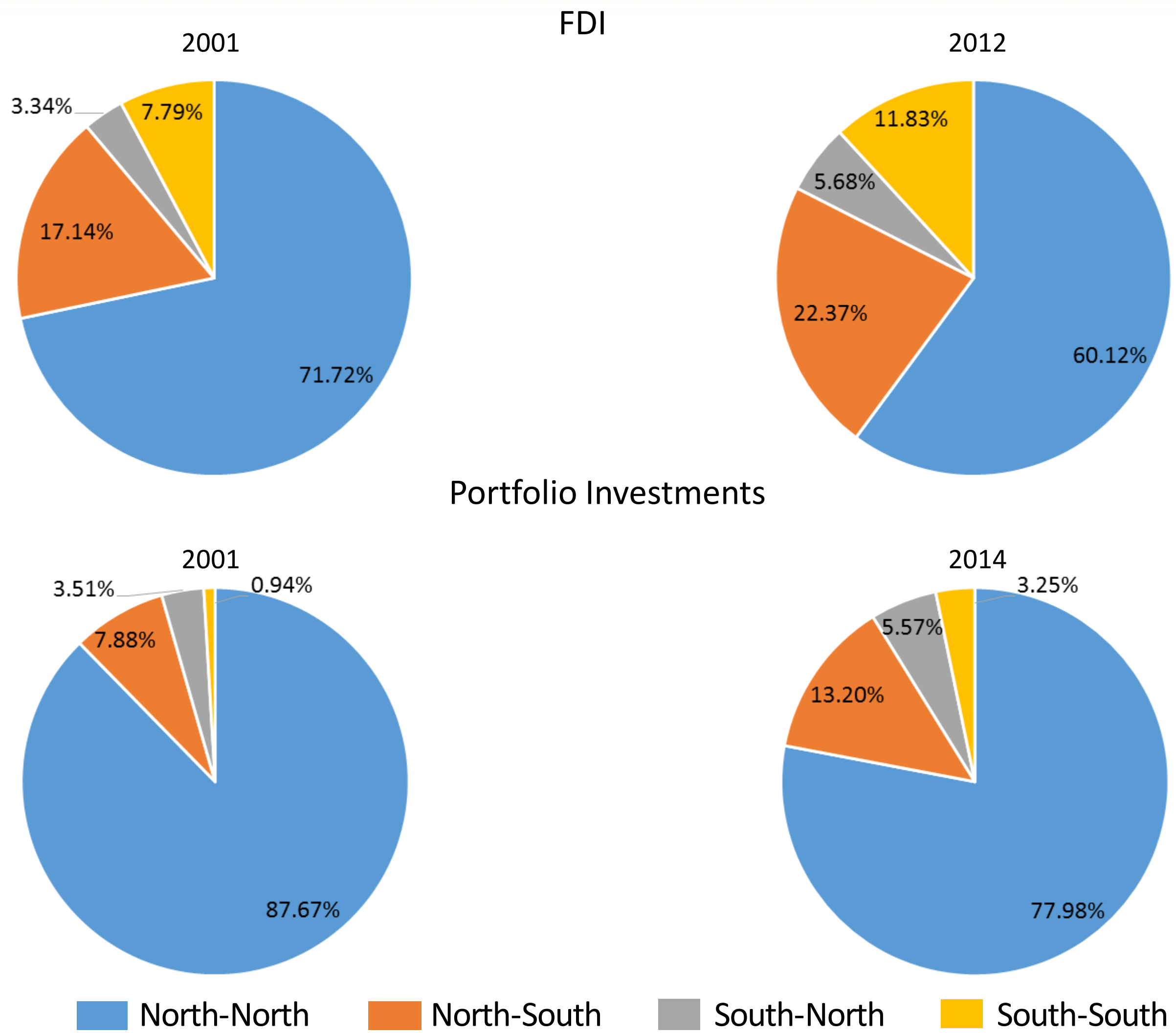
Sources: BIS Locational Banking Statistics and SDC Platinum

Trend Toward Regionalization

- Acceleration of intra-regional integration after the GFC
  - An important part of the increase in South-South lending has been associated with a trend toward regionalization
  - E.g., share of intra-regional syndicated loans over total syndicated loans received by EAP increased from 24% in 2001-07 to 40% in 2008-14

- Inter-regional flows inside the South have also contributed to the growth of South-South lending after the GFC
  - E.g., share of South inflows to EAP increased from 1% of total inflows received by the region to 2% between 2001-07 and 2008-14

Rise of the South in Global Finance: Beyond Banking



Source: Broner et al. (2016)

Increasing Presence of the South in International Trade

- Expansion of the South in global trade (Hanson, 2012)

- Evidence supports the idea of complementarity between overseas trade and investments
  - Role of banks in reducing information asymmetries between trading partners located in different jurisdictions
    - → Bank-intermediated trade finance (e.g., letters of credit)
  - Role of trade as a collateral to relax borrowing constraints
  - Several empirical studies: (Portes and Rey, 2005; Lane and Milesi-Ferretti, 2008; Dailami, Kurlat, and Lim, 2012)

Policy Implications from Rise of the South

- Multidimensional nature
  - Expansion of the South in cross-border banking
  - But also in portfolio holdings, FDI, trade, and real activity
  - This reduces concerns of a disproportionate growth in the banking sector (different from other cases, such as Iceland and Ireland)

- Regulation in the South
  - Financial institutions in the South might be less tightly regulated than those in the North
  - Increasing financial integration with the South can threaten financial stability (Klomp and De Haan, 2014)
  - Role of international cooperation

Policy Implications from Rise of the South

- South-South connections can benefit developing economies through several channels
  - Risk diversification
  - Less dependence on one or few sources of financing
  - More efficient resource allocation, in part due to knowing better the market
  - Technology spillovers
  - Better governance
  - Development of the domestic financial system
- However, they can also bring imported volatility from the newly connected economies
  - Macro prudential policies might help
- Moreover, the increasing regionalization implies a faster spread of shocks across the region

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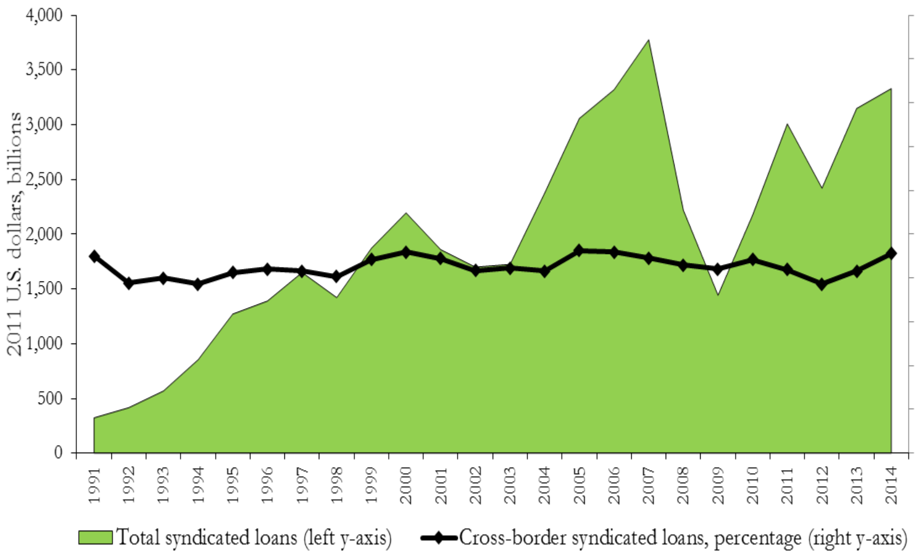
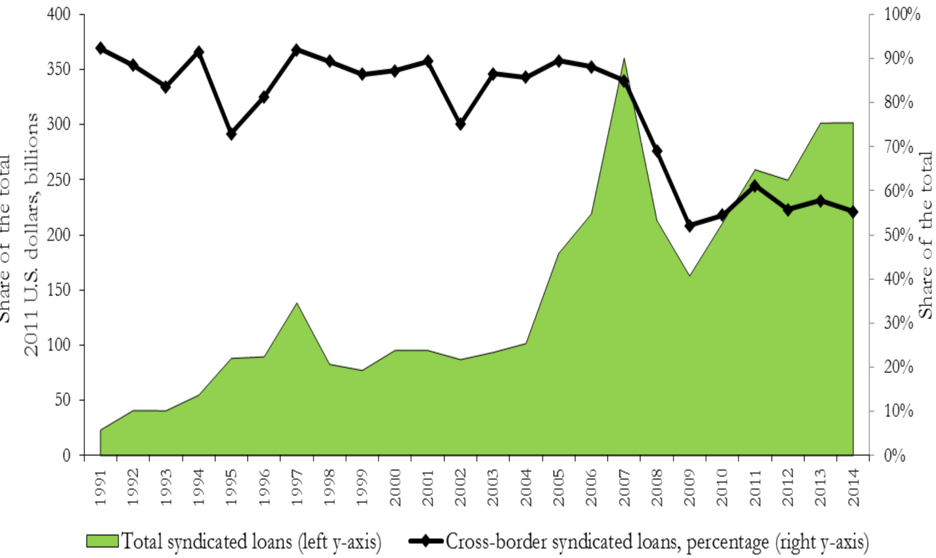
Total Amount Raised in Syndicated Loan Markets

- Global banks had rapidly expanded their lending abroad before the GFC
- But the GFC hit global banks in the developed world especially hard

High-income countries



Developing countries



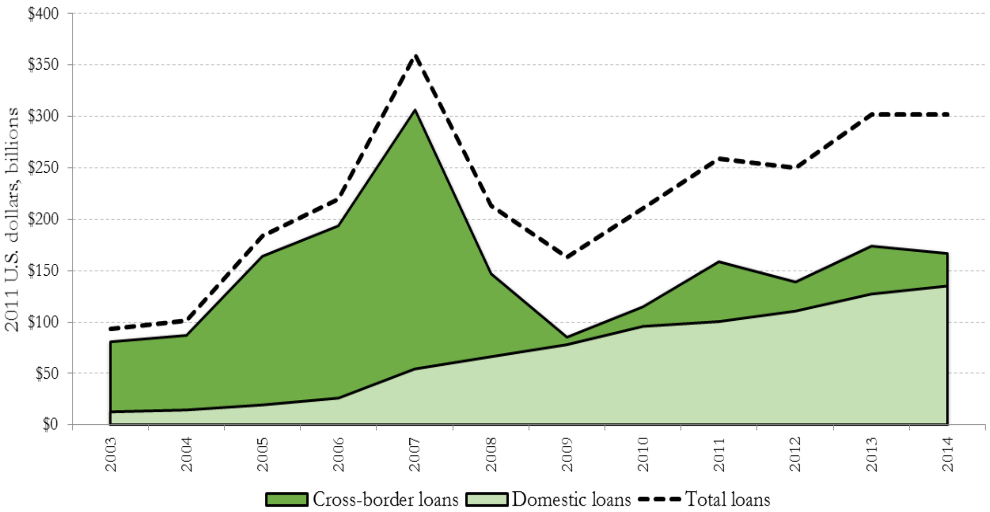
Source: SDC Platinum

Loan Issuance Composition over Time

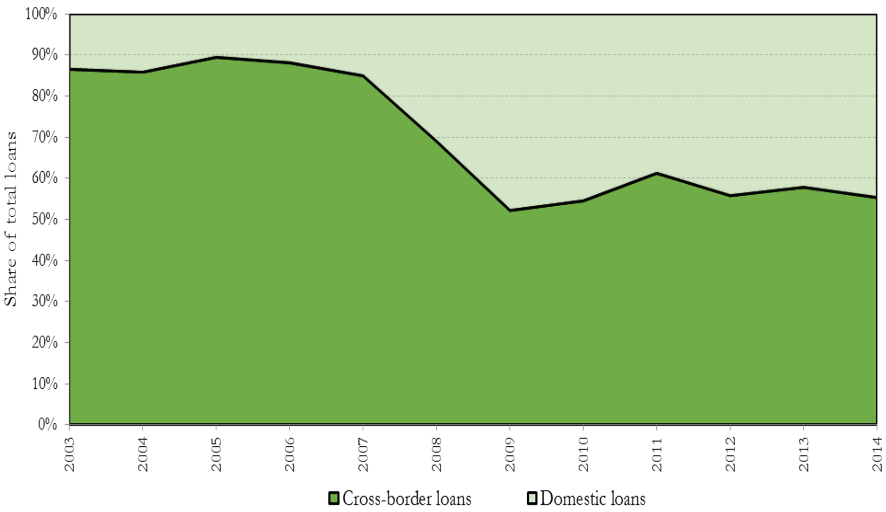
- The issuance of domestic loans in developing countries increased during GFC

Developing countries

Volume



Composition

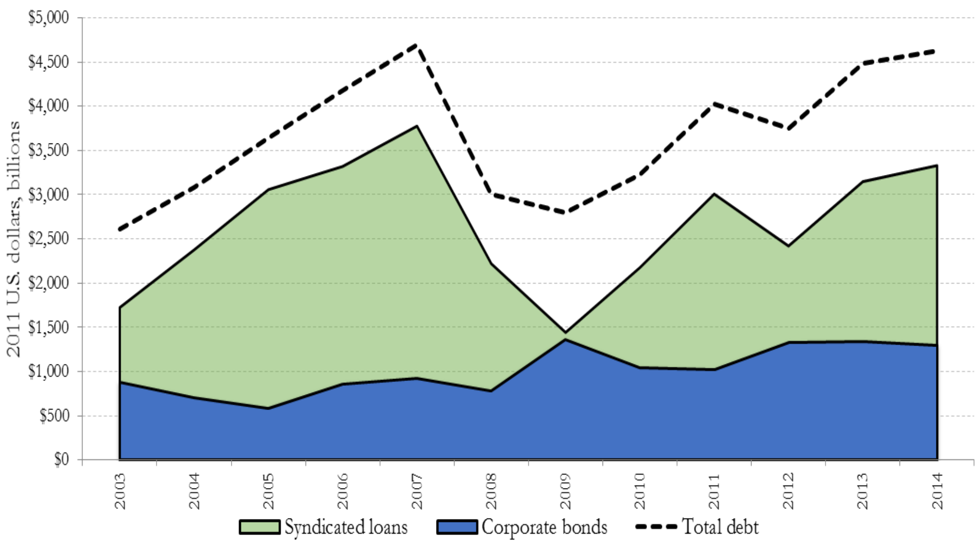


Source: SDC Platinum

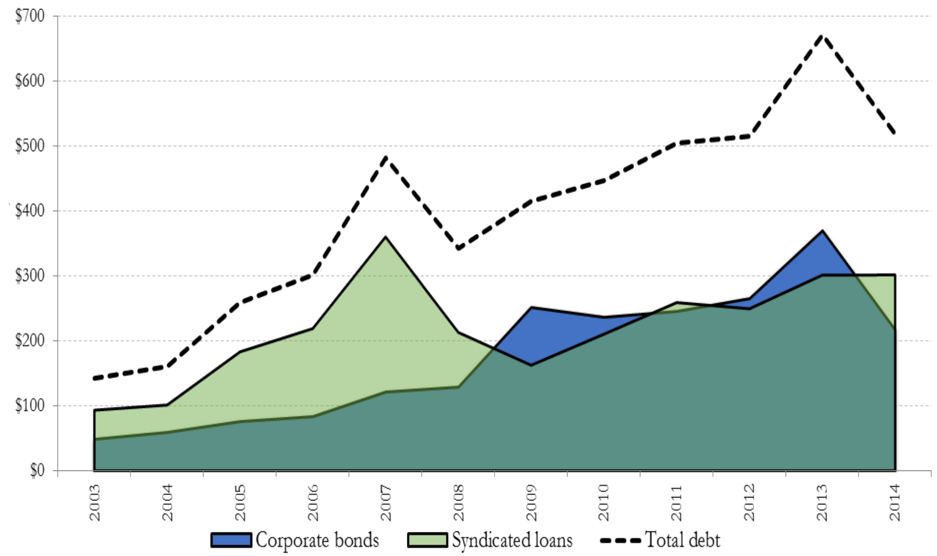
Debt Issuance Composition over Time

- The volume of bond issuances also increased worldwide during the GFC (Cortina, Didier, and Schmukler, 2016)

High-income countries



Developing countries



Source: SDC Platinum

Within Firms' Substitutions

- Recent studies analyze within-firms' decisions to move across debt markets during crises

- The reported aggregate changes in debt composition during the GFC, also took place at the country and firm-level (within firms)

- Different markets provide different types of debt financing
  - Changes in the structure of new debt (e.g., maturity, currency)

Which Firms Compensate?

- The substitution events seem to have mitigated (to some extent) the decline in global banks' lending
- But also important to consider the compositional change in the types of issuers that are tapping each market over time
- During domestic crises, only the relatively larger firms have access to alternative markets (bonds and international loans)
- During foreign shocks, large international firms can potentially crowd out smaller domestic issuers from the market
- And these large firms even benefit ex ante

Post-crisis Period

- The shift in the pattern of global financial intermediation continued during the post-crisis years

- Regulatory reforms aimed to avoid systemic risk (higher capital and liquidity requirements)

- Higher compliance costs to avoid
  - Money laundering
  - Financing of terrorism
  - Increase transparency

- All these led to a de-risking of global banks from their relatively riskier cross-border activities
  - Increasing importance of bond and domestic loan markets continued

Different Exposures to Global Conditions

- The exposure of firms and countries to global banking conditions has been reduced

- But increased with respect to international bond markets
  - Second wave of global liquidity
  - Increasing exposure to U.S. interest rates and exchange rates
  - Longer-term maturity of bonds (relative to bank credit) might be mitigating the risk of capital flow reversals and foreign currency financing
  - Domestic credit can be affected through the so called "carry trade"

- And with respect to domestic banks in developing countries

- The locus of risks shifts from banks to non-banks institutions, which might complicate surveillance of the global financial system

Policy Implications from Substitution Effects

- Patterns illustrated here highlight benefits of having alternative sources of finance
- Consider the whole financial system, and not focus just on global banks, for both access and risk
- Substitutability between cross-border bank loans and other sources of external finance seems important
  - Capital markets union in Europe (European Commission, 2015)
  - Innovative instruments, such as minibonds
- Focus on firms that cannot access different markets
  - Do not benefit ex ante
  - Crowded out ex post
  - Dependent on vagaries of one particular market

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What Is Fintech?

- Overview of the latest fintech trends and how it might affect the future of banking
- Several definitions of fintech
- Here: new set of tech-driven companies providing financial services outside traditional financial sector
- Most affected: payments, transfers, lending, wealth management (not covered here)
- Drivers
  - Retrenchment and high regulation in traditional banking system after GFC
  - Greater access to technology
  - Wider use of mobile devices

How Many Fintech Cos. and How Fast Are They Growing?

- At least, 4,000 active fintech firms in 2015 (The Economist, 2015)
- Global investment: 12-fold increase between 2010 and 2015 ($22.3 billion) (Accenture, 2016)
- U.S. and U.K.: world leaders in fintech investments (63% and 11% of the total)
- But Asian countries experienced fastest expansion

Topics Covered Here

- Lending
  - P2P lending platforms
- Payments and transfers
  - Mobile money and new business models on payments and transfers
  - New technologies (blockchain)
  - Cross-border transactions
- Benefits and risks of fintech
- Regulation
- Level of disruption
- Future of global banking

Lending

- Most of the new players use P2P (peer-to-peer) model
  - Direct lending from savers to borrowers, avoiding bank intermediation
  - However, most of the loans include funding from a wide set of investors (including financial institutions)
- Relative to banks: no branches, faster loan applications, smaller shorter-term loans
- Alternative credit models to assess credit risk
- Replace traditional credit scoring with machine learning and algorithms based on big data mining

Payments and Transfers

- Payment industry evolved prior to latest fintech expansion
  - Adoption of credit cards (1950s)
  - Rise of e-commerce (1990s)

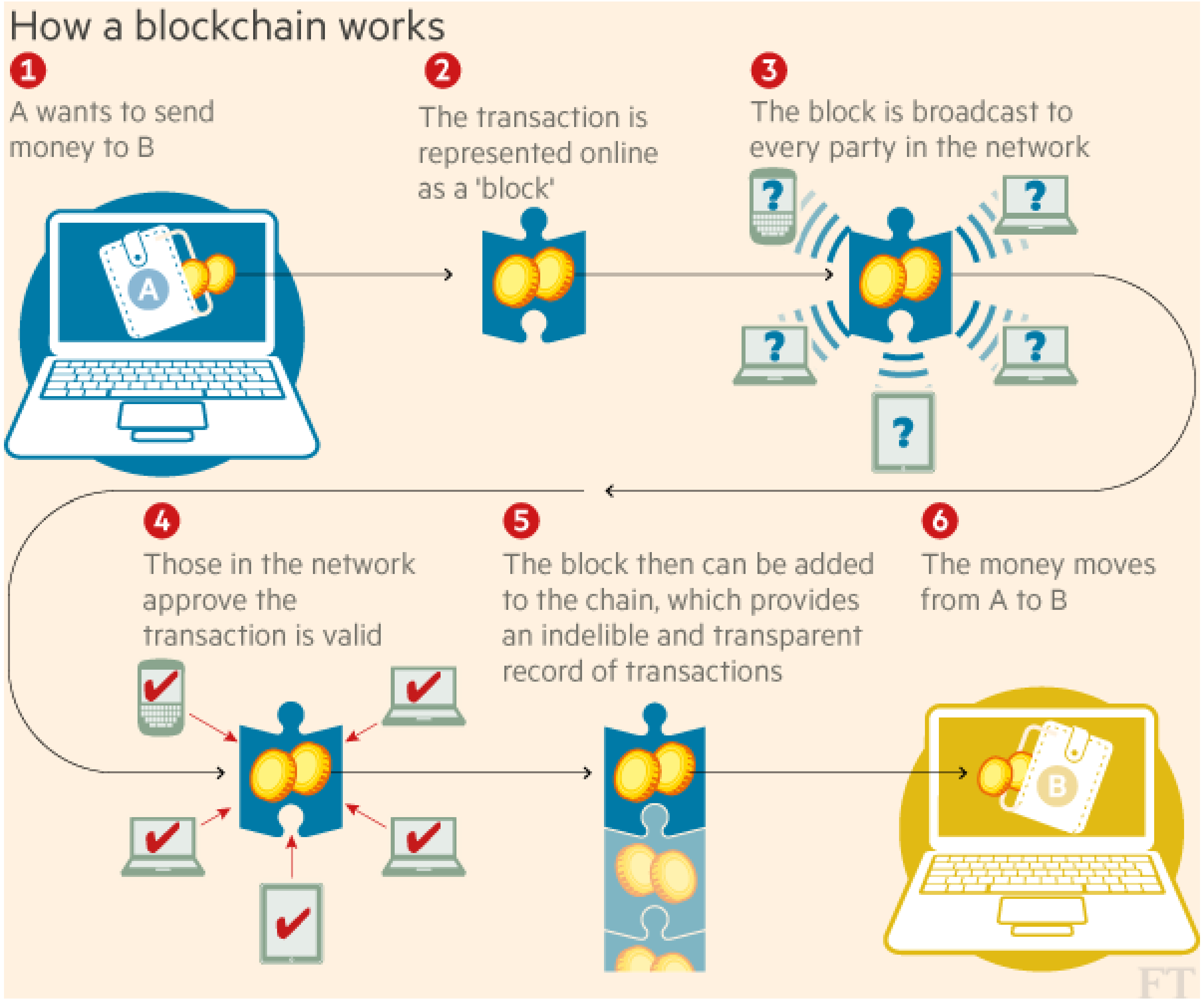
- Payments
  - Retail: fastest fintech growing area in innovative solutions
  - Most innovations focus on user experience (front-end), but existing infrastructure remains the same
  - E.g., mobile money payments

- Transfers
  - Mobile money solutions (M-Pesa)
  - New business models (Transferwise, Azimo)
    - Matching currency flows across and within countries
    - The money does not move across borders
  - And new technologies (Blockchain)

Blockchain

- Technology behind the bitcoin (and other cryptocurrencies)
- Allows peer-to-peer transactions without need of a "trusted" third party to clean and settle payments
- Invented by "Satoshi Nakamoto": anonymous, open source

Blockchain



Source: World Economic Forum, Financial Times

Blockchain

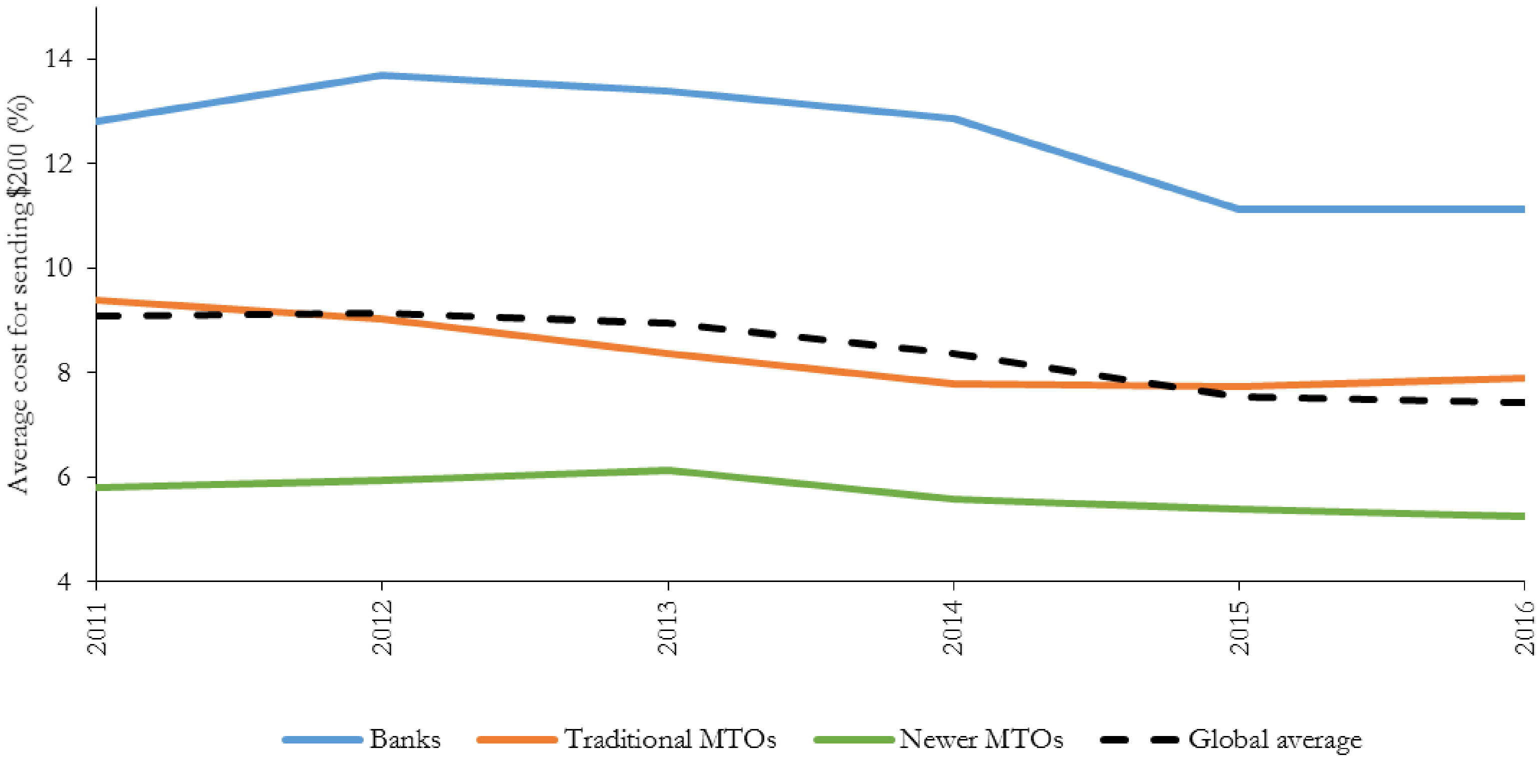
- Technology upends one of the most important task of the financial industry: trusted intermediary of transactions
- Significant potential beyond digital cash, due to increasing speed and efficiency and lower costs
- Can potentially disintermediate many financial (and non-financial) processes
  - Payment infrastructure
  - Other applications (“blockchain 2.0”)
    - International bank payments (e.g., Ripple)
    - Securities transactions
    - Blockchain-based property registry, land titles (e.g., Bitfury)
    - Smart contracts, self-executing contracts (e.g., Ethereum)
- Called to revolutionize the way valuables are sent

Cross-border Transfers

- Global remittances flows: over $601 billion in 2015
- Larger than development aid, FDI, and corporate investment (private debt and portfolio equity flows)
- Remittances account for over 20% of GDP in many developing countries (e.g., Nepal and Haiti)
- But existing cross-border system is slow and the average cost of transaction high
- Opportunity for digital innovations

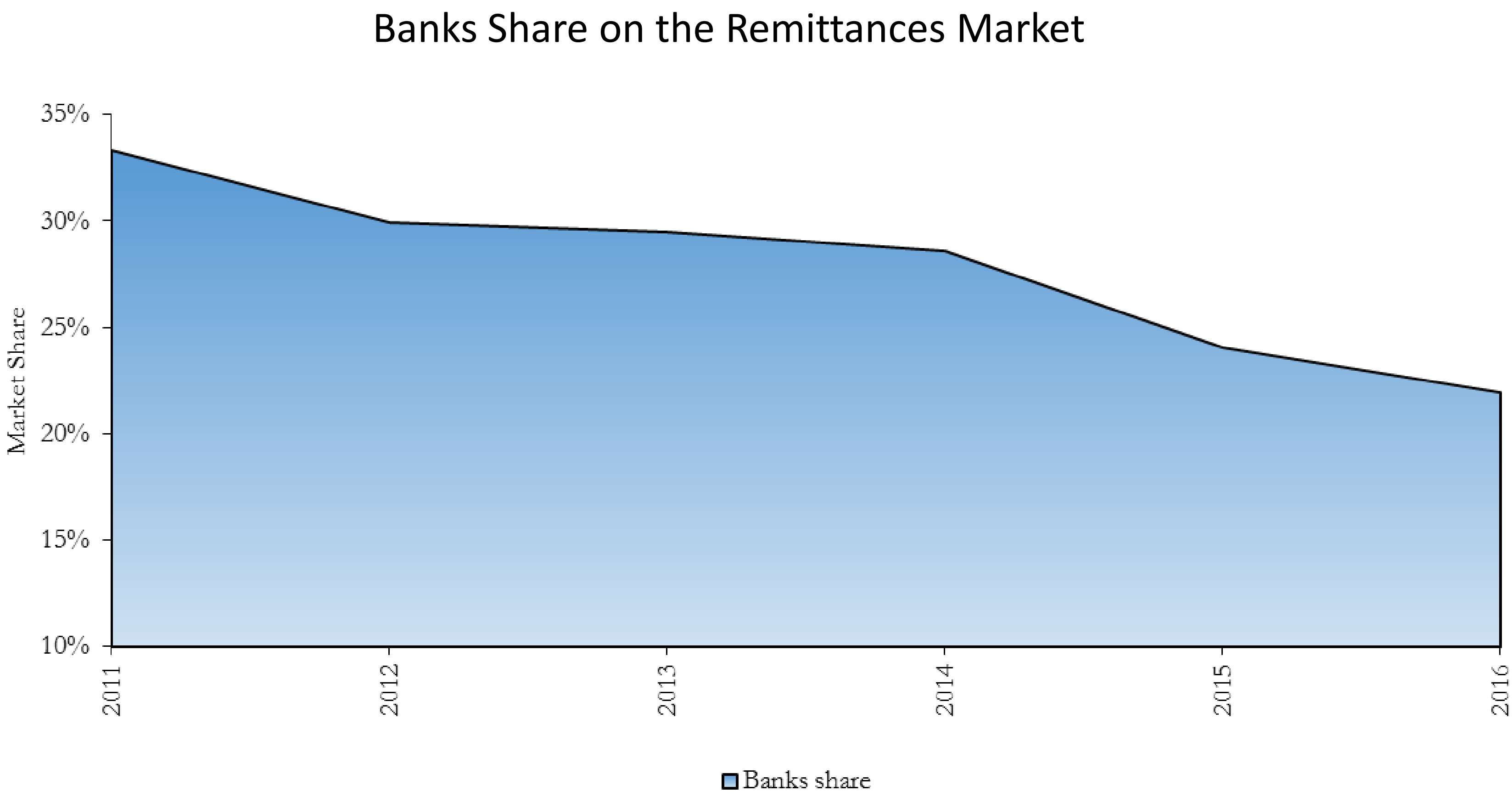
Digital Providers Effective Pressure on Prices

Average Cost of Sending Remittances



Source: Remittance Prices Worldwide, World Bank
http://remittanceprices.worldbank.org

Digital Providers Effective Pressure on Prices



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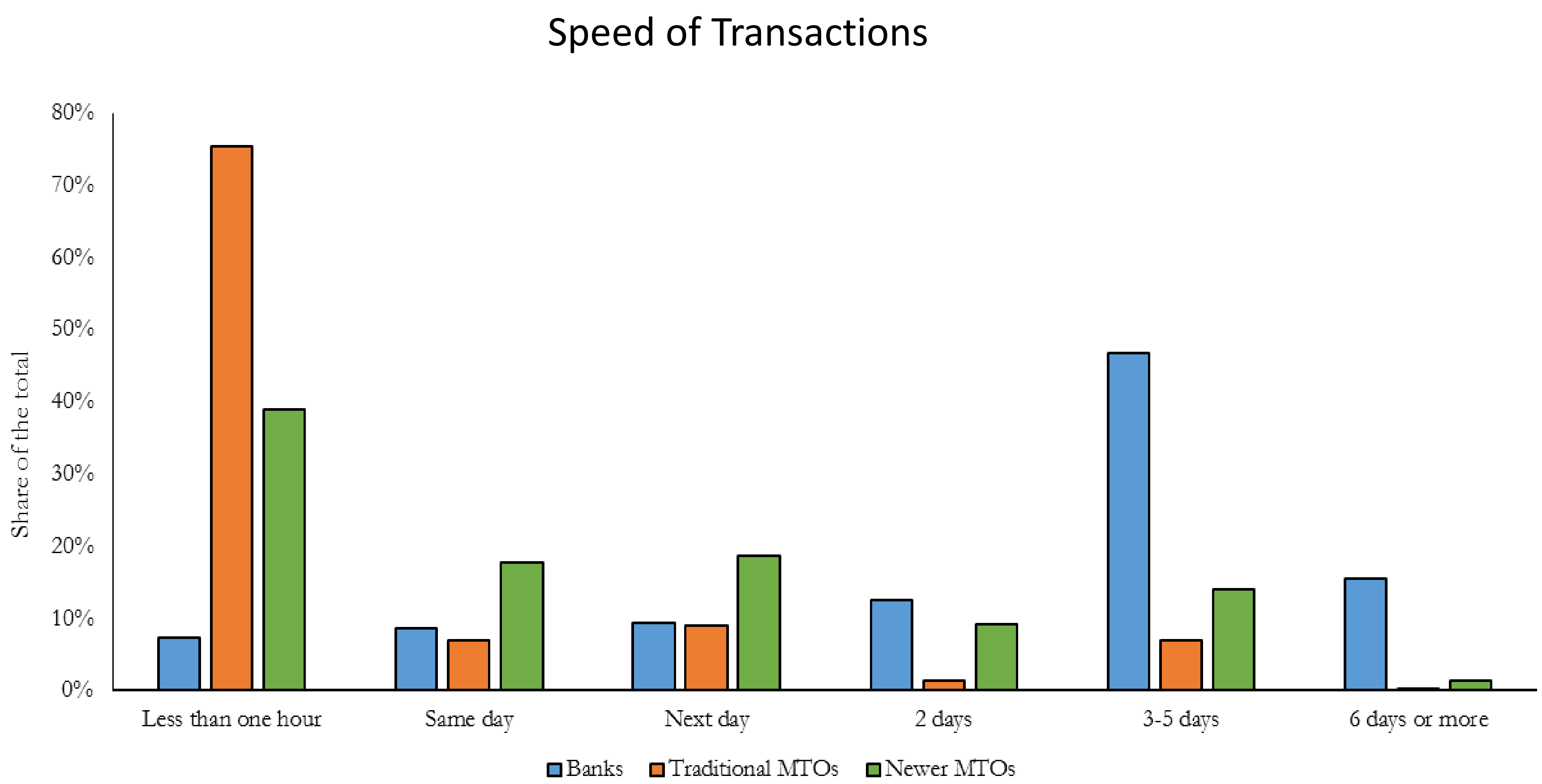

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Benefits and Risks

- Increase competition and efficiency (Phillipon, 2016)
- Financial inclusion: many people do not access traditional banks
  - Mobile money platforms: cheaper, faster
  - Digital data can be used to create new financial offerings (M-Shwari)
  - Bitcoin international payments
  - Property ownership (blockchain registries): proof of ownership (collateral)
  - Also, inclusion to global trade
- Risks
  - Lack of safety nets
  - Misuse of personal data
  - Difficulties to identify customers
  - Electronic fraud
  - Funding of illegal activities
    - Silkroad: anonymous e-commerce platform allowed buy/sell anything using bitcoins (including drugs and guns)

Regulation

- Rapid fintech development highly unregulated
- Can be risky
  - P2P lending platforms do not bear the risk of default
  - Do not have deposits, their main source of funding might evaporate
  - Fintechs usually have a base of more vulnerable customers
  - Regulation is region specific, but many fintech firms operate globally
- Excessive regulation might be deadly for fintech start-ups
  - Regulatory sandboxes: testing of fintech services with low level of regulation for a defined period
  - U.K. Australia, Singapore, Hong Kong, and possibly U.S.
- Regtech: digitally enabled methods to address compliance requirements and monitoring of digital financial services

Level of Disruption

- Level of disruption low, despite the rapid expansion of fintech
- Around 1 percent of consumer banking revenue in the U.S. (Citigroup, 2016)
- Credit intermediated by online platforms relatively small
  - Around 1 percent of total retail loans in the U.S. and U.K.
  - Around 1.4 percent of SME credit in the U.S.

Complementarities

- Low level of disruption partly because many fintech services complement (rather than substitute) traditional banking
  - Alternative sources of external finance to consumers and SMEs
- Large fraction of the market within the e-commerce ecosystem (Alipay, Paypal)
- Online lending: opportunity for the type of borrower underserved by banks (SMEs and higher risk customers)
- Opportunity lost rather than a loss of existing earnings
- Bank account needed to perform many fintech services
  - E-payments, mobile payments, mobile transfers (Apple pay, Venmo, paypal)
  - Very hard to imagine fintechs getting involved on the current accounts area

Future

- Fintech will likely reshape global financial sector, changing the way in which banks interact with customers
  - From brick-and-mortar operations to non-physical channels (mobile devices)
- Blockchain applications
  - Around 90% of banks in U.S. and Europe are experimenting with it
- Banks are responding with collaboration strategies
  - Banks have already absorbed a lot of fintechs
  - Created fintech investment funds, fintech incubators, and accelerators
  - Fintechs can benefit from this: access to client base, trust, capital, licenses, global infrastructure and brand

Thank you!