Financial-Services Trade Restrictions and Lending from an International Financial Centre

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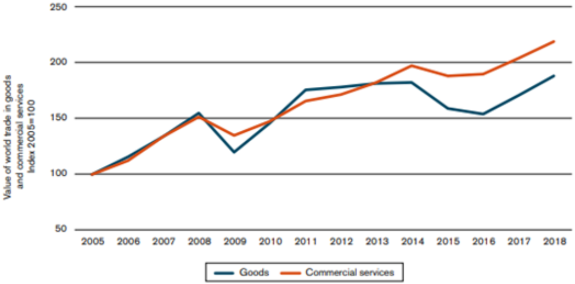
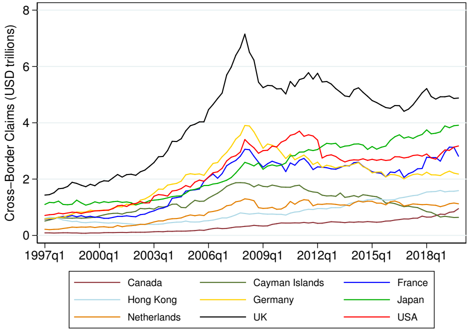
Importance of Financial-Services Trade

- Substantial growth in services trade
- *Financial*-services trade a large share (20%)



Source: WTO

- UK a major exporter of financial services
- Largest international financial centre (IFC)

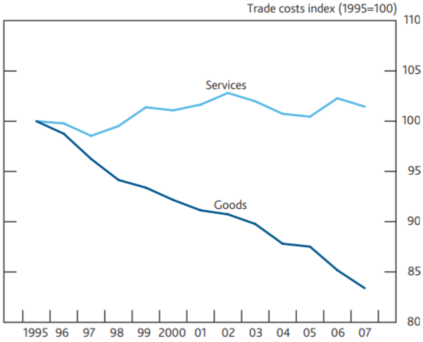


Source: BIS

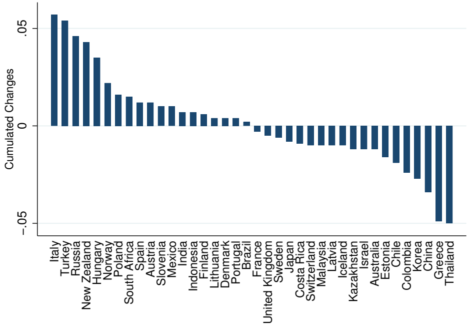
Prevalence of Restrictions to Financial-Services Trade

- Despite trade growth, restrictions on services trade still prevalent
- Unlike goods trade, where ↓ restrictions

- Numerous restrictions, e.g.: on foreign entry/ownership, FX lending etc.
- Distinct from macroprudential policy



Source: Joy, Lisack, Lloyd, Reinhardt, Sajedi & Whitaker (2018)



Source: OECD

This Paper

What is the impact of financial-services trade restrictions, applied abroad, on the global operations of UK-based banks?

- Combine confidential quarterly data on UK-based banks' cross-border lending with data on financial-services trade restrictions abroad
- Using granular information on banks' lending, assess the impact of changes in financial-services trade restrictions abroad
- For banks without affiliates abroad: $\uparrow$ restrictions $\Longrightarrow$ $\downarrow$ lending (and vice versa)
- For banks with affiliates abroad: identify novel bank-business model effect
    - $\uparrow$ restrictions $\Longrightarrow$ $\downarrow$ intragroup lending, but $\uparrow$ direct lending to non-banks (and vice versa)

$\Rightarrow$ Suggests substitution from 'local' to 'global' intermediation

Data

UK-Based Banks' Cross-Border Assets and Liabilities (Bank of England)

- Confidential *quarterly* panel of cross-border lending for $250+$ UK-based banks
- Disaggregated loans, by $50+$ recipient countries: intragroup, interbank and to non-banks
- Cleaning: significant links ($\geq$ £10mn) and intensive margin (growth $\in (-100\%, +100\%)$, winsorised 2.5% level)

Services-Trade Restrictiveness Index (OECD)

- Most-favoured nation (MFN) services trade restrictions by destination country
- Five policy areas: entry of foreign affiliates; competition barriers; regulatory (in)transparency; restrictions to the movement of people; other discriminatory measures
- *Annual* financial-services index: $STRI \in [0, 1]$: 1 fully closed; 0 fully open

Combined sample: 2015Q1-2019Q4

Types of Bank Lending and Financial-Services Trade Restrictions

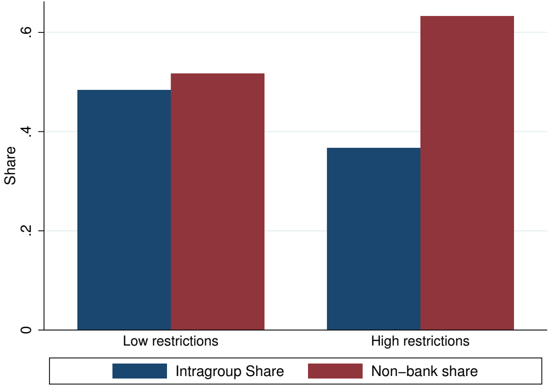
Recipient countries with low $STRI$:

- Share of intragroup and non-bank lending (direct to final borrowers) roughly equal

High $STRI$:

- Significantly higher non-bank share

Suggests that $STRI$ affect banks' cross-border business models



Avg., cross-border lending by destination, 2015Q1-2019Q4

'Low restrictions': $STRI \leq Pct(75)$; 'High': $\geq Pct(75)$

Hypotheses

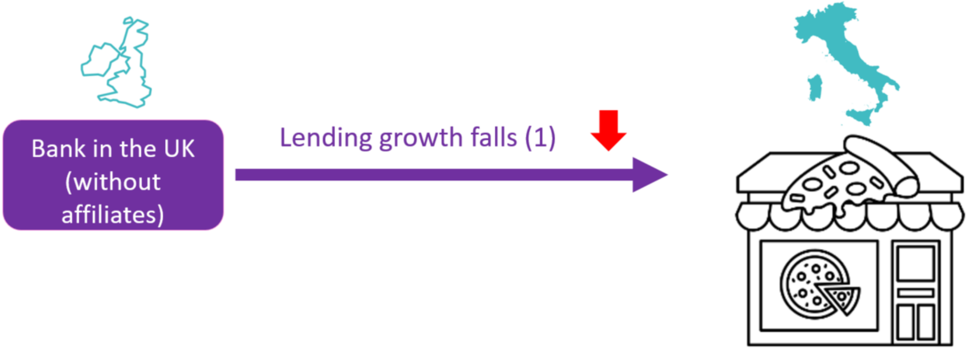
Intermediation Costs:

- Tighter restrictions associated with increased costs to intermediating abroad
- Independent of loan type (intragroup vs. non-bank)
- $\uparrow STRI \implies \downarrow$ supply of cross-border loans

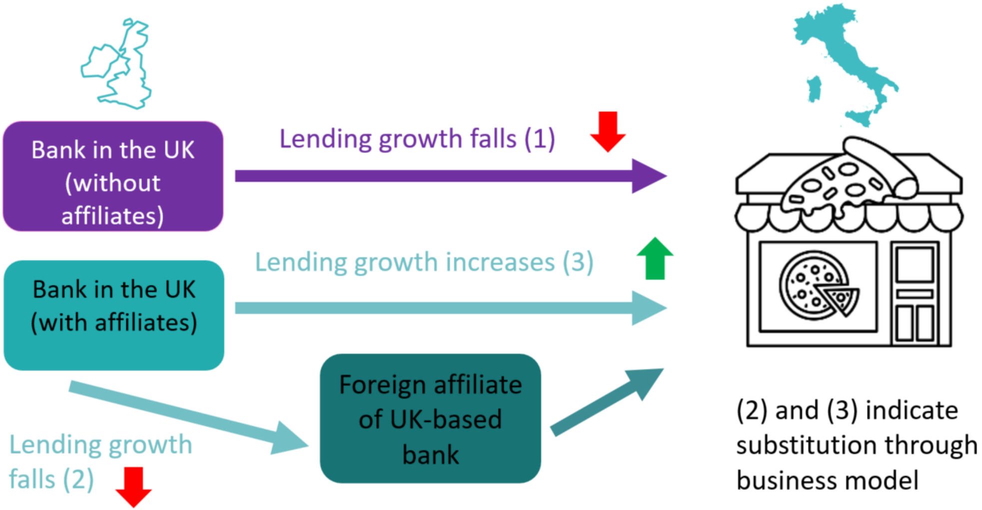
Business Model:

- Tighter restrictions limit activity *within* country...
- ...but lending relationships from IFC important to preserve [Bussière et al. 2021]
- $\uparrow STRI \implies$ substitute *from* lending locally ($\downarrow$ intragroup) *to* global lending ($\uparrow$ non-bank)

Hypothesis



Hypothesis


Bank in the UK (without affiliates)
Lending growth falls (1)
Bank in the UK (with affiliates)
Lending growth increases (3)
Foreign affiliate of UK-based bank
Lending growth falls (2)
(2) and (3) indicate substitution through business model

Empirical Specification

$$\Delta y_{b,c,t} = \beta_1 \Delta STRI_{c,t} + \beta_2 \Delta STRI_{c,t-4} + \delta_1 \left(\Delta STRI_{c,t} \times \mathbb{1}_{b,c,t}\right) + \delta_2 \left(\Delta STRI_{c,t-4} \times \mathbb{1}_{b,c,t}\right)$$
$$+ \theta \mathbb{1}_{b,c,t} + \boldsymbol{\gamma}' \mathbf{x}_{c,t} + f_{b,t} + f_c + \varepsilon_{b,c,t}$$

- $\Delta y_{b,c,t}$: growth of cross-border lending by bank b to country c at time t
- $STRI_{c,t}$: (annual) change in financial-services trade restrictions
- $\mathbb{1}_{b,c,t}$: 1 if bank b has affiliate in country c at time t
- $\mathbf{x}_{c,t}$: macro controls for loan-demand in country c at time t (e.g., credit and GDP growth)
- $f_{b,t}$ and f_c: Bank-time and recipient-country fixed effects
- Standard errors: bank-time clustered

Main Results

Loans to:	Non-banks	Non-banks	Non-banks	Non-banks	Intragroup
Foreign Affiliate:	Without	With	With	With	With
$\Delta STRI_{c,t}$	-0.8372**	0.7307	-0.6981*		-1.7566*
	(0.4138)	(0.8896)	(0.3977)		(1.0467)
$\Delta STRI_{c,t-4}$	-0.3114	1.8978**	-0.1975		-1.7716*
	(0.4105)	(0.8650)	(0.3899)		(1.0101)
Sum	*-1.149**	*2.629***	*-0.896*		*-3.528***
$\Delta STRI_{c,t} \times \mathbb{1}_{b,c,t}$			0.6421	1.0895	
			(0.7261)	(0.7176)	
$\Delta STRI_{c,t-4} \times \mathbb{1}_{b,c,t}$			1.4599**	1.4465*	
			(0.7432)	(0.7536)	
Sum			*2.102***	*2.536****	
Fixed Effects	$f_{b,t}$, f_c	$f_{b,t}$, f_c	$f_{b,t}$, f_c	$f_{b,t}$, $f_{c,t}$	$f_{b,t}$, f_c
Obs.	16,594	5,325	22,787	23,458	6,693

Significance at the 10% (*), 5% (**) and 1% (***)

Robustness and Extensions

- Excluding banks headquartered in receiving countries
- Tightenings vs. loosenings
- Controlling for additional factors:
    - Quality of governance (World Governance Indicator)
    - Regulatory quality
    - Capital-account openness
    - Net government lending/borrowing
- Specific policy areas:
    - Significant: barriers to competition; other discriminatory measures (e.g., FX lending restrictions)
    - Insignificant: restrictions on foreign entry; movement of people; regulatory transparency

Conclusions

What is the impact of financial-services trade restrictions, applied abroad, on the global operations of banks?

- Focusing on lending from world's largest IFC, show that tighter $STRI$ can lead to substitution from 'local' to 'global' intermediation (and *vice versa*)
- Key policies: restrictions on competition (e.g, favouring state-owned banks) and FX lending

$\Rightarrow$ Suggests changes in $STRI$ can have unintended consequences for domestic policy autonomy and oversight

- To extent local intermediation is easier for domestic regulators to oversee $\Longrightarrow$ benefits to increasing services-trade openness due to shift from 'global' to 'local' intermediation