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

European Economic Association Annual Conference 2023

Simon Lloyd    Dennis Reinhardt    Rhiannon Sowerbutts

Bank of England

August 2023

The views expressed here do not necessarily reflect the position of the Bank of England.
Importance of Financial-Services Trade

- Substantial growth in services trade
- Financial-services trade a large share (20%)
- UK a major exporter of financial services
- Largest international financial centre (IFC)

Source: WTO

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: 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: ↑ restrictions ⇒ ↓ lending (and vice versa)
- For banks with affiliates abroad: identify novel bank-business model effect
  - ↑ restrictions ⇒ ↓ intragroup lending, but ↑ direct lending to non-banks (and vice versa)
  ⇒ 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
- $\uparrow STRI \implies$ substitute from lending locally ($\downarrow$ intragroup) to global lending ($\uparrow$ non-bank)
Hypothesis

Bank in the UK (without affiliates) → Lending growth falls (1)
Hypothesis

Bank in the UK (without affiliates)

Bank in the UK (with affiliates)

Foreign affiliate of UK-based bank

Lending growth falls (1)

Lending growth increases (3)

Lending growth falls (2)

(2) and (3) indicate substitution through business model
Empirical Specification

\[ \Delta y_{b,c,t} = \beta_1 \Delta STRI_{c,t} + \beta_2 \Delta STRI_{c,t-4} + \delta_1 (\Delta STRI_{c,t} \times 1_{b,c,t}) + \delta_2 (\Delta STRI_{c,t-4} \times 1_{b,c,t}) + \theta 1_{b,c,t} + \gamma' x_{c,t} + f_{b,t} + f_c + \varepsilon_{b,c,t} \]

- \( \Delta y_{b,c,t} \): growth of cross-border lending by bank \( b \) to country \( c \) at time \( t \)
- \( STRI_{c,t} \): (annual) change in financial-services trade restrictions
- \( 1_{b,c,t} \): 1 if bank \( b \) has affiliate in country \( c \) at time \( t \)
- \( x_{c,t} \): 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

<table>
<thead>
<tr>
<th>Loans to:</th>
<th>Non-banks</th>
<th>Non-banks</th>
<th>Non-banks</th>
<th>Non-banks</th>
<th>Intragroup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Affiliate:</td>
<td>Without</td>
<td>With</td>
<td>With</td>
<td>With</td>
<td>With</td>
</tr>
<tr>
<td>$\Delta STRI_{c,t}$</td>
<td>-0.8372**</td>
<td>0.7307</td>
<td>-0.6981*</td>
<td>-1.7566*</td>
<td>(0.4138)</td>
</tr>
<tr>
<td>$\Delta STRI_{c,t-4}$</td>
<td>-0.3114</td>
<td>1.8978**</td>
<td>-0.1975</td>
<td>-1.7716*</td>
<td>(0.4105)</td>
</tr>
<tr>
<td>$\Delta STRI_{c,t-4} \times 1_{b,c,t}$</td>
<td>-1.149*</td>
<td>2.629**</td>
<td>-0.896</td>
<td>-3.528**</td>
<td>(0.6421)</td>
</tr>
<tr>
<td>Sum</td>
<td>0.6421</td>
<td>1.0895</td>
<td>(0.7261)</td>
<td>(0.7176)</td>
<td></td>
</tr>
<tr>
<td>$\Delta STRI_{c,t-4} \times 1_{b,c,t}$</td>
<td>1.4599**</td>
<td>1.4465*</td>
<td>(0.7432)</td>
<td>(0.7536)</td>
<td></td>
</tr>
<tr>
<td>Sum</td>
<td>2.102**</td>
<td>2.536***</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fixed Effects: $f_{b,t}, f_{c}$  

| 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
  ⇒ 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 ⇒ benefits to increasing services-trade openness due to shift from ‘global’ to ‘local’ intermediation