Multinational Banks and Supranational Supervision

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Motivation

- Importance of multinational banks (MNBs) has increased over time.
  - up to 90% of foreign banks (East Europe), 10% "core" Europe
- Failure to coordinate between national regulators can result in spectacular failures.
  - "The failure of Dexia, three times bailed out by the French and Belgian authorities, showed the need for the eurozone to accelerate its plans to establish a single banking supervisor and resolution authority, the Cour des Comptes, Frances national auditor, said", FT 2013, July 18.
- Lesson drawn: strong rationale for common supervisor (SSM)

What is the impact of centralized supervision on multinational banks?

Motivation

- How does supranational supervision (e.g. European Banking Union) affect monitoring and intervention incentives?
- How does the organizational structure of bank's foreign operations react to supranational supervision?
- What are the effects on the costs of insuring depositors of large cross-border banks?

Model

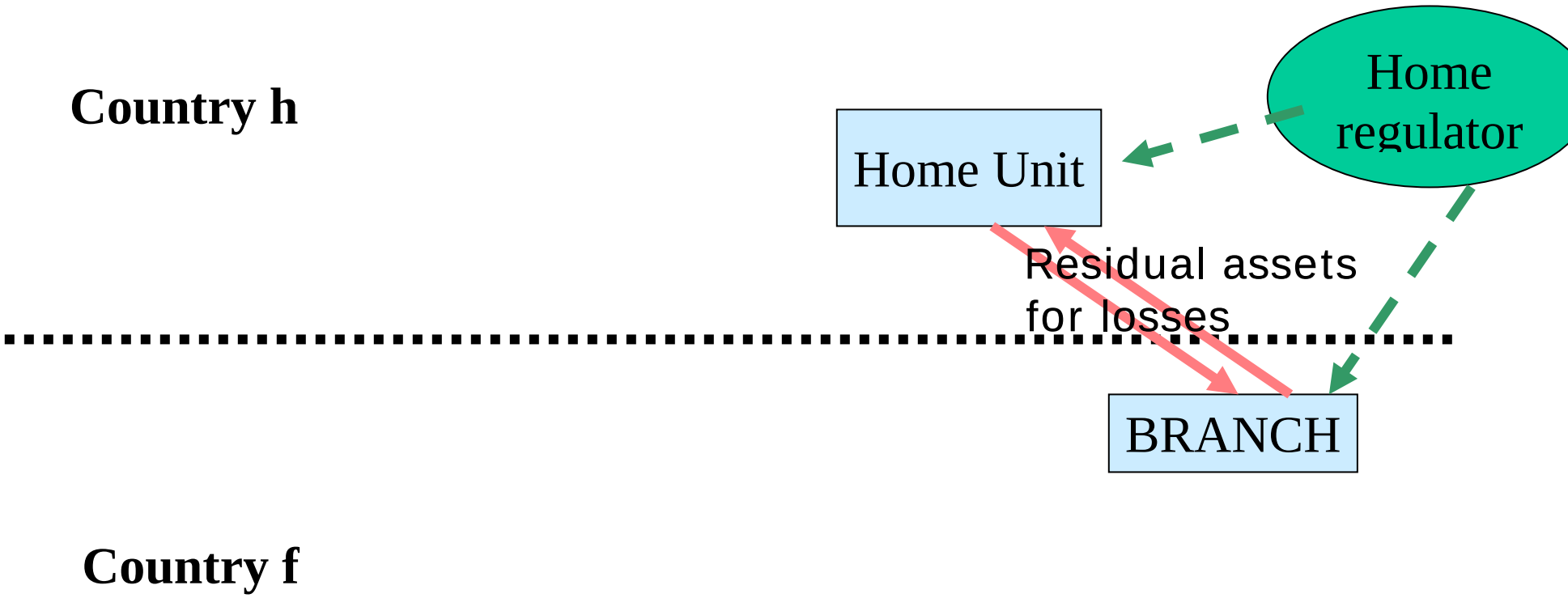
- An MNB operates one unit in country h(ome, incorporation) and one in f(oreign)
- Each unit collects deposits of size 1, invests locally in illiquid and risky project: $R > 1$ with proba p, 0 otherwise, premature liquidation leads $L < 1$.
- Units' investments are uncorrelated.
- Depositors insured by responsible Deposit Insurance (DI), that in country i repays with proba α_i (credibility of DI)
- Since actual reimbursement may be partial, depositors ask (endogenous) a repayment $P_i \geq 1$.

Branch or Subsidiary?

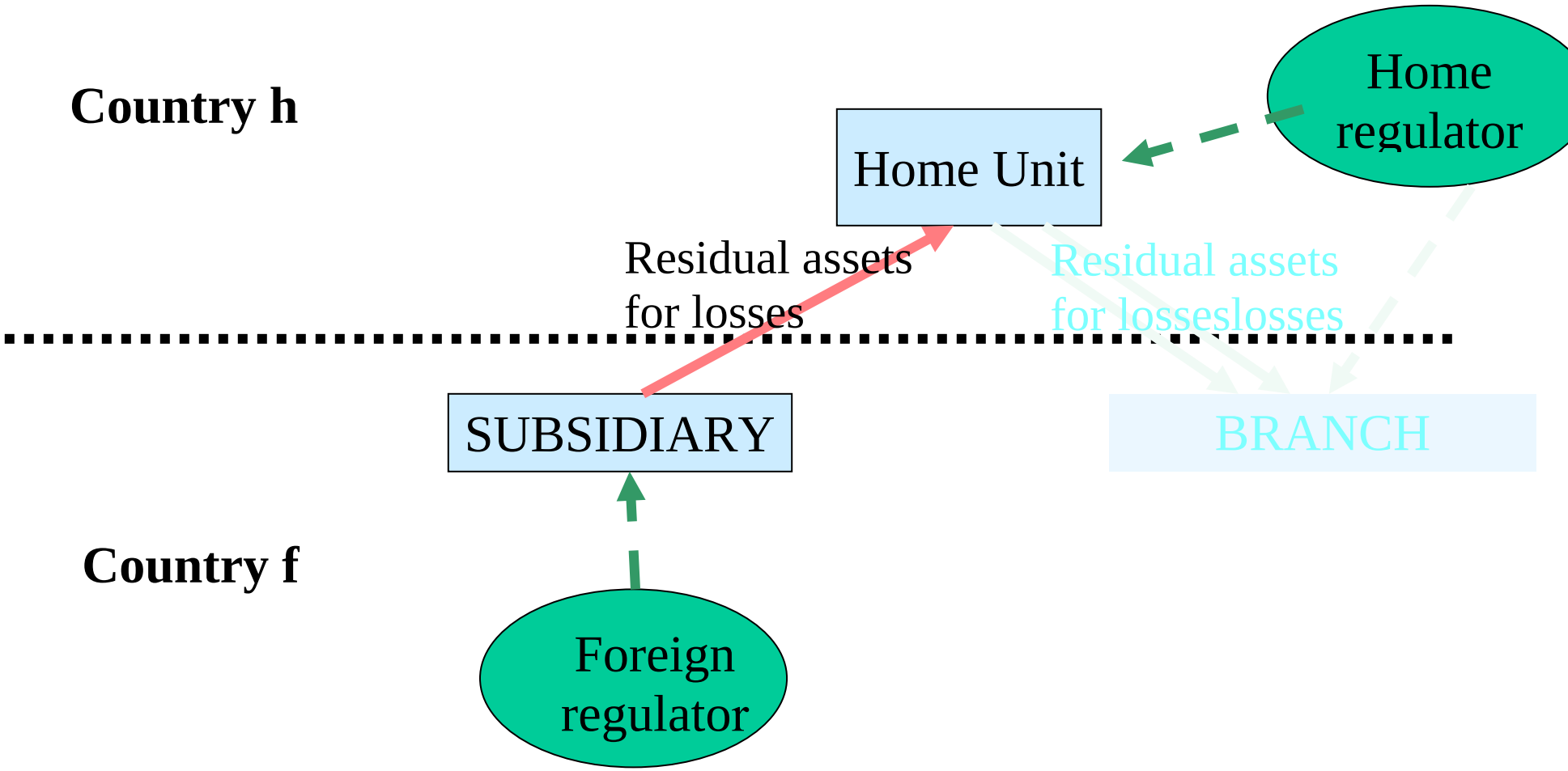
Differences:

- Different transfers: home unit not liable for the foreign unit's losses with a subsidiary structure.
- Deposit insurance: quality of the home vs. foreign DI (e.g. Germany/Cyprus)
- Supervision: branch/subsidiary determines who supervises the foreign unit and the intensity of monitoring.

- **Foreign Branch**



- **Foreign Subsidiary**



Supervision

- Two decisions:
  - Monitoring decision: pay c in order to learn whether a unit's assets are good or bad.
  - Prudential decision: choose whether to force liquidation, after having observed the assets' quality or not.
- Objective function: minimize losses to the deposit insurance fund, that can repay with probability α_i (FDIC; Basel Committee of Banking Supervision (2012)).
- Possible strategies:
  - M: monitor the unit, close if assets are bad.
  - O: do not monitor and keep the unit open.
  - I: do not monitor and close the unit.
  - C: "wait and see".

National supervisors: Monitoring and foreign representation

Assume the foreign and home DI have equal credibility.

- Foreign branch representation induces *more* monitoring in the first unit compared to the subsidiary.
- It induces *less* monitoring in the second unit in comparison with subsidiary representation.

Intuition

- *Internalization effect*: with shared liability (branch), monitoring one unit allows to reduce costs in the other unit; the foreign supervisor of a subsidiary-MNB does not take this into account.
- *Shared-liability effect*: always reduces incentives to monitor, BUT the effect is stronger with the branch. With subsidiary, foreign assets pay first foreign depositors and the rest can be used to pay depositors in the other country. With branch, depositors have equal priority independently where bank assets are located.

Supranational Supervision

- The Supranational Supervisor minimizes the *sum* of the expected costs of the *national* deposit insurance (we will consider common deposit insurance)
- With unchanged local cost of monitoring c_i

- A short-run analysis: how supervisory decisions are affected for *given* type of bank
- A long-run analysis: the change in supervision will affect bank's profitability and how the bank reacts to it

Supranational Supervision: Monitoring

Monitoring with Supranational Supervision

When supranational supervision affects decisions, it induces more monitoring on the foreign unit of a subsidiary-MNB (Branch-MNB unaffected).

Intuition: the supranational supervisor internalizes that foreign monitoring allows to condition decisions in the home unit on the outcome of foreign monitoring. (With Branch-MNB, independently of supranationality.) **More foreign monitoring: a desirable effect of supranational supervision due to internalization.**

At home? Decision moves to $d_h = C$ "wait and see": since unit f is monitored, wait for the result, and if f successful then I on unit h otherwise O.

Supranational Supervision: Short-Run and Long-run Effects

Supranational Supervision and Profitability

When supranational supervision has an impact on regulatory decisions, then it *reduces* bank's profitability.

Supranational supervision and the choice of foreign representation

When supranational supervision affects the bank's decision, it induces the bank:

- *either* to operate with a branch rather than a subsidiary,
- *or* to shut down a subsidiary reverting to a national (stand-alone) bank.

Unintended consequences of supranational supervision: supranational supervision is not "neutral" with the representation or reduces financial integration.

Supranational Supervision: Bank's decisions (Long-run)

Intuition:

- **Switch to branch representation**: With national supervisors, MNB uses a subsidiary to face low monitoring and thus higher probability of no intervention.
  When supervision becomes supranational, MNB prefers a branch to avoid the increased monitoring of supranational supervision.
- **Revert to national stand-alone**: when branch not viable, "shield" from increased supranational monitoring going back home.

Taking the model to the data

1. Prediction: Countries for which the introduction of the SSM makes a difference

- For symmetric countries, whenever, centralized supervision has an impact on the MNB's representation form, it induces to switch from the subsidiary representation to a standalone (domestic) bank
- For MNBs, where the home unit is located in a country with very credible deposit insurance, a switch to a standalone is more likely than to a branch.

What does this mean for the allocation of deposit insurance losses?

- Both moves tend to increase the expected burden supported by the home deposit insurance
  - with branch representation now depositors in both countries are insured by the home deposit insurance $\longrightarrow$ can undermine the credibility of the deposit insurance fund
  - when the bank reverts to being a domestic bank, losses also increase to the home DI as losses can no longer be shared with the other unit.
- If countries are asymmetric, the country with more headquarters located in its territory loses out.
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Common Deposit Insurance

So far, supranational supervision hinging on national DI schemes. However, the need/possibility of Common Deposit Insurance (CDI) scheme is often debated (e.g. EU), possibly leading to a CDI with credibility α_c that depends on α_h, α_f.

- Example: $\alpha_c = \alpha_h \geq \alpha_f$ (simple comparative statics increasing α_f).
  - No effect on Branch-MNB (always α_h)
  - More monitoring in f (there is more at stake for the DI when α_f is larger, so that monitoring is more valuable)
  - Possibly less monitoring in h

  Consequence: the adjustment of organizational structure becomes optimal for a larger set of parameters!

Policy implications

- Centralized supervision can be offset in the long-run by the MNB's response of changing its organizational structure.
- This always increases the costs to the home deposit insurer/government.
- Burden increases: for countries with less credible deposit insurance
- Burden increases: for countries with more bank HQ
- Common deposit insurance does not eliminate the problem.

Conclusion

- short-run effect of the introduction of an SSM is unambiguously positive
- once the optimal reaction of the MNBs is taken into consideration, the answer is not so clear.

Optimal design of the supervisory architecture requires the understanding how banks react to the new regime to avoid drawing incomplete conclusions.