The Economics of Bank Supervision discussion by

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Supervising Large, Complex Financial Institutions: Defining Objectives and Measuring Effectiveness

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The initial parts of a large research project

- Lessons from this paper
  - Data Analysis.
  - A model to interpret the data.
- What did we learn? What do we want to know?
- Comments on the model.
  - How to extend it to understand other aspects of bank supervision and regulation.
  - Needed extensions to use the data to tell us about effective supervision.
  - Is post 2008 supervision just more intense pre 2008?

Lessons from the data analysis

- Labor and other costs of US bank supervision by NY Fed and the OCC cost formula increase, but less than proportionally, with contemporaneous bank holding company size.
  - This holds after controlling for numbers of corporate entities, current supervisory rating, and with and without bank fixed effects.
- There is more supervision input applied to banks with poorer supervisory ratings.
- Supervisory inputs shifted from small to large banks post 2008.

Lessons from the data analysis

- Small Bank supervision hours are much more concentrated in periods of ongoing examinations than for large banks.

How to interpret this data analysis? A modern neoclassical model.

- The paper develops a neoclassical production function model of the incentive effects of the optimal allocation of inputs to costly monitoring and costly intervention conditional on the outcome of monitoring.
- Well suited to describing the hours data.
- Both monitoring expenditure and intervention are optimally based on the information about a bank's default rating (risk of failure / poor governance / low capital).

Interpreting the data though the lens of the model

- The data are consistent with the efficient allocation of time model if:
  - There are economies of scale in supervision cost and larger spillover or larger “TBTF” costs of failure of larger banks.
  - The spillover costs of large banks relative to small banks increased post 2008.
  - Intervention is more effective in preventing default for low rated banks.
  - Supervisors in a given Federal Reserve district are reasonably fixed in the short run.

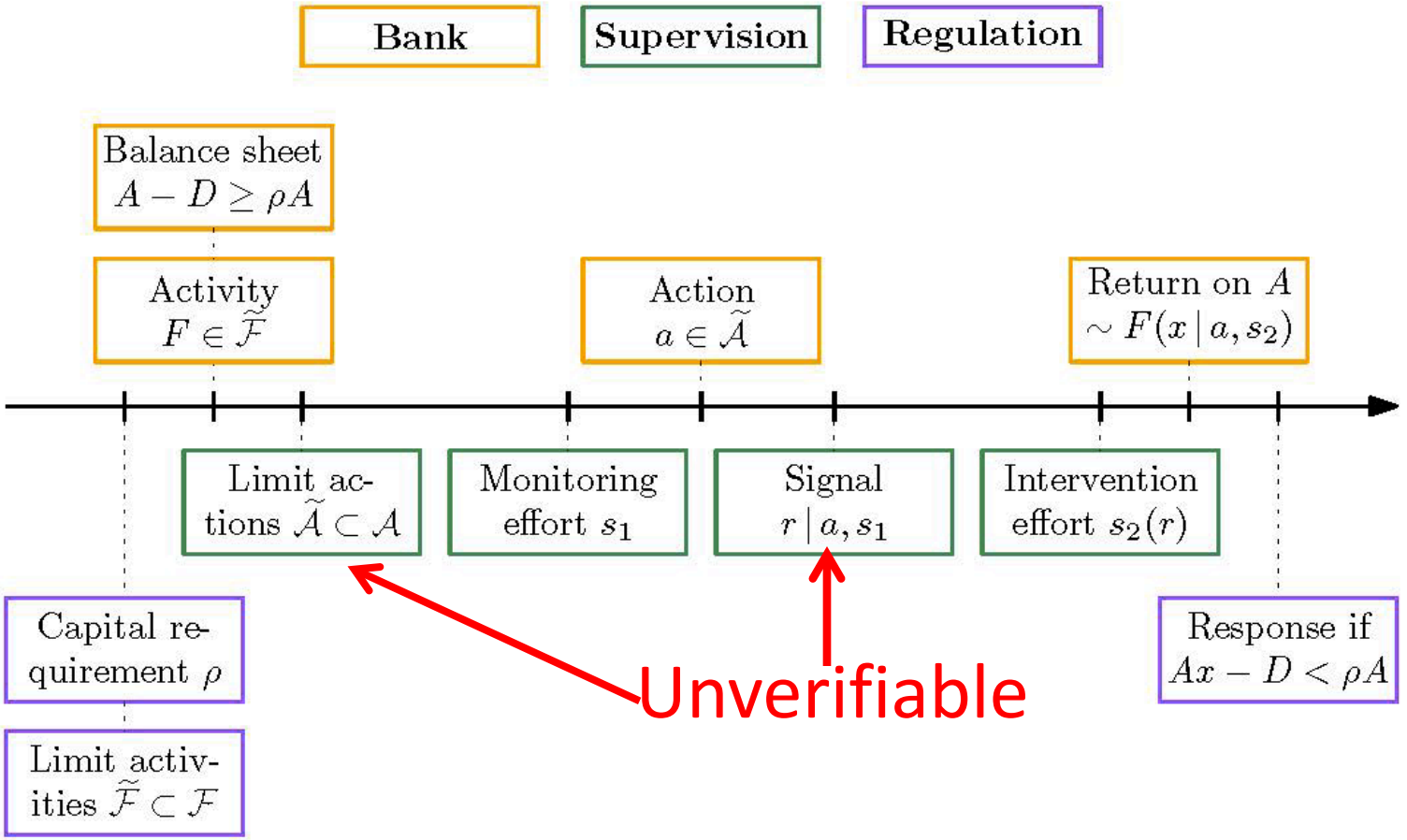
Supervision: What do we need to know?

- How are its effects different from regulation?
- How do we link the assumed special effects of supervision to the data?
- Does supervision work to improve efficiency of banking?
  - Reduce Failure?
  - Reduce loss given failure?
  - Lead to more efficient lending (C&I Loans vs. traded assets)?
- How does one interpret the post 2008 changes?

What is supervision in the model?

- Supervision allows knowledge of an unverifiable signal about the bank's decisions rather than just about its solvency.
- The signal can be used to intervene and directly reduce the default probability of bank deposits (reducing the risk of bank assets).
- Model classifies anything which is not written into regulations as unverifiable.
- In practice, this includes information available to the public (macro information and market data for large banks) which is not hard wired into regulation.

The model: A great introduction to the role of supervision.



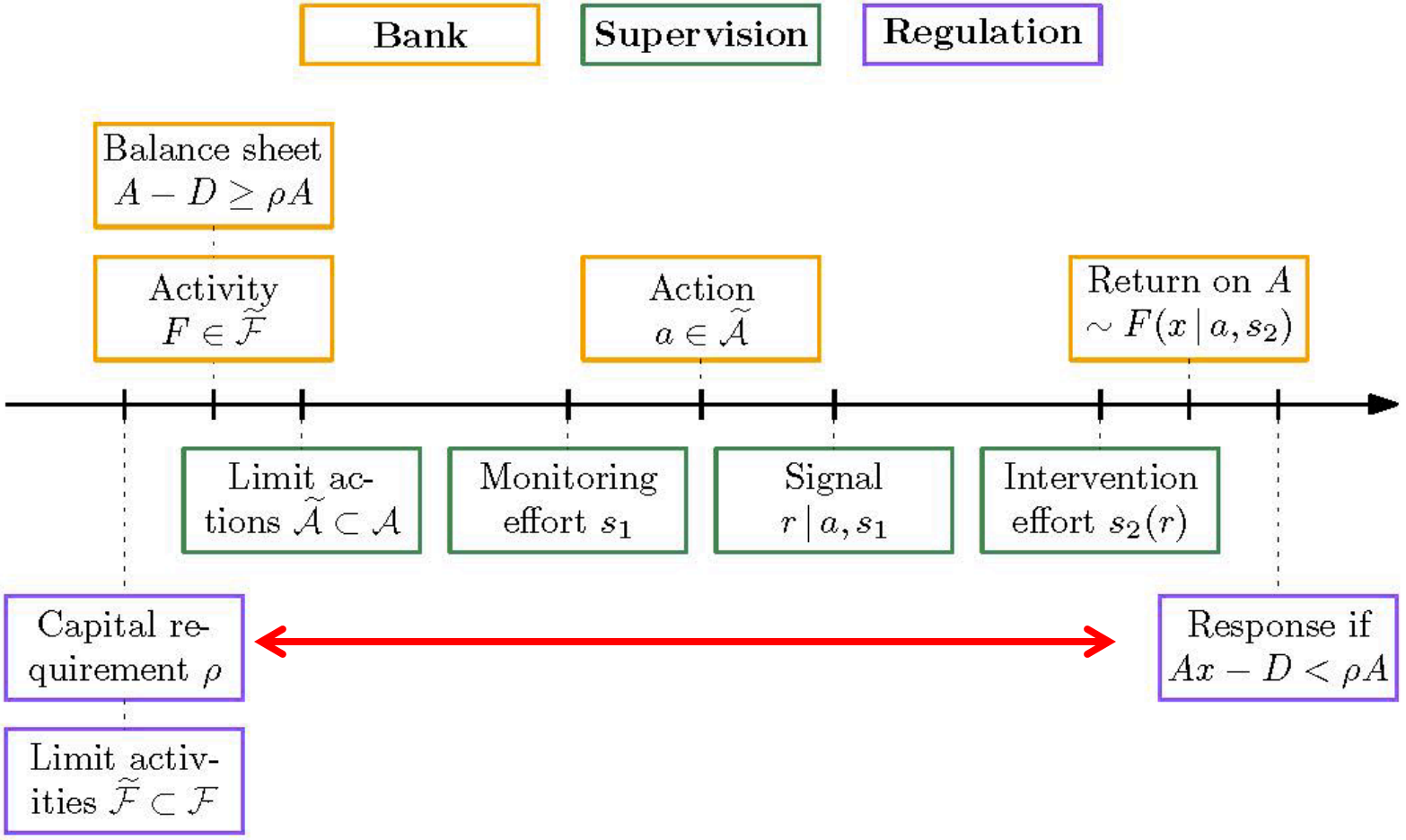
Supervision: What do we need to know? What could usefully be in the model?

- Why (other than bailouts and LLR) are supervision and regulation specific to banks and not any firm with spillover effects?
- How is the role of a supervisor different from the role of a bank monitoring one of its borrowers?
- Aggregate risks and the different roles of supervision in small and large banks?
- What is the role of secrecy? What information should be disclosed about supervision?
- Information which is not just unverifiable but which needs to be secret?

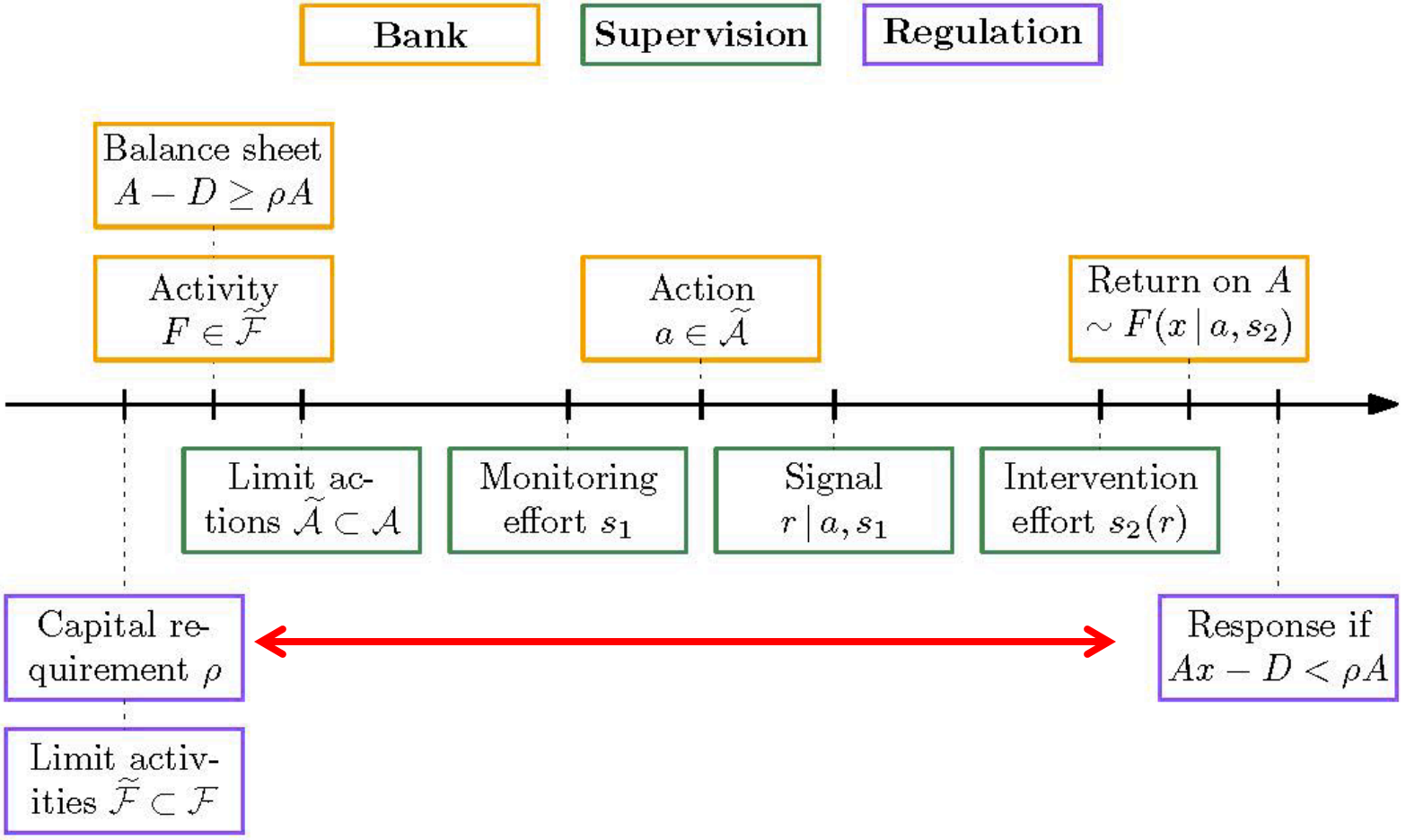
Are the issues the same for small and large banks?

- Equity owners and management have the same objectives in the model: equity then also provides incentives via skin in the game. This is a good fit for small banks.
- Differing roles of risk bearing outside equity in large banks and inside equity in small.
- What is the role of public signals (macro or collateral shocks), especially for large banks?

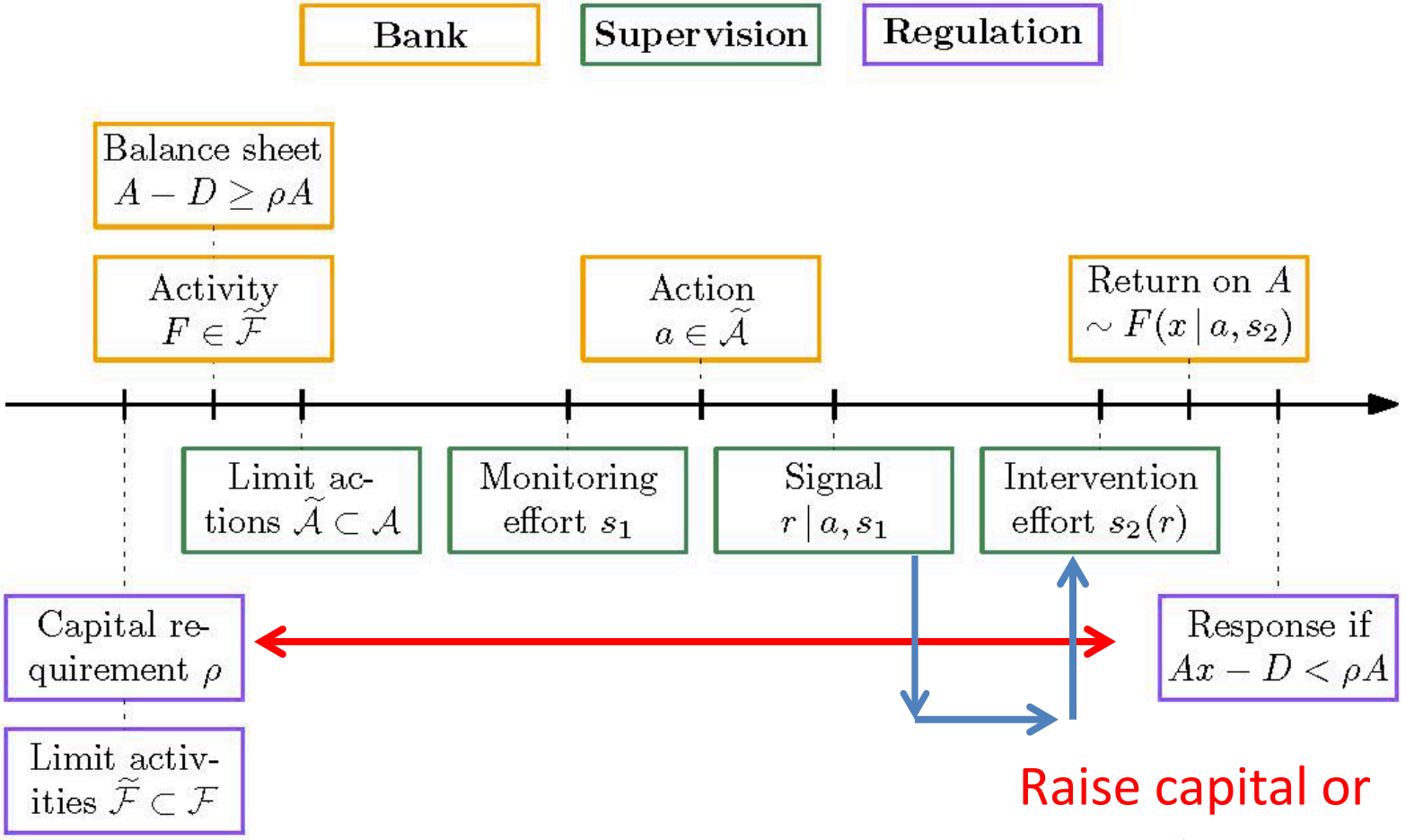
Role of capital regulation is assumed unrelated to supervision (a penalty for violating them at end).



Enforce capital regulation with early information about losses, risks and values (not just book?).



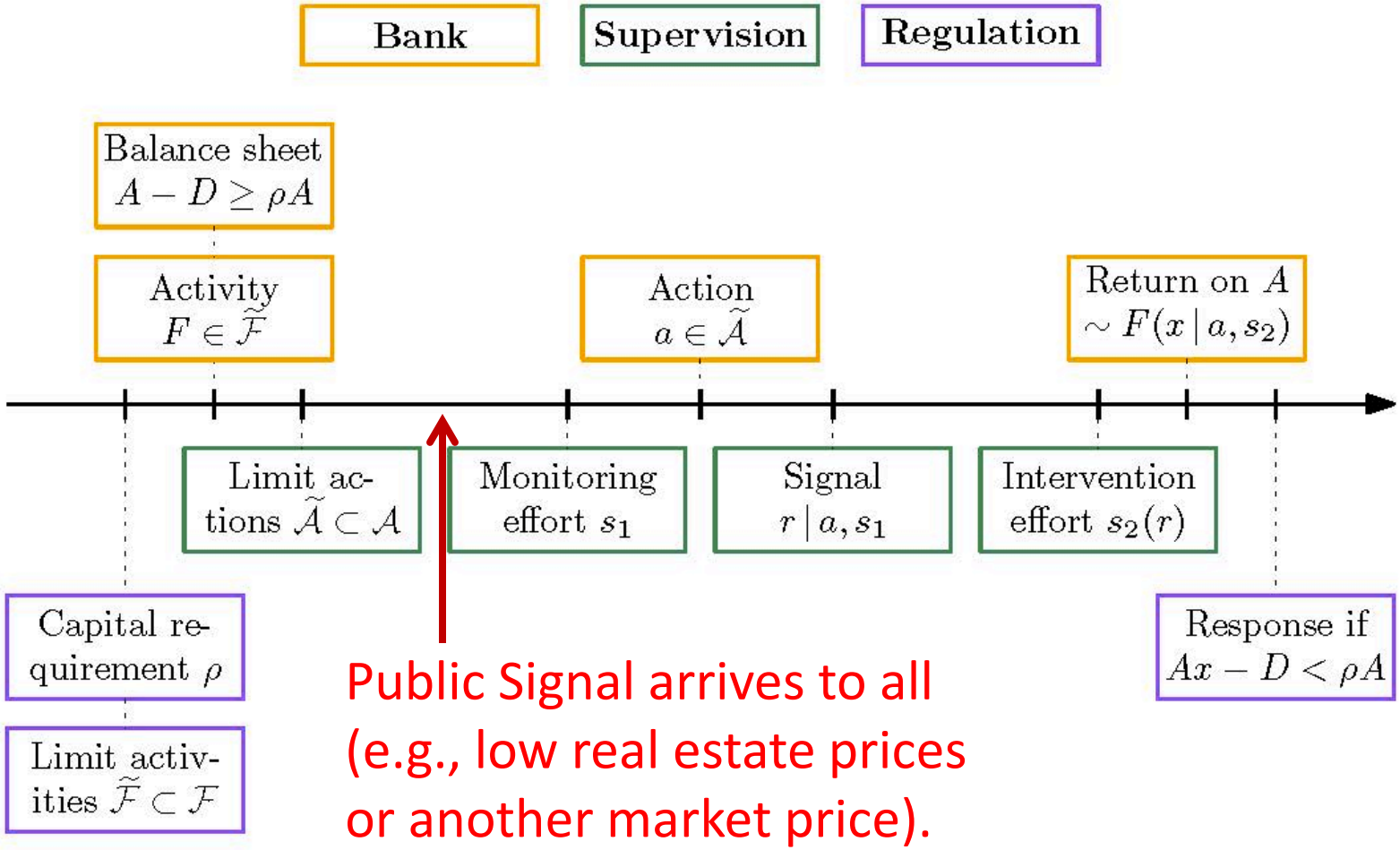
Early recapitalization is a benefit of supervision but do not show up as reduced risk of bank assets.



An alternative benefit of supervision (similar to stress tests)

- It pays to keep some information secret (Dang, Gorton, Holmström and Ordonez [2015])
  - Possibly to stop runs.
- Example: Liquidity requirements: supervisor can force a bank to raise liquidity without revealing to the world that the bank is short of liquidity (which could cause a run).
- Collect information, know that supervisor sees it but do not give it immediately to the public.

Figure 2: **Model timeline with supervision and regulation**



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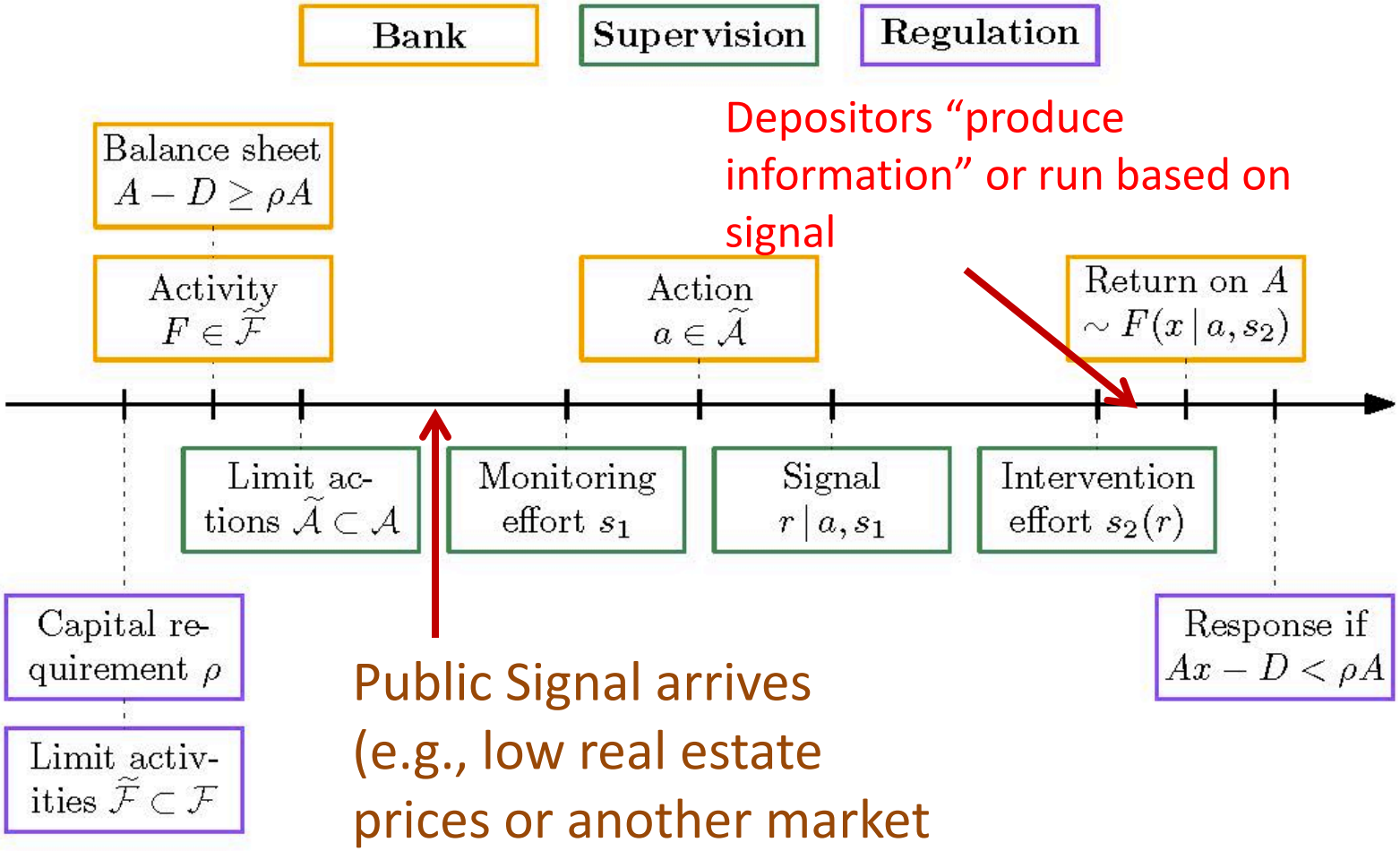

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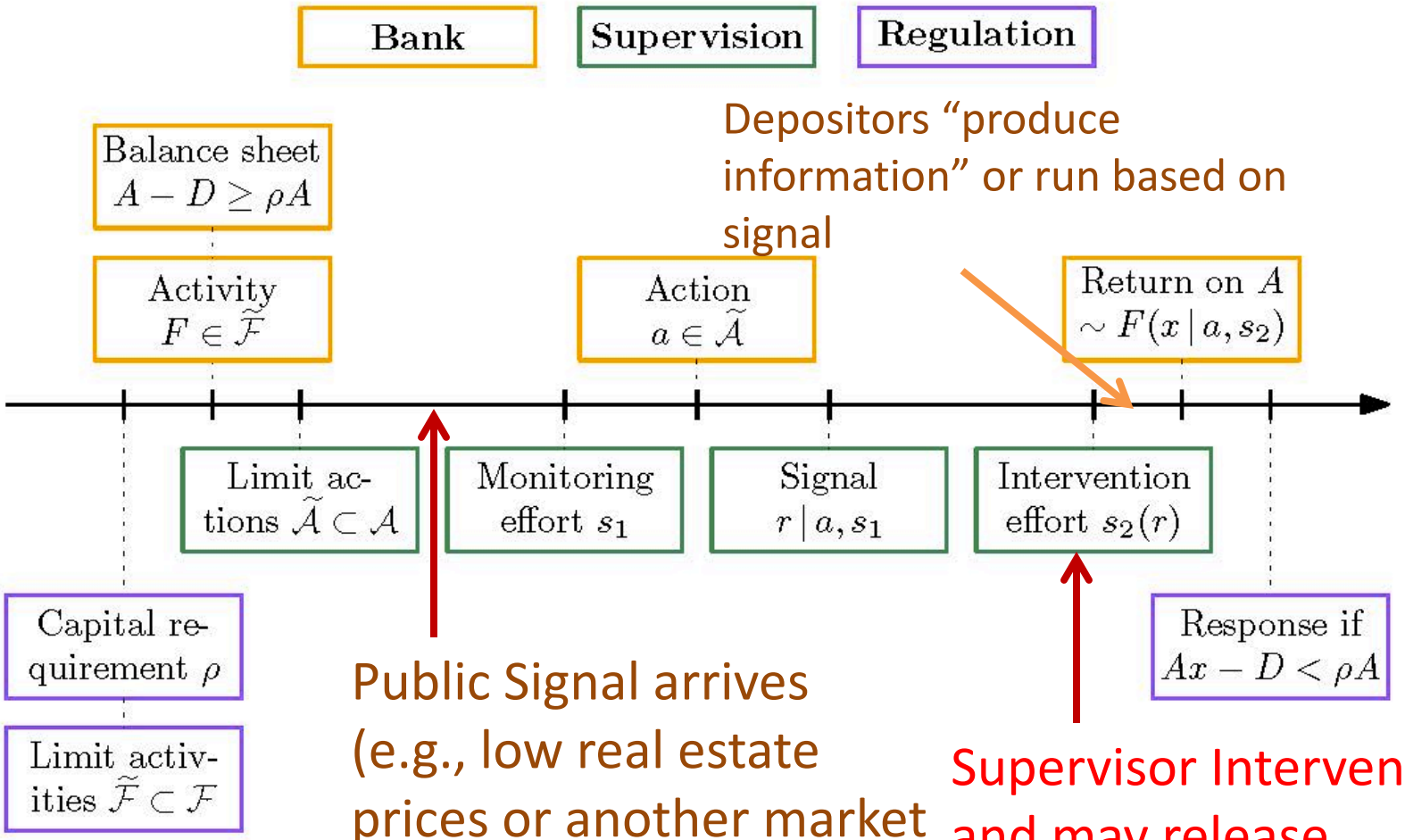

What happened after 2008?

- Did we learn about larger spillovers?
- Was the risk of runs increased?
- Did we learn that regulators could not measure the default risks of large banks?
- Is possible for regulators to measure the ex-ante default risks of “too big to easily manage” banks?

Maybe we learned a new role for supervision and regulation of SIFIs

- Monitoring asset values and determining the risks of assets in various macro scenarios, combined with more rapid enforcement of capital requirements (to get around problems that book equity is a stale measure).
- If regulation changed and not just increased its labor inputs, how do we change our evaluation of its effectiveness?
- Are the old data relevant?

A creative and provocative beginning to an important line of research

- Open question: because supervision relies on unverifiable actions taken based on unverifiable information, how do we design supervision and regulation to provide incentives for this "delegated monitoring."
- Is it similar to how contracts provide incentives for banks to monitor borrowers?
- Can this research program provide insight on this?