

Artificial Intelligence and Systemic Risk

FutureFinTech Federated Conference - 14 March 2025
by Assist.-Prof. Dr. Julia Sinnig & Prof. Dr. Dirk Zetsche

Agenda

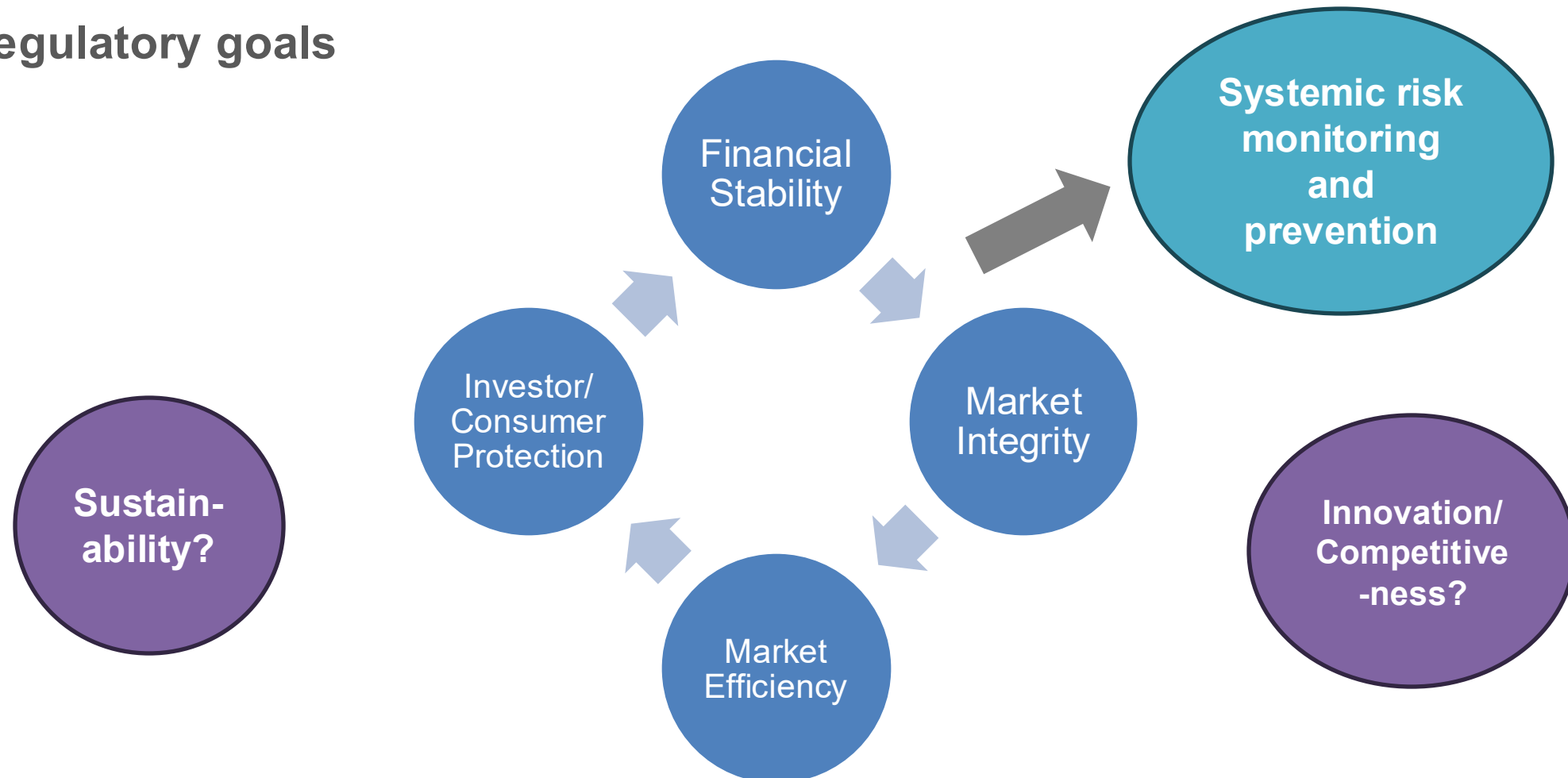
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- I. Introduction: AI in Financial Markets**
- II. Systemic Risk**
- III. Regulatory approaches**
- IV. AI as FinTech Regulatory Concern**
- V. Conclusion**

I. Introduction

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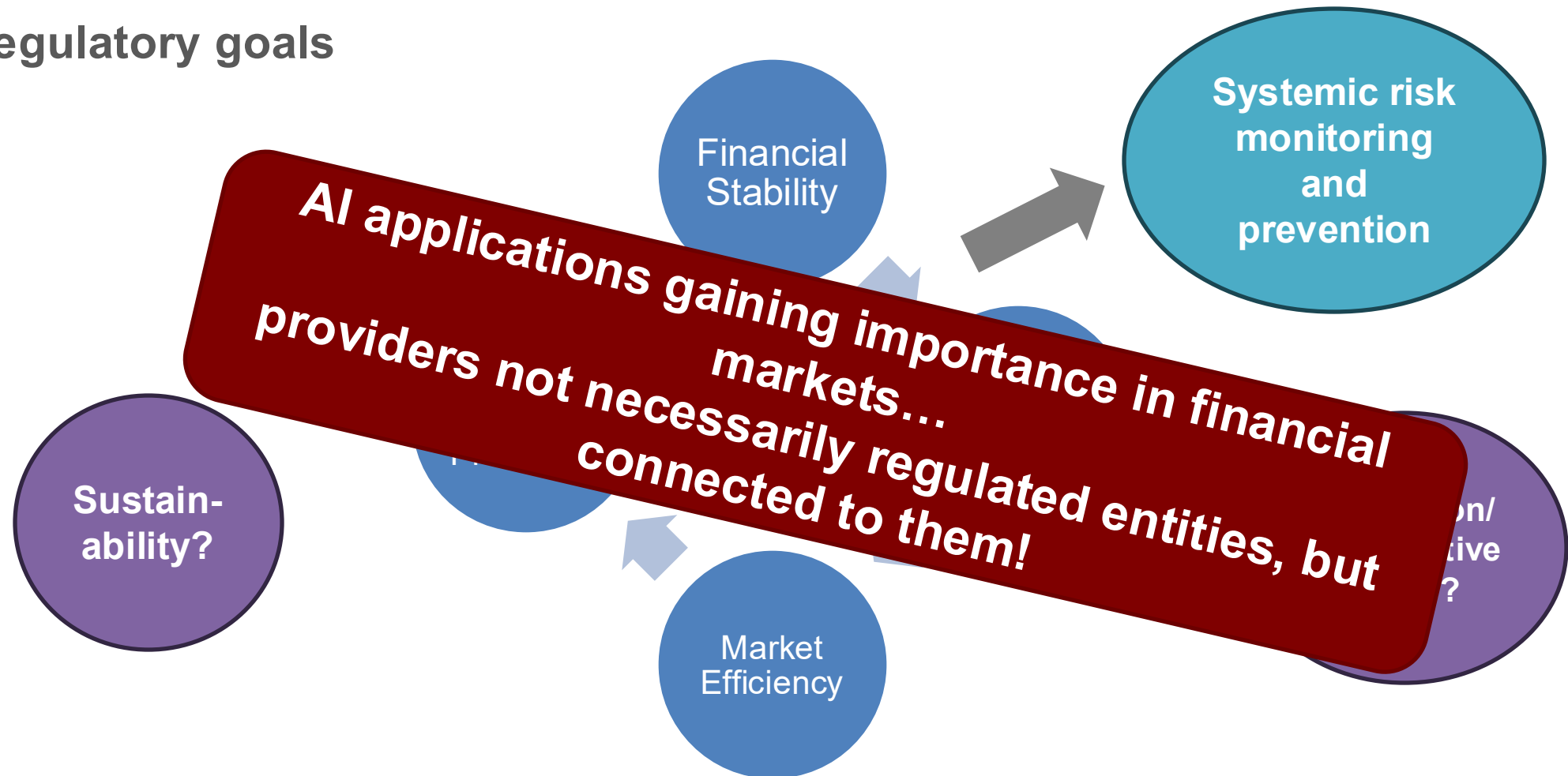
- Financial markets = **highly regulated environment**
 - **Regulatory goals**



I. Introduction

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- Financial markets = **highly regulated environment**
 - Regulatory goals



I. Introduction: AI in Financial Markets

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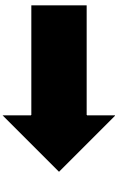


- Automatisatisation / AI deployment in **back-office** services
 - KYC, due diligence, reporting, etc.
- AI applications in (management) **decision-taking**
- **Observations:**
 - Important efficiency gains / cost reductions
 - Infrastructure: AI highly dependent on dataset → if same dataset used with similar models, concentration of same findings! Market distortions/capital disallocations?!
 - AI as issue for legal systems → legal personality, liability, explainability (EU AI Act as attempt to address these issues → legal certainty?!)
 - Micro / macro risk assessment of AI still pending

II. Systemic Risk

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**Systemic risk =
risk of collapse of an entire
financial system / market**

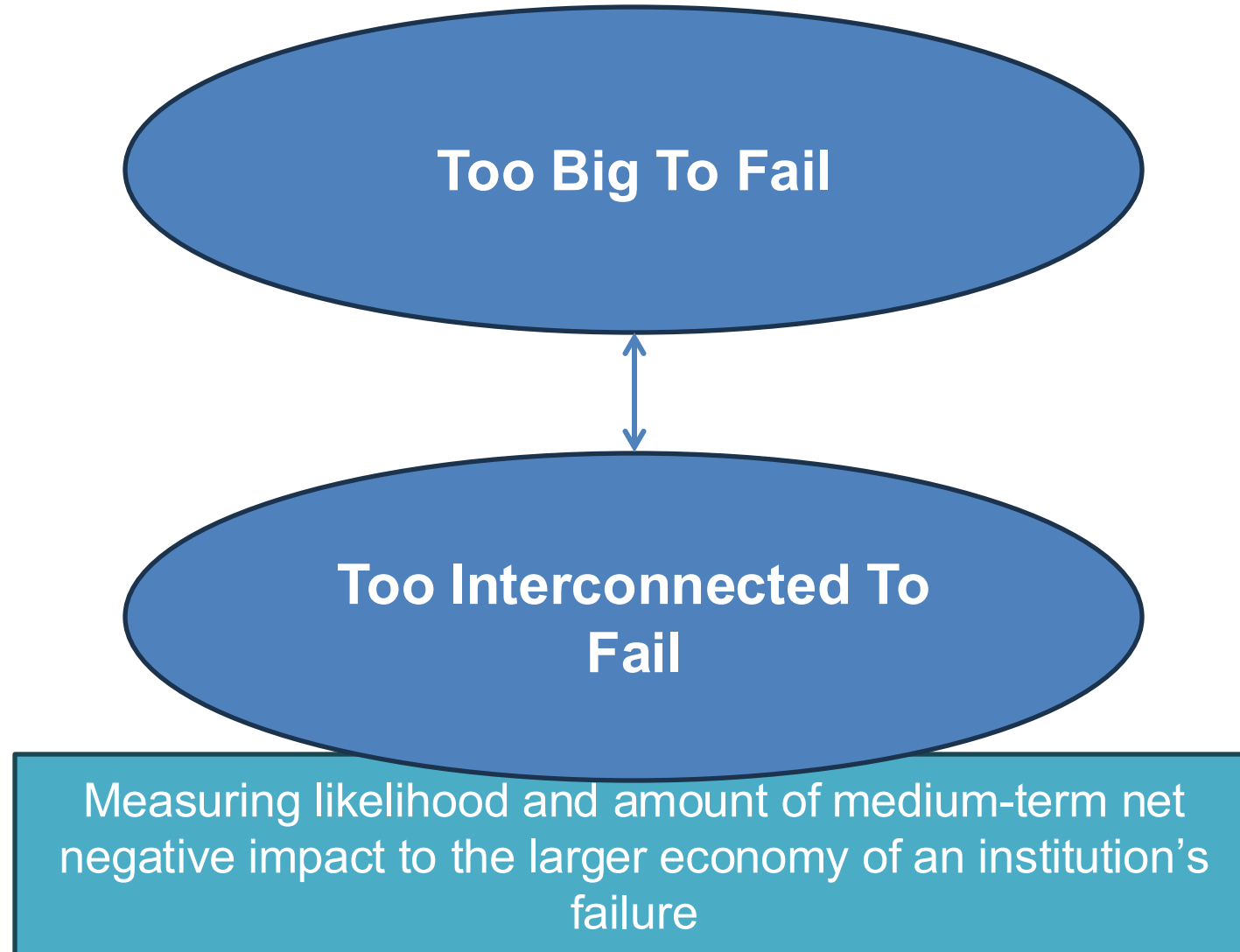


Risks imposed by interlinkages and interdependencies in a system / market, where failure of a single entity or cluster of entities can cause a cascading failure

→ Potential bankruptcy / bringing down of entire system

II. Systemic Risk

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II. Systemic Risk

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- **AI risks** = Big Data risks
 - AI operating outside the regulated sector → puppet leader of FIs?!
 - Capital misallocation: steering of cash-flows in suboptimal investments
 - Concealed coordination of multiple actors' financial services activities
 - Collusion of algorithms → no random walk in random walk markets anymore
 - Size effects due to data plus liquidity control (“super-apps” – highly concentrated services/technologies/infrastructure)

III. Regulatory approaches

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AI approach

- Explainability
- Ultimate switch
- etc.

Financial services approach

- Risk management (DORA)
- Fitness, properness, “human in the loop”
- Organization & liability

Data approach

- Transparency on data use
- Open data
- Public data repository

Antitrust / competition approach

- Digital Markets Act

Foreign direct investment approach

- Limiting acquisitions and conglomerate building by foreign actors

IV. AI as FinTech Regulatory Concern

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■ Regulatory Access to AI-based Risks

- **Indirect regulation** through financial institutions? (FIs do not / cannot control AI/data)
- Algorithm or Data as “**ICT service provider**” (no legal person)?
- **AI firms** (Chat GPT etc.) → ICT service provider (no financial services nexus)
- **AI licensing?** (permanent code rewrite of/by AI)
- **Insurance / capitalisation?** (damage difficult to calculate / assess)
- **AI assessing AI?**

→ Audit-AI under development → RegTech as answer...yet “Nirvana state” risk

- AI does not matter as long as it is **“too small to care”**

- **AI poses Systemic Risks** once it is **“too big to fail”**

- **“Super apps”**
 - ⇒ Tipping point? Trigger factors?
 - ⇒ ESAs' / ESRB's monitoring of size and dimension of AI- and data-driven activities?
 - ⇒ Effective approach? → combination of all regulatory approaches?!

Thank you!

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