

FINANCIAL OPERATING SYSTEMS

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Based on *Zetsche/Birdthistle/Arner/Buckley*, Financial Operating Systems, Working Paper (2019)

Introduction

Key contributions

- Technology drives growth of (passive) fund universe
- How to regulate the technology core

Overview

- The Rise of FOS
- FOS as Platform Industry
- The Case for Regulating FOS
- Regulatory Tools

§ 1

The Rise of Financial Operating Systems

Definition and Delineation

- FOS as « super applications » in finance
- «oxygen» of modern asset and fund managers
- FOS is FinTech, the untraditional way
=> institutional / back-end / service integration
- A form of CPMI, yet entirely new phenomenon due to service scope and client contact

Back-end FOS: data control

- Blackrock's Aladdin as « first FinTech »
- The data giant:
 - assets > U.S. GDP
 - 11,000 investment professionals depend on Aladdin
- Data control

Front-end FOS: Liquidity control

- Various front-end FOS emerging: Fidelity, Vanguard, Schwab, J.P.Morgan, Goldman, Statestreet + partner
- Liquidity control

Front-and-back-end FOS: Financial Ecosystems

- AntFinancial: most precious FinTech (Ant > Goldman)
- Full service range: payments, investment advice, funds, insurance, financial planning
- Alibaba's 700 million clients linked to Ant
- Largest money market fund in the world (\$250 billion)
- Data + Liquidity control

Front-and-back-end FOS: Financial Ecosystems

- Financial Ecosystem as «super-super app»
- U.S. financial ecosystem projects in the making:
 - Statestreet and partners
 - J.P. Morgan
 - Goldman
 - As well as front- and back-end system providers

§ 2

FOS as Platform Industry

FOS as Platform Industry

- Traditional economies of scale
- Data-induced economies of scale
- Network effects

⇒ Growth

⇒ Size

⇒ Scope

§ 3

The Case for Regulating FOS

The Case for Regulating FOS

- Benefits of FOS Disintermediation
 - Transaction costs↓
 - Service level↑
- Risks and costs of FOS
 - Client protection: uncovered tech risks; platform complexity
 - Innovation? Access of third-party developers?
 - National security: single point of failure
 - Tech Risk of Systemic Dimension

The Case for Regulating FOS

- FOS escape regulation
 - Technology ≠ regulated activity
 - Jurisdictional & sectoral conflicts
 - Tech dependency ≠ traditional definition of systemic risk

§ 4

Regulatory Options

Regulatory tools

- Do nothing / laissez faire
- Stimulate competition
- Moderate interventions
- Regulation as Public Utility

Stimulate Competition

- Mandating access
- Diversification?
- Rotation?
- Open Data?
- Unbundling of Service & Prices
- Merger Control

Moderate Interventions

- Reform command and control regulation
 - «Financial data gathering and analytics» as regulated activity?
 - Exempt small and mid-size FOS
- Self-regulation?
- Co-regulation?

Regulation as Public Utility

- Public Utility Regulation?
- Nationalization / Co-Ownership of large FOS (>10% market share)
- Unbundling and separation of FOS functions
 - client intermediary
 - investment advisor
 - custodian

Conclusion & Thesis

- FOS driver of concentration in the fund industry
- Regulatory response necessary to secure financial stability, client protection, national security and financial integrity
- Various tools, but which one is the right for which FOS depends on the FOS in question

Readings on FinTech

TechFin / Data-driven Finance

www.ssrn.com/abstract=2959925



Regulatory Sandboxes

www.ssrn.com/abstract=3018534



FT4FI Roadmap

www.ssrn.com/abstract=3245287



Corporate Technologies (AI etc.)

www.ssrn.com/abstract=3392321



Regulating Libra

www.ssrn.com/abstract=3414401



Future of Data-Driven Finance

www.ssrn.com/abstract=3359399



Rise of Tech Risk

www.ssrn.com/abstract=3478640



ICO Gold Rush

www.ssrn.com/abstract=3072298



Distributed Ledgers / Blockchain

www.ssrn.com/abstract=3018214



eID / KYC Utilities

www.ssrn.com/abstract=3224115



Thanks!

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A high-angle, blurred photograph of a crowd of people walking on a light-colored pavement. The motion blur gives a sense of a busy, public space.


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