This primer presents an overview of the landscape, emerging concerns and some considerations for regulators in India in relation to designing optimal regulation for data-driven finance. A reference list of background reading materials is available on page 6.

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**Overview**

Technology is changing users’ experience of finance. The latest wave of financial technology goes beyond innovations in the delivery of financial services. It is expanding the choice set of financial services available to users and the ways in which they choose and consume from it.

Several mechanisms enabled by technology are mediating these changes including the (i) disintermediation of traditional financial services; and (ii) the convergence of processes, platforms and financial infrastructure, bringing together services and products that were previously offered independently. Simultaneously, the increased availability and use of personal information in offering providers the opportunity to personalise financial products and services suitable for each consumer.

As consumers begin transacting in this new environment, new considerations arise for the financial system and the existing regulatory rubric. The need arises to re-visit the regulatory posture assumed in a more analogue, less data-driven financial landscape on issues of micro-prudential risk, conduct regulation, consumer protection and systemic risk.

Foundational questions that arise include where the regulatory perimeter should lie with respect to new non-financial sector entities in the chain of financial services provision, and how the tension between institution-based regulation and function-based regulation might be resolved in India. The robustness of existing frameworks for risk assessment, consumer protection, apportioning liability and the use of client data need to be reassessed in this new landscape. Designing the optimal regulation for data-driven finance will require the creation of a new, shared understanding of risks that emerge in this changing financial landscape, calibrating appropriate regulatory responses and new methods of coordination across regulators within and outside the financial sector.
1. Landscape

The use of technology and personal data in finance is changing the landscape of financial services. This is widening the choice set of financial services available to consumers, through two distinct trends that are enabled by the use of technology (i) the disintermediation of traditional financial services; and (ii) the convergence of processes, platforms and financial infrastructure.

Technology is enabling disintermediation displacing established intermediaries and including new types of non-financial intermediaries into these chains. Disintermediation is intensifying the “unbundling” of financial services or the “move toward production and pricing of key products on a stand-alone basis, stimulated by the development of specialist suppliers” within the value chain of financial services (Edel & Grey, 1996). Not only financial products, but traditional processes are also being unbundled. For example, the process of credit scoring was previously solely the purview of credit bureaus and lending institutions. However, banks and Non-Banking Financial Companies (NBFCs) are now partnering with tech-enabled alternative credit-scorers who use data-analytics and non-traditional data to assess the creditworthiness of thin filed or first-time users of finance.

Technology is also enabling the convergence of financial processes, platforms and financial infrastructure. For consumers, this means they can often compare, choose and buy diverse financial products from different providers on a single integrated digital interfaces. For providers, there is often an increasing convergence in the processes and infrastructure used for service delivery.

Modern data-driven finance offers an unprecedented potential to personalise and tailor-make financial solutions by analysing vast varieties of personal information about a user. For instance, deferred payment products (popularly recognised as pay-later options during purchases) are offered to specific individuals based on consumer-data analytics and using the digital interface to combine the functions of payments and credit in a simple product.

2. Emerging Concerns

In this background, new concerns arise that merit regulatory attention.

Agent and third-party conduct: New disintermediating entities enter the chain of financial services provision, and are often the first point of contact for customers. Accordingly, concerns around their obligations and liabilities, with respect to consumers as well as the originator of the financial product arise. As technology service providers, these firms may provide services to a financial service provider under contract and otherwise remain outside the purview of conduct regulation, client money or consumer protection requirements.

Consumer protection in finance and for personal data: The widespread use of personal information by financial service providers raises the potential for users’ personal data to be
misused and that their privacy to be compromised. In addition to concerns around the harms that may arise from misuse or breach of personal data, concerns also arise about relevance and extent of data points now collected about consumers (from geo-location to browsing histories) to the purpose of financial services provision.

Digital finance products can also be “sachet-ized” and offered very quickly, often over a consumers’ mobile phone over the course of a few keystrokes. This ease can also result in take up of products without a clear awareness of the full extent of obligations or the consequences of default being clearly communicated, especially to first-time users of formal finance. A cautionary tale lies in the story of digital credit in Kenya, where thousands of consumers have been blacklisted on credit bureaus following non-payment of abysmally small loan amounts amounting to $2 or less (Silva, 2018).

**Assessing new avenues for systemic risks in data-driven models of financial services:** The use of personal data has the potential to identify and include hitherto excluded users of finance. Emerging evidence from the USA suggests fintech-based lending has allowed some borrowers to be assigned better loan ratings and receive lower-priced credit than before (Jagtiani and Lemieux, 2017). On the flip side, the risks to the system that may accompany loans disbursed on the basis of these credit models are unclear as there is limited understanding of new risk models that are based on alternative data sources, and have not been tested through a credit cycle.

### 3. Considerations for Regulators

The optimal regulatory stance in this changing landscape must grapple with many of these emerging concerns. Some immediate considerations for regulators in this context are set out below.

**Demarcating institutional mandates and the perimeter of financial regulation:** As new non-financial sector entities become part of the chain of financial services provision, the demarcation of regulatory perimeters becomes an important consideration for regulators.

New disintermediating entities often operate across traditional product-based financial sector boundaries of payments, credit, investments, insurance and pensions. Technology also enables the potential to bring together bouquets of products across these boundaries to create a suitable mix of financial products for each consumer. This creates a need for coordination between existing financial sector regulators to regulate integrated service providers (to the extent they interact with the users) and new forms of products that may develop across functional lines.

Additionally, the use of personal data, and heavy dependence on Information and Communications Technology (ICT) in digital finance indicate that cross-sectoral coordination with regulatory bodies in these areas will become inevitable. In India, coordination the Telecom Regulatory Authority of India (TRAI) and any future data protection authority may become a prerequisite for designing a comprehensive regulatory framework for digital financial services.
The limitations of institution-based regulation in digital finance: The modular value chains created by tech-based disintermediation in finance resurrect older debates around the regulation of activities and functions of finance, rather than regulation based on the type of institution engaged in finance. An institution-based approach to regulating data-driven finance could aggravate regulatory arbitrage. For example, technology-driven firms that may be outside the purview of the financial regulation may offer similar services to financial sector firms. This regulatory arbitrage could incentivise providers to look for opportunities outside of the regulated space, leaving both the system and the consumers vulnerable to unmitigated risks. It could also create a lopsided liability framework for regulated financial institutions that ultimately carry the risk associated with any financial product or service.

Revisit frameworks for apportioning liability: Modular value chains of financial services are founded on proportionate liability for transaction failures. One emerging issue for regulatory consideration is the disproportionate allocation of liability among unregulated and regulated entities. For most part, liability for failures rests with the regulated entities which are also responsible for compensating consumers in instances of failures. In the European context for instance, there is growing consensus on the need for regulated entities to allocate capital for unforeseen operational risks which may arise from outsourcing contracts (European Banking Authority, 2017), (Department of the US Treasury, 2018).

Revisiting ring-fencing and client money requirements: Several disintermediating firms can now be part of the chain of payments and settlements between a consumer and a financial services provider. Even where these firms do not hold client monies, they may often be pass-through entities. The failure of these firms may therefore expose consumers and financial institutions to uncertainty. A relevant example is the Chinese experience of P2P Lending. Since 2011, China witnessed meteoric growth of peer-to-peer lending through platforms without significant regulatory oversight. By 2016, numerous high profile platform failures resulted in disarray, as well as losses for borrowers and investors. Where intermediaries are merely pass-through technology platforms, regulatory arrangements around ring-fencing gain salience.

Regulating the use of data in financial sector: The protection of the personal information of consumers becomes key to the effectiveness of data-driven financial services. Regulators may consider evolving sectoral guidelines which indicate permissible uses of personal data and clarify consumer outcomes and harms to be avoided. Regulatory frameworks should evolve to ensure responsible aggregation of users’ data, secured data sharing, and apportionment of liability in the event of a data breach (Department of the US Treasury, 2018).

Revisiting prudential regulation for regulated financial sector entities: Operational risks emerging from outsourcing contracts, followed by cyber-attacks have been identified as the two biggest risks in the context of data-driven financial services (Financial Stability Board, 2017). Unforeseen micro-prudential risks which can culminate in financial loss for users have also led regulators to reconsider if prudential norms for existing financial sector entities are adequate. Regulators across jurisdictions are devising mechanisms to manoeuvre these risks including by strengthening of the outsourcing guidelines and requiring regulated entities to reserve capital against these risks (European Banking Authority, 2017).
Against this context, the session on **Designing Optimal Regulation (for data-driven finance)** can deliberate on the following questions.

- Is the existing consumer protection framework sufficient to deal with new risks from data-driven finance?
- Does data-driven finance pose additional risks to systemic stability of the financial system?
- Do liability frameworks for finance need to be re-visited in light of increased disintermediation and use of technology-based services in financial services?
- In the context of emerging technologies and their use in finance, how can we arrive at clarity on the allocation of regulatory responsibilities? How should regulators and government determine their jurisdiction?
- How can we ensure cross-sectoral regulatory coordination across financial sector and other sectors? How should a future data protection authority evolve and engage with existing financial sector regulators?
Regulating Data-Driven Finance

Resources


