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# SupTech: Leveraging technology to solve supervisory challenges

The advent and proliferation of new age technologies has led to the Financial Services (FS) industry being disrupted by challengers and incumbents. The changes range from simple digitisation aimed at reducing costs and/or improving efficiency in new business models that require novel partnerships between banks, Fintech companies and unconventional players such as e-Commerce organisations, big social media companies and other service providers.

Supervisory agencies around the world need to adapt rapidly to cope with these changes that are brought about not only by entities regulated by them, but others as well. At the same time, they also want to enable innovation to ensure that the end customer wins.

The need is to stimulate innovation while governing new-age, technology-driven financial institutions.

Effective supervision and controls are needed to mitigate misuse of technology and promote trust and protection of investors in financial markets.

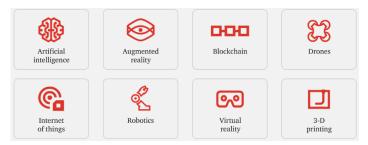
Key focus areas for regulators

Supervisors are keener than ever to leverage new technologies to solve critical supervisory challenges. In this edition of *Vinyamak*, we explore some of the key disruptions that regulators around the world have been able to achieve during their SupTech journey.

#### SupTech: A closer view

In its publication *Essential Eight*,<sup>1</sup> PwC has identified technologies that industries should focus on the most to create the maximum impact. The use cases that are likely to

be enabled through each of these will be classified industrywise.



The essential eight – technologies that will have the maximum impact on businesses

However, a large part of FS SupTech is primarily driven by technologies enabling data collection and analytics. This is also reflected in the Bank of International Settlements (BIS') publication, *Innovative technology in financial supervision (SupTech) – the experience of early users.*<sup>2</sup> Data and analytics enable supervisors to improve their competence in surveillance, analysis of misconduct and gaining insights on the micro-macro factors that affect the economy. In the following sections, we showcase some major data-driven developments in the SupTech world.

#### **Policy formation**

The Bank of Japan (BoJ) has been using Big Data to nowcast GDP rates as much as a month in advance.<sup>3</sup> Such forecasts are also being made by banks such as the European Central Bank. Use of Big Data technologies to compute an industrial production index and tertiary industry activity index in real time has enabled the BoJ to make accurate forecasts.

#### Digitisation of records

In September 2017, the Financial Conduct Authority (FCA) transformed its handbook, which consists of regulatory obligations and guidance for organisations, being converted to a fully searchable database by developing a metadata structure by using Machine Learning (ML) and Natural Language Processing (NLP).4

<sup>1</sup> The Essential Eight

<sup>2</sup> Innovative technology in financial supervision (suptech) – the experience of early users

<sup>3</sup> Nowcasting Japanese GDP 4 AI: The future of regulation

The Monetary Authority of Singapore (MAS) used the NLP and ML technologies to evaluate approximately 3,000 transactions in the Suspicious Transaction Report (STR) to detect money laundering and terrorist financing risks.<sup>5</sup>

#### Detection of anomalies in the capital market

The Australian Securities and Investment Commission has developed a Market Analysis and Intelligence (MAI) system to evaluate anomalies in the market on a real time basis by using Artificial Intelligence (AI).<sup>6</sup> The MAI system collects real time data feeds from all Australian capital market players on their equity and equity derivative products. It also collects data for OTC derivatives' transactions for post-trade analytics.

#### Some other key use cases

Potential use cases	Central banks involved
Tracking retail inflation	Bank of Armenia and Sveriges Riksbank
Employment statistics	Bank of Armenia, Bank of Thailand and the European System of Central Banks
Collecting tax information	Central Bank of Chile <sup>7</sup>
Curb money laundering	Monetary Authority of Singapore

#### SupTech in India

In India, FS regulatory authorities, across jurisdictions, are setting up task forces to leverage tech developments in order to achieve their mandates better.

In 2017, the SEBI set up a committee to evaluate opportunities enabled by technology and also deal with

relevant risk. The SEBI also proposed a Sandbox environment to provide a safe space for companies to test innovative technologies.

The Reserve Bank of India (RBI) has taken significant steps to encourage innovation in the industry and propagate use technology to increase the effectiveness of regulation. The RBI started its ADF journey to ensure submission of correct and consistent data generated by banks to the RBI<sup>8</sup> in 2010. The landscape has been constantly evolving with improvements made in reporting formats, rationalisation of reports and consistency checks. In recent times, the RBI has made a concerted effort to revamp its capabilities through initiatives such as the Centralised Information and Management System (CIMS) and Public Credit Registry (PCR) programmes.<sup>9</sup>

#### A. Public credit registry

The RBI has initiated the creation of an extensive database with comprehensive information on borrowers in a single portal. This database is expected to include a recording of all material events relating to all loans extended by credit institutions, e.g. commercial banks, cooperative banks, Non-banking Financial Companies (NBFCs), micro finance institutions (MFIs) and other sources. This will enable relevant stakeholders to take sound credit-related decisions, manage fraud and monitor growing NPAs.<sup>10</sup>

#### B. Centralised Information and Management System<sup>11</sup>

In order to revamp the existing data warehouse, the Database of Indian Economy (DBIE) has developed analytics capabilities and the RBI has initiated the CIMS programme. The main objectives of the CIMS project are as follows:

<sup>5</sup> Innovative technology in financial supervision (suptech) – the experience of early users

<sup>6</sup> Innovative technology in financial supervision (suptech) – the experience of early users

<sup>7</sup> ÎFC Bulletin No 44 Big Data

<sup>8</sup> Automated Data Flow (ADF) from banks to Reserve Bank of India

<sup>9</sup> Economic Times Article dated September 21,2018"RBI to form regulatory sandbox for fintech, setup data science lab," 10 Vinyamak-August 2018

<sup>11</sup> RBI EOI for Solution Provider for implementing

Centralised Information and Management System (CIMS)

- Developing a system-to-system interface to enable element-based data transmission from regulated entities to the RBI data warehouse
- Developing a data lake by using the latest technology to facilitate management of highvolume structured and unstructured data
- Implementing advanced data analytics and a visualisation platform.

#### **Future landscape**

Both the SEBI and the RBI have already shown a keen interest in developing a Sandbox environment in which innovative technologies can be tested by the industry in a controlled space. With enhanced enablement of technology, Indian regulators will also be able to experiment with some globally implemented use cases. Their ability to process various structured and unstructured datasets will help them counter some of the challenges they face due to inadequacies in official information sources. Moreover, advanced SupTech applications will help to enhance qualitative and quantitative insights provided to the regulators.

Regulators may also consider providing virtual assistance to their supervised entities and provide clarification on compliance-related expectations. The FCA and the SEC are already exploring use cases based on SupTech technology such as chatbots, NLP and machine-readable regulations.

SupTech technologies and applications will offer regulators innovative, cost-effective and efficient ways to improve their supervision process.

In parallel, unusual players such as e-Commerce companies, telecom providers and transportation network companies are increasingly providing financial services. FS regulators may soon have to join forces with the regulators for other industries in order to deliver effectively in their mandates.

In future, supervisors are expected to evolve at the same rate as the industry.

#### Regulatory news

#### External Commercial Borrowings (ECB) Policy – ECB facility for Resolution Applicants under Corporate Insolvency Resolution Process

According to the notification, the RBI has published amended guidelines to ease end-use restrictions for resolution applicants under the Corporate Insolvency Resolution Process (CIRP). This will enable them to raise external commercial borrowings (ECBs) from recognised lenders, except the overseas subsidiaries of Indian banks for repayment of Rupee loans of the target companies under the approval route.

According to current guidelines, realisation of an ECB amount cannot be used for repayment of domestic rupee loans, except for ECB from a foreign equity holder.

The updated policy will come into force with immediate effect. The detailed notification can be accessed <u>here.</u>

#### Harmonisation of different categories of NBFCs

The RBI has decided to reduce harmonisation of different categories of NBFCs. This decision has been taken to provide NBFCs with enhanced operational flexibility.

Accordingly, three categories of NBFCs, i.e. asset finance companies (AFCs), loan companies (LCs) and investment companies (ICs) are to be combined into a single category NBFC Investment and Credit Company (NBFC-ICC).

The detailed notification can be accessed here.

#### **Risk Weights for exposures to NBFCs**

The RBI has published a notification that exposure to all NBFCs, excluding core investment companies (CICs), will be risk weighted on the basis of the ratings assigned by SEBI-registered rating agencies to them.

In the current scenario, the guidelines are applicable for rated Non-deposit taking Systemically Important NBFCs (NBFC-ND-SI) that need to be uniformly risk weighted at 100%. However, the exposure to asset finance companies (AFCs), non-banking financial companies – infrastructure finance companies (NBFCs-IFC), and non-banking financial companies – infrastructure development funds (NBFCs-IDF) and other NBFCs (apart from NBFC-ND-SI) are risk-weighted on the basis of ratings assigned to them by rating agencies.

Under the revised regulations, exposure to CICs, rated as well as unrated, will continue to be risk-weighted at 100%.

The detailed notification can be accessed here.

## **Investment by Foreign Portfolio Investors (FPI) in Debt**

The RBI has decided to withdraw its prevailing exposurerelated provision for an FPI with a view to attract more investors to invest in the Indian corporate debt market.

According to the present RBI regulation, an FPI should not have an exposure of more than 20% of its corporate bond portfolio to a single corporate.

The amended regulation will be implemented with immediate effect. The detailed notification can be accessed here.

#### **Interest Subvention Scheme for MSMEs**

The RBI has published the salient features of and operational guidelines for realisation of its Interest Subvention Scheme. The report includes the purpose, scope and duration, eligibility for coverage, operational formalities, claim submission and other covenants. The Small Industries Development Bank of India (SIDBI) is the sole agency in India that is executing the scheme.

The participant banks and their branches have been instructed to act on these guidelines to ensure successful implementation of the scheme.

This scheme is to be implemented over 2018-19 and 2019-20. The detailed notification can be accessed <u>here</u>.

# Other regulatory news

#### Relaxation from requirement to furnish a copy of PAN for transfer of equity shares of listed entities executed by Non-residents

The SEBI has allowed NRIs, PIOs, OCIs and foreign nationals to transfer equity shares held by them to their immediate relatives without presenting their PAN. According to the notification, the transfer will take place subject to the following conditions:

- The relaxation will be applicable for transfers executed after 1 January 2016.
- It will be limited to non-commercial transactions.
- Non-residents will provide copies of an alternative valid document to validate their identity and non-resident status.

The SEBI has advised stock exchanges to furnish the provisions of the notification to listed entities. In addition, they need to provide this information on their websites. The detailed notification can be accessed here.

# Framework for utilisation of Financial Security Deposit (FSD)

The SEBI has rationalised the security deposit maintained by warehouse operators with the Warehousing Development and Regulatory Authority (WDRA) and recognised clearing corporations. The clearing corporations involved in the commodity derivatives segment should follow the norms included in the circular, which eases the financial stress on warehouse operators.

In the present scenario, security deposits have to be maintained with both the bodies on the same goods. This places a financial burden on operators.

The regulations will come into force within 30 days of the issuance date of the circular. The detailed notification can be accessed here.

### Global regulatory news

# ESMA publishes guidelines on supervisory reporting for credit rating agencies

Regulations pertaining to periodic reporting of information have been updated in the Essential Services Maintenance Act (ESMA) in order to support existing supervisory processes efficiently and effectively. According to the notification, its main is to ensure the following:

- There should be separate reporting calendars for bodies depending on the required level of supervisory engagement.
- Individual reporting instructions should be applicable for every reporting item, where there is a supervisory need.
- There should be specific reporting items for using a standardised reporting template.

Going forward, the relevant templates will be made available on the ESMA website well before the implementation date. The detailed notification can be accessed here.

The European Supervisory Authority (ESA) publishes recommendations on changes to the PRIIPs Key Information Document

According to the notification, the ESA has published its final recommendation on targeted amendments made in the delegated regulation. This includes the rules pertaining to key information documents (KIDs) for packaged retail and insurance-based investment products (PRIIPs).

According to the published report, the key recommendations are:

- Exclude targeted amendments at present
- Initiate a more comprehensive revision of the delegated regulation relating to PRIIPs during 2019

PRIIPs have been asked to include a warning in their KIDs to ensure that retail investors' are aware of restrictions of the numbers provided in the performance scenarios.

The detailed notification can be accessed here.

# **EBA publishes revised Guidelines on outsourcing arrangements**

The European Banking Association (EBA) has published updated regulations on outsourcing arrangements. It has also framed provisions for the governance structure of all financial bodies that are under the EBA's direction with respect to their outsourcing arrangements, related supervisory expectations and relevant processes.

The new regulations provide a harmonised framework for financial bodies including credit institutions, investment organisations subject to the capital requirement directive, and payment and electronic money institutions. The earlier directive to cloud service providers on outsourcing arrangements has been included in the new guidelines.

The EBA guidelines will come into effect from 30 September 2019. The detailed notification can be accessed <u>here</u>.

#### FCA publishes its second set of rules following its Asset Management Market Study

The FCA has published new guidelines to enhance the information-related quality of funds invested by consumers. The rules introduced earlier ensured that fund managers acted as agents of investors. In order to ease the process of decisions taken on investments, the newly introduced guidelines enhance the earlier rules by helping consumers understand the way their invested funds are managed.

In addition, the cost-transparency initiative launched earlier has acted as an independent group. This has increased the cost and requirement for transparency for institutional investors. Furthermore, it facilitated the work undertaken by the Institutional Disclosure Working Group. The detailed notification can be accessed <a href="here">here</a>.

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