REPORT OF THE WORKING GROUP ON INFORMATION UTILITIES

MINISTRY OF CORPORATE AFFAIRS GOVERNMENT OF INDIA



Placeholder Signature Page

Working Group presents its report...

SIgnatures

Contents

	Abbreviations 11
	Acknowledgments 13
	Establishment of the Working Group 15
	Executive Summary 17
1	Information Utilities in Bankruptcy Reform191.1 Overview of BLRC's recommendations191.2 IUs in the Insolvency and Bankruptcy Code20
2	Philosophy232.1IU record as evidence232.2Information submission: mandatory or optional?252.3Disclosure of information272.4Ownership of IU information282.5Standards292.6Unique identification of persons302.7Unique identification of debts322.8Immutability of information34
3	Services353.1Core services353.2Determining default373.3Non-core services393.4Obligations of the IUs39

4 Processes 41

4.1 Information submission in an IU 41

- 4.2 Information storage 45
- 4.3 *Information retrieval* 46
- 4.4 Portability 47

5 Market Structure 49

- 5.1 Market design choices 49
- 5.2 Central Repository 53
- 5.3 Eligibility Criteria 55
- 5.4 Pricing 56

6 Regulatory Requirements 61

- 6.1 Data Availability to the regulator and the Adjudicating Authority 61
- 6.2 Indemnification 61
- 6.3 Exit Management Plan 62
- 6.4 Compliance 62
- 6.5 *Grievance Redress* 63
- 6.6 Outsourcing of core services 63
- 6.7 Transitional Registration 64

7 Workflows 65

- 7.1 Submission of information on credit contract 65
- 7.2 Submission of information on default 66
- 7.3 Formation of the Committee of Creditors 67
- 7.4 Potential investor wants to examine data of debtor 68
- 7.5 Creditor wants to port data to another IU 69
- 7.6 An IU loses or tampers with data 70

8 Amendments to the Code 71

- 8.1 Authentication of Information in an IU 71
- 8.2 Record of dispute in IUs 72
- 8.3 'Repayment' should include 'payment' 73
- 8.4 *Replace 'suit' with 'legal proceeding'* 73

- *A* Draft Regulations on Information Utilities 75
- B Constitution of Working Group 4 97

References 105

List of Figures

- 4.1 Information about default: how can it be disseminated? 47
- 5.1 IU inside the regulator 50
- 5.2 A monopolistic IU contracted by the regulator 51
- 5.3 A monopolistic IU contracted by the regulator 52
- 7.1 Submitting information about the credit contract 66
- 7.2 Submitting information about a default, and authentication by the host bank 67
- 7.3 Querying IUs to form the Committee of Creditors 68
- 7.4 Querying IUs to find out what information they have. 69
- 7.5 Purchasing information from IUs 69
- 7.6 Porting information from one IU to another. 70

Abbreviations

AA	Adjudicating Authority
API	Application Programming Interface
BCP	Business Continuity Planning
BLRC	Bankruptcy Law Reforms Committee
CIC	Credit Information Company
CIN	Corporate Identity Number
CoC	Committee of Creditors
DR	Disaster Recovery
EMP	Exit Management Plan
FDI	Foreign Direct Investment
FSP	Fresh Start Process
IBBI	Insolvency and Bankruptcy Board of India
IBC	Insolvency and Bankruptcy Code
IP	Insolvency Professional
IRP	Insolvency Resolution Process
IU	Information Utility
LEI	Legal Entity Identifier
MCA	Ministry of Corporate Affairs
MEL	Master Entity List
PAN	Permanent Account Number
RBI	Reserve Bank of India
RP	Resolution Professional
SEBI	Securities and Exchange Board of India
SLA	Service Level Agreement
TC	Technical Committee
WG	Working Group

Acknowledgments

This Working Group was constituted to provide recommendations on the regulation of Information Utilities (IUs). While there are many organisations both in India and abroad in the business of credit information, the notion of IUs is a novel one, making the task of the Working Group a challenging one.

The Macrofinance Group at the National Institute of Public Finance and Policy (NIPFP) was the secretariat of the Working Group, and helped in research, writing the report, and drafting the proposed regulations. I would like to acknowledge the contribution of this team, consisting of Prasanth Regy, Sumant Prashant, Pratik Datta, Shivangi Tyagi, and Aditya Gorthi (all of NIPFP), Professor Renuka Sane (of ISI Delhi), and Chirag Anand.

The Working Group benefited greatly from the fact that several key stakeholders were its members. Apart from its own members, many external experts also contributed their insights to the Group. Inputs were provided by Amardeep Singh Bhatia (Joint Secretary, Ministry of Corporate Affairs), Ashok Pal Singh (Joint Secretary, Ministry of Finance), Milind Mungale (NSDL), and S Raghunathan and Joydeep Dutta (CDSL).

The Group and the drafting team also benefited from consultations with Deep Mukherjee, Harshala Chandorkar, and Padmini Vora of CIBIL; Sapan Gupta, Misha, Malvika Kanade and Vaijayant Paliwal of Shardul Amarchand Mangaldas; Rahul Kelkar, Amin Dayani, Sai Kosuri, and others of HDFC Bank; and Professor Susan Thomas, Anjali Sharma, Professor Rajeswari Sengupta, Bhargavi Zaveri, Gausia Shaikh, and Aditi Sachdev, of the Finance Research Group at the Indira Gandhi Institute of Development Research. Ashish Kushwaha (Director, MCA), and Shashi Raj Dara (Deputy Director, MCA) provided valuable inputs as well as administrative assistance.

I would like to thank all of them for their assistance to the Working Group.

January 10, 2017 New Delhi

K V R Murty

Establishment of the Working Group

On 5th May, 2016, the Parliament passed the Insolvency and Bankruptcy Code (IBC), which received Presidential assent on 28th May, 2016. In order to plan the implementation of the law, the Ministry of Corporate Affairs constituted four working groups (WGs) in July 2016:

- 1. WG 1: Recommend the design of the Insolvency and Bankruptcy Board of India,
- 2. WG 2: Recommend the rules and regulations for Insolvency Professionals and Insolvency Professional Agencies,
- 3. WG 3: Recommend the rules and regulations for the insolvency and liquidation process,
- 4. WG 4: Recommend the rules and regulations for Information Utilities.

This is the report of the WG 4 on the Information Utilities. The members and the terms of reference of this WG were as follows:

Members

- K V R Murty, Joint Secretary (e-Governance), Ministry of Corporate Affairs, who is the Convenor;
- Ajay Shah, Professor, National Institute of Public Finance and Policy;
- Mihir Kumar, Director and Deputy Registrar, CERSAI;
- Rajinder Kumar, CGM, Department of Banking Regulations, RBI;
- Jayesh Sule, Whole Time Director and Chief Operating Officer, NSDL E-Governance;
- Mrutyunjay Mahapatra, Deputy Managing Director, State Bank of India; and
- Nivedita Haran, Director, National E-Governance Services Limited.

Terms of Reference

- 1. Give recommendations for designing regulations on information utilities covering the following aspects:
 - (a) Eligibility and process for registration, including the feasibility of using existing platforms like MCA21, CERSAI, etc. for the purpose
 - (b) Bye laws, including governance and functions, for IUs
 - (c) Scope of information to be captured and services to be provided
 - (d) Standards for sharing/dissemination of information
 - (e) Safeguards for recording of information and its access
 - (f) Minimum infrastructure and resources for an IU
 - (g) Business model for IUs
 - (h) Any other requirement under the Code.
- 2. Prepare draft Rules and Regulations, etc as required under the Code for substantive and procedural issues relating to IUs.
- 3. Identify persons who can contribute towards review of the regulations so prepared.
- 4. Consider the suggestions received as part of the review, once compiled.

Executive Summary

India has embarked on a historic reform of the bankruptcy and insolvency process. The Bankruptcy Law Reforms Committee (BLRC) led by Mr T. K. Viswanathan designed a set of processes to resolve insolvency and bankruptcy. The BLRC visualised four pillars of supporting institutional infrastructure to make these processes work efficiently:

- 1. A private industry of Information Utilities (IUs),
- 2. A private industry of Insolvency Professionals (IPs) with oversight by private insolvency professional agencies (IPAs),
- 3. Adjudication infrastructure at the National Company Law Tribunal (NCLT) and the Debt Recovery Tribunal (DRT), and
- 4. A regulator, the Insolvency and Bankruptcy Board of India (IBBI).

These ideas are enshrined in the Insolvency and Bankruptcy Code (IBC), which was enacted by Parliament on 11th May 2016. In order for the law to become effective, the four pillars of institutional infrastructure have to commence functioning. This Working Group is concerned with the first pillar, that of Information Utilities. IUs are a novel concept. While there are many entities all over the world that store information about credit, there are no exact equivalents of IUs. Therefore, while establishing this new kind of entities, it is important to have a clear idea of the services that IUs shall provide, and the processes through which they shall do so. The primary function that IUs perform, that make them important from a public policy point of view, is that they provide high-quality authenticated information about debts and defaults. This document records the draft regulations the Working Group (WG) proposes in order to achieve this purpose, as well as the rationale for those regulations.

While drafting regulations, the WG has been guided by a set of broad principles. One principle has been that courts and tribunals should accept the information in IUs as evidence. For this, once information is submitted to the IU, the IU should authenticate that information with all the concerned parties and only then store it. IUs need to follow restrictions in terms of the kind of information they can accept and the persons whom they can accept or authenticate information from. This ensures that the information in the IU is accurate, and that it cannot be disputed later. Another principle is that of standardisation — the regulator should specify applicable standards and all IUs should conform to those standards. In addition, the WG determined that debtors, creditors, and debts needed to be uniquely identified, and this report suggests how this can be done.

IUs has to perform "core services" as has been defined in the Code. These services constitute the actitivies of IUs that are subject to regulation. Even while performing core services, IUs should have the freedom to innovate business models. For instance, one IU may decide to focus on individuals and another on operational credit. They should have the freedom to do so. Apart from core services, IUs are free to provide other related services. These non-core services are not of regulatory importance, and need not be heavily regulated.

The WG believes that this is a new industry, and will likely innovate in unforeseen ways. Hence, it is important to avoid being overly prescriptive. The objective of the WG was to suggest as few restrictions as are necessary to achieve the public policy purpose of IU.

As mentioned earlier, it is important that any information stored in an IU should be acceptable to courts as prima-facie evidence of the existence of debt. Hence, it is very important to ensure that the process by which information is stored in IUs is very robust, standardised, and rigorous. Hence the WG has described in detail the processes that IUs should follow in handling financial information.

The WG also discussed the market structure. It agrees with the BLRC vision of a dynamic competitive market of private IUs. IUs will have the freedom to set the terms of their contracts, including prices, as long as they conform to regulations. However, it will be necessary to guard against the possibility of price gouging by IUs. Due to the importance of the data that the IUs hold, they need to be subject to several regulatory requirements. A strong risk management framework is necessary, including insurance and provisions for indemnification. Since the financial information with IUs is of regulatory interest, if the regulator judges that the information is in danger of being lost or damanged, it should have to ability to take possession of that information and transfer if to another IU if necessary. Similarly, the regulator should impose reasonable restrictions on outsourcing, balancing the benefits of oursourcing against the increase in risks.

To fix our intuition, this report contains an illustrative set of workflows. During the perusal of the Code, the WG noticed some inconsistencies in it. We document those and suggest appropriate amendments. Lastly, the draft regulations proposed by the WG are appended to the report.

Information Utilities in Bankruptcy Reform

1.1 Overview of BLRC's recommendations

When an entity (corporate, or individual) defaults on a debt repayment, there are three possibilities:

- 1. A creditor or a group of creditors can enforce debt repayment against the debtor;
- 2. The debt can be reorganised; else

1

3. If the entity is a limited liability firm, then it can be liquidated. If the entity is an individual, then he can be forced into bankruptcy. In either case, the assets of the entity are distributed among its creditors.

Option (1) is debt enforcement, where individual creditors attempt to recover their own debts from the defaulting debtor. This usually involves enforcing the collateral securing the debt. Options (2) and (3) are insolvency procedures that provide for a collective mechanism to deal with the debtor's financial distress. Upon default, if individual creditors are left to pursue their rights and enforce judgements by execution against the debtor, then each creditor will take recourse against the company. The sudden rush for debt enforcement by all the creditors can destroy value. It can lead to intimidation and harassment of individuals. In the case of sole proprietorships, or limited liability firms, such collection can disrupt the normal functioning of the entity and its chances for survival will diminish drastically. Thus, enforcement action of individual creditors in their self-interest can end up harming them — a case of "tragedy of the commons".

To avoid this problem, insolvency laws across jurisdictions provide for a moratorium period during which individual pursuits by the creditors are suspended. This creates a calm period when all the creditors collectively try to salvage the situation by deciding on a joint strategy to resolve distress.

The existing Indian corporate insolvency laws were not clear on these fundamentals. The existing individual insolvency laws are a century old, and not rooted in modern processes. Also, the inherent bias in favour of secured creditors in these laws has hampered the growth of unsecured credit and the corporate bond market in India. The most crucial contribution of Bankruptcy Law Reforms Committee (BLRC) has been to institutionalise the collective action mechanism of insolvency mechanism.¹ One crucial aspect of this resolution process is to ensure timeliness in the assessment of debtor viability.

A default could occur either because of a financial failure or because of a business failure. If it is due to a financial failure, it is relatively easier to restructure the debt and sustain the business. However, if it is due to a business failure, the viability of the enterprise may be in question. A major contribution of the BLRC was the recommendation that this decision be shaped by market forces and not through an agency of central planning as had been the case in India. Therefore, it left the decision making to a Committee of Creditors (CoC) comprising all the creditors of the debtor.

For the CoC to come into existence and perform its legal duty within the mandate of the law, a state institution in the form of an Adjudicating Authority (AA) is indispensable. Among other things, the AA would ascertain whether a default had occurred, who the creditors are and whether the right creditors have been placed in the CoC. Any such adjudication could involve adjudication on facts and law. Such an adjudication would consume time and delay the assessment of viability of the debtor enterprise. In order to minimise such delay, it was necessary to minimise the possibility of factual disputes.

The solution offered by BLRC was to digitise all credit transactions, make them available on a digital platform subject to rules of access, and give such digital records legal sanctity. Such electronic records would enable quick determination of the identity of creditors, swift establishment of the CoC on triggering of default and rapid assessment of the viability of the debtor (individual or enterprise) by the committee. This was the most viable option to minimise factual disputes and cut down on delays due to adjudication. With this in mind, the BLRC proposed the creation of Information Utilities (IUs).

1.2 IUs in the Insolvency and Bankruptcy Code

The BLRC envisaged a private competitive market for IUs, rather than a centralised depository with the state. This suggestion was motivated by a desire to avoid creation of a monopoly and the inefficiencies associated with it. Of course, certain market failures are possible even in a private market. To avoid such failures in a market of private IUs, the Insolvency and Bankruptcy Code (IBC) mandated that private IUs have to be interoperable.² To ensure that IUs captured the information necessary for the resolution of insolvency or bankruptcy, the IBC made data ¹ Bankruptcy Law Reforms Committee. *Volume I of the Report of the Bankruptcy Law Reforms Committee: Rationale and Design.* 2015. URL: http://finmin.nic. in/reports/BLRCReportVol1_04112015. pdf (visited on Sept. 23, 2016).

² Section 214(h), *Insolvency and Bankruptcy Code*.

submission mandatory for financial creditors, and imposed an obligation on IUs to accept such data.³ To ensure accuracy and preclude disputes, the IBC mandated that such records be co-verified with all concerned parties.⁴ The format and period within which the filing must be done would be specified by the regulator.

The BLRC envisaged that over time, IUs would collectively capture a comprehensive picture of the financial liabilities of all entities. This information would be revealed in order to facilitate the resolution of insolvency or bankruptcy. For listed entities⁵ only, anonymised information about the contracts that make up the liabilities was proposed to be made available in the public domain at all times. For unlisted entities, access to the terms and conditions of these contracts would be made available but in a limited manner to be specified by the regulator. The IBC has not specified who IUs can disclose information to — it has left it to the regulator to specify the disclosure norms.⁶

The IUs were expected to capture not just financial, but operational liabilities as well. The BLRC acknowledged the difficulties in capturing the data on operational liabilities. However, one of the benefits of recording a debt (whether financial or operational) in an IU, is that if the debtor were to default, the debt is certain to be considered during the insolvency or bankruptcy process. The committee was optimistic that with a competitive industry of IUs, operational liabilities can be readily recorded as long as the cost of the filing is exceeded by this benefit. Accordingly, the BLRC recommended that the regulator should allow a variety of IUs to offer services at different costs for different users, so that a dynamic and competitive industry of the IUs can develop. The BLRC predicted that this information industry will develop and mature with time. Progressive regulation making would be needed to allow this industry to grow sustainably. This would require the regulations to be malleable so that they could accommodate and adjust to the changing circumstances. Accordingly, the IBC left it to the regulator to prescribe detailed regulations.

³ Sections 215(2) and 214(c), *Insolvency and Bankruptcy Code*, respectively.

⁴ Section 214(e), *Insolvency and Bankruptcy Code*.

⁵ Here, listed entity means an entity which has listed any equity or debt security on a stock exchange.

⁶ Sections 213 and 214(f), *Insolvency and Bankruptcy Code*.

2 Philosophy

All stakeholders in the insolvency or bankruptcy process of a debtor should have access to reliable financial information about the debtor. However, the existing process is hampered by asymmetry of information. Crucial time is wasted in establishing the existence of debt and default. Asymmetry of information also hampers fair negotiations between debtor and creditor. To overcome such problems, the IBC mandates the creation of a regulated information industry in the form of IUs. Reliance on the information available with IUs will reduce the time taken to establish debt and default, and expedite the insolvency and bankruptcy process.

It is envisioned that sustained use of IUs will lead to the creation of a financial information database of all entities availing credit. This database will facilitate better decision making by creditors and encourage discipline amongst the debtors.

Irrespective of whether the creditor or the debtor initiates the Insolvency Resolution Process (IRP) under the IBC, either of them can use the information available with IUs to prove or ascertain the existence of debt and default. Since IUs have the potential to eventually become the backbone of the insolvency process, it is important that the information available with IUs is reliable: so much so that it passes the test of conclusive evidence in a court of law. This chapter examines some of the key design principles that underpin IUs, so that this goal can be achieved.

2.1 IU record as evidence

Speed is of essence in IRP.¹ The IBC mandates that the IRP process should be completed in a time bound manner. This can happen only if the electronic records contained in the IU are considered as conclusive evidence.

2.1.1 Electronic Records

The Information and Technology Act, 2000 (Information and Technology Act) amended definitions in the Indian Evidence Act, 1872 (Indian Evidence Act) to include electronic records as ¹ In this report, IRP also includes the Fresh Start Process (FSP) for the individual, if applicable. "evidence". Definition of "documents" and "admission" was also amended to include electronic records. According to Section 65 of the Indian Evidence Act, any electronic record produced by a computer will be admissible as evidence if the following conditions in relation to the information and computer storing such information are satisfied:

- 1. At the time of creation of the electronic record, the computer that produced it must have been in regular use;
- 2. The kind of information contained in the electronic record must have been regularly and ordinarily fed into the computer;
- 3. The computer should be operating properly; and
- 4. The duplicate copy must be a reproduction of the original electronic record.
- 5. A certificate by a senior person who was responsible for the computer on which the electronic record was created or stored must identify the original electronic record, describe the manner of its creation, describe the device that created it, and certify compliance with the technological conditions mentioned above.

After examining the conditions for admissibility of electronic records as evidence it can be concluded that the electronic records of IUs will be admissible as evidence. However, just admissibility of electronic records alone is not sufficient to achieve the purpose envisaged for IUs. For the IRP process to be swift, the judiciary should be convinced that the records of the IUs are *conclusive* proof. Otherwise, considerable time can get wasted in establishing their accuracy.

The section below sheds light on the process to be followed so that the information stored in the IUs is conclusive.

2.1.2 IU record to be conclusive

Considering that there is no provision for any representation by the corporate debtor once the application of IRP is submitted before AA, the Working Group (WG) was of the view that before any record is stored in an IU, it should meet the standard for conclusive evidence.

Section 31 of the Indian Evidence Act states that admission of fact might not be conclusive proof of a fact but previous admission will act as an *estoppel* on such admission. Estoppel is defined in Section 115 of the Indian Evidence Act:

When one person has, by his declaration, act or omission, intentionally caused or permitted another person to believe a thing to be true and to act upon such belief, neither he nor his representative shall be allowed, in any suit or proceeding between himself and such person or his representative, to deny the truth of that thing. As per Section 3(9)(c) and Section 214(e) of the IBC, all information stored in the IUs will have to be authenticated and verified by all "concerned parties". The WG is of the view that any information related to existence of credit will be authenticated by both the debtor and the creditor before it is finally stored with the IUs. In the light of the above principles of Indian Evidence Act, given that all the information in an IU has to be verified by all concerned parties, the creditor and the debtor will be *estopped* from disputing any of this information.

In the case of default, the debtor might not want to authenticate the fact that a default has been committed. To work around such situations, the committee proposes to redefine "concerned parties" in this case to include a bank which maintains the account in which the repayment amount has to be deposited by the debtor. This bank will be able to authenticate whether there has been default or not, by providing the account statement of the repayment account. This prevents the debtor from holding the process hostage, while preserving the evidentiary value of records in the IU.

Box 2.1: Drafting instructions for according evidentiary value to the information submitted to IUs

- 1. IUs shall store financial information in a manner which does not dilute the evidentiary value of the information.
- 2. "Concerned parties" should be defined in such a manner that the records in the IU are conclusive evidence.

2.2 Information submission: mandatory or optional?

This section deals with the question of whether it is mandatory for any party to submit data to an IU, and if so, what data is to be submitted.

As per Section 215 of the IBC, it is mandatory for financial creditors to submit financial information to IUs.² However, the Code does not specify any penalty for not submitting this data. So it appears that if a creditor does not submit this information, the 'penalty' is that in case of default, the creditor cannot take advantage of the fast and easy processes enabled by the IU mechanism.

2.2.1 Mandatory information submission by financial creditors

Section 3(13) of the IBC defines financial information to include the following:

- 1. Records of the debt of the person.
- 2. Liabilities of the person, when the person is solvent.
- 3. Records of the assets over which security has been created.
- 4. Instances of default by the person against any debt.

² For operational creditors, submitting financial information is not mandatory.

5. Balance sheet and cash-flow statements of the person.

6. Any other information that may be specified.

Keeping in the mind the purpose of IUs (i.e., to establish existence of debt and default), and the nascent stage of this system, the WG was of the view that submission of all the financial information mentioned above need not be made mandatory. Only information which is directly relevant for establishing existence of debt and default for the purpose of IRP should be made mandatory. Submission of other records by the financial creditor should be optional.

The WG felt that with the sustained use of IUs over time, a comprehensive set of information about all debtors will be available in IUs. In particular, information regarding liabilities of the debtor, and instances of previous default, will also eventually be available with the IUs.

The WG also expects that all creditors, especially institutional creditors, will have strong incentives to use IUs. However, in the interest of achieving the objectives of the IBC faster, the WG recommends that other relevant regulators should encourage the entities that they regulate to submit financial information on debts and defaults to IUs promptly. This will be very helpful in enabling IUs to quickly build up a comprehensive record of the debts and defaults in the country.

2.2.2 Information submission by operational creditors

As mentioned earlier, as per Section 215(3), it is optional for operational creditors to submit financial information to the IUs. As in the case of financial creditors, there is a strong incentive for operational creditors to ensure that information about their debts is submitted and authenticated in the IUs. The WG was of the view that provisions should be included in the regulations to enable an operational creditor to use the services of IU. The operational creditor should be allowed to submit the details of the contract which establishes existence of debt after getting it authenticated in the same manner as done in the case of financial creditors.

Box 2.2: Drafting instructions for data submission by financial and operational creditor

- 1. A financial creditor should mandatorily submit data regarding existence of debt. If applicable, it may also submit information about security (in case of secured loan), loan account number, and repayment schedule.
- 2. It is not mandatory for operational creditors to submit information about operational debt, but IUs should enable them to do so. The submission and authentication of this information shall be done in the same manner as for financial debt.
- 3. It will be optional for creditors to submit other financial information, such as balance sheets and cash-flow statements.

2.3 Disclosure of information

One of the important functions of IUs is to solve the problem of information asymmetry. Debtors know much more about their ability to repay debt than creditors. The faster information is made available to all debtors regarding default, the higher the recovery rate will be. At the same time, confidentiality of sensitive information should not be violated.

It is useful to think of information disclosure in terms of four scenarios:

1. The debtor is solvent:

In this case, information about the debtor should not be disclosed to other persons unless the debtor explicitly permits it.

The view of the BLRC (though not of the IBC) was that all the creditors of an unlisted debtor should have access to anonymised information about the debts of the debtor. If the debtor was a listed entity, this information was to be available to the entire public. This would ensure that information asymmetry is minimised, thus promoting economic efficiency.

There are some flip sides to this as well. One would be that the confidentiality of sensitive commercial information would be violated. Further, in the case of listed entities, Securities and Exchange Board of India (SEBI) has issued detailed disclosure norms³. The regulator should not specify disclosure norms over and above what the relevant regulator (in this case, SEBI) has already specified.

After discussion, the WG recommends that information disclosure about a solvent entity should happen only with the permission of the entity.

2. The debtor has defaulted on a debt:

Section 7 of the IBC indicates that any financial creditor of the defaulting corporate debtor can initiate the insolvency resolution process, not just the creditor who has been defaulted against. Therefore, in this case, in addition to the disclosures in the first case above, the fact of the default should be made known to every financial creditor.

3. The application for initiating IRP has been filed:

In addition to the disclosures in the case above, the AA and any Resolution Professional (RP) appointed by it should have complete access to all information about the debtor free of charge from all IUs.

4. IRP has been triggered:

At this point, the AA has accepted the application made for triggering the IRP based on the evidence in front of it. This evidence is part of the court records, which are public. Even if all ³ Securities and Exchange Board of India. *SEBI (Listing Obligations and Disclosure Requirements) Regulations,* 2015. URL: http://www.sebi.gov. in/cms/sebi_data/attachdocs/ 1441284401427.pdf (visited on Nov. 24, 2016). the records are not filed in court, it is essential for efficient resolution that the information be made accessible to the public. This will ensure that people can make offers to the CoC based on high quality, comprehensive information about the value of the debts.

Therefore, at this stage, all information about the debtor in IUs should be public.

Box 2.3: Drafting instructions for disclosure of information by IUs

- 1. IUs shall not allow access to information unless allowed by regulations.
- 2. When the debtor is solvent, other persons may access its information only with the permission of the debtor.
- 3. If an IU stores information that a debtor has defaulted, it should inform all other IUs of this fact. Once an IU receives information from another IU about a defaulting debtor, it shall communicate the fact of the default to all the creditors of the debtor that it knows of.
- 4. Once an application has been made to the AA to initiate IRP, the AA (and any RP appointed by it in the case of a personal insolvency) should have complete access to the information about that debtor from all IUs, free of charge.
- 5. Once the IRP is triggered, all the information about the debtor is accessible to the public.

2.4 Ownership of IU information

Ownership of a physical object is a bundle of rights and obligations associated with that object. Typically, ownership of an object provides an answer to questions such as who possesses the object, who can use it, who can modify it, who can sell it, who can destroy it, and who can profit from it. All these rights accrue to the owner, who is free to transfer some of these rights to others. In this document, we are concerned with similar questions for the information stored in IUs.

Ownership of information is not as simple of ownership of tangible objects. In the case of information in an IU, all the rights mentioned above do not necessarily accrue to one 'owner'. For the purpose of IUs to be served, we require that nobody may modify or delete this information. Certain persons (such as the AA, the RP, and the regulator) need to be able to use the information even if the creditor or the debtor may not wish to grant them permission to do so. The right to sell or profit from the information is not absolute — the regulator may not allow information to be sold, and it may impose limits on how it may be used for profit. Even possession is not absolute — if the regulator is concerned about the ability of an IU to store information, it may seize it and transfer it to another IU. It is not even clear who the candidates for ownership are. Is it the submitter of the information? But the information derives its value only from being authenticated, so perhaps the authenticators are also co-owners? The information is in the possession of the IU, so is the IU the owner? Or do we say that the people of the country are the owners, and the regulator exercises this ownership on their behalf? The information is useful only because it was submitted by one person, authenticated by another, and held by an IU in the prescribed manner. Most of that information is not likely to be of public use. The IU, the submitter and the authenticator may each reasonably expect to profit from selling or permitting access to that information. So declaring that the people of the country own the information doesn't appear appropriate either.

In sum, this WG suggests that the notion of "ownership" is not helpful in answering these questions. Instead, the regulator should specify how the information should be created, stored, modified, accessed, and deleted. The IU shall be considered not the owner of the information, but its custodian. As such, the IU has an obligation to be a good steward of the information. In particular, the IU should always make the information available to all the persons the information pertains to. These persons should be informed if any new information about them is stored in an IU, or if existing information about them is modified. If any information stored about them in an IU is erroneous, they should be able to challenge it and get it corrected.

Box 2.4: Drafting instructions for information stewardship

- 1. As long as data about a person exists in an IU, that person shall have access to that data.
- 2. If an IU stores new data or updates old data about a person, the person should be informed by the IU.
- 3. The IU shall provide a process for persons to challenge and rectify data related to them.
- IUs should provide an annual statement to all persons it has information about, containing all the information it has about them.

2.5 Standards

The Code envisages a competitive industry of IUs. These IUs will compete with each other on price and quality of service. The Code also mandates that IUs shall "have inter-operability with other information utilities." To ensure that the market is competitive, the transaction costs are low, and IUs are inter-operable, the WG is of the strong opinion that open standards should be used as far as possible.

The Government of India has notified a policy on open standards.⁴ This policy defines an open standard as follows:

An Identified Standard will qualify as an "Open Standard", if it meets the following criteria:

1. Specification document of the Identified Standard shall be available with or without a nominal fee.

⁴ Government of India. *Policy on Open Standards for e-Governance*. 2011. URL: http://egovstandards.gov.in/ sites/default/files/Policy%200n% 20Open%20Standards%20for%20e-Governance.pdf (visited on Oct. 27, 2016).

- 2. The Patent claims necessary to implement the Identified Standard shall be made available on a Royalty-Free basis for the life time of the Standard.
- 3. Identified Standard shall be adopted and maintained by a not-for-profit organization, wherein all stakeholders can opt to participate in a transparent, collaborative and consensual manner.
- 4. Identified Standard shall be recursively open as far as possible .
- 5. Identified Standard shall have technology-neutral specification.
- 6. Identified Standard shall be capable of localization support, where applicable, for all Indian official Languages for all applicable domains.

An important standard that IU industry shall use, shall be a common Application Programming Interface (API) through which all IUs will interact with other stakeholders in the performance of their core services. The API should be published by the regulator, and all IUs should be mandated to implement it. This will ensure that all IUs and client systems will speak the same 'language'. The API should confirm to the definition of an open API as notified by the Government of India.⁵

Having such a standard API will have several benefits. Customers will not be locked-in to any one IU — it will be easy for them to shift from one IU to another. This will also ensure that it is easy for IUs to accept information from other IUs or other repositories. Many large institutions will interact with IUs through third-party software that sits between their own systems and the IU, and a common API will make it easy for the developers of such software to ensure that it can work with any IU.

This API will specify how an IU can be queried for information, how information may be submitted to an IU, how it can be authenticated, how it can be retrieved, and how prices of IUs can be queried. Like any other useful API, it will evolve over time. The regulator should establish a Technical Committee (TC) that includes representatives from all the IUs. The purpose of the committee shall be to advise the regulator about the standards (including the API) that IUs should implement. The committee should be in charge of managing the entire lifecycle of the APIs, including, when necessary, deprecating and obseleting parts of it. Further, this committee shall assist the regulator in all technical matters, including such matters as the standards for verifying identity of the persons using the IUs, security, service levels and Business Continuity Planning (BCP).

These standards should be "Open Standards", as per the definition above. They should be documented on the website of the regulator, and the regulator should test from time to time whether the IUs have implemented the standards correctly.

2.6 Unique identification of persons

Information about a debtor might be scattered across many IUs, and the system should be architected so that we can query all IUs

⁵ Government of India. *Policy on Open Application Programming Interfaces* (*APIs*) for Government of India. 2014. URL: http://egovstandards.gov. in/sites/default/files/Policy% 200n%20Open%20Application% 20Programming%20Interfaces%20% 28APIs%29%20for%20Government% 20of%20India.pdf (visited on Oct. 27, 2016).

Box 2.5: Drafting instructions for standards

- 1. The regulator shall establish a Technical Committee (TC) containing representatives from all IUs to assist it in creating standards for information flow in IUs.
- 2. The committee shall also assist the regulator in creating open standards regarding security, BCP, identity verification, and service levels.
- 3. IUs should implement a common API to perform their core services.

and obtain a comprehensive picture of the liabilities of the debtor. This raises the question, how can one query for information about a person? What key can one use, and be confident that all relevant records in all IUs will be returned?

It is essential that only one identifier should be used for identifying a person. The use of multiple identifiers will lead to fraud. For instance, if one record is filed with the Permanent Account Number (PAN) number of an individual, and another with his passport number, it will not be possible to recognize that both the records are about the same individual. A debtor can exploit this to file different debts under different identifiers, preventing creditors from gaining a full picture of his past credit history. The challenge is to decide upon a identification key, or a collection of such keys, that uniquely identify a person, and map this identity to one or more digital signatures of that person.

The TC of the regulator should be tasked with investigating suitable unique identifiers for persons. For individual creditors, the Aadhaar number is a natural candidate. For corporate persons, however, there is no obvious candidate. The PAN number is not a good fit because it is not necessary that all persons in the credit markets are taxpayers. The Corporate Identity Number (CIN) of a company may change in certain circumstances, and besides, not all corporate persons are companies.

A new identification number, Legal Entity Identifier (LEI), is being introduced for all legal entities. In India, Legal Entity Identifier India Limited has been set up to act as the designated Local Operating Unit to issue LEIs. Using this number would solve the problem of a unique identifier for all entities. The regulator would have to mandate that all corporate entities would have to use the LEI while submitting information to IUs.

As of now, very few entities in India have been issued such LEIs. But if having an LEI is mandatory for all the parties to a debt to register the debt with an IU, we can expect that gradually, most corporate lenders and borrowers will acquire these identifiers. The Reserve Bank of India (RBI) and the Ministry of Corporate Affairs (MCA) can help this process by nudging the entities under their regulatory control to obtain LEIs.

There is an ongoing initiative within the government to issue a single identifier to identify all persons (individuals as well as corporate entities). If that initiative comes to fruition soon, that

identifier may also be used. Whichever the identifier(s) the TC finally settles on, the key requirements are that:

- One kind of identifier, and only that one kind, should be allowed to be used for one class of persons. So it doesn't matter so much whether we use PAN or Aadhaar, as long as all persons (or a well-defined class of persons) are allowed to use only PAN or only Aadhaar. A solution that involves the use of Aadhaar for individuals and LEI for corporate entities is also feasible. But if any person has the ability to choose from a variety of identifiers, the purpose is defeated.
- The identifier must be unique. If one person can obtain multiple identifiers, then the purpose of unique identification of persons in IUs is lost.

It may be noted that in addition to verifying identities, IUs will also need to contact the persons whose information is recorded with them. The IUs may need to contact them for intimating them that someone has filed information about them, or for authenticating information. Hence, in addition to identities, IUs also need to have access to the contact details of all these persons. This problem can best be solved by having a Master Entity List (MEL), a central database of identities and contact details. No IU should accept any information unless all the parties to the debt are present in the MEL. If any of the persons is not, it may get itself registered in the MEL (presumably facilitated by the IUs, or in any other way the regulator decides).

Box 2.6: Drafting instructions for uniquely identifying persons

- The Technical Committee (TC) of the regulator shall investigate suitable unique identifiers that can be used by individuals and corporates.
- 2. The regulator shall maintain the MEL, a list of the identities and the contact details of all persons using that IU, as per the standards prescribed by the TC. IUs shall be able to access this information when they need to.
- 3. No information should be recorded in an IU unless the identities and contact details of all the parties to the debt are stored in the MEL.

2.7 Unique identification of debts

There might be many records about the same debt spread across many IUs. For instance, let us say one person lent Rs 1 lakh to another. After a few months, they changed the repayment schedule. After a few more months, the borrower defaulted on the debt. Each of these three events may have been recorded in IUs. In fact, these events may each have been recorded in a different IU.

The Insolvency Professional (IP) should be able to query all IUs and assemble all this information. She must be able to figure out that all

these entries refer to the same debt. For this, it may be desirable to have a unique identity number for each debt, and each record relating to that debt should be tagged with that identity number. How is such a unique debt identity number to be created? How can it be ensured that no matter which IU the record relating to a debt is stored in, the record is tagged with the same identity number? One way to do this is to maintain a central master list of all the debts about which information is stored in the IUs. This central list will ensure that the same identification number is not used for different debts. Whenever a new debt is recorded in an IU, this master list should be updated with a unique identification number of the debt. Whenever the parties to the debt need to file a new record in an IU to update information about the debt, they should ensure that they quote the same number.

This solution has a few disadvantages. The first is the inconvenience. The parties to the debt need to remember, in addition to all the other details about the debt, the identifier assigned to the debt by the central master list. If they forget the number or misquote it, it might result in errors while assembling a comprehensive view of all the debts of the debtor. Another problem is that a central database would need to be maintained, presumably by the regulator. This database would be a single point of failure — if it goes down, all the IUs will not be able to function till it comes back up.

A better solution would be: the TC of the regulator specifies an algorithm to create a unique identification number for each debt. For instance, a string consisting of the concatenation of the identity number of the creditor, the identity number of the debtor, the date of the debt, and the amount, would be unique for the vast majority of debts. The precise details of the algorithm can be left to the TC. Every time any record of debt or default is submitted to any IU, it would be able to generate this identity number using the information that is submitted to it. If fresh information about the same debt is submitted to another IU, the identity number this second IU would generate would be guaranteed to be the same as the number generated by the first IU. Thus, it will be easy for any person to query across IUs and assemble a complete picture of all debts.

Box 2.7: Drafting instructions for uniquely identifying debts

- 1. The TC of the board shall develop an algorithm to create a unique identity number for every debt.
- 2. Every IU shall tag information relating to all debts and defaults stored in it with the unique identity number of that debt.

2.8 Immutability of information

Once information is stored in an IU, that record should not be deleted or modified in any manner. This is essential to ensure that the sanctity of information in an IU is preserved, so that it is acceptable as conclusive evidence in a court of law. However, if a record stored in an IU is incorrect, the IU should allow it to be marked erroneous.

Box 2.8: Drafting instructions for ensuring immutability of information

- 1. Once information is stored in an IU, the IU shall prevent any data-loss or modification to that data.
- 2. However, the IU shall enable modification to the extent of marking a record 'erroneous', while keeping the rest of the record untouched.

3 Services

The role of IUs in any insolvency proceeding – corporate or personal – depends on three factors:

- 1. The existence of information on debts, and defaults in the IU
- 2. The validity of information in the IU as evidence in the Court.

3. The use of this information in the insolvency procedure.

There are two points at which the information in an IU is critical.

- (a) At the time of trigger of the resolution process. The IBC envisages that the occurrence of default will be recorded at an IU, and this evidence will be used by the Adjudicating Authority (AA) to trigger the resolution process.
- (b) At the time of forming the creditors committee. The information from the IUs will be used to determine all the creditors to the debtor so as to form the creditors committee.

This is critical to understand the services that the IU will be required to provide.

3.1 Core services

The WG's views on what constitutes core services of an IU are determined by two sections of the IBC. The first is Section 3(9) of the IBC, which states:

"core services" means services rendered by an information utility for —

- *(a)* accepting electronic submission of financial information in such form and manner as may be specified;
- (b) safe and accurate recording of financial information;
- *(c) authenticating and verifying the financial information submitted by a person; and*
- (d) providing access to information stored with the information utility to persons as may be specified.

This suggests that IUs must provide for submission of "financial information" by entities, storage of this information, authentication

of this information, as well as access to this information when required.

The second is Section 3(13) of the IBC which defines financial information as follows:

"financial information" in relation to a person, means one or more of the following categories of information, namely: —

- (a) records of the debt of the person;
- (b) records of liabilities when the person is solvent;
- (c) records of assets of person over which security interest has been created;
- (d) records, if any, of instances of default by the person against any debt;
- (e) records of the balance sheet and cash-flow statements of the person; and
- (f) such other information as may be specified.

These provisions suggest that core services of an IU should include the acceptance, storage, and access to information that includes assets, debts, security interest, balance sheet and cash-flow statements and default.

As discussed earlier in section 2.2.1, what is critical to the insolvency resolution procedure is the record of the credit contract, and the occurrence of a default. It is this information that will be used in triggering an IRP. The WG, therefore, proposes that an IU must provide for collection of the details of the credit contract, and the occurrence of default. Other financial information is optional. For instance, balance sheet information and information regarding cash-flows is not critical to establishing default. Balance sheet information also does not have relevance for individual debtors, and should not be a requirement from such debtors. While Section 215(3) of the IBC indicates that it is not mandatory for operational creditors to submit information to the IU, it will

make business sense for such creditors (especially large operational creditors) to also register their contracts with the IU.

Box 3.1: Drafting instructions for collecting information on core services

- 1. The following information will have to be collected for every loan, corporate as well as personal:
 - (a) The credit contract that governs the terms and conditions of the loan, including repayment conditions, and details of the collateral, if any.
 - (b) The occurrence of a default i.e. non-repayment on the time that it is due.
- 2. For corporate loans, other financial information as defined in the Code, such as information about the balance sheet and the cash flow of the debtor, shall be collected by the IU if they are submitted. However, it will not be mandatory for submitters to submit such information.
- 3. Individual debtors will not be required to submit information, such as balance sheet and cash flow statements, that are not relevant for such entities.
- 4. The regulations on core services shall apply similarly to financial as well as operational credit.
3.2 Determining default

3.2.1 Default

While storing information about default is part of the core services of IUs, we consider it separately in this subsection because of the importance of the topic.

If information about default is stored in an IU, it can be used by the creditor or the debtor to initiate insolvency proceedings. However, this information may not readily be stored in an IU.

At the time of creation of the debt, both the creditor and the debtor will be on good terms. They will co-operate in the submission and authentication of information in an IU at this stage. But after a default, things may not be so smooth. If the defaulter authenticates the default, the information about default can be stored in the IU. But the defaulter may not be willing to authenticate the default, and in that case, no information can be stored in an IU.

3.2.2 Host Bank

However, even without the assistance of the defaulting debtor, it may be possible for an IU to record authoritative evidence of default in some circumstances. If the repayment of the debt is through a bank account (here, this bank is called the host bank), then the statement of the host bank can be compared with the repayment schedule of the loan to determine default.¹ For this to work, the requirements are as follows:

- 1. The debtor and the creditor should previously have stored information with the IU about the host bank, the repayment account, and the repayment schedule.
- 2. Once either the debtor or the creditor submit information to the same IU about default, any one other party from these three:
 - the creditor
 - the debtor
 - the host bank

should be able to authenticate the information. If the host bank is authenticating the information, it should do so by uploading a machine-readable version of the account statement of the repayment account. The IU can compare this statement with with the repayment schedule according to an algorithm specified by the Technical Committee of the regulator, and determine whether there has been default or not.

While we have used a bank in the explanation above, it is not necessary that every repayment account be hosted with a bank. For instance, it should be possible to repay a loan by transferring an amount into an account hosted by any "financial institution" as ¹ In many cases, the creditor and the host bank would be the same entity.

defined in the Code if the parties so wish, and an account statement by these financial institutions should be considered sufficient for the purpose.²

3.2.3 Glitches

The BLRC view was that default should be automatic, i.e. non repayment on the due date should constitute default. Accordingly, Section 3(12) of the IBC defines default as:

"default" means non-payment of debt when whole or any part or instalment of the amount of debt has become due and payable and is not repaid by the debtor or the corporate debtor, as the case may be.

There is an issue that arises due to the interaction of this definition of default with the idea of the host bank. It is possible that there is a technical glitch because of which the payment made by the debtor may not have been received by the creditor. For instance, the debtor may have sent the creditor a cheque in time, but it might have gotten lost in the mail. Now the creditor may submit information in an IU alleging default. If the debtor himself is to authenticate the default, then he can work with the creditor to resolve the issue. However, a problem may arise when the host bank is asked to verify the default. The bank might upload the account statement and the automated systems in an IU may, considering the information authenticated, store it. In such cases, it would be unfortunate if the debtor were to be marked a defaulter due to such a glitch. It would be even more unfortunate if any of its creditors initiated an IRP on the debtor based on this glitch.

In order to avoid, or at least reduce the incidence of this issue, the WG was of the opinion that the debtor should be immediately informed as soon as anybody submits information about a default. Given immediate notice, the debtor can work with the creditor and resolve the glitch in the payment.

It is also the WG's view that given the strict definition of default, the market is likely to evolve contractual solutions to these issues. For instance, the parties to the transaction might write a contract that provides for a separate, earlier "soft default date" which is agreed upon by both parties, while the date encoded in the contract submitted to the IU is treated as sacrosanct. If the debtor fails to make the repayment by the soft default date, then there may still be enough time to resolve the technical glitches before the default date recorded in the IU.

It is important to remember here that an occurrence of default need not mandatorily imply the triggering of insolvency. Triggering the IRP is at the discretion of the creditor (or, for that matter, the debtor). ² As an example, the RBI has licensed several non-bank companies to issue Prepaid Payment Instrument semi-closed wallets. As these gain popularity, it is conceivable that such accounts can be used for repayment of loans.

3.3 Non-core services

As described earlier, the IBC mandates the submission of financial information to the IU. The definition of core services follows from this requirement. However, there may be other kinds of services that the IU may provide, which constitute the non-core services. The public at large benefits when an IU provides quick, authenticated, and indisputable evidence of debts and defaults. Consequently, this set of services has been defined to be the "core services", and the Code as well as the draft regulations have tried to spell out how these services can be carried out. However, given the rich information that IUs are expected to store, analysis of this information can provide useful insights to the credit industry. At this point, it might not be possible to predict the kind of services that enterprising IUs will come up with. The WG believes that IUs should have the freedom to innovate other services they can provide to their customers. However, it is the WG's view that an IU will be required to to respect all the privacy and information access regulations for any service it provides, including the non-core services.

Box 3.2: Drafting instructions for non-core services

- The regulations shall enable the IUs to provide services related to financial and operational credit over and above the credit contract and default.
- The IUs will be required to respect all the privacy and information access regulations for any service it provides, including the non-core services.

3.4 Obligations of the IUs

Apart from the core services defined in the IBC, the WG is of the opinion that IUs should be mandated to provide a few additional services that are essential to ensure that the evidentiary value of the information is preserved, that IUs can be held accountable for their actions, that competition between IUs is encouraged, and that compliance burdens on the creditors and debtors is reduced. These additional services are: providing acknowledgements, importing information from other sources, and enabling portability of the information.

3.4.1 Providing acknowledgement

Once information submitted to an IU has been authenticated by all concerned parties, the IU should provide them an acknowledgement. This acknowledgement serves multiple functions:

1. The acknowledgement serves as proof that the submitter has

fulfilled its statutory obligation (if any) to submit the information to an $\mathrm{IU.^3}$

- 2. The acknowledgement protects against data manipulation by an IU, as well as repudiation by the submitter or the authenticator. The acknowledgement should contain all the information that was submitted and verified. If, at any time in the future, the information in the IU is changed, or if the submitter repudiates the information, it will be evident as a mismatch between the information in the IU and the acknowledgement present with the submitter.
- 3. The acknowledgement protects against data loss by an IU. If at any later point in time, the information is not available with the IU, we can conclude that the IU has lost data. The aggrieved party can complain to the regulator against the IU with the acknowledgement as evidence.

3.4.2 Importing and exporting information to other repositories

Several statutes require submission of credit information to repositories. For instance, the Companies Act requires that any charge upon a company's assets be disclosed to the central government. The Credit Information Companies (CICs) Act requires financial institutions to periodically submit information about their loans to all CICs. The SARFAESI Act requires banks to report immovable securities to CERSAI.

The WG discussed that to the extent possible, additional burdens should not be placed upon creditors and debtors to submit information to yet another entity, in this case, an IU. Instead, IUs should be able to import information from (and when possible, export information to) such repositories, as long as such import or export does not violate any law.⁴

3.4.3 Portability

The submitter or the authenticator of any information in an IU should be able to direct the IU to transmit that information to any other IU, without having to pay any charges to their current IU. This will help ensure that no IU overcharges for storage of information: if any IU does, the submitter or the authenticator of any information will move their information to another IU. This competitive threat will ensure high efficiency and reasonable charges. ⁴ For instance, MCA21 requires that information regarding the creation of a charge on the assets of a company should be digitally signed by the company and by the creditor. So this information might be acceptable for importing into IUs, since the information has been authenticated. However, CIC information does not contain such authenticated by the counterparty, and so it cannot be accepted without an additional step of authentication.

³ The Act places such an obligation on financial creditors.

4 Processes

If information in an IU is to be accepted by the AA and other courts as conclusive evidence, it is necessary that the information be accepted and stored in a manner that ensures accuracy, and precludes disputes. To achieve this, every IU needs to follow rigorous processes to accept and store information. Below, we consider what processes an IU should follow.

4.1 Information submission in an IU

4.1.1 Mode of information submission

The information required under the Code needs to be submitted in a format specified by the regulator. All information needs to be submitted electronically as machine-readable text — no paper documents or scans should be sent to IUs.

It is essential that the identity of the submitter of the information is known. It is also important to guarantee that the information is not tampered with, between the submission of the information by the submitter and its receipt by the IU. Both these problems can be solved using digital signatures.

It is possible that the same information may be submitted to multiple IUs by multiple persons. In this case, if a person (say an IP) is trying to assemble a complete view of the debtor, he should be able to identify that certain records offered by multiple IUs are the same. For this purpose, it is necessary that there should be a canonical and standard representation of a debt or a default, and every IU should follow this standard in the performance of its core services.

4.1.2 Information authentication

The Code specifies that information may be accepted by the IU only from specified persons. IUs should not accept information from persons unrelated to the debt transaction.

The IU has a further responsibility: Section 214(2) of the IBC requires that the IU needs to authenticate the information with other "concerned parties". The motivation for this requirement is clear: if an IU accepts information submitted by a creditor, and

Box 4.1: Drafting instructions for information submission

- 1. The regulator shall establish a committee containing representatives from all IUs to assist it in creating standards for information flow in IUs that relate to the core services.
- All IUs shall allow information to be submitted to them only if the information conforms to the standards specified by regulator.
- 3. The information will be in electronic form only.
- 4. Information shall be signed digitally by the submitter.
- The information will have a standard representation that will be specified by the regulator.
- 6. Information about a debt or a default shall be accepted only from a debtor or a creditor.
- Information about the balance sheet or cash-flow statement of a corporate shall be accepted only from the corporate or its auditor.

does not get it authenticated by the debtor, the veracity of the information will be challenged by the debtor in a court if the debt ever ends up in default. On the other hand, if the IU accepted the information only after it was authenticated by the debtor, it cannot be later challenged by the debtor, and the AA can consider the information accurate.

Here, we need to be careful in defining "concerned parties". If we consider a case where information is submitted to prove the existence of a debt contract, it is clear that concerned parties should be defined to be both the creditor and the debtor. The AA can reasonably assume that since the information was authenticated by both these parties, it must be correct.¹

However, in the case of evidence of default, the debtor may not wish to authenticate that it has defaulted. If an IU is to be useful in recording the evidence of this important matter, we will have to rely on some other party which can be reasonably expected to make truthful assertions about the default. An example: if the loan instalment is supposed to be paid into a specified account of a bank, and this account is mentioned in the loan contract, then an account statement by the bank that hosts that account would be sufficient evidence of default. In this case, "concerned parties" for information about default could be defined to be the creditor and the bank that hosts the repayment account. ² This concept is explained in more detail in Section 3.2.2.

If information is submitted to an IU, but the designated authenticators do not authenticate it, the IU should not be required to hold on to unauthenticated information perpetually. The information should be authenticated within, say, ten working days of the submission of the information. If it is not authenticated in this time, the IU should be free to discard it. ¹ In practice, the financial creditor may file the information with an IU, and insist that the debtor authenticate it before the loan is disbursed.

² In the special case where the submitter of the information is the host bank as well, the same entity that submits the information will authenticate it as well.

Box 4.2: Drafting instructions for information authentication

- 1. The IU shall authenticate the accuracy of the information with concerned parties other than the submitter.
- In the case of information about the existence of debt, the concerned parties would be the parties to the debt other than the submitter. If the creditor submits the information, it needs to be authenticated by the debtor, and vice-versa.
- 3. In the case of information about default, the concerned parties would be all of these, other than the submitter:
 - the creditor;
 - the debtor;
 - if an account has been designated as a repayment account, the host bank (the financial institution that hosts that account).
- 4. In the case of information about the balance sheet or the cash flow of a corporate, the information should be submitted by the corporate and authenticated by its auditor, or vice versa.
- 5. The authentication of the information should be done through a digital signature of the authenticator.
- 6. The IU should provide at least ten working days for the authenticator to authenticate the information. If it is not authenticated in this time, the IU should be free to discard it.

4.1.3 Acknowledgement of information

As mentioned in Section 3.4, it is necessary for each IU to provide an acknowledgement to the submitter and authenticator once the information submitted to an IU has been authenticated.

Box 4.3: Drafting instructions for information acknowledgement

- Once the information has been authenticated, the IU shall provide an acknowledgement to the submitter, the authenticator, and any other concerned party, that it has received and authenticated the information.
- 2. The acknowledgement shall be electronic and it shall be digitally signed by the IU.
- 3. The acknowledgement should enable the detection of information manipulation by the IU, and it should also deter repudiation by the submitter.
- 4. The acknowledgement should include details about the storage terms and conditions.

4.1.4 Updation of information

Information about a debt contract might need to be updated from time to time. For instance, the terms of repayment (tenure, amount, or repayment dates) may change. This can happen frequently in a working capital loan.

In such cases, the updated information should be submitted and authenticated as per the requirements in sections 4.1.1 and 4.1.2 above. Once authenticated, the IU should acknowledge the information as per Section 4.1.3.

4.1.5 Correcting erroneous information

In general, information in an IU should be immutable. There needs to be one exception to this principle: it should be possible to mark information as erroneous.

Some records in IUs will be incorrect. If several million records are submitted to IUs every year, a small fraction of them are statistically likely to be incorrect, and while most of these will be caught during authentication, some won't be. So in spite of the requirement that no record shall be stored in an IU unless it is authenticated, there will be errors in the records in an IU and it will be necessary to have a process to deal with them.

The Code requires that the person who intends to rectify errors should apply to the IU stating the reasons for the request. The WG recommends that after the submitter of the information applies to the IU to mark the information erroneous, the IU should seek confirmation from the original authenticator. If the original authenticator confirms to the IU that the information was incorrect at the time it was stored, then the IU should modify the record, but only to the extent of flagging it erroneous. The IU should continue to retain the full record, but whenever it allows anybody to retrieve the record, the fact that it has been marked erroneous should also be disclosed.

If the submitter wishes to replace the original incorrect information with the correct information, the submitter may, apart from getting the incorrect information marked as such, submit the correct information following the usual process as per Section 4.1.1. The IU will, after the standard authentication process, store it as a new record.

Box 4.4: Drafting instructions for rectifying errors

- 1. To rectify incorrect information, a person can apply to the IU, providing the reason for the request.
- 2. The IU shall allow the original authenticator to authenticate that the information was wrong at the time it was submitted.
- 3. Upon authentication, the IU shall record that fact that the original information was incorrect.
- 4. Whenever the record is accessed, the IU will reveal the information that the record has been marked erroneous.

4.1.6 Importing information from other sources

As mentioned in Section 3.4.2, the WG was in favour of reducing compliance burdens by enabling IUs to import information from other repositories of such information, as long as such importation does not conflict with the other provisions of the Code. Similarly, information in an IU should be exportable to other statutory repositories.3

Exchanging information with other repositories may not be just an issue of reducing the compliance burden. While issuing debentures, information of bondholders is stored in Depositories. There may be a large number of bondholders, and it would be very inefficient for each of them to submit information about their bond to an IU. Instead, IUs should ensure that the information of bondholders can be transferred⁴ directly from the Depository to the IU.

Box 4.5: Drafting instructions for information exchange with other repositories

- IUs should be able to accept information (upon the request of a person who is authorised to submit the information, as described in Box 4.1) from repositories specified by the regulator from time to time.
- 2. When information is imported into an IU from any non-IU repository, that information would need to be authenticated in the same way any other information submitted to an IU is authenticated (see Box 4.2).
- 3. IUs should be able to export their information (upon request of a person authorised to access the information) to other repositories as specified by the regulator.
- 4. All data import should happen through standard formats.

4.2 Information storage

The main purpose of IUs is to store accurate information safely and reliably. If an IU accepts information, but then loses that information, the point of having IUs is defeated. Thus, IUs should have very high quality data storage systems, including robust backup systems, to ensure that information is not lost or corrupted. It should have appropriate BCP and Disaster Recovery (DR) processes to ensure that they are able to keep functioning effectively even in the face of disasters.

It may be noted that storing large amounts of critical data with very little chances of loss is a solved problem. The two depositories in the country, NSDL and CDSL, have been in operation for almost two decades with essentially no down time.

Another concern is that the stored information may not be accessible easily. If any information is not accessible because the IU's systems are down or if the access is very slow because those systems are inadequate, the systemic utility of IUs is diminished. Regulations should specify service levels that establish standards for the performance of the core functions of the IUs. A related issue is ensuring the security of information. Only authorised persons should be able to access stored information. The regulator should take a view on allowing storage of information

outside the country after examining the risks associated with it.

³ While those repositories may not be able to accept it without modifications in their governing statutes, this requirement should be kept in mind in the design of IUs so that in the event the statues are amended, the IUs may be able to export information.

⁴ Upon the direction of the Debenture Trustee

Box 4.6: Drafting instructions for information storage requirements

- 1. Once any information is received and authenticated, the IU shall ensure that it is always accessible to those allowed to access it by these regulations. The information should never be deleted or lost.
- 2. Once any information is received and authenticated, the IU shall ensure that it is not modified except as specified in these regulations.
- 3. IUs shall store the information entrusted to them safely, accurately, and reliably.
- 4. IUs shall have high quality systems to recover from disasters and ensure the continuing availability of their services.
- 5. IUs shall have regular internal and external audits of their informationstorage related systems and processes.
- 6. IUs shall ensure that only authorised people are able to access the information.

4.3 Information retrieval

Information stored in an IU can be sensitive, and it should not be revealed to any person unless allowed by regulations. In this section, we consider who can access information and when. If any person is party to any debt or default, it should be able to access that information. The AA should always have access to any relevant information it requires. The regulator should also be able to access information following a written order. RPs should also be able to access information from all IUs about specific debtors. IUs should also allow all debtors to permit specified persons to access their information. For instance, a potential creditor might ask the debtor for such information before deciding whether to give a loan or not.

Upon default, the Code allows any financial creditor (not just the one defaulted upon) to apply to the AA to initiate the IRP. The processes followed by IUs need to enable this functionality. However, there may be multiple creditors to a debtor, and information about these credit relations may be spread out over many IUs. If one debt is defaulted upon, how are the creditors of that debtor recorded in other IUs to come to know of the default? As an example, consider the situation in figure 4.1: In this figure, the debtor has two debts, Loan1 and Loan2, to two creditors, Creditor1 and Creditor2, respectively. The information about the two loans is spread across two different IUs, IU1 and IU2. Now the debtor defaults on Creditor1, and this information is stored in IU1. If Creditor2 is to be able to initiate an IRP as envisaged in the Code, it needs to become aware of this default. How is Creditor2 to come to know of the default stored in IU1?

Two solutions are possible: first, every creditor queries every IU about every one of its debtors on a regular basis to detect if there has been any of them has defaulted. In the example, Creditor2 queries all IUs regularly about every one of its creditors to check



for defaults. IU1 will not respond to this query unless Creditor2 convinces the IU that it is a creditor to the debtor (perhaps by furnishing the acknowledgement for Loan2 from IU2). In the general case, if a large bank wants to know whether any of its customers has defaulted to any other entity, it shall have to frequently query every IU for lakhs of debtors. This is inefficient. The second solution: the IU that knows about the default informs all other IUs about the default, and all the IUs inform all the creditors of that debtor they store information about. In our example, IU1 informs IU2, which informs Creditor2. This method is more efficient and less expensive.

Box 4.7: Drafting instructions for information access requirements

- 1. The IU should prevent access to stored information unless explicitly allowed in the regulations.
- 2. The IU should allow any person access to all information the person is party to.
- 3. The IU should allow the AA access to information about any debtor free of charge.
- 4. The IU should allow the resolution professional access to information about a debtor.
- 5. The IU should allow any creditor to a debtor access to anonymised information about the defaults of the debtor.
- 6. The IU should allow any person permitted by a debtor access to information about the debtor, without revealing any other identities.
- The IU should allow any person permitted by a creditor access to information about the creditor, without revealing any other identities.
- 8. Upon storing information about a default, the IU shall inform all other IUs about the default.
- 9. Upon coming to know about a default, an IU shall inform every creditor of that debtor it stores information about, about the default.

4.4 Portability

As discussed in Section 3.4.3, a person who has submitted or authenticated information in an IU should be able to transfer that Figure 4.1: Information about default: how can it be disseminated?

information to another IU without having to pay to the source IU.⁵ Such information need not be further authenticated, because it is already authenticated in the source IU.

Box 4.8: Drafting instructions for Information Portability

- 1. Information owners should be able to move their information from one IU to another, paying no fee to the source IU.
- 2. This information portability should be enabled through an API.
- 3. Any information sent by an IU should be signed by that IU.

⁵ Of course, the destination IU may charge for receiving the information and storing it.

5 Market Structure

The IBC does not specify any particular design for the market of IUs, nor does it go into the details of who can become IUs. It has left these matters to be specified by the regulator. In this chapter, we discuss alternative structures for the IU market place, the kind of entities who can become IUs, and the regulatory checks on their functioning.

5.1 Market design choices

In their discussions, the WG considered several models for the organisational design of the IU industry:

- Design 1: IU within the regulator
- Design 2: The regulator contracts out to a monopoly IU
- Design 3: Single IU, multiple service providers
- Design 4: Multiple IUs, common data
- Design 5: Multiple competitive IUs

Design 1: IU inside the regulator The IU would be part of the regulator, and data would be captured and retrieved through standardised APIs (Figure 5.1). Some issues with this design:

- Government procedures impede implementation;
- Monopoly leads to inefficiency, high cost, and lack of innovation;
- The regulator will be responsible for all data and functionality of the IU;
- Single point of failure.

Design 2: Contract out to a monopoly This design will feature a monopolistic IU which will be contracted by the regulator (Figure 5.2). The issues with this design are:

- Monopoly leads to inefficiency, high cost, and lack of innovation;
- Single point of failure.



Design 3: *Single IU, multiple service providers* This design proposed two kinds of entities: a single Managed Service Provider (MSP) and multiple Transaction Service Providers(TSPs). The MSP will serve as the only entity that stores all data. The TSPs will function to manage the data flow from the users to the MSP and vice versa. The issues with this design are:

- The MSP is a monopoly, which leads to inefficiency, high cost, and lack of innovation;
- The MSP is a single point of failure.

Design 4: Multiple IUs, common data In this design, there will be a special IU tasked with acting as a switch between all the IUs. Whenever any IU gets any data, it would share it with the switch, which would then share it with all the other IUs. In this way, all the IUs will have access to the same data. This will also eliminate the problem of dataloss.

The issues with this approach are:

- No competition at the level of data collection. The idea of IUs is that they should capture accurate and authoritative data about debt. In this design, a firm that is lazy about collecting has the same data as a firm that invests in collecting data.
- No innovation in data collection. Consider an example: currently, it will be difficult for an IU to get undisputable evidence of default in the absence of confirmation by the defaulter. Perhaps, in the future, an IU figures out an innovation that lets it get such evidence. But it would not be willing to make the investment required to operationalise the innovation, because all the

Figure 5.1: IU inside the regulator

Figure 5.2: A monopolistic IU contracted by the regulator



information it gets would be shared with all the other IUs. The other IUs would get the benefits of the innovation for free.

• The switch is a single point of failure.

Design 5: Multiple competitive IUs In this design, the regulator will licence and regulate multiple IUs. These IUs would compete with each other at all stages (Figure 5.3). The IUs would collaborate (under the regulator's guidance) to create a common API that all of them would use to provide their services. This model has the following advantages:

- 1. No monopoly. A competitive system ensuring greater efficiency, higher innovation, and lower costs.
- 2. No single point of failure for the entire system.
- 3. The dynamism of the private sector can be harnessed to achieve higher innovation and lower costs.
- 4. IUs may choose their business model. For instance, one IU may choose to specialize in corporate insolvencies, and another in personal insolvencies, and a third might focus on operational debts. They might develop unique competencies in their areas of focus, which will benefit the IBC ecosystem as a whole.

5.1.1 Legal Situation

The Act mentions "Information Utilities" in the plural several times. Besides, section 210 of the Act lays out a procedure for application to the regulator for registration as an IU. Thus, the Act



Figure 5.3: A monopolistic IU contracted by the regulator

does not seem to envisage a monopolistic IU, neither does it visualize an IU housed within the regulator. While the report of the Bankruptcy Law Reforms Committee has no legal validity, its recommendations can be useful guidelines. The

BLRC report clearly visualises "an open competitive industry". It says:

From the viewpoint of the end-use of information, centralisation of information is desirable. At the same time, centralisation involves problems associated with the elevated profit, and low quality work, of monopolies. The Committee has chosen the strategy of information that is distributed across multiple utilities. A full view of any one case (e.g. one firm bankruptcy) will be assembled in real time by querying all the IUs that exist. Queries will take place at a negligible cost. Competition will drive down the user charge for filing.

Based on all these considerations, the WG decided, in their deliberations, that there should be a competitive industry consisting of multiple IUs.

Box 5.1: Drafting instructions for IU registration

- 1. The regulator will register and regulate multiple IUs.
- 2. These IUs will be allowed to compete with each other at all stages.

5.1.2 Problems with this design and their solutions

Irrespective of the market structure, any IUs design needs to address concerns such as data loss, data manipulation by IUs, and

quality of service. These concerns are discussed and solutions suggested in the previous chapters.

However, there are some concerns that derive purely from the choice of a market structure featuring multiple IUs. In this section, we discuss two such concerns and how they may be addressed through regulations.

1. What if IUs gouge customers with very high prices when critical pieces of information are sought after a IRP commences?

Solution: Write regulations which prevent gouging. One possibility is write regulations requiring only one cash-flow: at the point of submission. Alternatively, write regulations requiring IUs to provide information at the same rate to all comers, without reference to the content of the information record. This problem and its solutions are discussed in detail in section 5.4.

2. What to do if one IU goes bankrupt?

Solution: Write a regulation about the procedure of handing over data to other IUs. Additionally, each IU should be required to create an Exit Management Plan. This is addressed more fully in section 6.3.

5.2 Central Repository

5.2.1 Rationale

If there are multiple IUs, the probability of data loss is amplified, even if these IUs have robust systems for data storage. In addition, there may be concerns about data manipulation by IUs. The idea of a central repository was suggested in response to these concerns. The repository would not be a regular IU. Instead, it would be a fallback in the extreme event of dataloss or data manipulation. When any new information enters any IU, it should forward a copy to the central repository. This data with the repository would be accessed only in the case of dataloss or manipulation by IUs. In this manner, the central repository might help protect the integrity of the IU ecosystem. The advantages of having such a repository is that:

- 1. Even in the case of dataloss, the original data will be accessible to the regulator and to the AA.
- 2. If there is prima facie evidence of data tampering by an IU, it will be possible to check and obtain correct data.
- 3. The government, AA, and the regulator need not rely on IUs to obtain crucial data.
- 4. The regulator can use it as a reference to check the accuracy and completeness of data provided by IUs.

5.2.2 Disadvantages

The WG also discussed the disadvantages of such a central repository:

- 1. The concern about data loss can be addressed in other ways. Each IU will anyway have its own BCP and DR systems. With well-designed DR systems, it is possible to reduce the possibility of data loss to a very low number. So such a fail-safe system may not be required. In addition, it should be noted that the failure of an IU has no implications on the validity of contracts. In the extreme case of the failure of an IU, the contract continues to be valid, and proving the existence of debt and of default will happen as it now does in the pre-IU world. There is nothing in the IBC that mandates the exclusive use of IUs.
- 2. To address the concern about data manipulation, we have previously suggested in this report that a one-way hash of the data can be calculated by the IU at the time of the storage of the data, and this hash should be included in the acknowledgement given to the data submitter (see section 4.1.3). If the IU now changes the stored data, the new record will have a different hash, and will be easily detected. Thus, data tampering by the IU can be made practically impossible. Coupled with the high probability of getting caught, and clear punitive measures (including cancellation of licence, confiscation of security deposit, and other measures), there would be very strong incentives against data tampering by IUs.
- 3. The concern about ensuring the availability of information to the regulator can be addressed without a central repository. IUs would have an obligation cast upon them to provide a specified set of reports periodically to the regulator. In addition, the regulator would have the power to ask for and receive any data it requires from the IUs. In this manner, the central repository would not be required in order to provide information to the regulator or the government.
- 4. There will be a cost associated with setting up such a central repository. This cost will eventually devolve on the creditors and the debtors, and make debt more expensive to that extent.
- 5. There will be extra regulatory burden on the regulator to supervise the central repository and oversee its functioning on an ongoing basis.
- 6. It may be noted that no other regulatory body (RBI, SEBI, IRDA, etc) takes on itself the responsibility of being the data centre of the last resort.

In conclusion, it was decided that such a central repository could be created if regulator sees it fit. If it is to be created, it should have adequate safeguards to ensure that it does not create risks for the IU system.

5.2.3 Safeguards

If such a central repository is to be used, it should have safeguards so that it does not interfere with the working of the normal IU market, nor should it become a single point of failure.

- 1. This repository should *not* be an IU. It should operate completely in the background. It should not be visible under normal circumstances to any stakeholder, private or government, who submits or retrieves data from IUs.
- 2. To reduce regulatory risks, this repository should not be owned by the government or by the regulator. It could perhaps be a section 8 company co-owned (mandatorily) by all the IUs.
- 3. To a reasonable approximation, it should be a "write only" system. The data in this repository should be accessible only under extreme circumstances (data loss, or prima facie case of data tampering by an IU). It may also be used by the regulator from time to time to check the accuracy and completeness of data provided by IUs. There should be no need for recourse to this repository even if an IU goes bankrupt. Instead, the exit management plan of the IU should be activated and the data should be made available through one or more of the other IUs.
- 4. The IU ecosystem should not be disrupted in any way by the failure of the central repository.

Box 5.2: Drafting instructions for Central Repository

- 1. The regulator may set up a central repository of all the data from all IUs.
- 2. If the regulator sets up a central repository, all IUs shall forward the information they store to that repository.

5.3 Eligibility Criteria

This section discusses the question: What kind of entities can become IUs? What should be the regulatory approach to their capital requirement? Should there be constraints on whether these should be only domestically owned and managed firms, or can there be foreign participation in the ownership and the setting up of these firms?

IUs do not add any significant risk to the system. They do not accept public funds like banks or mutual funds, nor do they store title like depositories do. While the loss of data due to the failure of an IU would be disruptive, it should be noted that paper documents would continue to exist, and the process of resolving insolvency or bankruptcy would then fall back to what it is now. Thus, the risk due to the failure of IUs is not remotely comparable to that of banks or depositories. The remaining risk of data loss can be mitigated through stringent data storage requirements as mentioned in Box 4.6.

The cost of any excess capital will fall on the users of the IUs, and ultimately on the borrowers. In any case, it is clear from many examples that high capital requirements are not enough to keep out unsuitable persons out of the market of IUs. So imposing unnecessarily high capital requirements can increase costs and reduce competition, while delivering few benefits.

Given this, the regulatory approach must be to encourage competition by making entry easy. Any company that can satisfy the regulator that it fulfils the conditions of the regulator should be able to become an IU.

Since the concept of the IUs is a novel one, there is no benchmark that can be directly used to decide the capital required. The closest benchmark is the credit information industry. Here, the minimum authorised capital for CICs is Rs 30 crores, as mandated by the CIC Act of 2005. The CIC Act also requires CICs to maintain a minimum paid-up capital of Rs 15 crores. One approach could be to set the same thresholds for paid-up capital for the IUs as for the CICs. However, the WG felt it more prudent to set the minimum authorised capital to Rs 75 crores, and the minimum paid-up capital to Rs 60 crores as the starting point, and change them based upon public comments.

Since 100% Foreign Direct Investment (FDI) is already allowed in the case of CICs, there is little reason to introduce FDI barriers for IUs. However, the WG felt it appropriate to suggest an FDI limit of 49%, and change it based on public feedback.

Box 5.3: Drafting instructions for eligibility criteria to become IUs

- 1. Every IU should be set up as a company under the Companies Act.
- 2. There should be no restriction on listing IUs.
- 3. There should be a minimum authorised capital requirement and a paidup capital requirement that is set, based on the appropriate benchmarks and feedback from the public. The upper limits on these values may be considered to be Rs.75 crores

and Rs.60 crores at the start.

4. If necessary, the FDI limit for investment into IUs may be capped at 49%.

5.4 Pricing

The WG is of the opinion that the IUs should have full freedom in setting their prices. This will be the best way to promote competition, leading to innovation and efficiency. Further, providing full freedom of pricing will also allow many business models, not just one or a few that the WG or the regulator can visualise. Multiple IUs might spring up with different business models: some may focus on institutional debt, others on individuals, and yet others on operational debt. This specialisation will lead to greater efficiencies and better outcomes for the system. However, there are some circumstances where it might be necessary to prescribe price policy, if not the price itself. The following section outlines the circumstance and the possible solutions.

5.4.1 The Problem

In steady state, a large amount of information will flow to the IUs. Of this, most will be for firms and individuals that are solvent. A small number of the debtors may default, and in that case, the information held by IUs about them will become very valuable. For instance, consider a large company that has defaulted on some of its loans. An authenticated, undisputed, and irrebuttable list of the debts and the defaults of a distressed entity will be extremely valuable in quickly resolving the extent of loss in default. If this information is scarce — say only one IU has this information — then it can gouge customers with very high prices by exploiting its monopoly over that information.

This is a situation of market failure, where incumbent IUs are able to use their monopolistic position to obtain supernormal profits. The WG discussed several solutions to this problem.

5.4.2 Solutions

The WG discussed several different solutions to this problem:

- 1. BLRC solution
- 2. The regulator controls prices
- 3. Uniform pricing
- 4. Retrieval price = submission price

These solutions are discussed in more detail below.

BLRC Solution The BLRC report has considered this problem. The solution proposed in it is: repositories shall be allowed to charge only at the time of submission of data. At that time, they will have the freedom to charge any price. They shall not be allowed to charge for any other service. In particular, they shall not charge for the retrieval of data.¹

This would lead to a system where each IU shall charge only a single price: the price for submitting data. Price competition between IUs will be on the basis of this number alone. The resulting simple price structure is an advantage of this solution. However, this solution also has disadvantages. IUs will be incentivised to create very user-friendly processes for submitting ¹ The BLRC suggests that IUs may charge a nominal "Telecom charge" at the time of the retrieval of the data, which is meant to cover just the cost of retrieving and transmitting that data. data. They will have no incentive to create good processes for the withdrawal of data. We can anticipate that left to themselves, IUs will create data retrieval processes that are likely to be slow and inconvenient, and inefficient. To solve this, the regulator will have to specify detailed Service Level Agreements (SLAs) governing the withdrawal of data, and have processes in place to enforce these SLAs.

Price control by the regulator The regulator shall prescribe prices/price bands that IUs can charge for data retrieval. While IUs may have the freedom to set their own prices for accepting data or for storing it, the price that they may charge for retrieval shall be subject to these limits imposed by the regulator.

This solution has some significant problems. For one, the regulator will need to form views on what prices should be, and what reasonable return should be. This is very complex, and is not generally attempted even by such well-established regulators as SEBI.

Another issue is that once a price range is specified by the regulator, those prices will serve as natural anchor prices. The prices set by IUs will tend to gravitate towards the maximum prices allowed by the regulator. This will reduce price competition.

Mandatory Uniform Pricing Here, regulatory intervention will be limited to prohibiting discriminatory pricing at the time of data retrieval. In other words, the regulator shall mandate that the IU shall charge the same price for information, irrespective of the entity that the data pertains to. The IU shall not be able to charge high prices selectively for data regarding a company that is undergoing an IRP. This solution can be supplemented with a requirement that the IU should declare its prices a little while in advance (perhaps six months or so), which will further reduce the ability of IUs to price-gouge at the time of data retrieval. This solution treats IUs as pure utilities with no ability to price-discriminate. It has the advantage that it preserves the ability of IUs to decide their own prices, while preventing it from abusing its monopoly over information. This solution is also simple to enforce.

Retrieval price = *submission price* Another solution is to allow the IU to charge any price for retrieval of data as long as it is lower than the price charged for submission of that information. Of course, information may be retrieved many years (or even decades) after it is submitted. Due to inflation, the price the IUs will be able to charge for such information might be very low if they are constrained to charge no more than the price of submission of that information. But this need not be a problem — as long as IUs know this pricing policy, they can account for its consequences and build the low income from retrieval into their business model.

This will also be simple to implement and to enforce. This is the solution that the WG recommends.

5.4.3 Price API

The group agreed that it would be useful to have an automated system to advertise prices of IUs.

Users shall be able to query IUs about their price(s) through a standard API. Every IU will be bound to implement this API and to respond to queries by revealing the prices it charges. To implement this, the regulator should write an SLA and check randomly that the IU is implementing the API correctly and responding to queries accurately.

Box 5.4: Drafting instructions for pricing by IUs

- 1. As a general principle, the regulations shall allow the IUs freedom in pricing their services.
- 2. At retrieval, IUs shall not charge more than what they charge at the time of the submission of the data.
- 3. Users shall be able to query IUs through an API. Every IU shall reveal its prices through this API.

6 Regulatory Requirements

6.1 Data Availability to the regulator and the Adjudicating Authority

When an Adjudicating Authority (AA) needs to access data from an IU, it should be made available to it immediately and free of charge. This is to ensure that the relevant data is always available to the AA, and to make court processes faster and smoother. However, as a matter of hygiene, it should be ensured that only data relevant to a case being heard by the AA is made available to the AA. With respect to the regulator, all IUs shall file reports specified by the regulator at prescribed frequencies. These reports would deal with aggregate numbers. In case the regulator wants access to the data of any particular entity, it should pass an order directing IUs to make that information available to the regulator. Such an order should narrowly specify the precise information required. In addition, if the regulator sets up a central repository as per section 5.2, every IU shall forward information about the data that it stores to this repository.

Box 6.1: Drafting instructions for providing data to the regulator and the Adjudicating Authority

- 1. The Adjudicating Authority shall be given relevant data free of charge when sought from the IU.
- 2. The IU shall submit summary data to the regulator at periodic intervals.
- 3. If the regulator requires access to the data of any entity, it shall pass an order directing IUs to provide such access.

6.2 Indemnification

The IU shall be responsible for the performance of the core services as per the Act, rules, and regulations. As long as an IU authenticates the data that it receives and stores it as per the specified requirements of the regulator, it cannot be held responsible for the accuracy of the data stored in it. Further, it cannot be held liable for any loss caused to any third party due to the data stored in it. If any loss is caused to a debtor or creditor because of negligence of IU in performing its services, the IU will be liable to indemnify the debtor or creditor.

Box 6.2: Drafting instructions for indemnification

- 1. IUs shall not be held liable for any loss caused to any person due to the performance of its core services.
- 2. IUs shall be held liable for losses caused to any person due to negligence in the performance of their core services.

6.3 Exit Management Plan

The information stored with an IU is of regulatory interest. Therefore, even if the IU is about to fail or its registration is about to be cancelled, the information in it should continue to be available to the market. To ensure this, every IU shall prepare an Exit Management Plan (EMP) when it applies for a certificate of registration. This plan shall contain the details of how the regulator may retrieve the data in the IU and transfer it to another IU, chosen by the regulator. The IU shall be obliged to keep this plan current, and the regulator will have the power to implement this plan after following due process.

The EMP must provide details such as:

- a list of the services that are provided and the contact details of the personnel used to provide those services;
- a detailed plan to transfer information to another specified IU, while maintaining services during the transition period; and
- a plan to transfer all the users, as well as contracts and service providers, of the IU to the successor IU.

Box 6.3: Drafting instructions with respect to Exit Management

- 1. Every IU shall prepare an Exit Management Plan and keep it up to date.
- 2. This plan shall provide all the details necessary for the regulator (or a person deputed by the regulator) to access the data in the IU and transfer it to another IU.
- 3. The regulator shall activate the Exit Management Plan only in specified situations, where the data is likely to be lost or damaged.

6.4 Compliance

IUs must meet all the conditions that are imposed by the regulator. These should include requirements to submit reports on a periodic basis to regulator, to meet prescribed SLAs, and to have adequate insurance. In addition, the regulator should mandate periodic internal and external audits to ensure that information is stored properly.

Every IU should should designated a compliance officer who will monitor the IU compliance with the Code, and with the rules and regulations framed under the Code. If any breach is noticed, this officer should inform the regulator.

6.5 Grievance Redress

Every IU should have time-bound mechanisms in place to address consumer grievances. The IU should also report the regulator the number of grievances received and resolved at regular intervals.

Box 6.4: Drafting instructions for compliance and grievance redress

- Every IU shall provide reports to the regulator at specified intervals. These reports should contain details specified by the regulator.
- 2. Every IU shall meet prescribed SLAs.
- 3. Every IU shall have adequate insurance.
- 4. Every IU shall conduct such internal and external audits at specified intervals of time, and submit the reports to the regulator.
- 5. Every IU shall appoint a compliance officer who shall monitor compliance with Code, rules and regulations under the code.
- 6. The compliance officer shall report to the regulator is any noncompliance is observed.
- 7. Every IU shall resolve debtor or creditor grievance within fifteen days of receiving the complaint.
- 8. The number of grievance received, resolved and pending before an IU should be reported to the regulator.

6.6 Outsourcing of core services

The IBC mandates every IU to provide core services. Core services have been defined in IBC to mean services rendered by an information utility for accepting electronic submission of financial information, safe and accurate recording of financial information, authenticating and verifying financial information submitted and providing access to information stored with the IU. Every IU is, thus, under a legal obligation to provide these core services. It may provide any other non-core service, in addition to these. The IBC does not specifically allow or prohibit any such core services to be outsourced. However, the IUs may need some flexibility. For example, to ensure safety of the physical premises of the storage facility, the IUs may wish to outsource physical security to a private firm. At the same time, it needs to highlighted that IUs are the information backbone of the IBC. Therefore, the WG recommends that if an IU wishes to outsource core services, it should obtain permission from the regulator to do so. The IUs must be responsible for delivery of core services at any point of time to the users, whether such service or any part of it has been outsourced or not. IUs do not require the permission of the regulator for outsourcing the performance of non-core services, but they should always ensure that outsourcing does not lead to a significant increase in the risks faced by the IU.

6.7 Transitional Registration

The WG was of the view that because of the importance placed on IUs in the IBC, IU should become operational as soon as the regulations come into force. However, it is important to ensure that the quality of IUs should not be compromised for the sake of operationalising IUs quickly.

The WG decided that the registration of IUs can be of two types: (1) transitional registration process and (2) normal registration process. The main differences between the two processes would be that the window for a company to register itself under the transitional registration process will be time bound, and the time taken by the Board to process the application for transitional registration will be lesser than normal registration process.

To ensure quality of management and service, entities applying for transitional registration will have to comply with the same eligibility criteria which an entity would have to comply if it was registering itself under normal category. However, the verification of information submitted with the application will happen later. If any information is found to be false or misleading the applicant company will be liable to a fine, revocation/suspension of license or both.

Box 6.5: Drafting instructions for transitional registration

- 1. The regulator may invite applications for granting certificate of transitional registration for a limited period of time.
- 2. The eligibility requirements for getting a certificate of transitional registration will be the same as for normal registration.
- 3. The applicant company will have to submit an affidavit which will state that if the Board finds any information submitted during the application process to be false or misleading, the company shall be liable to disciplinary action or fine or both.

7 Workflows

In this chapter, we show a few examples of how the process of submitting and retrieving information from an IU is likely to work. This will help us visualise the steps involved in some frequent usecases, including the flow of information. This will also help us consolidate all the discussions in the previous chapters of this report.

7.1 Submission of information on credit contract

Figure 7.1 shows an illustration of information submission in an IU. In this example, the creditor (financial or operational) and the debtor (corporate or individual) agree on a credit contract. They submit the information to an IU for storage. The steps involved are:

- 1. The creditor submits information to the IU.
 - The IU verifies the identity of the creditor.
 - The creditor submits information, including the identities of all parties, the amount, the date, details of the security if any, the host bank if any, etc.
 - The creditor pays the fee charged by the IU.
- 2. The IU verifies that all the parties are in the MEL.
- 3. The IU enables the debtor to authenticate the information.
 - The IU contacts the debtor using the contact details from the MEL.
 - The IU verifies the identity of the debtor against the unique identity recorded in the MEL.
 - The IU makes the information submitted by the creditor available to the debtor for authentication.
- 4. The debtor authenticates the information.
- 5. The IU generates a unique identifier for the loan, sends acknowledgements to both the parties, and stores the information.



Figure 7.1: Submitting information about the credit contract

7.2 Submission of information on default

Figure 7.2 illustrates the submission of default information in an IU. In this example, the creditor and the debtor have previously agreed on a credit contract, and have filed information with an IU about the contract. They previously submitted information about the host bank and the repayment schedule as well. Now the debtor has defaulted, and the creditor wishes to use the help of the host bank to authenticate the default. The steps involved are:

- 1. The creditor submits information to the IU.
 - The IU verifies the identity of the creditor.
 - The creditor submits information, including the identities of all parties, the amount, the date, etc.
 - The creditor pays the fee charged by the IU
- 2. The IU verifies that the debt has been previously submitted and authenticated by the debtor as well, and that the host bank and repayment schedule had also been submitted then.
- 3. The IU informs the debtor of the submission of this information.
- 4. The IU enables the host bank to authenticate the information.
 - The IU contacts the host bank using the contact details from the MEL.
 - The IU verifies the identity of the host bank against the unique identity recorded in the MEL.
- 5. The host bank uploads to the IU the account statement of the designated repayment account in a computer-readable form.
- 6. The IU determines default by comparing the account statement uploaded by the host bank against the repayment schedule, using an algorithm specified by the regulator. If there has been default, the IU sends acknowledgements to both the parties, and stores the information.

7. The IU informs all other IUs about the fact of default.



Figure 7.2: Submitting information about a default, and authentication by the host bank

7.3 Formation of the Committee of Creditors

Figure 7.3 shows the process of querying of information from the IU for the purpose of forming a CoC. In this example, a debtor has defaulted and information about the default has been stored in an IU. This information has been used by the creditor to apply to the AA to initiate the IRP. The AA has accepted the application and appointed an RP. Now the RP has to create a CoC. The steps involved are:

1. The RP queries all the IUs for information about the debtor.

- There are no restrictions on where an entity can file information. So information about a debtor might be spread across multiple IUs. To assemble complete information about the debtor, the RP has to query all IUs.
- The query will happen through the standard API. Since all IUs interact with users using this API, third party developers will create software that make this querying process simple and convenient.
- Once the IRP has been triggered, all information about the debtor is accessible by the public.
- The RP shall be able to access this information free of charge.
- 2. The IUs respond to the query by furnishing all the information they possess about the debtor.
 - The response of the IUs is through the API.
 - The RP shall have to consolidate all the information from all the IUs (which might include duplicate or outdated information as well) in order to assemble a comprehensive picture of the debtor's financial situation.

Once the RP has this collated information, he can use it to set up

the CoC.



Figure 7.3: Querying IUs to form the Committee of Creditors

7.4 Potential investor wants to examine data of debtor

A potential investor might want to examine the credit situation of a debtor going through the IRP. While at this stage information is public, IUs might still charge for it. Consequently, the investor might want to filter out duplicate or outdated information and buy access to the rest. In this case, the purchase of information by the investor from the IUs might be a two-stage process. In the first stage, the IUs tell him what information is available, and in the second stage, the investor decides what he wants to buy. The steps in the first stage (shown in figure 7.4) are:

- 1. The investor queries all IUs for the prices of records about the debtor.
- 2. The IUs lets the investor know the metadata about the information it has.
 - Since an IRP has commenced, the information is public, and the IUs will be able to reveal it.
 - The IUs will respond with the number of records they have, a hash¹ of the information submitted, and the price of each record. In figure 7.4, record *a* is present in both IU-1 and IU-2, and record *b* is present in both IU-2 and IU-N.

In the second stage, the investor determines which records he wants to buy, and purchases those records from the IUs. The steps are (see figure 7.5):

- 1. The investor informs the IUs which records he wants to buy, and makes the payment.
 - Based on the metadata and the prices provided by the IUs, the investor is in a position to decide what information he wants

¹ A hash function takes any data and maps it to data (the 'hash') of fixed length. In this case, all IUs reveal the hashes of the information they have, without revealing the information itself. If multiple IUs store the same records, duplicate records will show up because they will have the same hash (as long as the IUs use the same format for representation of the data and use the same hash function.



to buy and from which IU. Let's say IU-N is the least expensive, and IU-2 the most expensive. The investor will prefer to purchase record *a* from IU-1 and records *b* and *c* from IU-N.

- He makes the payments to those IUs.
- 2. The IUs provide him those records, signed with its digital signature.



Figure 7.5: Purchasing information from IUs

7.5 Creditor wants to port data to another IU

Every IU has to allow any party to transfer information related to the party to any other IU free of charge. In this example, a creditor wishes to port all information about him in one IU, IU1, to another, IU2. This is illustrated in figure 7.6:

1. The creditor asks IU1 to port all information about him to IU2.

Figure 7.4: Querying IUs to find out what information they have.

- 2. IU1 identifies all information about him, and sends information about the number of records etc to IU2.
- 3. On the basis of information received from IU1, IU2 informs the creditor about the payment that needs to be made to IU2.
- 4. The creditor pays IU2.
- 5. IU2 asks IU1 for the information.
- 6. IU1 signs all the information with its digital signature and sends it to IU2, which stores it.



Figure 7.6: Porting information from one IU to another.

7.6 An IU loses or tampers with data

If data loss or data tampering occurs in an IU, it would easily be visible to its users. They have acknowledgements received from the IU, as well as annual statements of the information about them in that IU. Any discrepancy between these acknowledgements or previous statements, and the information present in the IU, is an indicator of either loss of data or of data tampering. Even if data is lost, the acknowledgement issued by the IU may be usable as evidence. In the extreme case, if the acknowledgement was not stored by the creditor or debtor, then they would have to fall back to the way in which debts are proved in the current system. The advantages of using the IU will be lost, but debts can still be proven using the original contract and bank records, and enforced through the Code.

8 Amendments to the Code

As the WG discussed how the parts of the Code that deal with IUs can be made operational, it came across a few sections that may be problematic from the view of achieving the objectives of the Code. As more features of the Code get exercised, more problems may reveal themselves. The WG recommends that the Ministry of Corporate Affairs should collect a list of such issues. After a certain amount of time has passed (maybe a year), and all interested parties gain some more experience working with the Code, the MCA could consider the feasibility of an Amendment to the Code to fix such issues. In the interim, the MCA could also consider issuing an order under section 242(1) of the Insolvency and Bankruptcy Code, 2016 to clarify these issues. In this chapter, we discuss the issues with these sections. The main issues are:

- 1. Authentication of information in an IU.
- 2. Record of Dispute for operational credit
- 3. Overlap in definition of operational creditor and financial creditor. 5(8)(f)
- 4. "Repayments to the government": should be "payments to the government"?
- 5. "suit" to mean labour court as well?

8.1 Authentication of Information in an IU

The Code requires that before any information is stored in an IU, it has to be authenticated by 'all concerned parties'.¹ In this report and the attached regulations, the WG has interpreted this phrase to mean a certain set of defined parties. For instance, in the case of authenticating information about default, the WG has taken the view that if the creditor and the host financial institution have authenticated the information, then the "concerned party" requirement is met, even though the debtor may not have authenticated it.

¹ Section 214(e), *Insolvency and Bankruptcy Code*.

It may be argued that the WG's interpretation is wrong: that "all concerned parties" is a plain English phrase, and it should not be redefined through regulations. The WG's rationale is that there may be many cases where it is possible to obtain incontrovertible evidence of default in an IU even if the debtor does not wish to authenticate it, and that IUs should not be rendered useless by an expansive understanding of the phrase "all concerned parties". The legislative intent was presumably to facilitate quick justice in the case of default, not to hold the judicial process hostage to the debtor.

Here, replacing the phrase "all concerned parties" with the phrase "specified parties" would remove confusion while preserving the legislative intent.

8.2 Record of dispute in IUs

The case of operational debt presents some more complexities than the financial debt. The IBC says that an operational creditor can file an application before the AA for initiating a corporate IRP, and the AA shall admit the application if, among other things,

no notice of dispute has been received by the operational creditor or there is no record of dispute in the information utility; ²

Later on, the Code goes on to state³ that the AA should reject the application is such a record of dispute exists in an IU. However, the Code does not specify how these disputes are to be recorded in the IU. If there is such a record, the AA will reject the application for IRP, and hence, it will not be in the interest of the creditor to have such a record. Given that the IU cannot store any information unless it has been authenticated, it is not clear how the record of the dispute can ever exist in an IU.

The origin of this issue is partly traceable to the editing process the draft Bill went through. After the Insolvency and Bankruptcy Code was introduced in Parliament, it was referred to a Joint Committee of both the Houses of Parliament. At this stage, the Bill contained this language:⁴

An operational creditor may, on the occurrence of a default, deliver a demand notice of unpaid operational debt or copy of an invoice demanding payment of the amount involved in the default to the corporate debtor in such form as may be prescribed, through an information utility, wherever applicable, or by registered post or courier or by such electronic mode of communication, as may be specified.

Section 8(2)(a) of the Bill goes on to say that in response to this demand notice, the corporate debtor was to bring to the notice of the operational creditor the existence of a dispute "*through an information utility or by registered post or courier or by any electronic communication*.". This is the notice of record referred to later in section 9(5)(ii)(d) of the Bill.

The Joint Committee examined this part of the Bill, and recommended:

² Section 9(5)(i)(d), Insolvency and Bankruptcy Code. ³ Section 9(5)(ii)(d), Insolvency and Bankruptcy Code

⁴ Section 8(1), *Insolvency and Bankruptcy Code Bill [as introduced]* 2015
The Committee are of the view that the details of the mode of delivery of demand notice can be provided in the rules. The Committee, therefore, decide to substitute words "in such form as may be prescribed, through an information utility, wherever applicable, or by registered post or courier or by such electronic mode of communication, as may be specified" as appearing in clause 8(1) with the words "in such form and manner, as may be prescribed". Besides as a consequential amendment words "through an information utility or by registered post or courier or by such electronic mode of communication as may be specified" as appearing in clause 8(2) may also be omitted.⁵

Accordingly, the language cited above was removed from the draft Bill. However, a trace of the previous wording was left behind in the Bill in the form of section 9(5)(i)(d). Ideally, it should have been edited for consistency with the rest of the Bill.

This inconsistency in the Bill survived into the Act. Therefore, greater clarity is required in the Code regarding the role of IUs in the process of issuing demand notices and recording disputes.

8.3 'Repayment' should include 'payment'

Section 5(21) of the IBC defines 'operational debt'. It includes 'a debt in respect of the *repayment* of dues arising under any law for the time being in force and payable to the' government as 'operational debt'. Repayment in this context is of debt owed to the government. However, even unpaid taxes would amount to debt owed to the government. The word 'repayment' may not fully capture such unpaid taxes. Hence, it is essential to clarify that 'repayment' in this context also includes 'payment'.

8.4 Replace 'suit' with 'legal proceeding'

Section 8 of the IBC lays down the procedure to be followed by an operational creditor to trigger insolvency resolution process. Subsection (2) mentions that the corporate debtor could stall the trigger if it can show the 'existence of 'a dispute, if any, and record of the pendency of the *suit or arbitration proceedings*'. The usage of the words '*suit or arbitration proceedings*' restricts the types of legal proceedings, pendency of which can stall the trigger of the insolvency resolution process. It is suggested that it should be clarified that 'suit' should include all legal proceedings. Similar clarification should also be made as to the definition of 'dispute' in section 5(6) of the IBC.

⁵ Joint Committee on the Insolvency and Bankruptcy Code, 2015. *Report of the Joint Committee on the Insolvency and Bankruptcy Code*, 2015. 2016. URL: http: //164.100.47.193/lsscommittee/Joint% 20Committee%200n%20Insolvency% 20and % 20Bankruptcy % 20Code, %202015/16_Joint_Committee_on_ Insolvency_and_Bankruptcy_Code_ 2015_1.pdf.

A Draft Regulations on Information Utilities

The Insolvency and Bankruptcy Board of India (Information Utilities) Regulations, 2016

ARRANGEMENT OF CLAUSES

CLAUSES

CHAPTER 1

Preliminary

- 1. Short title, application and commencement.
- 2. Definitions.

CHAPTER 2

REGISTRATION OF INFORMATION UTILITIES

- 3. Eligibility to register as an Information Utility.
- 4. Application for grant of certificate of transitional Registration.
- 5. Grant of certificate of transitional registration.
- 6. Application for grant of certificate of registration.
- 7. Grant of certificate of registration.
- 8. Incomplete application.
- 9. Furnishing additional information.
- 10. Procedure when certificate is not granted.
- 11. Suspension or cancellation of registration.

CHAPTER 3

CORE SERVICES OF INFORMATION UTILITIES

- 12. Board to establish standards.
- 13. Master Entity List.
- 14. Conformance to Standards.
- 15. Submission of Information to Information Utilities.
- 16. Authentication of information.
- 17. Acknowledgement.
- 18. Storage of information.
- 19. Updation of information.
- 20. Dissemination and retrieval of information.

CHAPTER 4

RIGHTS AND OBLIGATIONS OF INFORMATION UTILITIES

- 21. Porting Information.
- 22. Import and Export of information from other repositories.
- 23. Review and correction of information.
- 24. Price Querying.

- 25. Non-core services of Information Utility.
- 26. Fees.
- 27. Grievance Redress.
- 28. Annual Fees.
- 29. Obligation to provide information.

CHAPTER 5

RISK MANAGEMENT AND GOVERNANCE OF INFORMATION UTILITIES

- 30. Insurance against risks.
- 31. Indemnity.
- 32. Outsourcing.
- 33. Actions involving an Information Utility.
- 34. Conduct of Stress Tests.
- 35. Inspections.
- 36. Audits of Information Utility.
- 37. Disaster recovery and Business Continuity.
- 38. Exit Management Plan.
- 39. Bye-laws of an Information Utility.
- 40. Principles for making bye-laws.
- 41. Process for making bye-laws.
- 42. Violation of bye-laws.
- 43. Systems of Governance.
- 44. Compliance and Compliance Officer.

CHAPTER 6 Schedules

Schedule 1: Form A

CHAPTER 1

PRELIMINARY

- **1.** (1) These Regulations will be called the Insolvency and Bankruptcy Board of India (Information Utilities) Regulations, 2016.
 - (2) These Regulations will come into force from such date as may be notified by the Insolvency and Bankruptcy Board of India.
- 2. (1) In these Regulations, unless the context requires otherwise:
 - (*a*) "Anonymised information" means information in an Information Utility other than the identities of persons.
 - (b) "Application Programming Interface" means a set of software interfaces 10 that allows one software program to request services from another software program.
 - (c) "Affixing electronic signature" has the same meaning as in the Information Technology Act, 2008.
 - (*d*) "Board" means the Insolvency and Bankruptcy Board of India established 15 under sub-section (1) of section 188 of the Code;
 - (e) "certificate of transitional registration" means a certificate granted to an Information Utility under Regulation 5 of these Regulations.
 - (*f*) "Code" means the Insolvency and Bankruptcy Code, 2016 and the rules and regulations made thereunder, as amended from time to time;
 - (g) "Concerned parties", in relation to the authentication of information submitted to an Information Utility, means:
 - (*i*) if the information is related to existence of a debt or a change in its terms, then all the parties to the debt except the person who submitted the information;
 - (*ii*) if the information is related to default on a debt
 - if the information was submitted by a creditor, then the debtor or the host bank; and
 - if the information was submitted by the debtor, then a creditor or the host bank;
 - (*iii*) if the information is the balance sheet or the cash-flow statement of a corporate person
 - if the information was submitted by the corporate person, then the auditor who has prepared such information; and
 - if the information was submitted by the auditor who prepared 35 it, then the corporate person;
 - (*h*) "Disciplinary Committee" means a committee comprising a whole time member of the Board under section 220(1) of the Code, assigned for the purpose of performing the quasi-judicial functions of the Board.
 - (i) "Fit and Proper Person" means a person who -
 - (i) possesses sufficient relevant professional qualifications, knowledge, skills, expertise and experience to carry out the functions required to be performed by them;
 - (*ii*) is of good repute and integrity;
 - (*iii*) is physically and mentally capable of performing their duties;
 - (iv) has not been convicted of an offence involving moral turpitude; and

Short title, application and commencement.

Definitions.

5

30

40

45

20

		(<i>v</i>) has not been convicted of an offence under the Code or any other law administered by a financial sector regulator.	
	(j)	"Host bank" means the financial institution hosting the repayment ac- count.	
5	(k)	"Investigation / Inspection" means an investigation or inspection, as the case may be, ordered by the Board under section 218(1) of the Code and includes the process by which the Board finds out if there has been a contravention of any provision of the Code.	
10	(l)	"Master Entity List" is an electronic list of entities and loans maintained by the Board.	
	(m)	"Notice" means a notice issued under section 219 of the Code, which ini- tiates a proceeding under these Regulations.	
15	(n)	"Noticee" means a person who is alleged to have contravened any provi- sion of the Code and who is asked by a notice to show cause as to why appropriate action(s) permissible under the Code should not be taken against it.	
	(0)	"Proceeding" means a proceeding initiated by issue of a notice under sec- tion 219 of the Code that may result in any one or more of the following:	
		(<i>i</i>) issuance of a public warning;	
20		(<i>ii</i>) issuance of a direction requiring the noticee to remedy the contravention;	
		 (iii) direction requiring the noticee to cease and desist from committing contravention or to prevent recurrence of contravention; (i) is a size of the contravention; 	
25		 (<i>iv</i>) Imposition of a monetary penalty under section 220(3) of the Code; (<i>v</i>) variation, suspension, or cancellation of an authorisation, permission or registration granted by the Board to the noticee, which has contributed to the contravention; 	
		(<i>vi</i>) issuance of any preventive and / or remedial direction that contravention of any provision of the Code may warrant;	
30		(vii) issuance of a direction to disgorge an amount equivalent to unlawful gain made or lawful loss avoided under section 220(4) of the Code;	
		(<i>viii</i>) recommendation to the Board to file a complaint before the appropriate court of law under section 236 of the Code;	
35	(p)	"Recognised person" means person who is registered with the Master Entity List.	
	(q)	"Repayment account" means the account in the financial institution into which the debtor is obliged to repay, as recorded in an Information Utility.	
40	(<i>r</i>)	"Repayment schedule" means a record of the amounts of debt due from a debtor and the dates on which those amounts are due.	
	(s)	"Schedule" means schedule attached to these regulations.	
	(2) All the	words and expressions used but not defined in these Regulations shall have same meaning as assigned to them in the Code and Companies Act, 2013.	
		CHAPTER 2	
45		REGISTRATION OF INFORMATION UTILITIES	

3. (1) Any person who seeks to establish an Information Utility under the Code shall incorporate a company limited by shares under the Companies Act, 2013 and

Eligibility to register as an Information Utility. such company must make an application to the Board for grant of certificate of registration under these regulations.

- (2) The applicant company under sub-regulation (1) shall satisfy the following conditions:
 - (*a*) it shall have constitutional documents that mention the activities under 5 section 213 of the Code as its main object;
 - (b) it shall have minimum authorised share capital of Rupees seventy-five crores, and shall give an undertaking to the effect that it shall at all times thereafter maintain the paid-up share capital of at least Rupees sixty crores;
 - (c) no person shall, individually or together with persons acting in concert, hold shares in the applicant company which entitle such person to exercise more than fifteen percent of the voting rights in the applicant company;
 - (d) persons resident outside India shall at no point of time have or acquire control over the applicant company or own more than 49% of the share 15 capital of the applicant company;
 - (e) it shall not be a subsidiary of a body corporate through more than one layer.

Explanation: "layer" in relation to a body corporate means its subsidiary.

- (*f*) it shall have key managerial personnel who shall be fit and proper per- 20 sons;
- (g) it shall have a governing board, the majority of which shall be comprised of independent members who must not have substantial interest in, or be connected with, whether as a promoter, proprietor, employee or manager, any company or firm which carries on any trade, commerce or industry;
- (*h*) neither the applicant company nor any of its key managerial personnel have, at any time in the past, been convicted by any competent court for any offence punishable with imprisonment for a term exceeding six months, or any offence involving moral turpitude, or any economic offence, or have been declared undischarged insolvent.
- **4.** (1) The Board may invite applications for certificate of transitional registration under this Regulation upto a period of 12 months from the date of notification of these Regulations.
 - (2) An applicant company applying for certificate of transitional registration will have to comply with the same eligibility requirements as specified under Regulation 3.
 - (3) An applicant company applying for certificate of transitional registration will have to make an application in the same form and manner as specified under Regulation 6(1).
 - (4) An applicant company applying for certificate of transitional registration under 40 this Regulation shall submit an undertaking by way of an affidavit stating that the information submitted by it is correct.
 - (5) If, on examination by the Board, the information submitted in an application for certificate of transitional registration is found to be false, the Board may:
 - (a) follow the process laid down in Section 218, 219 and 220 of the Code; or 45
 - (b) suspend or revoke the certificate of transitional registration; or

30

35

25

10

Application for grant of certificate of transitional Registration.

- (c) all of the above.
- of transitional **5.** (1) On receipt of application for certificate of transitional registration from the applicant company, the Board shall provide a written acknowledgement of receipt of such application.
- (2) Within fifteen days from the receipt of an application under Regulation 4, the Board may require the applicant company to appear before the Board through its authorised representative for furnishing additional information.
 - (3) An application made under Regulation 4 shall be admitted or rejected within thirty days from the date of receipt of the application.
- (4) A certificate of transitional registration may be granted if the Board is satisfied that the applicant company will be able to meet the requirements specified under Regulation 7 within 12 months from date of receipt of the application for certificate of transitional registration.
 - (5) If the Board chooses to reject an application made under Regulation 4, the Board, through a whole-time member, must pass a reasoned order stating the reasons for such rejection.
 - (6) The certificate of transitional registration granted under this Regulation shall be valid for a period of one year from the date of grant of certificate and may be converted to a certificate of registration subject to satisfaction of the Board.
- 6. (1) An applicant company shall make an application to register as an Information 20 Utility to the Board in Form A of the First Schedule and such application shall be accompanied by the following:

Application for grant of certificate of registration.

Grant of certificate

registration.

- (*a*) a copy of the constitutional documents of the company;
- (*b*) the shareholding structure of the company;
- (c) a copy of the constitutional documents and books of accounts for the last three financial years of the persons holding the majority of the share capital of the applicant company and persons in control of the applicant company;
- (d) a non-refundable fee of Rs. 5 lakhs to be paid by way of a demand draft in favour of the 'Insolvency and Bankruptcy Board of India';
- (e) a project plan addressing how the applicant company proposes to carry out the activities of an Information Utility, which shall, among other things, include:
 - (*i*) information about the infrastructure proposed to be created;
 - (ii) information about the key managerial personnel or officers already in employment of or proposed to be employed by the applicant company;
 - (iii) the manner in which the applicant company proposes to satisfy the obligations under section 214 of the Code:
- (f) an undertaking by way of affidavit that it satisfies and shall continue to satisfy the conditions mentioned in Regulation 3(2).
- (2) On receipt of complete application from the applicant company, the Board shall provide a written acknowledgement of receipt of such application.

15

25

30

35

40

10

Grant of certificate of registration.

- 7. (1) The Board may within sixty days from the receipt of the application under Regulation 6 grant a certificate of registration to the applicant company, if after making such inquiry and obtaining such information as it deems fit, the Board is satisfied that:
 - (*a*) all the conditions under Regulations 3 and 6 are met or will be met to the Board's satisfaction within a reasonable time;
 - (*b*) the applicant company has the technical competence and financial capacity required to function as an Information Utility;
 - (*c*) the key managerial personnel of the applicant company are fit and proper persons;
 - (*d*) the applicant company has in its employment, or proposes to employ, persons having adequate technical and other relevant experience to discharge its obligations as an Information Utility;
 - (e) the applicant company can, within reasonable time, establish adequate infrastructure and resources to enable it to discharge its functions as an 15 Information Utility in accordance with the provisions of the Code and the regulations framed under it;
 - (*f*) the applicant company can within reasonable time establish adequate procedures and facilities to ensure that:
 - (i) the information stored during the performance of core services will 20 always be in conformity with requirements laid down under the law in force, included section 65B of the Indian Evidence Act, 1872;
 - (ii) its records are protected against loss or destruction; and,
 - (*iii*) arrangements have been made for maintaining back up facilities at a seismic zone different from that of the applicant company;
 - (g) the applicant company can, within reasonable time, protect its data processing systems against unauthorised access, alteration, destruction, disclosure or dissemination of records and data;
 - (h) the applicant company can, within reasonable time, have a detailed operations manual explaining all aspects of its functioning, including the 30 interface and method of submission, storage and retrieval of data;
 - (i) the applicant company can control, monitor and record the physical and electronic access to the premises, facilities, data processing systems, data storage sites and facilities including back-up sites and facilities and to the electronic data communication network;
 - (j) the applicant company has or proposes to have, within a reasonable time, adequate arrangements including insurance for indemnifying the users for losses that may be caused to such users by any wrongful act, negligence or default of the applicant company or any of its employees; and,
 - (*k*) the applicant company is willing to comply with any other conditions 40 which the Board may, by regulation, impose for the purpose of carrying out the objects of the Code and these regulations.
 - (2) A certificate of registration granted by the Board under sub-regulation (1) shall be subject to the following conditions:
 - (a) the Information Utility shall comply with the provisions of the Code, applicable regulations and guidelines, directions or circulars issued in writing by the Board from time to time;

10

5

25

- (*b*) any information or particulars furnished to the Board by the Information Utility shall not be false or misleading in any respect;
- (*c*) no change in control of the Information Utility shall be effected without the approval of the Board;
- (*d*) where any material information or particulars furnished to the Board, in connection with the application for registration, has undergone change subsequent to its submission, the Information Utility shall forthwith inform such fact to the Board in writing;
- (*e*) the Information Utility shall comply with the provisions of its project plan; and,

(*f*) the Information Utility shall comply with any other condition the Board deems fit including, among other matters, conditions relating to:

- (*i*) the maintenance of its books of accounts;
- (*ii*) the sharing of information, documents related to its functioning and books of accounts with the Board as may be required, with a reasonable notice period for compliance; and
- (*iii*) an accessible, effective, fair and transparent mechanism for dealing with disputes raised by the users; and
- (iv) any standard of service required by the Board.
- 20 **8.** (1) Any application for a certificate of registration which is not complete in all respects shall be rejected within sixty days subject to the procedure in this regulation.
 - (2) Before rejecting such application, the Board shall give an opportunity to the applicant company to remove objections as may be indicated by the Board.
 - (3) The applicant company shall within fifteen days from the date of receipt of relevant communication from the Board remove the objections indicated by the Board.
 - (4) The Board may, on sufficient cause being shown, extend the time for removal of objections by such further time, not exceeding thirty days, as the Board may consider fit.
 - **9.** (1) The Board may require the applicant company to furnish such further information or clarification as it may consider necessary for the purpose of processing the application within a period not exceeding thirty days from the date of receipt of relevant communication from the Board.
- 35 (2) The Board may also require the applicant company to appear before the Board through its authorised representative for the purpose of processing the application.
 - **10.** (1) If after considering an application, the Board is of the opinion that a certificate of registration may not be granted, it may after following the procedure in this regulation reject the application within a period of sixty days of receipt of such application.
 - (2) If the Board is of the opinion that the application should be rejected, it shall communicate the reasons for forming such an opinion to the applicant company within fifteen days of forming such opinion.

Furnishing additional information.

Procedure when certificate is not granted.

15

5

10

25

30

- (3) The Board shall allow the applicant company to present such materials as the Board deems fit within fifteen days of the receipt of the relevant communication from the Board, to enable it to reconsider its opinion.
- (4) After hearing the applicant company, the Board shall communicate its decision to accept or reject such application to the applicant company within a period of fifteen days.
- (5) The Board may choose to give an opportunity to the applicant company to rectify its application within a maximum of thirty days and in such an event, the Board must decide within a period of sixty days from receipt of such rectified application.
- (6) If the Board chooses to reject the application, the Board through a whole-time member must pass a reasoned order stating the reasons for such rejection.
- 11. (1) Upon receipt of a complaint under section 217 of the Code or on a suo moto basis, the Board may cancel or suspend the certificate of registration of an Information Utility on the grounds mentioned in section 210(5) of the Code.
 - (2) While cancelling or suspending any certificate of registration under sub-regulation (1), the Board shall follow the process provided in sections 218 to 220 of the Code and any regulations made thereunder.
 - (3) The order passed by the Board shall be issued to the Information Utility immediately, and published on the website of the Board.

CHAPTER 3

CORE SERVICES OF INFORMATION UTILITIES

- **12.** (1) The Board shall constitute a Technical Committee to provide recommendations standards. to the Board about technical standards. (2) The Technical Committee shall consist of: 25 (a) representatives of all the Information Utilities; and
 - (b) any other persons nominated by the Board.
 - (3) The Technical Committee shall assist the Board in defining and managing the standards required for the performance of the core services of Information Utilities, including:
 - (a) the Application Programming Interface used by Information Utilities;
 - (b) the standards for identification and verification of persons by Information Utilities:
 - (c) the service level standards to be met by Information Utilities;
 - (d) the process for persons to register, or modify their registration, in the 35 Master Entity List;
 - (e) the procedure to determine whether a default has happened, using the repayment schedule and the account statement of the repayment account;
 - (f) the process for filing information stored in an Information Utility with the Board; and
 - (g) the procedure for creating a unique identifier for each debt.

10

20

5

Suspension or cancellation of registration. 15

Board to establish

30

(4) The Board shall publish the complete definition of such standards on its website.

13. (1) The Board shall create a Master Entity List that stores the unique identities of persons and their contact details.

- (2) An Information Utility shall allow only recognised persons to submit or authenticate information.
 - (3) Any person wishing to become a recognised person may register itself in the Master Entity List.
- **14.** In the performance of their core services, Information Utilities shall conform to Standards. the standards published by the Board under regulation 12(4) in order to:
 - (*a*) exchange information with its users or other Information Utilities through the Application Programming Interface;
 - (b) verify the identities of persons; and
 - (c) maintain service levels.
- **15 15.** (1) In the performance of its core services, an Information Utility shall allow persons to submit information regarding debt or default.
 - (2) The Information Utility shall allow such information to be submitted only if the person submitting the information is either a creditor or a debtor in relation to the debt.
- 20 (3) The Information Utility shall verify the identity of the person submitting the information.
 - (4) The Information Utility shall allow submission of information about a debt or about a change in the terms of a debt only if the following particulars are submitted:
 - (*a*) the identity of the debtor(s);
 - (*b*) the identity of the creditor(s);
 - (c) the identity of the guarantor(s);
 - (*d*) whether the debt is a financial debt or an operational debt;
 - (*e*) the date of creation of the debt;
 - (*f*) the amount of the debt owed at the date of creation of the debt;
 - (g) the amount of the debt owed currently;
 - (*h*) the particulars of security, if any;
 - (*i*) the host bank and the repayment account number, if any;
 - (*j*) the repayment schedule of the debt, if any; and
 - (*k*) the unique identity number of the debt, in case the debt has previously been recorded in any Information Utility.
 - (5) The Information Utility shall allow submission of information about a default only if the following particulars are submitted:
 - (*a*) the identity of the debtor(s);
 - (*b*) the identity of the creditor(s);

Submission of Information to Information Utilities.

Master Entity List.

Conformance to

30

25

5

10

- (*c*) the identity of the guarantor(s);
- (*d*) whether the debt is a financial debt or an operational debt;
- (*e*) the date of creation of the debt;
- (*f*) the amount of the debt owed at the date of creation of the debt;
- (*g*) the amount of the debt owed currently;
- (*h*) the date on which the default occurred; and
- (*i*) the unique identity number of the debt, in case the debt has previously been recorded in any Information Utility.
- (6) The Information Utility shall inform the debtor immediately if information about his default is submitted.
- (7) The Information Utility shall allow a corporate person or its auditor to submit information of its balance sheet or cash-flow statements.
- (8) The Information Utility shall ensure that the person submitting any information has affixed its electronic signature.
- (9) Submitting financial information to an Information Utility shall not restrict the 15 person submitting such information from providing it to any other person.
- **16.** (1) Once information has been submitted to an Information Utility under regulation 15, the Information Utility shall make such information available to the concerned parties, and allow them to authenticate the information.
 - (2) If information submitted to the Information Utility is related to default on a 20 debt, and if the host bank is authenticating the information, then:
 - (*a*) The host bank shall submit the account statement of the repayment account, with its electronic signature affixed.
 - (b) The Information Utility shall determine the occurrence of the default by comparing the account statement against the repayment schedule submitted previously under clause 15(4)(*j*) according to the procedure defined by the Board under clause 12(3)(*e*).
 - (3) The Information Utility shall verify the identity of the concerned party before allowing it to authenticate the information.
 - (4) Once the Information Utility makes information available to the concerned 30 parties for authentication, it shall provide at least seven working days for the concerned parties to authenticate the information.
- **17.** (1) Once the information submitted to an Information Utility has been authenticated under regulation 16, the Information Utility shall provide an acknowledgement to the submitter of the information and to the concerned parties.
 - (2) If the information submitted to the Information Utility was about a debt or a default, and if the unique identity number of the debt was not submitted, the Information Utility shall create such a number as per the standards published by the Board in regulation 12(4).
 - (3) The acknowledgement shall contain:
 - (a) the information stored by the Information Utility;
 - (b) the identities of the persons who submitted and verified the information;

Authentication of information.

5

10

Acknowledgement.

35

- (c) the terms and conditions of the storage of the information; and
- (*d*) the unique identity number of the debt.
- (4) The Information Utility shall affix its electronic signature to the acknowlegement.

Storage of information.

- **18.** (1) Once the information submitted to an Information Utility has been acknowledged under regulation 17, it shall be stored by the Information Utility.
 - (2) While storing, the Information Utility shall ensure that:
 - (a) the information is stored in such a manner that it is always in conformity with requirements laid down in section 65B of the Indian Evidence Act, 1872;
 - (b) stored information is not lost, deleted, modified, or stolen;
 - (c) access to stored information is controlled and that all such access is logged; and
 - (*d*) the information stored shall be filed with the Board in the manner specified by the Technical Committee.
 - **19.** (1) The Information Utility shall enable a person to update information it has previously submitted to any Information Utility.
 - (2) Before storing such information, the Information Utility shall follow the processes prescribed in regulations 15, 16, 17, and 18.

Dissemination and retrieval of information.

- 20 **20.** (1) The Information Utility shall prevent access by any person to any information except as provided under these regulations.
 - (2) The Information Utility shall allow access to information stored in it under regulation 18 only as follows:
 - (a) The submitter of the information shall have access to the information.
 - (*b*) The concerned parties in relation to the information shall have access to the information.
 - (*c*) The Adjudicating Authority shall have access to information about any debtor free of charge.
 - (*d*) The resolution professional or a liquidation professional, if appointed, shall have access to information about the concerned debtor free of charge.
 - (e) The Board shall, upon passing a written order, have access to information about any debtor free of charge.
 - (*f*) Any person permitted by the debtor shall have access to anonymised information about the debtor.
 - (g) Any person permitted by the creditor shall have access to anonymised information about any debt the creditor is party to.
 - (*h*) If an Information Utility stores information that a debtor has defaulted, it shall inform all other Information Utilities about such default.
 - (*i*) If an Information Utility comes to know of the default of a debtor, it shall inform all the creditors of that debtor that the debtor has defaulted.
 - (*j*) Upon the initiation of a insolvency resolution process, a voluntary liquidation process, or a fresh start process, all the information of the debtor shall be accessible to the public.

10

15

5

25

30

35

(3) The Information Utility shall verify the identity of the retriever before allowing it access to information.

CHAPTER 4

RIGHTS AND OBLIGATIONS OF INFORMATION UTILITIES

- **21.** (1) Upon the direction of any user, an Information Utility shall transmit any information stored in it that was submitted or authenticated by that user to any other Information Utility indicated by the user.
 - (2) The Information Utility shall not charge for this service.
- **22.** (1) All Information Utilities shall put in place systems that enable users to import information from, and export information to, repositories specified by the Board from time to time.
 - (2) All Information Utilities shall ensure that any such import of information conforms to all the applicable provisions in these regulations, including the requirement of verification under regulation 16.
 - (3) All Information Utilities shall ensure that any such export of information conforms to all the applicable provisions in these regulations, including the access restrictions under regulation 20.
- **23.** (1) An Information Utility shall provide every creditor and debtor about whom it stores information an annual statement of all such information free of charge.
 - (2) If a submitter of any information stored in an Information Utility alleges that the information is erroneous, the Information Utility shall enable such submitter to apply to the Information Utility to mark such information as erroneous, stating the reasons, if any.
 - (3) The Information Utility shall mark such information as erroneous upon authentication by the same person who previously authenticated such information.
- **24.** (1) The Information Utility shall permit its users to query, through the Application Programming Interface, the price charged by the Information Utility for providing access to any information it has stored in the performance of its core services.
 - (2) If such user is authorised to access such information, the Information Utility 30 shall respond to the query in sub-regulation (1) by providing information about the number of relevant records, the date of storage of those records, and the prices for providing access to those records.
 - (3) The Information Utility shall permit its users to query, through the Application Programming Interface, the price charged by the Information Utility for 35 providing any other core service, in addition to the core service mentioned in sub-regulation (1).
 - (4) The Information Utility shall respond to the query in sub-regulation (3) by providing information about the prices for the relevant core services.
 - (5) The Information Utility shall provide the services in this regulation at no charge. 40

Porting Information.

Import and Export of information from other repositories.

Review and correction of information.

20

25

Price Querying.

	25.	(1) An Information Utility may provide services other than core services to any person.	Non-core services of Information Utility.
		(2) An Information Utility shall ensure that information stored by it in the performance of its core services is revealed to persons only as per regulation 20.	
5	26.	(1) An Information Utility shall be free to decide its fee for providing its services.	Fees.
		(2) At the time of retrieval of information stored by an Information Utility in the performance of its core services, the Information Utility shall not charge more than what was charged to the submitter when it submitted the information with the Information Utility.	
10	27.	(1) An Information Utility shall redress the grievances of the debtor within fifteen days of the date of receipt of any complaint from a debtor or a creditor.	Grievance Redress.
		(2) An Information Utility shall keep the Board informed about the number and nature of redresses and the number of grievances pending before it.	
15	28.	An Information Utility shall pay the Board an annual fee of Rupees One Lakh in the manner specified by the Board.	Annual Fees.
	29.	(1) An Information Utility may be required to provide such documents and infor- mation as are reasonably required for the discharge of the Board's functions under this Act.	Obligation to provide information.
20		(2) The information required by the Board under sub-regulation (1), the mode of submission of such information, and the frequency of such submission shall be laid down by the Board through guidelines.	
		(<i>3</i>) If the Board requires any other information or document from an Information Utility, it must give the Information Utility a notice in writing.	
25		(4) The notice given under sub-regulation (3) must state the reasons for such req- uisition.	
		CHAPTER 5	
		RISK MANAGEMENT AND GOVERNANCE OF INFORMATION UTILITIES	
30	30.	An Information Utility shall ensure that adequate measures, including insurance, are taken to protect the interests of the parties whose records are kept with the Information Utility, against risks likely to be incurred on account of its activities as an Information Utility.	Insurance against risks.
35	31.	Without prejudice to the provisions of any other law for the time being in force, if any loss is caused to a debtor or a creditor due to the negligence of the Informa- tion Utility, the Information Utility shall indemnify such debtor or creditor, who suffered the loss.	Indemnity.
	32.	(1) An Information Utility may outsource its core services only with the permission of the Board.	Outsourcing.

- (2) An Information Utility must take due care when outsourcing any service.
- (3) In this section
 - (a) "due care" means
 - (*i*) that the outsourcing of any function or activity is in accordance with the bye-laws prepared under regulation39;
 - (*ii*) that there are no conflicts of interest that may impair the ability of the service provider to deliver to the required standard;
 - (*iii*) that a detailed review is performed of the ability of the potential service provider to deliver the required functions satisfactorily;
 - (*iv*) that the Information Utility has entered into a written agreement
 with the service provider clearly setting out their respective rights and obligations;
 - (*v*) that the outsourcing does not impair the quality of the systems of governance of the Information Utility;
 - (*vi*) that the outsourcing does not impede the ability of the Board to 15 monitor the Information Utility;
 - (*vii*) that the service provider maintains confidentiality of the data shared with or generated by it while performing the outsourced function or activity in the same manner and to the same extent as the Information Utility would have had to maintain;
 - (*viii*) that the outsourcing does not cause an excessive increase in the risk faced by the Information Utility; and
 - (*ix*) the service provider is required to disclose any development to the Information Utility that may have a material impact on its ability to carry out the outsourced functions.
 - (*b*) "outsourcing" means the act of appointing another person to perform one or more of the services of an Information Utility which would otherwise be performed by the Information Utility in the normal course of business, and any other form of the word shall be construed accordingly; and
 - (c) "service provider" means a person to whom the performance of one or 30 more of the services of an Information Utility has been outsourced.
- **33.** (1) No Information Utility may carry out the following actions, without obtaining the approval of the Board
 - (a) a merger, amalgamation or restructuring of an Information Utility;
 - (b) transfer or acquisition of, control or a significant interest, in an Information Utility;
 - (*c*) sale, disposal, or acquisition of the whole, or substantially the whole, of an undertaking of an Information Utility;
 - (*d*) sale, disposal, or acquisition of a significant portion of the assets or liabilities of an Information Utility; and
 - (e) voluntary winding up, dissolution, or any similar action involving the discontinuation of the business, of an Information Utility.
 - (2) A person that proposes to take an action under sub-regulation (1) must make an application to the Board.
 - (3) Where a person takes an action under regulation (1) in contravention of this 45 regulation, the Board may, by order, require:
 - (*a*) the cancellation of the contravening action; and

Actions involving an Information Utility.

5

20

25

- (*b*) compensation of third parties adversely affected by the contravening transaction.
- (4) For the purposes of this regulation, "significant interest" means control of at least fifteen per cent of total share capital, or of business decisions under an agreement.
- 34. (1) An Information Utility shall conduct stress tests.
 - (2) In this regulation, the term "stress" means one or more conditions where an Information Utility is partially or completely unable to provide core services.
 - (3) The Board shall law down by guidelines
 - (a) the intervals at which an Information Utility must conduct stress tests;
 - (b) quantitative tools and methods for the conduct of stress tests;
 - (c) the manner and format of the publication of stress tests;
 - (d) the requirement to inform the Board of the results of the stress tests; and
 - (*e*) the sources of stress.

Inspections.

Conduct of Stress

Tests

- 15 **35.** (1) The Information Utility shall have systems in place to facilitate its inspection by the Board.
 - (2) The Board must
 - (*a*) give a notice of inspection to the Information Utility before carrying out the inspection;
 - (*b*) record the documents inspected and the findings of such inspections in a specified form; and
 - (c) provide the record of such documents and findings to the Information Utility.
 - (3) The Information Utility must allow the Board to make copies of the documents and records inspected.
 - (4) Notwithstanding anything contained in any law in force, during inspection, the Board may
 - (a) access relevant documents and records of the Information Utility; and
 - (b) question any employee of the Information Utility.
- 30 (5) The Board shall specify
 - (a) the intervals at which an Information Utility may be inspected;
 - (b) occasions at which a Information Utility may be inspected;
 - (c) the minimum requirements and format of the notice of inspection;
 - (*d*) the maximum duration of the inspection;
 - (e) the steps the Information Utility has to carry out to enable the inspection;
 - (f) the time period within which the record of documents inspected and findings arrived at, must be provided by the Board to the Information Utility; and
 - (g) such other requirements to be met by the Information Utility to enable the Board to collect accurate information about the Information Utility.

25

20

5

10

35

			Audite of
36.	(1)	An Information Utility shall get its systems and processes periodically audited by internal and external auditors.	Audits of Information Utility.
	(2)	The audits shall examine, among other things, whether the information in the Information Utility is stored in conformity with sub-regulation 18(2).	
	(3)	Upon completion of the audit, the Information Utility shall submit the report of the audit to the Board.	5
	(4)	The Board shall lay down by guidelines:	
		(a) the matters to be audited;	
		(b) the frequency of such audits;	
		(c) the persons who can be auditors;	10
		(d) the mode of submission of audit reports to the Board; and	
		(e) the time within which such reports are to be submitted.	
37.	(1)	An Information Utility shall ensure its systems are operable during disasters and emergencies.	Disaster recovery and Business Continuity.
	(2)	An Information Utility shall take all precautions to ensure that —	15
		(a) information stored in Information Utility is not lost or destroyed;	
		(b) in the event of loss of destruction, sufficient back up records are available at all times at a different place.	
38.	(1)	An Information Utility shall prepare a exit management plan and ensure that it is periodically reviewed and updated.	Exit Management Plan. 20
	(2)	The exit management plan should necessarily contain details about how the Board can:	
		(a) access the information stored in the Information Utility; and	
		(<i>b</i>) how the information stored in the Information Utility can be transferred to another Information Utility.	25
	(3)	If the Board is of the opinion that an Information Utility is not able to provide its core services, it may activate the exit management plan and take any other steps it sees fit to retrieve the information in the Information Utility by issuing a written notice.	
	(4)	The Information Utility shall extend all necessary assistance to the Board in implementing the steps mentioned in sub-regulation (<i>3</i>).	30
39.	(1)	An Information Utility must make bye-laws to govern —	Bye-laws of an Information Utility.
		(a) the core services provided by it;	
		(b) grievance redressal mechanisms; and	
		(c) matters incidental to clauses (a) and (b).	35
	(2)	An Information Utility must not place any condition on a user availing the core services provided by it except as provided in its bye-laws.	

Principles for making bye-laws.

- **40.** The Information Utility must consider the following factors while making byelaws —
 - (*a*) reducing delays and disputes in the working of the insolvency resolution process under the Code;
- (*b*) the accuracy of information in the Information Utility;
 - (*c*) the confidentiality of information in the Information Utility;
 - (d) ease of access to the information available on the Information Utility; and
 - (e) interoperability and open standards.
- **41.** (1) The board of an Information Utility must approve the draft of every bye-law bye-laws. proposed to be made by that Information Utility.
 - (2) The Information Utility must make an application to the Board for approval of every proposed bye-law.
 - (3) The application must contain
 - (a) a statement setting out the objectives of the proposed bye-law; and
 - (*b*) a draft of the proposed bye-law.
 - (4) The Board may reject an application if a proposed bye-law does not meet the objectives set out in regulation 40.
 - (5) The Board must, immediately upon receipt of the application, publish the draft of the proposed bye-law and the statement.
- 20 (6) The Board must
 - (*a*) give not less than twenty one days to enable any person to make a representation in relation to the proposed bye-law; and
 - (*b*) immediately publish and communicate, all representations made to it, to the Information Utility.
- 25 (7) The Information Utility must consider the representations forwarded to it by the Board.
 - (8) The board of the Information Utility must approve the final bye-law proposed to be made.
 - (9) The Information Utility must submit the final bye-law proposed to be made to the Board for its approval.
 - (10) The Board must dispose of an application for approval of the bye-law within fourteen days from the date of receipt of the final bye-law.
 - (11) The Information Utility must, immediately upon receipt of the approval of the Board, publish on its website the final bye-law together with the date on which such bye-law takes effect.
- Violation of bye-laws.
- **42.** (1) Where a user violates the bye-laws of an Information Utility, the Information Utility may take such measures as may be provided in its bye-laws in relation to such user.
 - (2) An Information Utility must communicate, in writing, to the user:
 - (a) the measures it proposes to take in relation to the user;

15

5

10

35

30

- (b) the reasons for the decision to take such measures; and
- (c) the material relied upon in making the decision.
- **43.** (1) An Information Utility must
 - (*a*) have in place effective systems of governance which provide for the sound and prudent management of its affairs; and
 - (*b*) ensure that the systems of governance adopted by it are implemented, reviewed and updated, on a regular basis.
 - (2) The systems of governance of an Information Utility must include policies and procedures on
 - (*a*) governance and controls;
 - (b) risk management;
 - (c) internal audit; and
 - (d) outsourcing.
- **44.** (1) An Information Utility shall ensure that its operations, systems and conduct is always in compliance with all applicable regulatory provisions.
 - (2) An Information Utility shall designate a compliance officer, reporting to the board of the Information Utility, who shall be responsible for monitoring the compliance of the Information Utility with all applicable regulatory provisions.
 - (3) The compliance officer shall immediately and independently report to the board of the Information Utility and to the Board if any non-compliance is observed. 20

Systems of Governance.

5

10

Compliance and Compliance Officer. CHAPTER 6 Schedules

Schedule 1: Form A

To, The Chairperson, Insolvency and Bankrutpcy Board of India.

Dear Sir/Madam,

5

10

15

Application for certificate of registration under Regulation 4 of the Insolvency and Bankruptcy (Information Utilities) Regulations, 2016 ("Regulations")

- 1. I, being duly authorized for the purpose, hereby apply on behalf of *[insert name and address of the applicant company]* being a company, for registration as an information utility under the Insolvency and Bankruptcy (Information Utility) Regulations, 2016.
- 2. All the necessary information required as per Regulations 3 and 4 of the Regulations are enclosed. Any additional information will be furnished as and when called for by the Insolvency and Bankruptcy Board of India in accordance with the Regulations.
- 3. I, on behalf of *[insert name of the applicant company]* hereby undertake to comply with the requirements of Regulation 5 of the Regulations and such other conditions and terms as may be contained in the certificate of registration or be specified or imposed by the Board subsequently.
- 4. Demand Draft No [please insert] dated [please insert] for Rs. [please insert] towards the registration fee is attached.

20

Yours faithfully,

Signature (authorised signatory) Date: Designation:

B Constitution of Working Group 4

No. 30/9/16 - Insolvency Government of India Ministry of Corporate Affairs

5th Floor, Shastri Bhavan, Dr. R.P. Road, New Delhi 110001 Dated 22nd July, 2016

<u>Order</u>

Sub.: Constitution of Oversight Committee and Working Groups for implementation of the Insolvency and Bankruptcy Code, 2016

With a view to carry out various activities, including deliberations and consultations for drafting the Rules and Regulations, under the Insolvency and Bankruptcy Code 2016 (Code), an Oversight Committee and four Working Groups are, hereby, constituted.

A. <u>Oversight Committee</u>

2. The Oversight Committee will guide and steer the Working Groups and review their recommendations.

3. The Oversight Committee will be chaired by Shri Tapan Ray, Secretary, Corporate Affairs and consist of the following:

i	Dr. T K Viswanathan	Former Secretary General, Lok Sabha &
ii	Representative, not below the rank	Chairman, BLRC Department of Financial Services
iii	of Joint Secretary Representative, not below the rank	Reserve Bank of India
iv	of Executive Director Representative, not below the rank	Ministry of Law and Justice
	of Joint Secretary	

4. The Chairman may co-opt any other expert/officer as Member.

B. <u>Working Group 1</u>

5. The Group will deliberate and submit its recommendations on the organizational structure and design of the Insolvency & Bankruptcy Board of India (Board). The Group will undertake the following:

- (i) Give recommendations on the following:
 - a. Board organizational structure keeping in view the powers and functions to be performed by the Board (refer section 196 and 197 of the Code) and structures of other Regulators like SEBI.

- b. The processes within the Board to discharge powers and functions, inter alia, with respect to registration, policy/regulation making, enforcement (monitoring, investigation, imposition of penalties & grievance redressal) for IPs/IPAs/IUs, general regulation making for substantive and procedural matters for Part-II and Part-III of the Code as well as supportive functions of administration, finance and accounts, data/information management and communications.
- c. Committees to be constituted under section 197 of the Code.
- d. Officers and supporting staff required by the Board to perform its functions and the sources/manner of recruitment.
- e. Infrastructure, including space and Information Technology, requirements of the Board.
- f. Budgetary support required by the Board for the remaining part of 2016-17 and for the full year 2017-18.
- (ii) Suggest draft rules/regulations/guidelines for the officers and employees of the Board in order to enable the immediate functioning of the Board on constitution.

6. The Group shall be convened by Shri M.S. Sahoo, Member, Competition Commission of India and consist of the following:

i	Shri Ravi Narain	Vice Chairman, NSE
ii	Representative, not below the	SEBI
	rank of Executive Director	
iii	Smt Susan Thomas	Assistant Professor, Indira Gandhi Institute of
		Development Research
iv	Shri Rakesh Tyagi	Director, Ministry of Corporate Affairs
v	Any other Expert as may be deci	ded by the Convener

7. The Group shall give its recommendations within two months from the date of constitution.

C. <u>Working Group 2</u>

8. The Group will deliberate and submit its recommendations on Rules, Regulations and other related matters on Insolvency Professionals (IPs) & Insolvency Professional Agencies (IPAs). The Group will undertake the following:

- (i) Consider and give recommendations on the following:
 - a) Categories/Classes of professionals who can be registered as IPs for the purpose of corporate insolvency, in the initial/interim stage on commencement of the provisions of the Code, and for the long term, for corporate and individual insolvency.
 - b) Fees to be charged (both for the interim and long term stages) within the scope of Section 207 of the Code.
 - c) Experience and qualifications for each of the category of IPs, including curriculum, training and examination.

- d) Process for registration of IPs and IPAs.
- e) Code of Conduct and other professional standards for IPs.
- f) Compliance requirements for an IP, procedure of disqualification, substitution, imposition of penalties, etc.
- g) Model contracts for engaging IPs
- h) Other matters relating to IPs which may be of relevance.
- (ii) Consider and give recommendations on the following
 - a) Persons who can be registered as IPAs.
 - b) Registration process for IPAs.
 - c) Model Bye-laws for the IPAs.
 - d) Business Plan for an IPA.
 - e) Manner of conduct of various functions to be assigned to an IPA under section 204 of the Code.
 - f) Other matters relating to IPAs which may be of relevance.
- (iii) Review draft Rules and Regulations as prepared incorporating the recommendations made.
- (iv) Identify persons who can contribute towards review of draft Rules and Regulations prepared.
- (v) Consider the suggestions received as part of the review, once compiled.

9. The Group shall be convened by Dr Navrang Saini, Director of Inspection & Investigation, Ministry of Corporate Affairs and consist of the following:

i ii iii	Shri Birendra Kumar Shri Harinderjit Singh Shri Nirmal Gangwal	Chairman, Association of ARCs in India Partner, PwC Managing Director, Brescon Advisers
iv	Shri Dinkar	Partner, E&I
v	Shri Shailen Shah	Director, Deal Advisory, Restructuring, KPMG
vi	Shri Dhinal Shah	Chairman, Corporate Laws & Corporate Governance Committee of ICAI
vii	Smt. Mamta Binani	President, ICSI
viii	Shri U K Chaudhary	Senior Advocate and past President ICSI
ix	Shri Sanjay Shorey	Director, Department of Financial Services
х	Representative	Ministry of Law & Justice
xi	To be ascertained by Convener	Representative of ICAI (Cost)

10. The Group shall give its recommendations within two months from the date of constitution.

D. Working Group 3

11. The Group will deliberate and submit its recommendations on Rules, Regulations and other related matters for the Insolvency & Liquidation process under the Code. The Group will undertake the following, with regard to Part II of the Code:

- (i) Give recommendations for designing regulations on the Insolvency Resolution Process (IRP), including on:
 - a) Powers and functions of the interim IP (including the mechanism for displacement/suspension of management, taking control and protection of assets, collection of information, management of affairs of debtor) during the IRP
 - b) Selection of various professionals required for the process by the IP
 - c) Additional powers and functions of the RP appointed by the committee of creditors
 - d) Conduct of proceedings of the committee of creditors, conduct of meetings, voting, etc.
 - e) Form and content of the information memorandum
 - f) Additional requirements for the resolution plan
 - g) Insolvency resolution process costs (including the fee for IPs)
 - h) Application form/formats, information and fees requirements for making an application for resolution process
 - i) Guidelines with respect to records/ documents that constitute evidence of default
 - j) Fast track resolution of corporate insolvency
- (ii) Give recommendations for designing regulations on the Liquidation Process, including on:
 - a) Selection of various professionals required for the process by the IP.
 - b) Manner of making public notices, etc.
 - c) Forms for claims, etc.
 - d) Additional powers or functions of the liquidator.
 - e) Assets forming part of the liquidation estate manner of identification, valuation, etc.
 - f) Reporting mechanism for the liquidator (to the Board and NCLT).
 - g) Process for conduct of auctions.
 - h) Verification and valuation of claims filed.
 - i) Liquidator's fee.
 - i) Manner of distribution of assets.
 - k) Time period for completion of liquidation and distribution of assets.
 - l) Voluntary liquidation.
 - m) Other requirements of the Code.
 - (iii) Give recommendations for the Rules required for NCLT & NCLAT, keeping in view the existing rules.
 - (iv) Give recommendations for designing regulations on the Voluntary Liquidation Process for companies and LLPs.
 - (v) Review draft Rules and Regulations as prepared incorporating the recommendations made.

- (vi) Identify persons who can contribute towards review of the draft Rules and Regulations prepared.
- (vii) Consider the suggestions received as part of the review, once compiled.

12. The Group shall be convened by Shri N.K. Bhola, Regional Director (North), Ministry of Corporate Affairs and consist of the following:

i	Shri Bahram Vakil	Partner, AZB & Partners
ii	Shri Varun Gupta	Partner, Deal Advisory & Restructuring, KPMG
iii	Shri Abizer Diwanii	Partner, E&Y
iv	Shri Rajan Wadhawan	Partner, Deals PwC & Co. LLP
V V	Shri N S Kannan	Executive Director, ICICI Bank
v	Shri D P Oiha	Official Liquidator, Delhi
vi	Shri Nikhil Shah	Managing Director, Alvarez & Marsal India
viii	Shri M B Ilmarii	Consultant, Indian Banks Association
v III iv	Shri Venkattu Sriniyasan	Group Head – Asset Reconstruction Division, Kotak
IX	Shiri Venkatta Brinivaban	Mahindra Bank
	Smt K Srinriva	Vice Chairperson, Corporate Laws & Corporate
х	Sint. R. Sripriya	Governance Committee of ICAI
· :	Shri S M Sundaram	Advocate and representative of ICSI
XI	Sill'i S M Sulluarani	Mentor and Chairman, Kesar Dass B & Associates
XII	Shri Sumant Batra	Dentor and Ghan man, nooar 2 and 2
xiii	To be ascertained by Convener	Representative of KDI
xiv	To be ascertained by Convener	Representative of ICAI (Cost)

13. The Group shall give its recommendations within two months from the date of constitution.

E. <u>Working Group 4</u>

14. The Group will deliberate and submit its recommendations on Rules, Regulations and other related matters for Information Utilities under the Code. The Group will undertake the following:

- (i) Give recommendations for designing regulations on information utilities covering the following aspects (refer section 209 216):
 - a. Eligibility and process for registration, including the feasibility of using existing platforms like MCA21, CERSAI, etc. for the purpose
 - b. Bye laws, including governance and functions, for IUs
 - c. Scope of information to be captured and services to be provided
 - d. Standards for sharing/dissemination of information.
 - e. Safeguards for recording of information and its access
 - f. Minimum infrastructure and resources for an IU.
 - g. Business model for IUs
 - h. Any other requirement under the Code.
- (ii) Prepare draft Rules and Regulations, etc. as required under the Code for substantive and procedural issues relating to IUs.
- (iii) Identify persons who can contribute towards review of the regulations so prepared

(iv) Consider the suggestions received as part of the review, once compiled.

15. The Group shall be convened by Shri K V R Murty, Joint Secretary (e-Governance), Ministry of Corporate Affairs and consist of the following:

i ii iii	Shri Ajay Shah Shri Mihir Kumar Shri Rajendra Kumar	Professor, NIPFP Director & Deputy Registrar, CERSAI CGM, Department of Banking Regulations, PRI
iv	Shri Jayesh Sule	Whole Time Director & Chief Operating Officer, NSDL E-Governance
v	Shri Mrutyunjay Mahapatra	Deputy Managing Director, State Bank of India

vi Any other expert as may be decided by the Convener

16. The Group shall give its recommendations within three months from the date of constitution.

17. Non-official members of the Committee and Working Groups will be eligible for travelling, conveyance and other allowances as per extant Government instructions, wherever the sponsoring agency is unable to bear their expenditure.

18. This issues with the approval of competent authority.

22 07 2016

(Amardeep S Bhatia) Joint Secretary +91-11-23389088 E-Mail: asbhatia@gov.in

То

All Members and Conveners

Copy to:-

- 1. PS to CAM/PS to MoS, CA
- 2. Governor, Reserve Bank of India
- 3. Secretary, Department of Economic Affairs, Ministry of Finance, Government of India.
- 4. Secretary, Department of Financial Services, Ministry of Finance, Government of India.
- 5. Chairman, Securities & Exchange Board of India.
- 6. Law Secretary, Government of India.
- 7. President, ICAI, ICAI (Cost), ICSI

No. 30/9/2016-Insolvency Government of India Ministry of Corporate Affairs

5th Floor, A wing Shastri Bhavan, New Delhi Dated: 8.08.2016

Office Memorandum

Subject:-Inclusion of Ms Nivedita Haran in the Working Group No 4 constituted for implementation of Insolvency and Bankruptcy Code, 2016

Pursuant to the constitution of Oversight Committee and four Working Groups for implementation of the Insolvency and Bankruptcy Code, 2016, vide Ministry of Corporate Affairs Order dated 22.07.2016 (copy of the Order is enclosed herewith), the undersigned is directed to inform that Ms Nivedita Haran, Director, National E-Governance Services Limited is being inducted in Working Group No 4, which is convened by Shri K.V.R. Murty, Joint Secretary (e-Governance), Ministry of Corporate Affairs.

2. This issues with the approval of Secretary, Ministry of Corporate Affairs.

Encl:-As above

(Shatrughan Chauhan) Assistant Director

To

- (i) PPS to Secretary, Ministry of Corporate Affairs.
- (ii) PPS to Shri K.V.R. Murty, Joint Secretary, Ministry of Corporate Affairs
 - (iii) PPS to Shri Amardeep S. Bhatia, Joint Secretary, Ministry of Corporate Affairs
 - (iv) Ms Nivedita Haran, Director, National E-Governance Services Limited
 - (v) Shri Ajay Shah, Professor, NIPFP
 - (vi) Shri Mihir Kumar, Director & Deputy Registrar, CERSAI
 - (vii) Shri Rajinder Kumar, CGM, Department of Banking Regulations, RBI
 - (viii) Shri Jayesh Sule, Whole Time Director & Chief Operating Officer, NSDL E-Governance
 - (ix) Shri Mrutyunjay Mahapatra, Deputy Managing Director, SBI

References

Bankruptcy Law Reforms Committee. *Volume I of the Report of the Bankruptcy Law Reforms Committee: Rationale and Design.* 2015. URL:

http://finmin.nic.in/reports/BLRCReportVol1_04112015.pdf (visited on Sept. 23, 2016).

- Government of India. *Insolvency and Bankruptcy Code*. 2016. URL: http://www.indiacode.nic.in/acts-in-pdf/2016/201631.pdf (visited on Aug. 29, 2016).
- Insolvency and Bankruptcy Code Bill [as introduced] 2015. 2015. URL: http://www.prsindia.org/uploads/media/Bankruptcy/ Insolvency%20and%20Bankruptcy%20code,%202015.pdf (visited on Dec. 5, 2016).
- Policy on Open Application Programming Interfaces (APIs) for Government of India. 2014. URL:
- http://egovstandards.gov.in/sites/default/files/Policy%200n% 20Open%20Application%20Programming%20Interfaces%20% 28APIs%29%20for%20Government%200f%20India.pdf (visited on Oct. 27, 2016).
- Policy on Open Standards for e-Governance. 2011. URL: http://egovstandards.gov.in/sites/default/files/Policy%200n%
 20Open%20Standards%20for%20e-Governance.pdf (visited on Oct. 27, 2016).
- Joint Committee on the Insolvency and Bankruptcy Code, 2015. *Report of the Joint Committee on the Insolvency and Bankruptcy Code*, 2015. 2016. URL: http://164.100.47.193/lsscommittee/Joint% 20Committee%200n%20Insolvency%20and%20Bankruptcy% 20Code,%202015/16_Joint_Committee_on_Insolvency_and_ Bankruptcy_Code_2015_1.pdf.
- Securities and Exchange Board of India. *SEBI (Listing Obligations and Disclosure Requirements) Regulations*, 2015. URL: http://www.sebi.gov.in/cms/sebi_data/attachdocs/1441284401427.pdf (visited on Nov. 24, 2016).