

# The Curious Case of IL&FS Financial Crisis

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## Abstract

This case attempted to demystify the IL&FS financial crisis of 2018, which grappled with various Indian financial markets. The case presented immediate probing issues to the investors as key stakeholders, the first being the factors that played the role of catalyst leading to a blow-up of the IL&FS financial crisis and the second being the identification of preventive measures to create a robust vigilance system. The case also outlined how the default of IL&FS on some of the debt instruments triggered the domino effect in the money market, equity market, bond market, and mutual funds in the ever-increasingly connected financial world. It highlighted crucial internal and external factors which acted as key drivers in the IL&FS financial crisis. This crisis also exhibited strong interconnection of financial markets as troubles in one market spread across other markets. The study brought to the fore the role of regulatory bodies, independent audit agencies, and credit rating agencies in the development of such a crisis. It contributed by creating a critical platform to raise essential points for further discussions related to the emergence of the IL&FS crisis, the factors driving this crisis, and its impact on the sustainability of the financial ecosystem of India.

**Keywords :** IL&FS financial crisis, Indian financial markets, internal control system, asset-liability management, financial regulation

**JEL Classification Codes :** G20, G23, G28

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I am going to lose everything today! screamed an anonymous trader sitting in a trading room of one of the reputed broking firms and ghastly staring at the trading screen during the afternoon session of September 21, 2018. That day, the Sensex index of the Bombay Stock Exchange (BSE) and CNX Nifty 50 index of National Stock Exchange (NSE) witnessed wild gyrations (Sensex Index: Open: 37278.89, High: 37489.24, Low: 35993.64, Close: 36841.60 & CNX Nifty 50 Index: Open: 11271.30, High: 11346.80, Low: 10866.45, Close: 11143.10) led by sharp sell-off in stocks of the banking as well as non-banking financial company (NBFC) sector. Most noticeably, a sudden and sharp sell-off was observed in Dewan Housing Finance Ltd. (DHFL), an NBFC, which recorded an intra-day low of 60% down and closed at 42% down. Many other NBFC stocks faced a similar fate by closing down by 10 to 20%. This episode was so mysterious and unusual that the Security Exchange Board of India (SEBI), the regulator of capital markets in India, launched an investigation. One name — Infrastructure Leasing & Financial Services Limited (IL&FS) — was silently doing the rounds as a strong reason for triggering a sell-off in NBFCs stocks on September 21, 2018. The IL&FS group, which boasted of being the backbone of Indian infrastructure financing over the last three decades, had been facing increasing financial troubles, and that contributed to it being considered the reason for the sell-off in NBFCs stocks. The investors, as key stakeholders, were staring at two immediate probing issues, the first being which factors played the role of catalyst leading to a blow-up of the IL&FS financial crisis and the second being the identification of preventive measures to create a robust vigilance system.

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# Infrastructure Leasing & Financial Services Limited (IL&FS)<sup>1</sup>

## Group Overview

IL&FS, which was considered to be a brainchild of the late M. J. Pherwani, was founded in 1987 and promoted by the Central Bank of India (CBI), Unit Trust of India (UTI), and Housing Development Finance Corporation (HDFC) with the primary focus on funding infrastructure projects. IL&FS was considered the model for public-private partnership (PPP) for infrastructure financing in India. The group boasted of having a strategic partnership with 22 states of India.

## Segments Overview

IL&FS has diversified across different segments: transportation, energy, maritime, water & waste management, urban asset management, financial services, environment, education & technology, and skills development. Table 1 shows the overview of various segments.

**Table 1. Segment Overview of IL&FS Group**

Transportation	IL&FS Transportation Networks India Limited (ITNL), which was incorporated in 2000, has worked on projects across 17 states in India as well as international projects. Projects of ITNL spanned various segments such as roadways, railways, urban transportation, and so on.
Energy	Starting in 2008, IL&FS Energy Development Company Limited (IEDCL) focused on the generation of renewable and thermal energy with 3,000 MW of power generation capacity in operation.
Maritime	With a special focus on maritime infrastructure and logistics, IL&FS Maritime Infrastructure Company Limited (IMICL) functioned as a sponsor, investor, and developer. IMICL has overseen projects worth US\$ 2 billion in areas such as ports, cargo terminals, tank terminals, and so on.
Water & wastewater	IL&FS Water Limited (IWL) worked towards the development of a water and wastewater segment in India.
Urban asset management	IL&FS Townships & Urban Assets Limited (ITUAL) worked for the development of affordable housing, new cities, and urban assets. The company has been instrumental in developing ICC and FIFA-compliant stadiums and the Gujarat International Finance Tec-City (GIFT City).
Financial services	IL&FS Financial Services Limited (IFIN) operated investment banking services for the group with key specialization in infrastructure financing transactions. IL&FS Investment Managers Limited (IIML) managed a private equity fund of US\$ 3 billion, while IL&FS Capital Advisors Limited provided full capital market services.
Environment	IL&FS Environmental Infrastructure & Services Limited (IEISL) focused on strategic advisory to consider environmental requirements for projects.
Education & technology	IL&FS Education provided customized learning solutions to schools with a primary focus on innovation in education technology.
Skills development	IL&FS Skills Development Corporation Limited spearheaded efforts to build skills through vocational and employability training. It has provided training to 1.5 million people.

Source : <https://www.ilfsindia.com/>

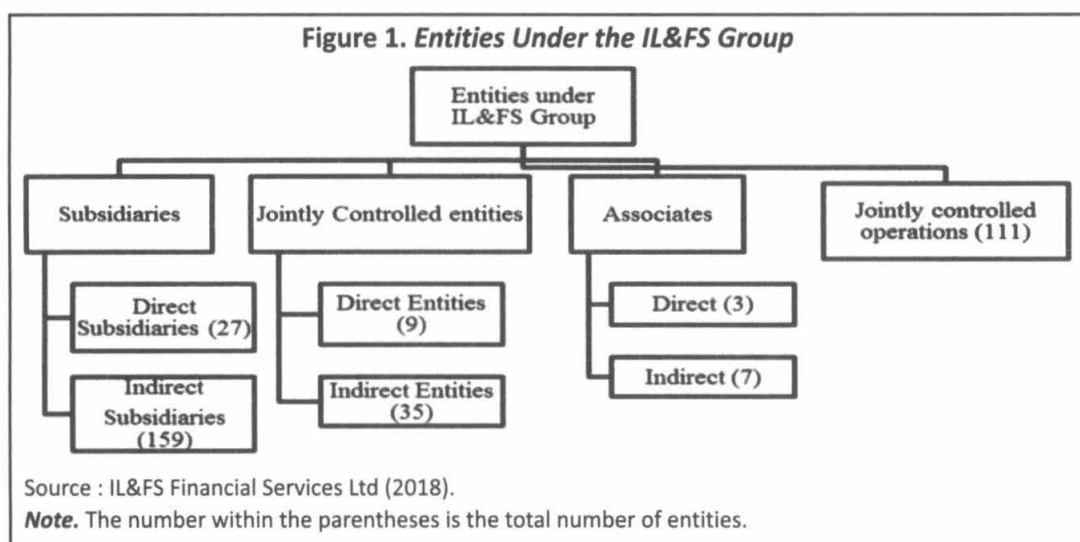
<sup>1</sup> All financial statements, figures, and other information of the IL&FS group are up to the financial year of 2018 and earlier, which capture the essence of the peak of the financial crisis.

## Entities of the IL&FS Group

IL&FS group has a complex structure of various entities encompassing 186 subsidiaries, 46 jointly controlled entities, 111 jointly controlled operations, and 20 associates (Figure 1).

## Shareholding Structure

The break-up of the key shareholders of IL&FS group, as provided in Table 2, is as per the shareholding pattern disclosed in a 2018 annual report of the group (IL&FS Financial Services Ltd., 2018). The shareholding pattern indicates that the Government of India is the biggest shareholder, indirectly holding 40.25% of the shares through LIC (25.34%), CBI (7.67%), SBI (6.42%), and UTI (0.82%).



**Table 2. Shareholding Pattern of IL&FS Group**

Name of the Shareholder	No. of Outstanding Shares	Percentage Holding
Life Insurance Corporation of India	32,541,123	25.34
ORIX Corporation, Japan	30,227,509	23.54
Abu Dhabi Investment Authority	16,129,252	12.56
IL&FS Employees Welfare Trust	15,407,658	12.00
Housing Development Finance Corporation Ltd.	11,587,194	9.02
Central Bank of India	9,843,386	7.67
State Bank of India	8,237,967	6.42
UTI - Unit Linked Insurance Plan - UTI Asset Management Co Ltd.	1,051,111	0.82
India Discovery Fund	1,104,211	0.86
Others	2,273,865	1.77
<b>Total</b>	<b>128,403,276</b>	<b>100.00</b>

Source : IL&FS Financial Services Ltd (2018).

**Table 3. Timeline of Key Events of IL&FS Financial Services Ltd.**

16-Oct-18	Intimation of NCLT order dated October 15, 2018, granting a moratorium on all creditor actions against IL&FS as well as all of its group companies.
03-Oct-18	Intimation of NCLT order to suspend the present Board of Directors of IL&FS with immediate effect and induction of six new members into the Board.
<b>29-Sep-18</b>	<b>Intimation of default in payment obligations including ₹ 71.33 crores of term loan, ₹ 8.69 crores of interest payment of NCDs Series 2017 XIII, and ₹ 162.91 crores of interest &amp; principal payment of NCDs Series 2015 I.</b>
<b>28-Sep-18</b>	<b>Intimation of default in payment obligations including ₹ 100.72 crores of term loan, ₹ 28 crores of commercial paper, ₹ 4.77 crores of interest payment of NCDs Series 2012 IV, and ₹ 8.22 crores of interest payment of NCDs Series 2017 XIV.</b>
<b>27-Sep-18</b>	<b>Intimation of default in payment obligations including ₹ 284.50 crores of bank loans (including interest), ₹ 103.53 crores of term deposit, and ₹ 52.43 crores of short term deposit.</b>
<b>26-Sep-18</b>	<b>Intimation of default in payment of Commercial Paper (CP).</b>
25-Sep-18	Application filed under Section 230 of the Companies Act, 2013 by Infrastructure Leasing & Finance Services Limited with the National Company Law Tribunal, Mumbai Bench.
<b>24-Sep-18</b>	<b>Intimation of default in payment of Commercial Paper (CP).</b>
21-Sep-18	Resignation of Managing Director & Chief Executive Officer (CEO), Mr. Ramesh C. Bawa.
20-Sep-18	Resignation of four independent directors and one non-executive director.
<b>18-Sep-18</b>	<b>Intimation of default in payment of Commercial Paper (CP).</b>
18-Sep-18	Revision in credit rating for commercial paper programme by ICRA Limited.
12-Sep-18	Revision in credit rating for some of the debt instruments by Indian Ratings and Research Pvt. Ltd. and Brickworks Ratings India Pvt. Ltd.
10-Sep-18	Revision in credit rating for some of the debt instruments by Credit Analysis & Research Limited and ICRA Limited.
<b>06-Sep-18</b>	<b>Intimation of default in payment of Commercial Paper (CP).</b>
21-Aug-18	Revision in credit rating for the Commercial Paper program by ICRA Limited. and Brickworks Ratings India Pvt. Ltd.
23-July-18	Resignation of the Director, Mr. Ravi Parthasarathy.

Source : Bombay Stock Exchange (2018).

**Note.** Events highlighted in bold indicate intimation of default in payment by IL&FS Financial Services Ltd.

### **Timeline of the Events**

The timeline of crucial events that shaped up from July 2018 to October 2018 at IL&FS Financial Services Ltd. is outlined in Table 3.

### **Drivers Behind the Emergence of the IL&Fs Crisis**

The shockwaves may have started registering on the radar when Mr. Ravi Parthasarathy suddenly resigned from the position of Non-Executive Chairman of IL&FS group in July 2018, after serving for more than three decades. As per the report, “The darkness that persists” (2018), the functioning of the Chairman was raising question marks in some of the contexts.

Closer scrutiny of the eruption of the IL&FS crisis pointed towards two sets of drivers: (a) internal drivers – company-specific; and (b) external drivers – Financial ecosystem specific.

## Internal Drivers - Company-Specific

**(1) Liquidity Mismanagement – Asset-Liability Mismatch.** “The main reason for the default was the problem in the mismatch of assets and liabilities. As such, there was not a problem with the board,” said a former director of IL&FS, as quoted by Surabhi (2021). As Table 4 shows, IL&FS as an individual entity was significantly involved in fund-based businesses, which led to increased exposure. Although the net working capital was negative, as shown in Table 6, the IL&FS was still high on short-term borrowing. The practice of borrowing through short-term maturity instruments to lend it for long-term maturity has remained widespread among many Indian banks and NBFCs. The lure of borrowing short term and lending long term has never faded due to the cheaper cost of borrowing for short-term maturities, which can protect or increase net interest margin.

IL&FS was not an exception to this, and perhaps rightly so. Dash (2013) showed that in the context of Indian banks, the existence of negative maturity mismatch (where liabilities are higher than assets) for the 1–90 days bracket generated short-term risk but indicated improvement in profitability. Raparia (2017) did a factor analysis and regression analysis of 30 sample banks and argued that for the 1–7 days maturity bracket, a positive mismatch had a negative impact on profit, while 8 days–12 months bracket's negative mismatch was found to have a positive impact on profit. Problems arise when this short-term and long-term borrowing cycle gets out of control and leads

**Table 4. Statement of Profit and Loss – IL & FS (Amount in million INR)**

Particulars	Standalone		Consolidated	
	FY 2018	FY 2017	FY 2018	FY 2017
<b>Income</b>				
Revenue from Operations	17,891.09	16,536.59	1,76,724.96	1,62,199.57
Other Income	1,103.68	1,336.18	11,262.88	9,365.67
<b>Total Revenue</b>	<b>18,994.77</b>	<b>17,872.77</b>	<b>1,87,987.84</b>	<b>1,71,565.24</b>
<b>Expenses</b>				
Cost of Raw Material	–	–	22,167.19	14,641.85
Purchase of Stock-in-Trade	–	–	2,407.23	1,510.82
Changes in Inventories	–	–	284.80	1,329.64
Sub-contracted Construction Cost	–	–	37,168.96	29,319.19
Employee Benefit Expenses	679.65	921.48	12,381.75	11,484.22
Finance Cost	12,871.01	11,173.99	79,228.37	65,156.91
Other Operating and Administrative Expenses	653.32	789.41	40,904.92	29,885.36
Depreciation and Amortization Expenses	319.30	173.33	14,536.87	12,060.10
Contingent Provision Against Standard Assets	146.68	21.19	–	–
Provision for General Contingency	1,000.00	1,197.00	–	–
<b>Total Expenses</b>	<b>15,669.96</b>	<b>14,276.40</b>	<b>2,09,080.09</b>	<b>1,65,388.09</b>
<b>Profit Before Tax</b>	<b>3,324.81</b>	<b>3,596.37</b>	<b>(21,092.25)</b>	<b>6,177.15</b>
Tax Expense (after net off with previous years' tax provision)	(2,518.40)	(231)	2,856.50	3,251.36
Minority interest & Share of profit of associate	–	–	5,079.26	1,379.13
<b>Profit for the Year</b>	<b>5,843.21</b>	<b>3,827.37</b>	<b>(18,868.50)</b>	<b>1,418.34</b>

Source : IL&FS Financial Services Ltd. (2018).

**Table 5. Equity and Debt Composition – IL &FS (Amount in million INR)**

Particulars	Standalone		Consolidated	
	FY 2018	FY 2017	FY 2018	FY 2017
Share Capital	9,831.53	9,831.53	9,831.53	9,831.53
Reserves & Surplus	59,670.42	54,381.34	44,448.20	65,417.19
Shareholders' Fund – Total	69,501.95	64,212.87	54,279.73	75,248.72
Long-term Borrowings	1,01,790.49	93,440.39	6,52,935.11	5,97,640.34
Other Long-Term Liabilities	1,121.63	1,407.05	18,371.08	13,412.60
Long-term Provisions	10,492.05	9,348.15	21,285.97	16,650.36
Deferred tax liabilities (Net)	–	–	1,347.28	1,460.23
Total Non-current Liabilities	1,12,404.17	1,04,195.59	6,93,939.44	6,29,163.53

Source : IL&amp;FS Financial Services Ltd (2018).

**Table 6. Liquidity Condition – IL &FS (Amount in million INR)**

Particulars	Standalone		Consolidated	
	FY 2018	FY 2017	FY 2018	FY 2017
Current assets	41,204.03	28,650.19	3,32,584.28	2,58,017.30
Current liabilities	64,169.32	33,253.25	3,70,893.51	2,96,402.12
Working capital (Current asset minus current liabilities)	–22,965.29	–4,603.06	–38,309.23	–38,384.82

Source : IL&amp;FS Financial Services Ltd (2018).

**Table 7. Asset – Liability Structure of IL&FS – Standalone (Figures in Crore INR)**

Particulars	Up to 30/31 days	Over 1 month & up to 2 months	Over 2 months & up to 3 months	Over 3 months & up to 6 months	Over 6 months & up to 1 year	Over 1 year & up to 3 years	Over 3 years & up to 5 years	Over 5 years	Total
<b>Inflows</b>									
Advances	526.00	523.21	1,497.53	1,896.85	4,709.67	3,991.26	972.87	869.87	14,987.26
Investments	419.44	20.00	–	24.95	–	151.50	88.80	2,478.60	3,183.29
Total	945.44	543.21	1,497.53	1,921.80	4,709.67	4,047.76	1,061.67	3,348.47	18,170.55
<b>Outflows</b>									
Borrowings	1,217.20	628.89	1,498.35	1,113.47	2,980.71	5,180.26	3,619.50	1,395.00	17,633.38
Total	1,217.20	628.89	1,498.35	1,113.47	2,980.71	5,180.26	3,619.50	1,395.00	17,633.38

Source : IL&amp;FS Financial Services Ltd (2018).

to severe asset-liability mismatch, generating interest rate and liquidity risk. IL&FS and its subsidiary IL&FS Financial Services Ltd. faced unmanageable liquidity risk because of this mismatch. NBFCs lacked the full framework of asset–liability management (ALM) consisting of tools such as the ALM information system, ALM organization, and ALM process. Table 7 indicates that as of March 31, 2018, both up to 30/31 days bracket and

**Table 8. Asset – Liability Structure of IL&FS – Consolidated (Amount in Crore INR)**

Particulars	1 day to 30/31 days	Over 1 month & up to 2 months	Over 2 months & up to 3 months	Over 3 months & up to 6 months	Over 6 months & up to 1 year	Over 1 year & up to 3 years	Over 3 years & up to 5 years	Over 5 years	Total
<b>Assets</b>									
Loans & Advances	2,625.86	861.31	198.92	103.70	148.02	1,534.46	154.13	598.47	6,224.85
Investments	1,574.00	–	68.40	42.90	296.80	3.60	1,673.18	10,380.96	14,039.85
Total	4,199.86	861.31	267.32	146.60	444.82	1,538.06	1,827.31	10,979.43	20,264.70
<b>Liabilities</b>									
Borrowings from banks	40.00	–	82.50	275.00	554.67	1108.33	228.33	–	2288.83
Market borrowing	822.25	499.50	280.50	1495.25	1706.67	3250.01	2367.32	3225.05	13646.55
Total	862.25	499.50	363.00	1770.25	2261.33	4358.34	2595.66	3225.05	15935.38

Source : IL&FS Financial Services Ltd (2018).

over 1 month to 2 months bracket had a negative maturity mismatch. This may have contributed to a series of defaults on short-term maturity (commercial paper), as highlighted in Table 3.

For IL&FS (consolidated), Table 8 shows the emergence of liquidity risk for short-term to mid-term maturity due to negative maturity mismatch for brackets: over 2 months to 3 months, over 3 months to 6 months, over 6 months to 1 year, over 1 year to 3 years, and over 3 years to 5 years. One of the most debated questions in the inner circle of experts was whether IL&FS faced the full blow of default or whether the trouble was related to improper liquidity management stemming from liquidity risk from the asset–liability mismanagement. Liquidity mismanagement at IL&FS might have created a ripple effect as banks and other institutional lenders to the entities of IL&FS might face a negative credit outlook from rating agencies. Table 8 confirms liquidity mismanagement coming out of the asset–liability mismanagement in a shorter maturity bucket. Liquidity mismanagement has been a starting point for defaults of many companies, leading to bankruptcy for some. To counter this, the Reserve Bank of India (RBI), the regulatory body, contemplated introducing tighter rules regarding the liquidity management of NBFCs.

Financial leverage has remained a double-edged sword for firms. This significant over-leverage for consolidated and standalone data is reflected in Table 5. The consolidated statement points toward higher interest expense due to significant debt resulting in negative returns on net worth.

**(2) Principal – Agent Problem.** Independent industry experts mostly did not blame the crisis of IL&FS entirely on asset-liability mismatch as that was inherent in all NBFCs. The role of top management in this entire episode raised a big question mark. Agency theory, which delineates the principal – agent problem, was evident in this case. Lack of proper vigilance from key stakeholders (Principal) like LIC, ORIX Corporation, Abu Dhabi Investment Authority, HDFC, CBI, and SBI might have provided sufficient leeway to the CEO, CFO, and managers (agent) for cooking the books or making favorable transactions to satisfy their motives. Mohamed and Handley-Schachler (2015) discussed that the agency problem, if left unsupervised, may cause weak internal controls, further leading to financial statement fraud. Internal management controls combined with leadership and culture were significant contributors to IL&FS's financial crisis. Free et al. (2007), making a special reference to Enron, emphasized this very point.

The question that remains unanswered is why a gross lack of vigilance existed for a prolonged time from such prominent stakeholders and independent directors as representatives. A series of defaults by IL&FS group companies was only the symptom, whereas the root causes were evidently agency problems and weaker internal controls. Independent advisory firms were echoing similar concerns. Also, as per Thomas (2018), another sign of this looming trouble was that several executive directors and CEOs of various subsidiaries had resigned in the last two years.

**(3) Complex Structure of IL&FS.** Trung (2016) remarked that complex organizational structure and flaws in organizational architecture might create a conducive environment for financial fraud. In the case of the IL&FS group, its complex structure has added its share to the crisis, as observed in Figure 1. The government-appointed chairman of IL&FS, Mr. Uday Kotak, stated that the number of subsidiaries was 348, much higher than the earlier reported 169 (“Uday Kotak says IL&FS resolution,” 2018). Many of these subsidiaries were special purpose vehicles (SPVs). Floating these many SPVs and numerous subsidiaries by IL&FS contributed to fake transfers and siphoning of funds. As pointed out by Schwarcz (2002), this is how SPVs were used as vehicles for financial fraud in the case of Enron.

Accounts keeping and auditing the accounts of so many entities is itself a demanding task. The consolidation of such financials is extremely challenging and error-prone. Many early signals of account fudging, liquidity mismatches, improper auditing, etc., went unnoticed under the labyrinth of such a huge pile of accounts and financials of an individual entity and the entire group. Untangling the crisis became more time-consuming and complicated due to such a corporate structure.

**(4) Fraudulent Use of IL&FS Employee Trust.** IL&FS employee trust was also a vehicle for conducting fraudulent transactions and making a few top executives rich. As per “IL&FS Scam: SFIO Reveals,” (2018) and Mukherjee (2018), the interim report of the Serious Fraud Investigation Office (SFIO), Ministry of Corporate Affairs (MCA)<sup>2</sup> disclosed that the trust deed was amended six times, and the last three supplemental indentures were done without any Board approval. The report further stated that Ravi Parthasarathy, Hari Sankaran, and Arun K. Saha were part of a committee of directors (CoD) of IL&FS who approved the indenture. This matter highlighted a clear case of conflict of interest as these three were also trustees of the Employees' Welfare Trust at some point in time while serving as part of a committee of directors of IL&FS. This welfare trust was also used to write off the debt of A2Z Infra Engineering Ltd. and constructed a set of fake transactions to avoid scrutiny (Dalal, 2018).

**(5) External Drivers – Financial Ecosystem Specific.** It is not surprising that regulatory failure amplifies the financial crisis and fraud. Acharya et al. (2011) made this point by identifying regulatory failure as one of the contributors to the 2008 financial crisis. Regulatory oversight led to the IL&FS financial crisis becoming bad to worst. Also, the role of the auditors as one of the independent agencies again raised serious concerns. Many concerns surfaced, such as rising debt burden in the last four years, evergreening of loans, opaque financial reporting through multi-layered subsidiaries, big top managerial pay and dividend payout amid rising losses, and financial irregularities, which were never red-flagged by any of the independent auditors. Fudging of internal accounts as well as the role of statutory auditors triggered a probe by the Serious Fraud Investigation Office (SFIO) in the IL&FS Group. The SFIO also accused the auditor of IL&FS Financial Services Ltd. of turning a blind eye to the evergreening of loans for 10 years. The accusation was that IL&FS Financial Services was

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<sup>2</sup> The full report of SFIO and MCA is available on <https://www.moneylife.in/article/ilfs-scam-full-reports-of-sfio-and-mca-uploaded/55865.html>

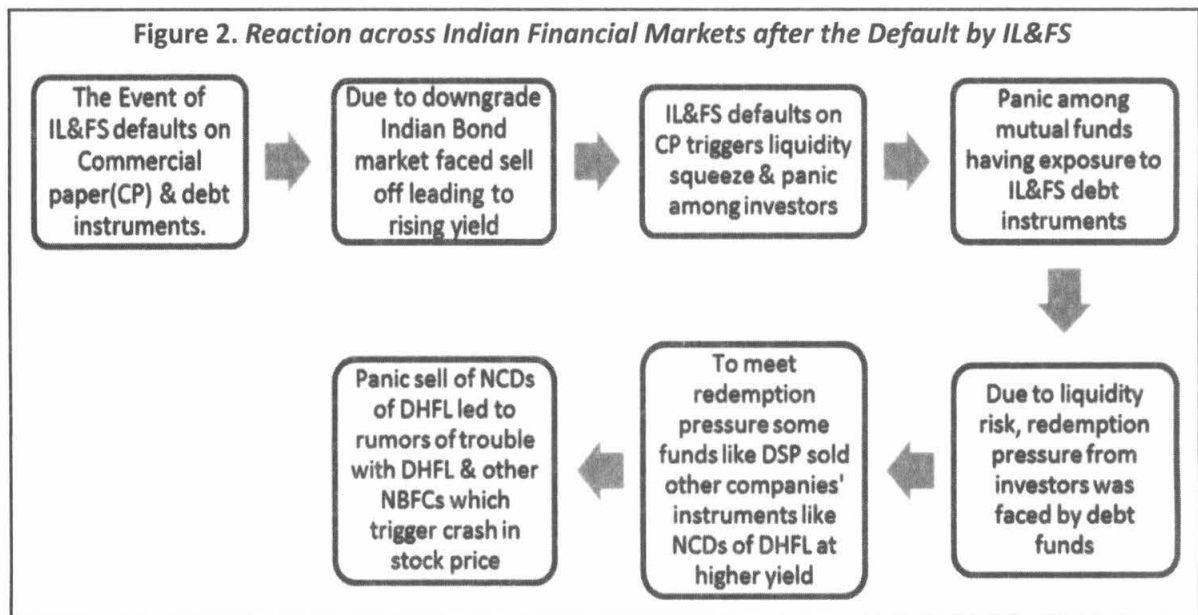


granting evergreening loans to defaulting borrowers, thus not accounting for default. External auditors also acted as consultants for IL&FS group companies leading to a conflict of interest. In line with this, Ramesh and Kamath (2021) explored the determinants that might influence the audit fee. Determinants such as the size of the audit firm, the size of the company, and the accounts receivable ratio have a positive relationship with audit fees. These aspects should be taken into consideration while the audit fee gets determined. Heggede and Jadhav (2021) have suggested that proactive regulatory changes of an independent audit committee, and mandatory requirements of minimum meetings of such audit committee with the company, can improve the audit standards and reporting.

Credit rating agencies (CRAs) have also acted as laggards. As per the revision of rating filings with BSE, IL&FS Financial Services Ltd. received revised ratings from investment grade to junk grade for various instruments within the span of just 3 to 6 months. This act triggered a panic situation at the last moment. If a systematic downgrade had happened coinciding with the true financial position of IL&FS Financial Services Ltd. and other group companies, the panic would have never reached a high level, as institutional investors would have got enough time to exit systematically. Kanojia and Malhotra (2021), who studied stock market bubbles in the Indian market, hinted that the bubbles might bust when fraudulent activities done by companies get reported and lead to a domino effect in all interconnected markets. The cumbersome regulatory framework in the infrastructure space in India might also have proved an obstacle for companies such as IL&FS. The complex web of many regulations and clearances acted as a key contributor to time and cost overruns for many infrastructure projects. Also, Malik and Kaur (2020) stated that across the globe, the review of the PPP route to funding infrastructure projects has seen significant challenges and the highest numbers of such projects getting halted were from India. However, as an extension of this work, Malik and Kaur (2021) put forward ways to ensure that the PPP model for infrastructure can succeed if the risks involved with such projects are mitigated, and resources are better allocated.

## Inter-Connection of Financial Markets : The Domino Effect

The IL&FS crisis has once again depicted how the financial ecosystem consisting of various financial markets



reacts during the crisis and shows the spread of the domino effect. Figure 2 outlines the chain reaction that spread across financial markets immediately after the default event of IL&FS in September 2018.

## Managerial Implications

The IL&FS crisis demonstrates once again how financial markets are interconnected in a complex way and how the spread of credit risk of a big institution can lead to a rise in systemic risk for the entire financial system. The impact on the shorter end of maturity (money market) was quite visible. As cited by Mudgill (2018) from the source of Prime Database, due to the IL&FS crisis, September 2018 saw a low number of new issuance of commercial papers with an increase in the commercial paper rate. The bond market saw rising yields as investors demanded a high yield for perceived risk in the system. The equity market witnessed an overall gloomy picture over the crisis, with investors especially reacting by selling off the shares of IL&FS group companies. Moreover, it also triggered panic sell spread off to the NBFC and banking sector due to a fear of the contagion effect.

The two-fold probing issue for the investor needs to be answered: first, how to establish a superior and transparent internal control system with the promotion of a whistle-blowing mechanism at a company level, and second, designing and implementing a robust vigilance system at a regulatory level.

## Teaching Notes

### *Synopsis*

The IL&FS financial crisis has been a part of business history. It shook the Indian financial markets and helped connect many dots. Key stakeholders were staring at the crucial issues of resolving such troubles and creating a better system to raise the alarm whenever such loopholes and frauds are detected. The role that various regulatory bodies play in preventing and controlling the damage of such troubles is emphasized further.

### *Teaching Objectives*

- (1) To impart the learning of financial data analysis to understand a firm's financial health and identify trouble signs.
- (2) To enable participants/students to analyze the contribution of company-specific factors and external factors in the development of a financial crisis.
- (3) To provoke participants/students to think creatively and critically about possible solutions at the company level and the financial ecosystem level.

### *Potential Audience*

Students of PGDM/MBA program (finance specialization students) who have a basic understanding/exposure of ratio analysis, financial statement analysis, and Indian financial system and asset–liability management.

🔗 **Relevant Program** : PGDM/MBA program with finance specialization.

🔗 **Number of Teaching Sessions Needed** : Two sessions of 1 hour each.

## Author's Response to the Discussion Questions

**(Q-1)** Discuss if early signs of troubles at IL&FS could have been identified by analyzing the financial data provided. Substantiate your answer by using and interpreting the financial data provided in this case.

The following is the financial analysis:

**(i)** Ratio analysis:

Ratios	Standalone - 2018	Consolidated - 2018
Current ratio	0.64	0.89
Quick ratio	0.41	0.43
Long-term debt to equity ratio	1.63	12.78
Interest coverage ratio	1.25	0.73

Based on the ratio analysis, the following inferences can be drawn:

↳ Both the current and quick ratios on the liquidity front indicate a dismal picture. Both ratios are below the benchmark ratio levels. IL&FS was facing a short-term liquidity crunch impacting the company's capabilities to repay upcoming debt redemptions.

↳ Although the standalone long-term debt to equity ratio is moderate, the consolidated ratio is very high, hinting at a huge collective debt with a given equity base. This led to unbearable interest expense, having impacted the cash flows of IL&FS. This point is well supported by a lower than one ratio of interest coverage.

**(ii)** Negative working capital, as shown in Table 6, indicates the liquidity problems IL&FS was facing.

**(iii)** Degree of financial leverage:

	Standalone - 2018	Consolidated - 2018
Degree of Financial leverage (DFL)	EBIT/EBT = 16195.82/3324.81 DFL = 4.87	EBIT/EBT EBIT = 58,136.12 EBT = (21,092.25) DFL = - 2.75

↳ For standalone - 2018, the degree of financial leverage is very high, indicating higher volatility in the company's earnings. The degree of financial leverage (DFL) captures the impact of borrowing cost (interest expense) on the overall profitability of the business.

↳ For consolidated - 2018, the borrowing cost is huge, leading to negative EBT. The borrowing cost on a consolidated basis has consumed the entire EBIT, leading to negative DFL. This very well captures the impact of too much borrowing (financial leverage) on profit.

#### **(iv) Asset–Liability Mismatch Analysis :**

↳ The analysis of asset-liability mismatch has already been provided in the case under the title 'Liquidity Mismanagement – Asset–liability mismatch.'

↳ Asset–liability mismatch analysis is a strong indicator of liquidity troubles emerging out of specific maturity buckets.

↳ Gap analysis, wherein total liabilities are deducted from total assets for every maturity bucket, is indicative of liquidity position in that particular bucket. The gap analysis shows that the liquidity risk came from short-term to medium-term maturity buckets for standalone figures where the gap was negative (total liabilities were higher than total assets). For consolidated figures, liquidity risk was more prominent at the shorter end of the maturity buckets.

**(Q-2)** Develop an internal control system for the accounting and finance department having transparency, critical third-party audit, and whistle-blowing mechanism as key features to safeguard against accounting/finance fraud surfacing within the company.

Application of COSO® Internal Control — Integrated Framework (2013) is where participants can start. COSO® Internal Control — Integrated Framework (2013) has five key components for designing an internal control system that can be applied in the case of IL&FS.

#### **Control Environment**

↳ IL&FS's vision, mission, and value system should be re-designed to reflect a commitment to ethical values, transparency, and integrity.

↳ The Board of Directors (BOD) has to showcase its independence from management and key executives.

↳ IL&FS has to redesign its proper structure by incorporating the critical third-party audit for finance and developing a whistle-blowing mechanism to oversee the assigned authorities and responsibilities in an act of attaining the goals.

#### **Risk Assessment**

↳ IL & FS has to identify and assess the potential set of risks that may be generated to achieve the goals.

↳ IL & FS has to identify the fraud potential within the organization to manage such risks.

↳ IL & FS has to identify the changes that may affect the internal control system.

#### **Control Activities**

↳ IL&FS has to develop control activities with technology as an appropriate platform to reduce the risk identified under 'risk assessment.'

↳ These identified control activities have to be enforced by policies and procedures at IL&FS.

## **Information and Communication**

- ↳ IL&FS has to generate and use appropriate quality information to support the key function of the internal control system.
- ↳ IL&FS has to ensure the free and timely flow of all the information for the appropriate functioning of internal control points.

## **Monitoring Activities**

- ↳ IL&FS needs to evaluate at regular intervals to ensure that the key components of the internal control system are not bypassed and functioning.
- ↳ IL&FS needs to report to responsible parties if any deficiencies in the internal control system were identified after evaluation to take corrective actions. Here, activating a whistle-blowing mechanism to protect the person needs to function properly.

**(Q-3)** Discuss the role of regulatory bodies and independent agencies in the eruption of the IL&FS financial crisis and recommend implementable checks and balances, which can make the vigilance system more robust.

Changes for a robust vigilance system where regulatory bodies and independent agencies have a crucial role can be as follows:

## **Regulatory Bodies**

- ↳ Regulatory bodies such as RBI need to make amendments for stringent liquidity norms in the case of NBFCs.
- ↳ Critical and timely assessment of financial reporting by all finance companies, including NBFCs, is the need of the hour. RBI has to enhance resources (money, people, and technology) to tackle the increasing need for such audits and smarter vigilance based on the digital platforms.
- ↳ Regulatory bodies need to amend regulations to better safeguard the capital of depositors and lenders. Also, stringent regulation and punishment clauses should be introduced for independent agencies such as credit rating agencies (CRAs) and independent auditors if their negligence or collusion with parties has been proven.

## **Independent Agencies**

- ↳ Independent auditors should not get into any conflict of interest by being auditors and a consultant to the same firm during a specific period.
- ↳ CRAs should not rely only on the financial information furnished by the company. Independent reliable data sources should be created and maintained for unbiased decision-making on ratings of the instruments and the firm.
- ↳ An independent fund should be created to avoid any conflict of interest where the issuer pays fees for ratings only to CRAs. This independent fund should pay the fees for ratings to break the link between issuers and CRAs.

## **Suggestions for Further Reading**

- ↳ Akhan, J. (2010). *Non-banking financial companies (NBFCs) in India: Functioning and reforms*. New Century Publications.

✦ Patha, B. (2018). *Indian financial system* (5th ed.). Pearson Publication.

✦ Shah, A., Thomas, S., & Gorham, M. (2008). *Indian financial markets: An insider's guide to how the markets work*. Elsevier.

## Author's Contribution

Dr. Shah is the only author of this case study. From conceiving this case idea to conducting the literature review, data analysis, and writing the manuscript, the case study is entirely prepared by him.

## Conflict of Interest

The author certifies that he has no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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## Disclaimer

This case was prepared by the author for the sole purpose of aiding classroom discussion. Cases are not intended to serve as endorsements, or sources of data, or illustrations of effective or ineffective management.

## References

Acharya, V., Cooley, T., Richardson, M., & Walter, I. (2011). *Market failures and regulatory failures: Lessons from past and present financial crises* (ADBI Working Paper Series No. 264). <https://www.adb.org/sites/default/files/publication/156119/adbi-wp264.pdf>

Bombay Stock Exchange. (2018). *Corporate events announcements of IL&FS Financial Services Ltd.* <https://www.bseindia.com/corporates/ann.aspx?scrip=950860&dur=A&expandable=0>

Dalal, S. (2018, October 16). *A2Z of how IL&FS employee welfare trust ripped off shareholders of IL&FS*. Money Life. <https://www.moneylife.in/article/a2z-of-how-ilfs-employee-welfare-trust-ripped-off-shareholders-of-ilfs/55561.html>

Dash, M. (2013). *A study of the impact of asset-liability management on the profitability of banks in India*. Available at SSRN. <https://ssrn.com/abstract=2403644>

Free, C., Macintosh, N., & Stein, M. (2007). Management controls: The organizational fraud triangle of leadership, culture and control in Enron. *Ivey Business Journal*, 71(6), 1–5.

Heggede, S., & Jadhav, A. M. (2021). Regulatory changes and role of audit committee: Indian evidence. *Indian Journal of Finance*, 15(3), 8–22. <https://doi.org/10.17010/ijf/2021/v15i3/158126>

IL&FS Financial Services Ltd. (2018). *Annual report*. <https://www.ilfsindia.com/media/2022/annual-report-fy-2018.pdf>

- IL&FS scam: SFIO reveals how employees welfare trust was used by top executives for unlawful benefits.* (2018, December 7). Money Life. <https://www.moneylife.in/article/ilfs-scam-sfio-reveals-how-employees-welfare-trust-was-used-by-top-executives-for-unlawful-benefits/55875.html>
- Kanojia, S., & Malhotra, D. (2021). A case study of stock market bubbles in the Indian stock market. *Indian Journal of Finance*, 15(2), 22–48. <https://doi.org/10.17010/ijf/2021/v15i2/157638>
- Malik, S., & Kaur, S. (2020). Challenges of financing infrastructure deficits through PPPs: Lessons from global experience. *Indian Journal of Finance*, 14(10–11), 8–23. <https://doi.org/10.17010/ijf/2020/v14i10-11/155968>
- Malik, S., & Kaur, S. (2021). Rationales and advantages of financing infrastructure through public-private partnerships: A systematic literature review. *Indian Journal of Finance*, 15(10), 28–43. <https://doi.org/10.17010/ijf/2021/v15i10/166510>
- Mohamed, N., & Handley-Schachler, M. (2015). Roots of responsibilities to financial statement fraud control. *Procedia Economics and Finance*, 28, 46–52. [https://doi.org/10.1016/s2212-5671\(15\)01080-1](https://doi.org/10.1016/s2212-5671(15)01080-1)
- Mudgill, A. (2018, October 1). IL&FS default : Commercial paper issuances hit an 8-year low in Sept. *The Economic Times*. <https://economictimes.indiatimes.com/markets/stocks/news/ilfs-default-commercial-paper-issuances-hit-an-8-year-low-in-sept/articleshow/66029320.cms>
- Mukherjee, A. (2018, October 15). IL&FS employees' welfare trust: The link that paved way to riches for some. *Business Standard*. [https://www.business-standard.com/article/finance/il-fs-employees-welfare-trust-the-link-that-paved-way-to-riches-for-some-118101500217\\_1.html](https://www.business-standard.com/article/finance/il-fs-employees-welfare-trust-the-link-that-paved-way-to-riches-for-some-118101500217_1.html)
- Ramesh, L., & Kamath, R. (2021). Determinants of audit fee - Evidence from Indian companies. *Indian Journal of Finance*, 15(4), 23–40. <https://doi.org/10.17010/ijf/2021/v15i4/158671>
- Raparia, P. (2017). Impact of asset-liability management on the profitability of banks. *IOSR Journal of Business and Management*, 19(7), 72–76.
- Schwarcz, S. (2002). Enron and the use and abuse of special purpose entities in corporate structures. *University of Cincinnati Law Review*, 70. [https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=2308&context=faculty\\_scholarship](https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=2308&context=faculty_scholarship)
- Surabhi. (2021, December 6). IL&FS defaulted due to asset-liability mismatch. *The Hindu Business Line*. <https://www.thehindubusinessline.com/money-and-banking/ilfs-defaulted-due-to-asset-liability-mismatch/article25115186.ece>
- The darkness that persists. (2018, October 3). *The Telegraph Online*. <https://www.telegraphindia.com/opinion/dark-shadow/cid/1670858>
- Thomas, T. (2018, October 3). Crisis at IL&FS preceded by spate of top-level exits at subsidiaries. *Mint*. <https://www.livemint.com/Companies/QqW0eqsEZjoQIKS0jyJTbL/Crisis-at-ILFS-preceded-by-spate-of-toptlevel-exits-at-subs.html>
- Trung, N. K. (2016). Enron: Flaws in organizational architecture and its failure. *International Journal of Scientific & Technology Research*, 5(5), 143–146. <https://www.ijstr.org/final-print/may2016/Enron-Flaws-In-Organizational-Architecture-And-Its-Failure.pdf>

Uday Kotak says IL&FS resolution looks complex as subsidiaries more than double to 348 entities. (2018, October 5). *Financial Express*. <https://www.financialexpress.com/industry/uday-kotak-says-ilfs-resolution-looks-complex-as-subsidiaries-more-than-double-to-348-entities/1337814/>

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