

# THE MANAGEMENT ACCOUNTANT

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## CAPITAL MARKET & DERIVATIVES



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA**  
(Statutory body under an Act of Parliament)

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# The Institute of Cost Accountants of India

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA (erstwhile The Institute of Cost and Works Accountants of India) was first established in 1944 as a registered company under the Companies Act with the objects of promoting, regulating and developing the profession of Cost Accountancy.

On 28 May 1959, the Institute was established by a special Act of Parliament, namely, the Cost and Works Accountants Act 1959 as a statutory professional body for the regulation of the profession of cost and management accountancy.

It has since been continuously contributing to the growth of the industrial and economic climate of the country.

The Institute of Cost Accountants of India is the only recognised statutory professional organisation and licensing body in India specialising exclusively in Cost and Management Accountancy.

## **MISSION STATEMENT**

**The CMA Professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting.**

## **VISION STATEMENT**

**The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally.**

## **IDEALS THE INSTITUTE STANDS FOR**

- to develop the Cost and Management Accountancy profession
- to develop the body of members and properly equip them for functions
  - to ensure sound professional ethics
  - to keep abreast of new developments

*Behind every successful business decision, there is always a CMA*





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THE JOURNAL FOR CMAS

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## Greetings!!!

Financial market is a market where financial instruments are exchanged or traded and helps in determining the prices of the assets that are traded in and is also called the price discovery process. The Indian Capital Market is significant in terms of its degree of development in volume of trading and the use of technology. Capital markets channelize surplus funds from savers to institutions which then invest them into productive use. It forms a large part of the system that runs an economy.

Scientific reasoning of the movement of capital market mostly depends on different scientific parameters and changed laws and regulations implemented and amended by the regulatory authorities from time to time and as per market demands. Apart from those, other fundamental and technical reasons also influence the Indian capital market, more precisely the Indian stock market.

With globalization of the financial sector, it's time to recast the architecture of the financial market. The liberalized policy being followed by the Government of India and the gradual withdrawal of the procurement and distribution channel necessitated setting in place a market mechanism to perform the economic functions of price discovery and risk management. Hence the concept of derivatives comes into the picture. The emergence of the market for derivative products, most notably forwards, futures and options, can be traced back to the willingness of risk-averse economic agents to guard themselves against uncertainties arising out of fluctuations in asset prices.

The financial instruments in financial strategies are innovating and they are the key players in the Indian capital market. A significant feature of the Indian securities market is the quality of regulation. The market regulator, Securities and Exchange Board of India (SEBI) is an independent and effective regulator. It has put in place sound regulations in respect of intermediaries, trading mechanism, settlement cycles, risk management, derivative trading and takeover of companies. There is a well designed disclosure based regulatory system. Information technology is extensively used in the securities market. The stock exchanges in India have the most advanced and scientific risk management systems. The growing number of market participants, the growth in volume of securities transactions, the reduction in transaction costs, the significant improvements in

efficiency, transparency and safety, and the level of compliance with international standards have earned for the Indian securities market a new respect in the world.

Over the last decade, regulatory reforms in India have focused on promoting shareholder participation in corporate decision-making. Regulation of financial markets may also be needed to protect against "irrational behaviour" by market participants. The expectations of market participants play a crucial role in their demand and supply decisions. Further, regulation is needed to ensure that inequalities of distribution that may be inherent in market outcomes are moderated, and brought in line with society's political preferences. These issues are more urgent in the context of developing countries. Regulation, in order to remain relevant and effective, must also be able to cope up with the fact that technological and business environments can change rapidly. These changes can strain the regulatory capacity of government regulators. Stock Exchanges play a catalytic role in reforming the Indian Securities Market in terms of microstructure, market practices and trading volumes. Historically, exchanges have contributed to promote good corporate governance in their listed companies through listing and disclosure standards and by monitoring compliance. By raising transparency and discouraging irregular practices in the listed companies, exchanges have been able to build up 'reputational capital'.

This issue presents a good number of articles on the cover story theme 'Capital Market & Derivatives' by distinguished experts and authors. We look forward to constructive feedback from our readers on the articles and overall development of the journal. Please send your mails at [editor@icmai.in](mailto:editor@icmai.in). We thank all the contributors to this important issue and hope our readers enjoy the articles.



**How do you inspire  
a nation to energise  
its economy?**

**Start with  
the accountants.**

**We're proud to be a strategic partner  
of ICAI and sponsor of  
the 58<sup>th</sup> National Cost Convention.**

For the past 104 years, ACCA has been synonymous with best practices and forward-looking trends in finance all around the world. With a presence in 181 countries and 200,000 members, we consider it a privilege to contribute to the Indian economy and to the success of those responsible for its growth.

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**Think Ahead**

*ideas@work*

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# THE MANAGEMENT ACCOUNTANT

## -: PAPERS INVITED :-

*Cover stories on the topics given below are invited for 'The Management Accountant' for the four forthcoming months.*

Theme

May 2018

Foreign Trade Policy of India

Subtopics

- ◆ From Import Substitution to Export Promotion: The Evolution of Foreign Trade Policy of India
- ◆ The Foreign Trade Policy of 2015 – 2020
- ◆ Trade Agreements and India's Foreign Trade
- ◆ Export Incentives and its Role in India's Foreign Trade
- ◆ Implication of GST on Foreign Trade Policy
- ◆ Role of CMAs

Theme

June 2018

Blockchain Technology – A Game Changer in Accounting

Subtopics

- ◆ Blockchain – Introduction & Concept
- ◆ Blockchain – the future of accountancy
- ◆ Blockchain – an opportunity for accountants
- ◆ Will Blockchain render accountants irrelevant?
- ◆ Blockchain – impact on auditing
- ◆ Blockchain Accounting – misconceptions & challenges

Theme

July 2018

Indian Railways – CMAs as Game Changer

Subtopics

- ◆ Vision & Plans
- ◆ Cost Management
- ◆ Tariff Mechanism
- ◆ Security Systems & Risk Management
- ◆ Non-tariff Sources for increasing Revenue
- ◆ Sustainable Growth
- ◆ Govt Initiatives
- ◆ Role of CMAs

Theme

August 2018

Doubling Farmers' Income-Strategies and Prospects

Subtopics

- ◆ Technology and Innovations
- ◆ Sustainability indicators
- ◆ Cost Accounting techniques in Agriculture
- ◆ Appropriate Price Mechanism
- ◆ Risk Management in Agriculture
- ◆ Challenges and the way forward
- ◆ Govt Initiatives and Policies
- ◆ Role of CMAs

*The above subtopics are only suggestive and hence the articles may not be limited to them only.*

*Articles on the above topics are invited from readers and authors along with scanned copies of their recent passport-size photograph and scanned copy of declaration stating that the articles are their own original and have not been considered for publication anywhere else. Please send your articles by e-mail to [editor@icmai.in](mailto:editor@icmai.in) latest by the 1st of the previous month.*



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# पर्यावरण की सुरक्षा का संकल्प

इस संकल्प ने हमारे मन-मानस  
में गहरी जड़ पकड़ ली है।



**कोल इण्डिया लिमिटेड**

विश्व की बृहत्तम कोयला उत्पादक संस्था  
A Maharatna Company

प्रकृति के अस्तित्व में ही हमारा अस्तित्व है



# PRESIDENT'S COMMUNIQUE



*"Success is the sum of small efforts - repeated day in and day out."*

*-- Robert Collier*

**CMA SANJAY GUPTA**

*President*

*The Institute of Cost Accountants of India*

**My Dear Professional Colleague,**

**Namaskaar!!!**

## **58th National Cost Convention (NCC 2018)**

I congratulate CMA Fraternity for the success of the 58th NCC 2018 on the eve of Platinum Jubilee Year of the Institute on 16th & 17th March 2018 at Vigyan Bhawan, New Delhi on the theme **"New India 2022: Role of CMAs from Intent to Action"**. The event was inaugurated by **Shri M. Venkaiah Naidu, Hon'ble Vice President of India**, was one of the most successful events of the Institute.

I am overwhelmed by the spectacular success of the 58th NCC 2018 and pleased to inform that around 1700 delegates participated in the event to make it a grand success. I am very thankful to all dignitaries, guests and speakers, my council colleagues, members of regional councils and chapters, past presidents, sponsors, members, students, press & media, foreign delegates, Institute's staff and each one of you for the grand success of this historic event. 58th NCC showcased the strength of the CMA profession to all the stakeholders.

## **Brief Highlights of NCC:**

Inaugurating the 58th NCC 2018 of the Institute, Shri M. Venkaiah Naidu, Hon'ble Vice President of India said that I am happy that the Institute has taken cognizance of the fact that its professionals need to partner in this pioneering nation-building activity by sensitizing and mobilizing the people to work towards realizing the "Vision - New India 2022."

## **Special Addresses**

★ **Shri Suresh Prabhu, Hon'ble Union Minister for Commerce & Industry**

Delivering special address during the 58th NCC 2018, Shri Suresh Prabhu said that CMAs have a key role to play in the era of competition. If the CMA professionals want to grab a part of limited global trade, their business model should be cost driven and cost effective. He further added that China succeeded because of cost competitiveness. Hence CMAs have to ensure that business models are driven by cost consciousness. Shri Prabhu concluded by saying that the Institute should look at contributing effectively to the upcoming new Industrial policy, start-up policy, design policy and global services policy being developed by his Ministry.

★ **Shri Piyush Goyal, Hon'ble Union Minister for Railways and Coal** in his special address during the 58th NCC 2018 said that cost accountants and costing have a big role to play to make the country cost competitive in doing business and bring out the best competitive advantages in working in India. Linking Swachhata to eradication of corruption he said that CMAs have a revolutionary role to play as far as checking corruption in the country was concerned. Appreciating the role of Institute in the Railways Economic Reforms, Hon'ble Minister said that I am delighted with the engagement of the Institute and all CMAs have with the Indian Railways, I do hope that we can continue and expand this engagement. I want you to come up with your ideas which can help us make far more lean and mean machine to serve the people.

★ **Shri P.P. Chaudhary, Hon'ble Union Minister of State for Law & Justice**, said that Vision New India 2022 is not a Government policy or program but it is a mission which can transform our Country, Economy and Society in the same way as Quit India Movement did in 1942. He emphasised that it is a mission not limited to the Government or its departments but for all citizens of the Country. He vigorously pointed out that Role of Cost Accountants is pivotal for achieving this mission.



**Announcing on the occasion Hon<sup>ble</sup> Minister said that the Institute highly deserves change of its name from ICAI to ICMAI.**

★ **Shri Injeti Srinivas, IAS, Secretary to the Government of India, Ministry of Corporate Affairs** said that there are multiple responsibilities on the Cost accountants. Their role is immense in transforming Intent to Reality and Intent to Action.

### **Directorate of Studies (Training, Placement & Counselling)**

The Directorate of Studies (Training, Placement & Counselling) organized Orientation Programme for the newly qualified CMA Students of December 2017 term from 19-30 March, 2018 to impart hands on training on practical issues on different contemporary subjects of professional interest. The objective of this programme was to guide students in getting well placed by preparing them for the interview. The programme was conducted at 8 locations, viz. Delhi, Kolkata, Mumbai, Chennai, Jaipur, Ahmedabad, Hyderabad and Vijayawada. Approximately 700 students attended the programme.

Eminent dignitaries from corporate, industries and profession attended the programme as resource persons and interacted with the students with their expert domain knowledge. Expert faculties deliberated lectures on various topics like Resume writing, tips to crack Group Discussion and Interview, communication skills, soft skill training, Goods & Services Tax (including practical aspects), online filling of Returns, Audits in Corporate World, Companies Act 2013, IND AS, Valuation, Insolvency & Bankruptcy Code, etc. A practical hand book on Career Development prepared by the Directorate has been released during this orientation programme and circulated among the students as useful reading material; this initiative has been highly acclaimed by the students and faculty members.

The Directorate of Studies has published 'Work Book' for the benefit of Intermediate students which carries lots of examples in each subjects that will certainly help them in smooth and effective preparation in their studies. Students' Identity Card has been launched in digitally printed and photo laminated format; it has been issued by the Directorate of Studies for the Intermediate students. The Identity card will help the students to introduce themselves with pride in every sphere of life. Chairman of T&EF Committee took special initiative in this regard.

### **International Affairs Department**

I am pleased to inform that My Council Colleagues CMA (Dr.) P.V.S. Jagan Mohan Rao and CMA Amit Anand Apte attended the IFAC PAIB Committee Meeting held on 27th & 28th March, 2018 at New York.

### **IFAC Global SMP Survey**

2018 IFAC Global SMP Survey has been launched on 22nd

March 2018, which will remain open until 21st May 2018. The survey will help member organisations and IFAC gain an understanding of the specific challenges and opportunities faced by SMPs and SMEs. I request all of you to come forward and respond to the Survey ( Please click here for SMP-Survey-2018 ).

### **Champion Services Sectors**

On 1st March, 2018, I attended the meeting called by MCA on the Action Plan on Champion Services Sectors forwarded by Department of Commerce to the Ministry. The Institute examined the Action Plan and worked out strategy for implementation and same was presented before the Ministry.

As you may be aware, Union Cabinet has recently approved the proposal of Department of Commerce to give focused attention to 12 identified Champion Services Sectors to promote their development and realise their potential. Since India's services sector has immense potential for employment, such an initiative will enhance competitiveness in the sector through the implementation of focused and monitored Action Plans. This will in turn boost the GDP too, creating jobs and promoting exports.

### **Professional Development and CPD Committee**

I sincerely appreciate our Regional Councils and Chapters for organizing more than 67 programs seminars, discussions and webinars during the month of March, 2018 on the topics of professional relevance and importance for the members such as Recent Change in GST and E-Way Bill , IBC 2016 - Game Changer for Corporate & Professionals, Companies Amendment Act 2017, Corporate Governance and Capital Gain, Compliances under DPCO, Financial Instruments (Ind-AS 32, 107 and 109), Audit Under Maharashtra Co-Op Society, Banking Sector Role of CMAs, Material Accounting. Further, I must congratulate and sincerely thank our Regional Councils and Chapters for organising programme and seminar such as, Unnati – Growth of Women in Profession; Second CMA Lady Submit; Avenues for Women CMA in Practice, Academics and Employment; Women: Power of the Multitasker to commemorate International Women Day. Further, most of the presentations made during the programmes and recorded webinars can be viewed by the members of the Institute at: Please click here

The Institute associated with PHD Chamber of Commerce & Industry in a seminar on Analysis of Advance Ruling Process and Provisions Relating to Offences, Penalties, Appeals & Revision" and "E-Way Bill Mechanism, Refund on Export, Returns Tax Invoice and Delivery Challan" under GST held on March 16, 2018 and March 28, 2018 respectively at PHD House, New Delhi.

I wish to inform that I also attended the meeting of 'Task Force on Ease of Doing Business' for the indicators "Starting a Business" and "Resolving Insolvency" under Chairmanship of

# PRESIDENT'S COMMUNIQUÉ

Secretary, Ministry of Corporate Affairs on 07th March, 2018 at New Delhi.

## Insolvency Professional Agency of Institute of Cost Accountants of India

We are coming up with new initiative and courses for the Resolution Professionals which are in Pipeline.

The IPA of ICAI completed one year last month and is all set to play a pivotal role in building the Institution of Insolvency Professionals.

## Meetings of Insolvency Law Committee

Recently, 4th meeting of the Insolvency Law Committee was held, chaired by the Secretary of Ministry of Corporate Affairs Shri Injeti Srinivas. Insolvency Law Committee constituted by the Government makes recommendations to address the issues arising from the functioning and implementation of the Insolvency and Bankruptcy Code, 2016. It has recently submitted its report too.

## Conference of AIIPA on IBC: A Game changer for Corporate and Professional

I am pleased to inform that I was invited as Guest of Honour at the Inaugural session of the Conference on "IBC: A Game changer for Corporate and Professional" organised by All India Insolvency Professional Association (AIIPA) on 10th March 2018 at New Delhi. Hon'ble Justice Shri Sudhansu Jyoti Mukhopadhyaya, Chairperson, National Company Law Appellate Tribunal graced the occasion as the Chief Guest of the Conference.

## Representation with Government, PSUs, Banks and Other Organizations:

As you may be aware that members of The Institute of Cost Accountants of India are eligible for Credits for Prior Learning in Professional Examinations of Insurance Institute of India (III). I am pleased to inform you that Insurance Institute of India has now relaxed five years condition in respect of the Institute's candidates for the professional examination conducted by III subject to submission of proof of fulfilling the mandatory Continuing Education Programme (CEP) credit hours requirement as per the Institute's CEP Guidelines.

Further, leading organizations like, Odisha Health & Family Welfare Society, National Health Mission, Uttar Pradesh, National Highways Authority of India, National Fertilizers Limited, Airports Authority Of India, Jammu and Kashmir Bank, Power Transmission Corporation of Uttarakhand, Kamarajar Port Limited, Mother Dairy Calcutta, Kerala State Electricity Board, IIDL, Compensatory Afforestation Fund Management and Planning Authority (CAMPA), West Bengal, India Trade Promotion and Chhattisgarh State Power Distribution Company Limited, Nawanshahr Co-operative Sugar Mills Limited, Punjab

included CMA professionals in their Tenders/EOIs in the month of March 2018.

## Taxation Committee

I wish to inform that with the efforts of CMA Niranjana Mishra, Chairman, Taxation Committee of the Institute, the typographical error in the text of paragraph 3 of clause 2 of the TRP (Amendment) Scheme, 2018 where the name of the Institute was been written as "the Institute of Certified Management Accountants of India" in place of "the Institute of Cost Accountants of India" has been rectified.

The Directorate of Taxation Research Department of the Institute has submitted various suggestions to GSTN for modification and simplification of Returns under GST regime. Various seminars for the students and members had been conducted in the month of March, 2018 on the new tax regime i.e GST. The Directorate in association with the Rourkela Chapter had organized Full day session on GST for the members and students on 11th March, 2018 and on the same day along with Serampore Chapter on the occasion of their silver jubilee program the directorate had conducted seminar for students on GST.

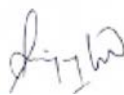
The National Interactive Seminar cum Workshop on Unfolding Goods and Services Tax had been organized by the Taxation Research Directorate on 9th and 10th March, 2018 at Balasore, Odisha for the students of the FM University along with our members as participants in the workshop.

Taxation committee is bringing out regular Webinars on Value added topics of GST and also releasing fortnightly Tax Bulletin for the capacity building and updation of Members and Stakeholders in Taxation front.

The Certificate course on GST has been successfully started in 16 locations all over India. The concept of online classes has been planned to be introduced in the locations where the number of candidates admitted for the course is less than the threshold limit with an idea to reach the professionals belonging from Tier - 2 and Tier - 3 locations.

I wish all prosperity and happiness to members, students and their families on the occasion of Baisakhi, Ambedkar Jayanti & Buddha Purnima and pray for the success in all of their endeavours.

With warm regards,



**CMA Sanjay Gupta**

1<sup>st</sup> April, 2018

# Take Away

from

## 58<sup>th</sup> NATIONAL COST CONVENTION 2018

**NEW INDIA 2022:  
Role of CMAs from Intent to Action**

16<sup>th</sup> - 17<sup>th</sup> March, 2018  
Vigyan Bhawan, New Delhi



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA**

Statutory Body under an Act of Parliament



Behind every successful business decision, there is always a CMA





### CMA SANJAY GUPTA

President, The Institute of Cost Accountants of India

**W**elcoming the dignitaries, guests and participants CMA Sanjay Gupta said that the Institute is celebrating the platinum jubilee of its existence this year. As the Institute is entering into the 75<sup>th</sup> year dedicated to the socio-economic development of the country in a grand way, we must acknowledge that the CMAs are considered to be the power house of the Indian economy as they are cost competitive, cost effective and utilising the scarce resources of the country in efficient manner. He further added that CMAs are the Torch bearer for fixing the minimum support price for the agriculture sector in the Country.

CMA Sanjay Gupta informed the assembly that the Institute has always supported the good initiatives of the Government wholeheartedly by creating awareness thru conducting programs/ seminars/ workshops, taking up studies, supporting all the relevant ministries. Our members have been serving the Country as the Heads of prominent PSUs and Private Sector Organisations. He requested the Government for recognition of the members of the Institute as Accountant in the IncomeTax Act and also for the change of Institute's name to Institute of Cost and Management Accountants of India.

Elaborating the role of the members of Institute CMA Sanjay Gupta added that the members have been contributing significantly in the recent reforms initiatives of the Government such as Insolvency and Bankruptcy Code, GST, Direct Taxes Regime etc and also reassured the commitment of the Institute and CMA fraternity towards the success of prominent initiatives of the Government like Make in India, Start Up India, Stand Up India, Skill India, Digital India, Ease of Doing Business etc. He informed that last year the Institute worked closely with the Ministry of Corporate Affairs on the Ease of Doing Business project and contributed significantly towards improving the EODB ranking of the Country from 132 to 100.

He announced that to realise the Dream of our Hon'ble Prime Minister, the Institute will be signing MoU later in the day with the National Skill Development Council of the Country to provide employment to 2 Lakh students all over the Country. Not only in India but the Institute is planning to send its students to serve in GCC Countries and African Countries. He further informed that the Institute will be signing an MoU with the African Countries for exporting the expert services of CMA in the development of these Countries. To celebrate and recognise the success of CMAs globally, the Institute has set up the Global Ambassador Award from this year.

He conveyed his sincere gratitude to the Railways Ministry for entrusting the Institute with the responsibility of studying the Performance Budgeting of entire Railways. CMA Sanjay Gupta said that after the completion of this biggest reform project of the Country, Indian Railways will be able to scientifically apply the principles of apportionment and allocation of resources to enhance its performance.

Day - I

Inaugural Session

Behind every successful business decision, there is always a **CMA**

**SHRI M VENKAIAH NAIDU**

Hon'ble Vice President of India



Cost Accountants should be in the forefront in the fight against fraud and corruption."

Inaugurating the 58<sup>th</sup> NCC 2018 of the Institute, Shri M Venkaiah Naidu, Hon'ble Vice President of India said that I am happy that the Institute has taken cognizance of the fact that its professionals need to partner in this pioneering nation-building activity by sensitizing and mobilizing the people to work towards realizing the "Vision - New India 2022."

Shri Venkaiah Naidu urged Cost Accountants to be in the forefront in the fight against fraud and corruption. He said that what happened with Punjab National Bank and other banks is an eye opener to all of us. There has been some systemic failure, may be because of some individuals, at the same time, it brought a bad name to us, to the system. The Vice-President also emphasised the need for greater transparency, enhanced accountability and ethical corporate governance by adding that I know we are living in an LPG era (Liberalisation, Privatisation, Globalisation). If it is not used properly, it may explode.

He said that Cost Accountants have the onerous responsibility to examine proposals and assess the costs and assist the decision-makers to take informed decisions. Their professional expertise must constantly be enhanced by learning from the best practices within and outside India. He noted that they could help in bringing in greater transparency, ethical corporate behaviour and enhanced accountability into our corporate governance system.

He also called upon CMA professionals to expedite FDI by effective valuation of assets, liabilities, stocks, properties to facilitate investors to make the right financial decisions and fulfil regulatory obligations. He said that Introduction of Goods and Services Tax and the inclusion of anti-profiteering clause in the Act, made it mandatory to pass on the benefit of tax reduction or input tax credit to the final customer. India was currently reviewing and simplifying laws and procedures and the ease of doing business index had become a popular tool for governments to show that they offered a favourable investment climate for private businesses.

The Vice President suggested six possible drivers of income for farmers' growth, as sincere implementation of such measures would double farmers' income by 2022. These were diversification of farm activities towards high-value crops and enterprises; improving irrigation facilities to double productivity; better price realisation for farmers through competitive markets, value chains and improved linkage between field and fork among others. He hoped that CMA professionals would discuss the issues confronting agriculture sector and articulate a proper roadmap with timelines to achieve the goal of doubling farmers' income by 2022.

Appreciating the role of the Institute he stated that I appreciate the role played by the Institute of Cost Accountants of India in the industrial and economic growth of the country. I am aware that the Institute has been at the forefront in remodelling business models for more effective and robust functioning of the Indian economy. The CMAs contribution to the Indian economy is immense as they are trained to be cost competitive, utilize available resources in an efficient and cost-effective manner leading to cost control and cost reduction.



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Day - I

Inaugural Session

Behind every successful business decision, there is always a CMA

**SHRI SURESH PRABHU**

Hon'ble Union Minister for Commerce and Industry

**D**elivering special address during the 58<sup>th</sup> NCC 2018, Shri Suresh Prabhu said that CMAs have a key role to play in the era of competition. If the CMA professionals want to grab a part of limited global trade, their business model should be cost driven and cost effective. He further added that China succeeded because of cost competitiveness. Hence CMAs have to ensure that business models are driven by cost consciousness. Shri Suresh Prabhu said that in the ever changing economic scenario CMAs should move beyond Cost Audit and be innovative in their services. Along with Cost Accounting services, if they are able to give effective management services then only they will be succeeded as Cost and Management Accountant. Hon'ble Minister said that service sector is going to be the next big thing in the economic scenario so CMAs have to provide quality services at par with global benchmark. He urged the Institute to explore the possibility of bringing out Quality Service Standards. Shri Suresh Prabhu informed that his ministry has earmarked to develop 12 services across the globe for which cabinet approval has also been given.

Shri Prabhu concluded by saying that the Institute should look at contributing effectively to the upcoming new Industrial policy, start-up policy, design policy and global services policy being developed by his Ministry.

Day - I

Special Address

Behind every successful business decision, there is always a **CMA**





SHRI PIYUSH GOYAL

Hon'ble Union Minister for Railways and Coal



Costing can be the driver of change, honesty and integrity and CMAs can be the ambassadors of New India 2022."

**S**hri Piyyush Goyal, Hon'ble Union Minister for Railways and Coal in his special address during the 58<sup>th</sup> NCC 2018 said that cost accountants and costing have a big role to play to make the country cost competitive in doing business and bring out the best competitive advantages of working in India. He appreciated the role of the Institute and the CMA fraternity in successful implementation of GST in India.

Linking 'Swachhata' to eradication of corruption he said that CMAs have a revolutionary role to play as far as checking corruption in the country was concerned. He added that there is a cost of corruption that the country has to pay and urged the Institute and CMAs fraternity to work out the costing of it. Giving examples from his own experience the Hon'ble minister said that Costing can be the driver of change, honesty and integrity and at the same time CMAs can be the ambassadors of New India 2022.

Appreciating the role of Institute in the Railways Economic Reforms, Hon'ble Minister said that I am delighted with the engagement of the Institute and all CMAs have with the Indian Railways, I do hope that we can continue and expand this engagement. I want you to come up with your ideas which can help us make far more lean and mean machine to serve the people.

Posing his confidence on the three professional Institutes, Hon'ble Minister said that if the three professional Institutes work together in tandem, towards honest India, towards develop India, we can truly achieve the India of 2022 as a New India.



Cost Accountants and costing have a big role to play to make the country cost competitive in doing business and bring out the best competitive advantages of working in India."



If the three professional Institutes work together in tandem, towards honest India, towards develop India, we can truly achieve the India of 2022 as a New India."



Day - II

Special Address

Behind every successful business decision, there is always a CMA

**SHRI P. P. CHAUDHARY**

Hon'ble Union Minister of State for Law &amp; Justice and Corporate Affairs



Role of Cost Accountants is pivotal for achieving Vision New India 2022."

Speaking on the occasion of inauguration of 58<sup>th</sup> NCC 2018, the Guest of the Honor, Shri PP Chaudhary, Hon'ble Minister of State for Law & Justice and Corporate Affairs said that Vision New India 2022 is not a Government policy or program but it is a mission which can transform our Country, Economy and Society in the same way as Quit India Movement did in 1942. He emphasised that it is a mission not limited to the Government or its departments but for all citizens of the Country. He vigorously pointed out that Role of Cost Accountants is pivotal for achieving this mission.

Releasing the Institute's booklet on Cost Governance Hon'ble Minister said that Governance is not only scheme and scale but the time has come that we can say that Governance is Speed, Scale and Cost Management. Evolution of Cost Accountants has taken place from conventional accountants to contributing to the management and decision making. He further added that Cost Management is not a convention but it is a science and art bringing in cost competitiveness. Cost Accountants should effectively use the technology, artificial intelligence and process reengineering to scientifically inculcate the cost effectiveness and competitiveness so that the Country rely less on imports and make in India.

*"Evolution of Cost Accountants has taken place from conventional accountants to contributing to the management and decision making."*

Appreciating the role of the Institute and CMA Professionals he said that we have seen robust role of CMAs in successful implementation of GST in the Country and I appreciate them for this and also for creating awareness among the business community by organising countrywide programs and seminars on GST. Insolvency and Bankruptcy Code is a game changer law, wherein contribution of CMAs is very important and they are doing well by constituting Insolvency Professional Agency.

Hon'ble Minister added that since the Institute is celebrating 75 years of its existence, we expect CMAs to contribute more in the fields of doubling the income of farmers, Start Up India, Stand Up India, Entrepreneurship and Local Body Development. Not only this, but the role of CMAs must also be extended to performance appraisal of companies, cost audit, efficiency analysis and cost compliance.

Announcing on the occasion Hon'ble Minister said that the Institute highly deserves change of its name from ICAI to ICMAI.



We have seen robust role of CMAs in successful implementation of GST in the Country and I appreciate them for this and also for creating awareness among the business community by organising countrywide programs and seminars on GST."



Institute highly deserves change of its name from ICAI to ICMAI."

Day - I

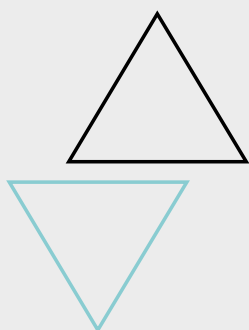
Inaugural Session

Behind every successful business decision, there is always a CMA

**SHRI INJETI SRINIVAS, IAS**

Secretary, Ministry of Corporate Affairs  
Govt. of India

“There are multiple responsibilities on the Cost accountants. Their role is immense in transforming Intent to Reality and Intent to Action.”



“IBC is landmark legislation and for successful implementation of this, CMAs have a very important role to play as Insolvency Professionals who have a huge responsibility whether it is insolvency or liquidation process or valuation.”

Gracing the occasion as Guest of Honour, Shri Injeti Srinivas, IAS, Secretary to the Government of India, Ministry of Corporate Affairs said that there are multiple responsibilities on the Cost accountants. Their role is immense in transforming intent to reality and intent to action.

Elaborating the importance of cost management he said that cost management is an important part of modern business. Practice of keeping cost records and cost audit is in existence ever since we had the modern business triggered by the industrial revolution. Costing is the base of pricing and the regulators are using it for electricity tariff, oil sector pricing, pricing of essential commodities, fixing floor price for farmers etc. This helps in avoiding exploitation of consumers. Shri Srinivas said that as we are trying to be the manufacturing hub thru Make in India program, it is important that we become cost competitive and cost effective and CMAs play a very critical role in achieving this mission.

He informed that India has emerged as the 6<sup>th</sup> largest economy in the world and has target to become 3<sup>rd</sup> in another two decades. This will become possible only if we exploit the service sector which constitutes 60% of the GDP. He cast a huge responsibility on the Institute to take leadership to be more innovative, to use technology and to develop finance and accounts as a champion sector, which can create immense employment

opportunities and can transform our potential into a global power.

The Secretary, MCA stated that India is positioning itself as an attractive global destination for investment and Ease of Doing Business is an integral part of it. Ministry and all Professional Institutes are closely associated in realising this objective. Commenting on IBC he said that IBC is landmark legislation and for successful implementation of this, CMAs have a very important role to play as Insolvency Professionals who have a huge responsibility whether it is insolvency or liquidation process or valuation. He suggested that Institute should also set up valuation professional agency on the lines of Insolvency Professional Agency.

Highlighting the importance of agriculture sector he said that India cannot achieve its true potential unless we mainstream the rural India. Over the years the contribution of agriculture sector has been reduced but still it has not lost its importance as 60% of population still derives its livelihood from this sector. Hence this sector has to be mainstreamed. He emphasised that to achieve this farmers and cooperative societies will have to organise themselves into Producer Companies. This will result in better control over the inputs and outputs. To help them we need millions of Para Accountants which need not be professionally qualified. As an Institute you should devise some system to train commerce graduates or 10+2 passed to become para accountants.

Day - I

Inaugural Session

Behind every successful business decision, there is always a CMA

# Global Brand Ambassador

The Institute honors the excellent achievements of its members. During 58th NCC the following eminent personalities were honoured for being a role model for the profession as Global Brand Ambassador, by achieving tremendous success in contributing significantly for the cause of Business, Society and the Nation.



**CMA Mahendra Mehra**  
CFO, Jasmis Corporation WLL being honoured as  
Global Brand Ambassador by the Hon'ble Vice-President  
of India



**CMA Partha Basu**  
Global Process & Operations Head- Finance, AkzoNobel NV  
being honoured as Global Brand Ambassador, by the  
Hon'ble Vice-President of India



**CMA Saikat Kumar**  
CEO, Almasah Capital Management Ltd.  
being honoured as Global Brand Ambassador  
by the Hon'ble Vice-President of India

Day - I

Inaugural Session

Behind every successful business decision, there is always a CMA





**CMA H. PADMANABHAN**

Vice-President, The Institute of Cost Accountants of India

**P**roposing the vote of thanks CMA H Padmanabhan, Vice-President of the Institute said that the Institute and the entire CMA Fraternity is thankful to the Chief Guest, Guests of Honour, Dignitaries and Participants for their graceful presence in the 58th NCC 2018.

Day - I

Inaugural Session

Behind every successful business decision, there is always a **CMA**

## 58<sup>th</sup> National Cost Convention 2018



**SHRI AJAY DAS MEHROTRA, IRS**  
Chief Commissioner, Income Tax



“Professionals have a key role to play in the business reform process. They have to keep pace with the latest regulatory changes while discharging their important function as intermediaries and as compliance officers. They help entities to comply with regulation. While performing these actions, they have to abide by the highest standards code of conduct and ethical practices.”

“Another important area is feedback from the practicing Professionals. This is for the regulatory agencies to know the effectiveness of the regulatory frameworks to bring in necessary changes. Being at the cutting edge, professionals should ensure that the right feedback is given.”

“Coming specifically to CMAs, CMAs can specially assist in ease of doing business, providing assistance in skill development....., improving cost competitiveness by providing professional services in accordance with Insolvency and Bankruptcy Code, in improving tax literacy, in financial inclusion. In transparency and governance, they can play a crucial role as consultants and representatives in the GST regime. Expert professional knowledge of CMAs in the field of GST, in the field of IBC, in valuation and other related fields can be utilized in government initiatives for further improving its present ranking in ease of doing business.”



**SHRI K. V. R. MURTHY**  
Joint Secretary, Ministry of Corporate Affairs

“We thought that there is a serious need to re-engineer the process. We did that by pulling out the incorporation process including the name application processing as well as incorporation application processing power from all the ROCs across the country and set up a centralized facility, which is a sanitized central facility, which is completely driven by professionals like you who are working there in a dedicated manner. The key USB of the Central Registration Centre, which we setup as a consequence of this GPR was that we wanted to process the applications as per the best practices anywhere in the world.”

“Our understanding is that carrying out reforms is a continuous process and once a reform has been carried out and the benefit of that percolates down to the ground level, wherein professionals like you are the key for feeling the change whether it is the Company Secretaries or the Chartered Accountants or the Cost Accountants. It is the professional like you who have to perceive the change and who have to convey this message that there is serious re-engineering that has happened and there is an effort to standardize, do-away with discretion, do-away with the physical interface, and to ensure that a stakeholders gets a response within a stipulated date.”

“A lot of you would be aware that the Cost Accountant Institute was closely associated with the Ministry in obtaining feedback from the stakeholders in the last one year. While the feedback Institute gave to us was very encouraging, we did get the sense that the actual reforms, which we have undertaken have indeed been percolated and accepted by people.”

“I am making this open offer from this forum to the Institute to come and work with the government.”

Spot - Light Session - I

Day - I

New India 2022: Ease of Doing Business

Behind every successful business decision, there is always a CMA



**MS. SIMRIT KAUR**

Principal, Sri Ram College of Commerce  
University of Delhi



*"Reforms by the time they percolate to ground level, major time lapses take place which ultimately have an adverse impact upon the growth of an economy in terms of generating inclusiveness including employability."*

**MS. MONICA SINGHANIA**

Professor, Faculty of Management Studies  
(FMS)

*"Possibly Yes, there is a need for across the Board 25% corporate tax rate in this country because at this point in time while we are targeting big ticket reforms in terms of digital India, skill India, make in India, there is a need to push, a push from the government side in terms of not only lowering the rate of tax but also providing incentives."*



**CMA DR. GIRISH JAKHOTIYA**

Senior Consultant



**MR. HIMANSHU RATTAN**

Director Infrastructure  
Government and Healthcare (IGH) practice  
at KPMG



*"The commitment that has been demonstrated by the Ministry, I am sure it inspires all of us here."*

"Worldwide **Management Accountants** have been contributing a lot both operationally and innovatively when it comes to ease of doing business and ease of being in business."

"A **Cost Accountant** can very well contribute in terms of economic analysis economic factor analysis where a fiscal policy, say let us refer back to GST, there was reference that was made to GST and Direct Taxation. Can a management accountant guide a firm a client in terms of long term tax planning - How do you combine GST regime with direct tax planning."

"We have been talking about Enterprise Governance and Corporate Governance. A **Management Accountant** can very well combine these two things .. again go back to the government that if at all there is too much of a corporate governance at a cost of enterprise governance, there is no entrepreneurial freedom because conducting ease of doing business comes back to entrepreneurial freedom."

"Our Hon' ble Prime Minister has been talking about conducting business in India, start-up India, employment generation etc.. A **Management Accountant** can refer back to enterprise economics and contribute a lot here."

"We **Management Accountant** have to look at AI very seriously because it is AI that will ease out most of the business compliances."

"Area for a **Management Accountant** is ..Let us not forget, our Indian economy has been supported built up by 60% of SMEs Small and Medium Size Enterprises. Now how do we help SMEs when it comes to conducting business comfortably."

Day - I

Spot - Light Session - I

New India 2022: Ease of Doing Business

Behind every successful business decision, there is always a **CMA**



**CMA RAMESH SUBRAMANYAM**

CFO, TATA Power Co. Ltd



**CMA PARTHA BASU**

Global Process & Operations  
Head-Finance, AkzoNobel NV (Amsterdam)

*"As CMA, we can be anywhere, but the way I have seen CMAs, I think we will be very good in doing those business partnering roles because the course itself helps us to understand."*

*"Members of the Institute have actually taken different paths and today are in areas which are very unique and that's just give me lots of hope that we have talent generation mechanism already there and we have to continue that."*



**CMA ASHUTOSH SAITWAL**

Founder & CEO, Mavenick Consulting

*"One of the fundamentals of Block chain is that you have to compete with other miners. There could be 100 different miners. You are one of them and you have to compete to get a share of that business."*



**MR. ARUN KUMAR**

Founder & CEO, Lynked. World, KoinWorx BV



*"If our government or any government or any government of the world will have a legal tender in terms of token that can be transferred, the money transfer can happen immediately without any delay. It can be instant and without any intermediary."*



*"When technology and finance would integrate in a manner where both the sensibility and the sensitivity of our transactions happen, still remain the way it is done today, and that's where technology will succeed."*

**MR. DEBASISH BISWAS**

Executive Chairman Glocal Confederation Ltd.

Session - II

Day - I

Future of Finance

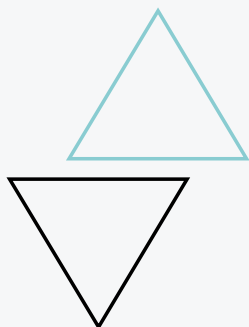
Behind every successful business decision, there is always a **CMA**

**SHRI B. N. SHARMA, IAS**

Chairman, National Anti - Profitteering Authority

He shared initial thoughts on anti-profitteering. He shared 3 tier mechanism on anti-profitteering 1) prima facie investigation will be done by screening committee on state level 2) if screening committee forms an opinion that issue pertains to national level, may escalate the case to investigating arm "DG-safeguards" for investigation 3) if DG-safeguards finds the case as profiteering has been done, will escalate the case to the authority.

He mentioned that "Product level" is the ideal point for determination of profiteering. This "Product Level" point is finalized after the detailed discussion with industry associations and stakeholders. He mentioned that the anti-profitteering authority will not work as a new inspector and will focus only on its domain "anti- profiteering". He pointed out that price reduction is the way to pass the commensurate benefit to the consumer. He shared that simplified anti-profitteering form shall be issued in next week.



**CMA UPENDER GUPTA, IRS**  
Commissioner (GST), CBEC, GoI



He updated the assembly on GST- work in progress. He shared his view on the frequent changes in GST are being done as very responsive approach adopted by revenue department on stakeholder suggestion. He assured that the GST will be completely settled down in next 3-4 months. He mentioned that GIC also take decision and subsequently take approval from the GST Council. He mentioned that government is continuously working on to rationalize the GST tax rates and slabs may be reduced to 2 or 3 tax slabs than existing 5-6 tax slabs

The GST council has also established a grievances redressal committee to resolve the IT glitches. He addressed that our priority is to ease out the compliance mechanism and further simplification of procedural part under GST laws. For which in- principle approval for amendments has already been taken from the GST council and drafting thereof is in work-in-progress, which shall be placed before the both house of parliament to amend the GST laws to carry out such amendments. Around 1.04 crores tax payers are registered under GST law till date. He also mentioned that implementation has been at the same level since no major effect took place after GST implementation. He assured that all the refund shall be issued very shortly to encourage the tax payers.

He also mentioned that rolling out of E-way from April -18 is first and foremost priorities. He also mentioned that departments is putting all its efforts on Data Analytics and carving out all the solutions with the help of data availability, data mining and data analysis. He mentioned that enough opportunities are available for CMAs to explore by way strategic planning in procurement, operations, working capital, logistics and supply chain by analysing existing practices align with GST laws.

At the end of session, the eminent speaker addressed the question posed by the assembly.

Day - I

Session - III

GST &amp; Anti-Profitteering: Dynamic Situation for Businesses

Behind every successful business decision, there is always a **CMA**

**CMA NARASIMHA MURTHY**

Practicing Cost Accountant

At the outset, He explained the outcome of GST and emerging issues arising from GST. He also explained how cost structure & prices of different goods and services has been changed. He focused upon that commensurate benefit on the cost and price structure post implementation of GST is yet to be benefited to the ultimate consumer. Consumers think not enough benefits are flowing their way. The companies have not adequately gone through the impact study of GST implementation on prices and cost structure i.e. prices and cost structure Pre GST and Post GST.

He also highlighted the possible solutions by fixing product specific standards on ITC or any other approach based on global experiences. He suggested that role of CMAs is pivotal under GST. The CMAs may issue a certificate of cost benefit on GST for all businesses having turnover above threshold limit. The CMAs may also issue a quarterly/ half yearly certificate of ITC availed and accuracy of GSTR returns filled. The CMAs may also conduct special investigation studies for ascertaining the transfer of ITC benefits to consumers. The role of CMAs is pivotal in assessment of price changes due to market forces vs. profiteering.

**CMA VINOD JAIN**

Director, INMACS



He explained the crux of anti-profiteering measures, any reductions in rates of tax on supply of goods and services or benefits of input tax credit should be passed on to the recipient by way on commensurate reduction in prices. He mentioned the few sectors which are immensely benefited by the advent of GST such as Transport Sector, Cement, Sugar, Telecom & Real Estate Sector.

He highlighted that restricting the commensurate benefit of GST to ultimate consumers till input tax credit and rate of tax is not desirable. He mentioned the impact study of all the indirect taxes subsumed under GST needs to be done to drive the particular benefits and such benefits should be passed to ultimate consumer. He mentioned the CMAs constantly go beyond the data entry / book entry in financial accounts and are well versed to understand the aggregate impact of GST implementation. He urged to CMA fraternity that they should contribute in Tax litigation than dealing with compliances.

**CMA DR. SANJAY BHARGAVA**

Practicing Cost Accountant

Session - III

Day - I

GST &amp; Anti-Profiteering: Dynamic Situation for Businesses

Behind every successful business decision, there is always a **CMA**





### HON'BLE JUSTICE SUDHANSU JYOTI MUKHOPADHYAYA

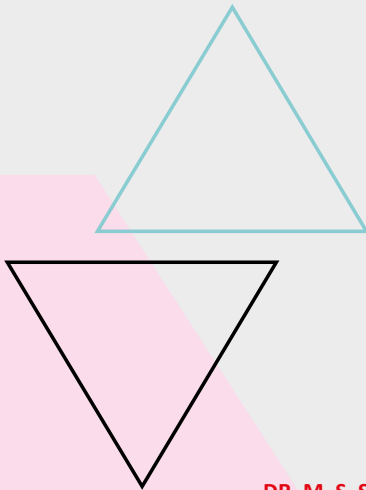
Chairperson, National Company Law Tribunal

He opened the session with his outstanding remarks. He pointed out few important issues under the IBC, 2016 after its enactment and while approving resolution plans.

He highlighted few relevant issues to look upon while formulating and approving the resolution plan such as requirements of allied and other laws rules & regulations for the time being in force has been fulfilled under the resolution plan and accordingly adhered to while complying with the resolution plan. The section 30(2)(e) clearly provides that resolution professional shall examine each resolution plan received by him to confirm that each resolution plan does not contravene any of the provisions of law for the time being in force.

He also mentioned that Corporate Insolvency Resolution Process (CIRP) cannot be started against the Corporate Guarantor before completing the CIRP proceeding against the borrower company and until it is proven that the borrower company's has defaulted in following the terms specified in Resolution Plan. He also explained that multiple resolution applicant can submit resolution plans for revival of the debt ridden company.

The Hon'ble Justice also mentioned that there is still much need to envisage the provisions of IBC Code, 2016 and also need for specialized skills sets and excellence for smooth revival of companies under financial distress. He also deliberated on some important sections of the IBC code, 2016 to make professional understand the requirement of IBC, 2016. He also emphasized that liability of resolution professional has to be fixed in terms of responsibility cast under the Code along with fee fixations.



### DR. M. S. SAHOO

Chairperson, Insolvency and Bankruptcy Board of India



Dr. Sahoo in his key note address, proposed his warm thanks to Institute for providing its premises to get stabilized the operations of the Board in its initial months. He deliberated upon the true sense of Resolution of Company by providing a good mechanism for maximise the efficiency of company, operating capacity, operating profit, introduction of new business strategies or technologies for revival of company than only seeking for interest and principal waiver.

He further mentioned that the IBC, 2016 is not a recovery mechanism for stakeholders but it is a collective mechanism which looks for company as going concern, speedy resolution of NPAs, maximization of wealth and to balance the interest of all stakeholders. He unequivocally mentioned that recovery mechanism leads the company to death but resolution mechanism endeavours to keep the company alive. He further undertook to address the existing issue under IBC Code, 2016.

Day - I

Session - IV

Insolvency & Bankruptcy Code: CMAs Reviving Businesses

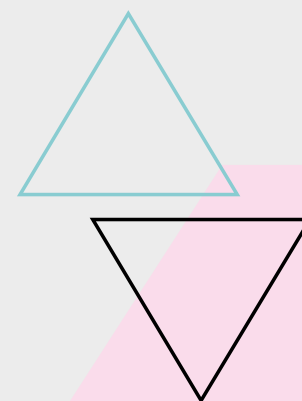
Behind every successful business decision, there is always a **CMA**

**CMA SANJAY GUPTA**

President, The Institute of Cost Accountants of India

Mr. Gupta, the moderator set the tone by explaining how IBC code, 2016 is contributing in reviving the businesses and how professionals are front loaded with this immense responsibility under IBC Code, 2016. He mentioned that judiciary also has taken dynamic stand for maximization of wealth of debt ridden company. He focused on few recent landmark judgements delivered under IBC Code and also emphasized that IBC, 2016 will also play as an enabler for ease of doing business by providing a simplified exit route for the company for winding up its business rather than earlier when it was very difficult for the company to exit from its businesses.

He further mentioned that Institute has adopted very aggressive approach to build the capacity of members through its wholly owned subsidiary "Insolvency Professional Agency of ICAI". He added that the role of disciplinary and monitoring mechanism is also very important in bringing the best ethical practices among the members of IPA.



**SHRI SUMANT BATRA**

Managing Partner & Head, Insolvency Practice of Kesar Dass & Associates

Mr. Batra, in his key note address, acknowledged the pertinent issue raised by Hon'ble Justice. He mentioned that now we are entering into most volatile stage of insolvency proceedings. He emphasized that the Resolution Professional should maintain the complete transparency, impartiality and independence while performing his role and responsibilities under the code.

He deliberated upon that the resolution professional as a beneficiary of the process should gain the trust of all stakeholders by maintaining comprehensive confidentiality and transparency and evade the possibilities of unnecessary litigation. He mentioned that the cost of insolvency resolution process is currently very high in most of cases and further need to be looked upon to avoid overcharging. The resolution professional should deliver on the scale of insolvency process cost charged. He also attempted to address the pertinent issues raised by Hon'ble Justice and explained the concept of "Debt Acceleration".

Session - IV

Day - I

Insolvency & Bankruptcy Code: CMAs Reviving Businesses

Behind every successful business decision, there is always a **CMA**

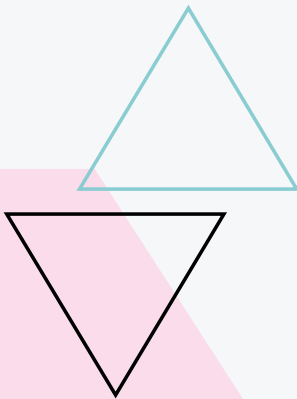
**MR. BRIAN McENERY**

Global President

Association of Chartered Certified Accountants (London)

Mr. Brian McENERY shared his experience on the NPAs in Ireland, He mentioned that in 2010 Ireland had 78 billions euro NPAs, which was almost 42% of GDP of the Country and such NPAs have been fully repaid. He categorised the weakened financial performance or company decline curve in four category; 1. Healthy 2. Moderate Under Performance 3. Severe Under performance 4. Distress.

He further added that the uniqueness of the IBC legislation is that it provides the oversight by the legislature as well as Creditor. It shifts the control from "Debtor in possession" to "Creditors in possession" and also provides ease of doing business. The eminent speaker also addressed the queries of the assembly.

**SHRI HARISH CHANDER**

Executive Vice President, Edelweiss Financial Services



He explained that currently his company is dealing with more than one lac crore rupees NPAs and out of existing 600 companies undergoing the CIRP, his company is dealing with more than 50 companies under the CIRP process. He also explained its company's versatile role under IBC Code as Financial Creditor, Bidding as an Asset Management Company, Filling the resolution plan as Resolution Applicant, provide funding of interim finance.

He was more focused on the stakeholders' perspective under the IBC 2016, mentioning that the resolution applicant can only acknowledge the liability what is exactly required to pay at last while undertaking the resolution plan. He further mentioned about the different perspective of Committee of Creditor while doing negotiation i.e. operational assets, non-operational assets, and partial operational assets. He highlighted that the value of assets may be enhanced by providing adequate data mining and data analytics. He also discussed the bidding process under the IBC code, 2016 and highlighted the challenges faced by small and medium scale industries under resolution process.

Day - I

Session - IV

Insolvency &amp; Bankruptcy Code: CMAs Reviving Businesses

Behind every successful business decision, there is always a **CMA**





#### MR. NARESH SALECHA

Principal Executive DF, Ministry of Railways

Highlighting the need and significance of Accounting Reforms in Indian Railways Shri Naresh Salecha, Principal Executive Director (Finance), Railways Board said that in the right perspective this mission starts with Right Accounting leading to Right Costing leading to Right Pricing and resulting in Right Outcome. There is paramount need of responsive and realistic costing framework and the same has been outlined by the Railways Minister in his Budget Speech.

Shri Salecha informed that Indian Railways in partnership with the Institute of Cost Accountants of India is doing a pilot study of Performance Costing for Indian Railways. Detailed and timely cost analysis is required to analyse the decreasing market share of Railways in freight business. He pointed out that techniques like Marginal Costing, Activity Based Costing etc are critical in this analysis. He further informed that the ICWAI-MARF has already submitted a gap analysis report to the Railways. He urged the CMA professionals to volunteer their services and expertise to assist Indian Railways in this project.



There is a paramount need of responsive and realistic costing framework in Indian Railways."

Day - I

Special Address



#### SHRI SANJAY JAJU, IAS

Director (Finance), NHIDCL

Shri Sanjay Jaju said that CMAs have a huge role in structuring of Infrastructure projects. This sector has multiple forms of contract such as EPC and PPP. Hence CMAs have to build their capacity to excel in this sector.

Session - V


Day - II

India Infra: Building a Sustainable India

Behind every successful business decision, there is always a CMA



**DR. MOHIT D GUPTA**  
Cardiologist, GB Pant Hospital

 Create and cultivate positive thoughts in your mind to experience happiness."

Special Talk: Calmness in Chaos




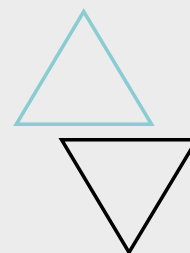
Explaining the importance of calmness, happiness and money in life, Senior Cardiologist, Dr. Mohit D Gupta said that one should work with happiness to achieve success and satisfaction in life. Expressing his concern on the state of depression and stress in the Country he informed that by 2020 India would be the world's diabetic capital and by 2021 70% of the world population will be suffering from depression despite having all the materialistic things. He further added that 20 to 30 % heart patients are between the age group of 20-30 years. Conflicts, negativity and stress are the root causes of all this. He added that we are getting wealthy, we have

learned the art of making a living but we have forgotten to make a life in life. We do not know how to reach the depth of our mind.

Suggesting solution to the problems Dr. Gupta said Create and cultivate positive thoughts in your mind to experience happiness. Give 10 minutes daily to your mind to generate positive thoughts. He further said that if you want to experience happiness, give happiness to every human being that you are meeting in your life. Dr Gupta further added that learn to forgive and forget in life. Dr. Mohit Gupta urged the participants to create good karma bank in life.

Dr. Gupta was surprised to know that Chartered Accountants and Cost Accountants are working in the organisations against each other. He added that how beautiful our life will become, if they are working for and with each other.

 Chartered Accountants and Cost Accountants in organisations are working against each other. How beautiful our life will become, if they are working for and with each other."



Day - II

Special Talk

Behind every successful business decision, there is always a CMA

**CMA RAJEEV MEHROTRA**

Chairman & Managing Director, RITES Ltd.

He mentioned about the rapid changes embraced day to day by Industries i.e production process, global competition etc. He highlighted that scale of operation is very vital for operation as to what scale a company should operate.

He strongly mentioned about the responsibilities of CMAs are not confined to internal cost management practices but CMAs should reach to the global benchmark to success the mission "Make in India", which is also not confined to sell in India only.

Currently, India has few challenges ahead to address are; 1. Education, 2. Health3. Infrastructure, 4. Reach to unreached and 5. Optimum utilization of resources etc. CMAs have lot of potential to address such challenges by hand holding to government's initiatives and make India Inc. empowered.



**CMA P. V. N MADHAV**

MLC - Andhra Pradesh

CMA Madhav opined about the pillars of governances; 1. Transparency 2. Accountability 3. Integrity and 4. Interaction. However, by adding Professionals like CMAs as fifth pillar of governance, the country can emerge as financial force. CMA Madhav further stated that CMAs are good accounts manager who can deliver in national growth and contribute in politics by virtue of their inbuilt analytical capabilities.

**CMA SAIKAT KUMAR**

CEO - Almasah Capital Management Ltd.

The moderator started with introducing the panellist. He believed that CMAs have catalyst role to play in transformation of this country as agenda set out by the Government of India and in next 15 year's India Inc. will see the entire transformation and possibly could be able to rule the globe.

He forced that CMAs has all entrepreneurial skill but only a good counselling is required to explode. He urged to CMA fraternity to focus on to become "Business Consultants" than audit and compliances role in order to make the country turnaround as global cost leader.



**MR. BRIAN McENERY**

Global President, ACCA

While answering the question by moderator, he believed that the accounting body like Institute has a very big role to play in national as well global out performance. He mentioned that final product as accountants should produce as "Strategic Business Leader" as future of accounting profession.

**CMA MANOJ MISHRA**

Chairman & Managing Director, National Fertilizer Ltd.

He shared his experience gained in fertilizer industry. He shared that the government of India is currently importing 50 lac tonnes of urea but through Make-in- India mission, the country would be able to export 30 lac tonnes urea in next 3-4 years by making sustainable production and cost effective too with help of adopting best cost accounting practices and this paradigm shift in cultural approach will empower the economy.



Spot-Light Session - VI

Day - II

CEO Speaks

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58<sup>th</sup> National Cost Convention 2018

**CMA ANIL CHAUDHARY**

Director (Finance), Steel Authority of India Ltd

"I am also grateful to **this Institute** because of which I am at this level."  
 "I tell everybody with great proud that I am member of **this esteemed Institute.**"  
 "Today, CFO is not only a number cruncher or a bin counter. He is a partner in progress of an organization."

**CMA VIVEKANAND**

Director (Finance), ONGC VIDESH

"**CMAs** are none less than anybody; rather they do much better on analytical works in terms of analyzing any proposal as they know both accounting and the finance."



**MR. RAKESH KUMAR**

Director (Finance), NLC India Ltd.

"As we are now voicing for a very big leap after consolidation of the economy, definitely we are going to see bigger volumes, reducing cost. So, CFO has to grab the opportunity."

"With the grace of God and with the support of all young **CMAs** and **CAs** in our company, we could redesign the model, a new model for implementation of solar project."

"In our company, the average age of employee is 52+, but average age of finance team is 31+ because we have recruited young **CMAs** and young **CAs** year after year on the campus and infused the young blood, and they are doing wonders."



**CMA MAHENDRA MEHRA**

CFO - Jasmi's Corporation, WLL (Bahrain)

"Controllership is the prime responsibility of a CFO."  
 "We as **professionals** have a very clean strong mind."

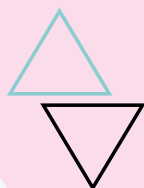


**MR. W. P. PARTHASARATHY**

Head of Corporate Services, Larsen & Toubro Ltd.

"I am very happy to say that **Institute** is in safe hands. I am really proud of this."

"Most of IT Departments are now headed by CFOs because they can give vision. They can give value to the company."



Behind every successful business decision, there is always a **CMA**

Day - II

Spot-Light Session - VII

Today's CFO

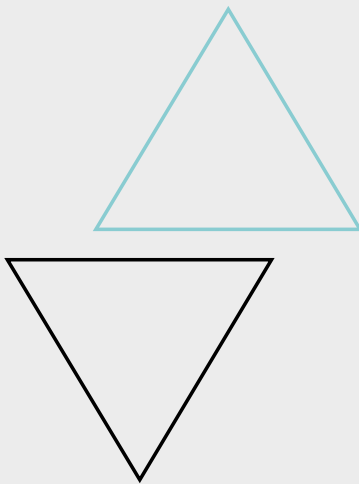
**MR. VIJAY SARDANA**

Member, Commodity Derivatives Advisory Committee, SEBI

As moderator he started the session remarking that this convention was most awaited conference to address the major issue being faced by Agriculture sector and to determine the cost of production for agriculture produce. He urged the CMAs to contribute in ***"Doubling the Income of Farmer"*** and make the nation prospective and economically stable.

He invited the attention of assembly over the Centre Government affidavit in Supreme Court on Cost and pricing mechanism on agriculture produce; ***"It may be noted that pricing policy, that is fixing of MSP, is not a 'Cost Plus' exercise, though cost is an important determinant of MSP. The pricing policy seeks to achieve the objective of fair and remunerative prices and is not an income policy"***

He mentioned that we need to derive the actual cost of production of all agriculture produce and take it forward to Government of India while fixing the prices of such produce. So that the farmer gets reasonable price for his crop and produce. Indirectly it will also evade the malafide practices in this sector.

**SHRI SURENDER KUMAR**Professor - Department of Economics  
Delhi School of Economics, Delhi University

He forcefully advocated that Artificial Intelligence (AI) is the possible way out to address the challenges faced by Farmer. This sector is highly volatile, unpredicted and uncertain. The country may address the issue in well versed manner with the help of AI. However, any structural change in the income and growth of farmer will also make substantial impact on all other sectors of the economy. He further added that the Government of India should take up balanced approach while fixing the prices of agriculture produce and consider the market volatility. An integrated approach is required in insurance of agriculture produce.

The eminent panellist addressed the queries of the assembly.

Panel Discussion Session - VIII

Day - II

Challenges in Doubling Indian Farmers' Income: Role of CMAs

Behind every successful business decision, there is always a **CMA**

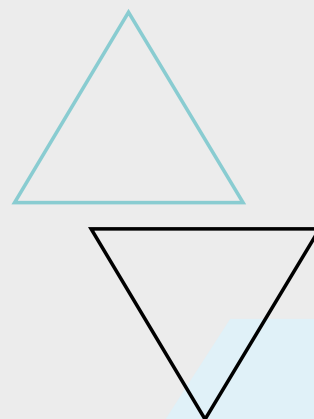
**DR. NIRAJ GUPTA**

Head, School of Corporate Governance & Public Policy  
Indian Institute of Corporate Affairs

He praised the Institute for taking initiative in various sector in terms of cost accounting practices and cost efficiency. He submitted his thoughts on the emerging issues in agriculture sector i.e. improvement in delivery and quality of fertilizer and seeds, ensuring the optimum minimum support price, working capital, establishing technological parameter, natural calamities.

He deliberated upon the 3-pillars of agriculture triangle 1. Farmer 2. Policy Maker or Government 3. End consumer. He mentioned that financial Inclusion is the right trend setting policy of the Government of India to financially empower the farmer of India.

He mentioned that CMA professionals have a significant role in making businesses aware in finding out the optimum solution to the challenges of agricultural produce. The business houses should come forward by way of their CSR policy to improve the lives of farmers by establishing research based laboratories, contribution at stages of supply chain.



**CMA PANKAJ GUPTA**  
Vice Dean & Director  
O. P. Jindal Global University

He highlighted that by using cost accounting techniques, CMAs can contribute in doubling the income of farmers. He suggested that by creating the professional Cluster Cell, we can address the education, supply and value chain challenges, optimum utilization of raw material, market solution, knowledge videos and fixation of minimum support price. He believed that CMAs professional are well versed with all such challenges and opportunities and should contribute in sustainable development of society.

Day - II

Panel Discussion Session - VIII

Challenges in Doubling Indian Farmers' Income: Role of CMAs

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## GLIMPSES OF 58th National Cost Convention 2018



Life Time Achievement Award

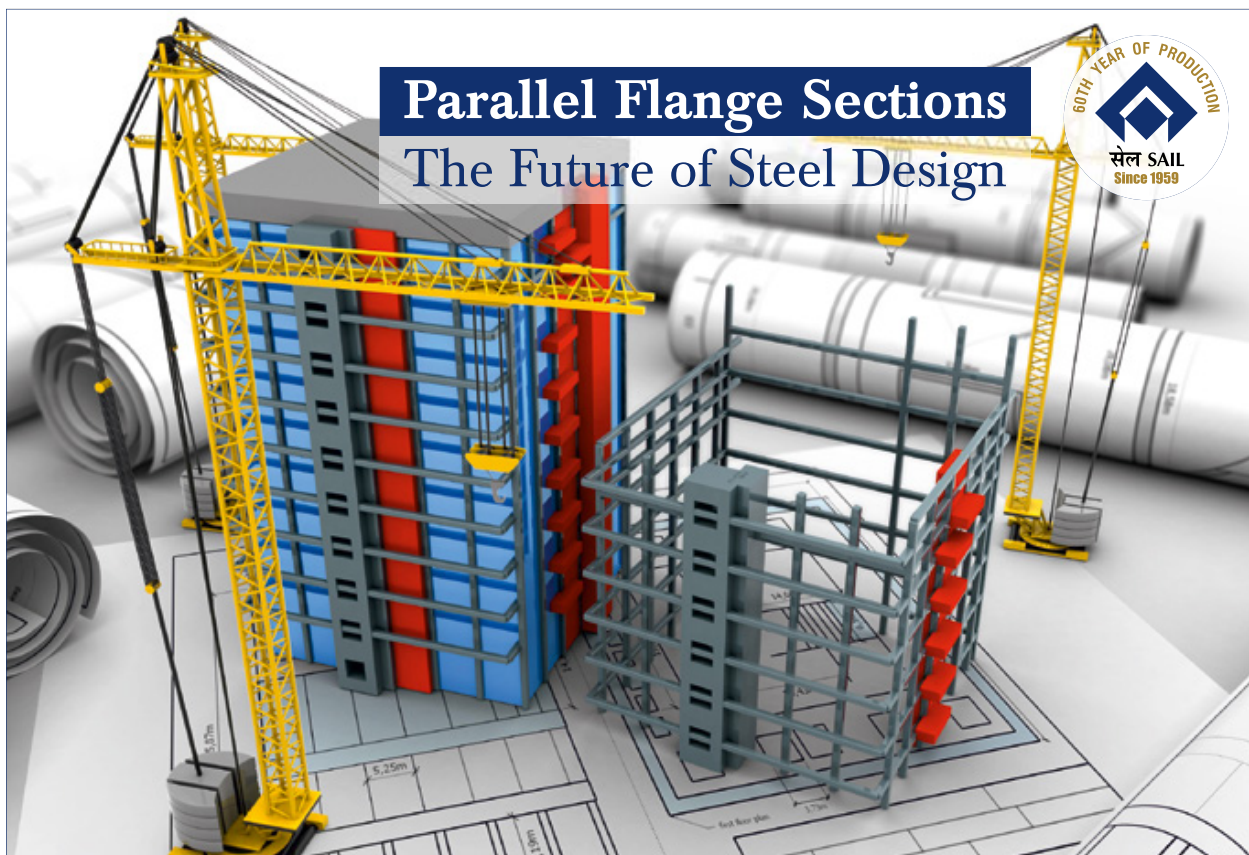
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CMA J. K. Puri

Past President, The Institute of Cost Accountants of India

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## IMPACT OF INTRODUCTION OF OPTIONS ON LISTED STOCKS: THE CASE OF INDIA

**D**erivative products like options and futures on a variety of underlying financial and non-financial assets have become increasingly important since 1980s in the global markets. Though the options on listed equity securities are usually traded in stock exchanges, some are also traded at over the counter. Options provide a very powerful instrument to manage risks of holding both an underlying assets and a portfolio of asset. It also provides an opportunity to speculate and arbitrage,

which is essential to keep the market vibrant. However, introduction of options on listed securities may increase, reduce or leave unchanged the volatility of the underlying stocks (in the cash market).

Theoretically, it was argued (in the 1970s) that introduction of options would enhance price discovery of the underlying asset, thereby reducing its volatility. However, subsequent empirical evidences have mostly contradicted this view.

In India, futures were launched in June 2000 and options in June 2001 on two stock indices, whereas options on 31 individual stocks were launched in July 2001. This paper analyses the volatility and liquidity of those 31 stocks on which options were introduced in July 2001. We find that on an average, the volatility of the stocks on which options have been introduced has marginally come down relative to the volatility of the market index (Nifty50) post the six-month period of option introduction compared to the pre six-month period of the introduction. However, such relative volatility, when measured on a month-to-month basis, has rather behaved randomly. Adding to it, a far more



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Associate Professor  
Indian Institute of Foreign Trade  
Kolkata



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**Garima Gupta**  
Ph. D. Scholar  
Indian Institute of Foreign Trade  
Kolkata



dramatic result that we have obtained from our sample is that, the spot market liquidity has declined substantially after the introduction of options.

### Introduction of Derivatives in India

Index futures on Sensex (30 share index of BSE) and S&P CNX Nifty (50 share index of NSE) were launched in June 2000, and index options on the respective indices were launched on both the exchanges in June 2001 (SEBI Annual Report 2001-02, Part-II). SEBI also permitted the two stock exchanges to launch American-style cash-settled option contracts on individual stocks in June 2001, and specified criterion for selection of stocks for introduction of such contracts based on “the turnover, market capitalization, minimum non-promoter holding and volatility of the stock vis-à-vis the index” (SEBI Annual Report 2001-02, Part-II). Only 31 stocks were found to meet these criterion at that time, and options on these 31 stocks were launched on

both BSE and NSE in July 2001, their trading being started on the first trading date of the month i.e July 2, 2001 (See Timeline of Launch of Derivatives in India). Futures on the same set of 31 stocks were however launched in November 2001.

Since November 2001, all the four types of derivative contracts namely option on indices and single-stocks, futures on indices and single-stocks, have thrived in Indian market, both on NSE and BSE. Over the years the number of stocks as well as indices on which derivative trading is permitted, have gone up substantially both in NSE and BSE.

As opposed to this, the number of individual stocks on which options and futures were launched, varied widely over the years, and currently stands at 211 (end-December 2017).

**Table – 1: Timeline of Launch of Derivatives in India**

- Promulgation of Securities Laws (Amendment) Ordinance, 1995, withdrew prohibition on options on securities.
- SEBI sets up the 24-member committee under the Chairmanship of Dr. L. C. Gupta in November 1996 to develop the regulatory framework for derivatives.
- The committee suggests the regulatory framework necessary pre-conditions for introduction of derivatives in India in its report submitted in March 1998.
- SEBI sets up another group under the chairmanship of Dr. J. R. Varma to recommend measures for risk containment in derivatives market in India; the committee submits its report in June 1998.
- Securities Contract (Regulation) Act, 1956, is amended in December 1999 to include derivatives within the ambit of ‘securities’.
- SEBI permits futures on two indices (CNX Nifty and Sensex), and trading on these contracts commences in June 2000.
- Trading in options on 31 stocks begin in July 2001.
- Trading in futures on these 31 stocks begin in November 2001.

*Source: NSE(2001); NSE website (bhavcopy files of June 2000 and July 2001)*

### Theoretical Framework

The famous option pricing model by Black and Scholes (1973) assumes the financial markets to be perfect. In such markets, all assets are perfect substitutes, and hence the contingent pay-off structure (as in case of an option)

can be synthetically created by combining other assets. This implies that options are redundant instruments in their model. The pricing rule was derived by constructing dynamic hedge portfolios with the no-arbitrage argument. Since then the question of redundancy of options have

become subject of continued debate. The debate primarily focused on the influence of introduction of option on the price, volatility, and liquidity of the underlying asset in order to assess redundancy (or otherwise) of options on equities and market indices.

Ross (1976) argue that introduction of options affect the underlying through dissemination of information which expands the investment opportunity set of the investors. This, in turn, reduces the rate of return and stabilizes the market. Grossman (1988) argues that introduction of options reduces information asymmetry through better price discovery. Using a theoretical model, Detemple and Selden (1991) argue that introduction of options lead to an upward shift in the price of stocks. Back (1993), on the other hand argues that, introduction of options can influence the underlying asset through flow of information, and that volatility of the underlying would become stochastic without any impact on average volatility. Cao (1999) constructs a model to show that introduction of derivative contracts expand trading opportunities to the market participants and hence the incentive to acquire private information about the underlying. This, in turn, causes a rise in price and decline in volatility of the underlying. Faff and Hillier (2005) highlight the implication of the option introduction for the underlying asset in the presence of information asymmetry. They argue that informed traders move to the options market after introduction of options as it offer the traders the opportunity to take a position at the fraction of a cost compared to a similar position in the cash market. This increases informed trading in the market, causing increased volatility. Others have argued that the advantage of taking a position in option at a fraction of investment compared to cash market attracts speculators, thereby increasing volatility. It has also been argued by some researchers that introduction of options reduce the cash market liquidity as trading shifts from cash market to option market.

### Empirical Evidence

Detemple and Jorion (1990) report, on the listing day of option, an average return of 0.6% on the underlying asset on which option is introduced and 2.9% in two weeks around the listing date by analyzing 300 securities in the US between 1973 and 1986. Using a sample of 96 securities on which option is introduced in the US between 1974 and 1980, Conrad (1989) reports a positive abnormal return of 2.5% from three days prior to the day of option listing. He also reports that the price effect is not observed during the time of announcement (of option introduction), but around

the actual listing date. He further reports that the average variance in 200 days prior to option introduction was 2.29%, which came down to 1.79% in the 200 days after option introduction. That is, average variance declined by 22%. Also, 86 out of 96 firms, on which option was introduced, exhibited a decline in variance. Detemple and Jorion (1990) report that total risk declines by 7% after introduction of options in their sample. Several other studies from US and other countries also report evidences in the similar direction, though quantities differ.

Very few studies have analyzed the different aspects of option introduction in the Indian stock markets. The first among these is Tenmozhi (2002), which focuses on the influence of introduction of futures on the volatility in the cash market of the S&P CNX Nifty (now named as Nifty50). The study reports that the introduction of futures has led to reduction in volatility in the spot market. Shenbagaraman (2003), analyzes the impact of introduction of futures on the volatility structure of Nifty50 index and reports that the average of daily return of Nifty50 declined from a positive 0.029% during pre-futures days to a negative 0.044% during the post-futures days, and the average standard deviation of daily returns on Nifty50 declined from 1.79% to 1.42%. However, the econometric methodology adopted in the study does not report evidence of any influence of introduction of futures on the volatility of Nifty50. This probably implies that the decline in the volatility as reported in this study is probably not due to introduction of futures.

Similarly, Bandivadekar and Ghosh (2003) analyze the impact of introduction of index futures on the spot market volatility of the underlying indices i.e. Nifty50 and BSE Sensex. Their study report a decline in the spot market volatility post introduction of futures.

All these studies in the early days post the introduction of derivatives in India focus on mostly on futures on indices and not on individual stocks. Three other studies attempt to address this lacuna. First, Nath (2003) analyzes the impact of derivatives introduction on 13 stocks and one market index (Nifty50). The study uses another market index (Nifty Junior) and seven other stocks, on which derivatives were not launched, for the purpose of comparison. It also reports a decline in volatility, on both the indices – Nifty50 and Nifty Junior. That is, the decline in volatility cannot be uniquely associated with derivatives introduction. Vipul (2006) analyzes the impact of derivatives introduction on six stocks and an index, and reports a decline in volatility.

Nair (2008) selected all those stocks for which derivatives trading commenced in May 2005 and ended up with a sample of 72 stocks, by far the largest sample. His study reports that the overall spot market volatility has come down, but introduction of derivatives has enhanced the flow of information into the spot market.

All these studies have one common weakness – none of these are able to segregate the influence of options and futures while analyzing the impact of introduction of derivatives on the underlying stock or index. In this paper, we analyze the 31 stocks for which option trading started on July 2, 2001 for the first time. Futures on these stocks were introduced in November 2001, thus giving us a clear window of five months when only options were available on these stocks.

## Data and Methodology

The bhavbcopy(containingtrade statistics for all instruments for a particular day) of the F&O segment for the first trading day of July 2001 and the same for the last Thursday of the same month (being the day of expiry of contracts) were retrieved. From these, the list of 31 stocks was obtained on which option trading began on July 2, 2001. Daily closing prices, the daily trading volume on the NSE and marketcapitalizationof these 31 stocks were obtained from the CMIE Prowess database,for the period from six months prior to July 2001 up to six months after July 2001. The daily closing value of Nifty50 index during the same period was also obtained from the same source.

Standard deviations of daily returns for various periods and sub-periods of the time horizon of our study were computed for each of these 31 stocks and the Nifty50 index. One major limitation of most of the studies using Indian data is that the change in volatility during post-introduction period of derivatives reported in these studies might also have been due to a change in market-wide volatility arising out of other factors. For example, events like Dot Com bubble burst in 2000 might have been one factor (among others) leading to change in market-wide volatility.

In order to overcome this weakness, we compute the ratio of volatility of a stock to that of the market index (Nifty50) and then analyze the movement of this ratio pre and post-introduction of options. This approach is based on the assumption that the volatility of the sample of stocks is largely determined by the volatility of the underlying market, cancelling out a substantial portion of

the firm-specific differences in short-term volatilities.

The daily return of the i-th stock on day t,  $r_{it}$ , is computed as:

$$r_{it} = \frac{P_t - P_{t-1}}{P_{t-1}}$$

where  $P_t$  and  $P_{t-1}$  denote the closing price of the i-th stock on day t and t-1 respectively.

Daily return on the market index Nifty50, denoted as  $m_t$ , is also computed in the same way.

The excess return on the i-th stock,  $e_{it}$ , is computed as

$$e_{it} = r_{it} - m_t$$

where  $m_t$  is the return on Nifty50 for day t.

The volatility of daily returns of the i-th stock,  $\sigma_i$ , is computed as the standard deviation for n days:

$$\sigma_i = \frac{1}{n} \sqrt{(r_{it} - \bar{r}_i)^2}$$

Volatility of daily returns on Nifty50, denoted by  $\sigma_m$ , is also computed in the same way.

Finally, we analyze volatility in two ways. First, we compute the volatility of excess returns of each of the stocks for several time periods (e.g., for six months after option introduction vis-à-vis six months prior to option introduction, for the first month after option introduction vis-à-vis for the first month prior period, and so on). This helps us to identify the number of stocks which exhibited increase or decrease in volatility after option introduction. Second, we also compute the simple average daily excessreturns for the sample of these 31 stocks and compute volatility of the average excess return for various time periods before and after introduction of option trading. This helps us to identify the movement of average volatility of the 31 stocks relative to that of the market index Nifty50 for various time periods.

Finally, we also compute the change in spot market liquidity before and after option introduction. To do so, we compute the daily trading volume (in rupee) of each of the 31 stocks as percentage of their respective market



capitalization for a period of six months each before and after introduction of options. Very few empirical studies in the subject have so far attempted this.

## Results

The average of daily excess returns of the 31 stocks declined from 0.1155% during the six month period before option introduction to 0.0324% during the six month period after introduction. This may be interpreted as a better price discovery due to the improvement of flow of information for option introduction. The relative volatility (ratio of standard deviation of average daily returns of the 31 stocks to the standard deviation of daily returns of Nifty50) has declined from 1.13 during the prior six month to 1.03 during the posterior six month (Table – 1), a decline of about 9%. However, the monthly volatility of average returns of the option stocks did not exhibit any certain trend, though it remained almost unchanged for each of the first two months after introduction, declined for each of the third, fourth and the fifth month, but only to rise dramatically to 1.25, much higher than the level of 1.13 during the six month period before introduction of option. This may or may not be due to introduction of futures on these stocks in November 2001 (fifth month from launch of option).

**Table – 1: Excess Return and Relative Volatility – Pre and Post Introduction of Options**

Time Period	Average Excess Return	Ratio of Volatility of Average Returns of Stocks to that of the Index
Prior 6 months	0.1155%	1.13
Post 6 months	0.0324%	1.03
Post First Month	-0.0506%	1.11
Post Second Month	-0.0530%	1.13
Post Third Month	0.0563%	1.00

**Table – 3: Value-Traded Ratio of Stocks for Six Months Before and After Option Introduction**

Stocks	Before introduction	After Introduction
A C C Ltd.	2.58%	0.98%
Ambuja Cements Ltd.	0.37%	0.06%
Bajaj Holdings & Invst. Ltd.	0.14%	0.10%
Bharat Heavy Electricals Ltd.	0.51%	0.12%
Bharat Petroleum Corpn. Ltd.	0.11%	0.03%

Post Fourth Month	0.0966%	0.99
Post Fifth Month	0.1224%	0.90
Post Sixth Month	0.0227%	1.25

**Table – 2: Movement of Volatility of Individual Stocks**

Time Period	No. of Stocks for which the Ratio	
	Increased	Decreased
Post 1st Month	23	8
Post 2nd Month	31	0
Post 3rd Month	12	19
Post 4th Month	21	10
Post 5th Month	18	13
Post 6th Month	20	11

Number of stocks for which the volatility ratio increased (compared to the ratio for the six month period prior to option introduction) on a month to month basis also changed, with the number becoming the highest in the second month, coming down thereafter (Table – 2).

Next we compute and use the value-traded ratio (ratio of trading volume to market capitalization) as an indicator of market liquidity of the 31 stocks. Table – 3 reports the average of daily turnover to market capitalization for a period of six month before and six month after option introduction. The average value-traded ratio for these 31 stocks declined drastically by 17 basis points from 0.59% before option introduction to 0.42% after introduction. When looked at the individual stocks, in case of all but four stocks, the ratio declines drastically. Among the four stocks for which value traded ratio increased, the rise is substantial for only one stock (Hewlett-Packard Globalsoft). The rise is marginal for the other three stocks (Dr. Reddy's Laboratories, Ranbaxy Laboratories and Sterlite Technologies).

Stocks	Before introduction	After Introduction
Cipla Ltd.	0.168%	0.166%
Dr.Reddy'S Laboratories Ltd.	0.29%	0.64%
Grasim Industries Ltd.	0.64%	0.14%
Hewlett-Packard GlobalsoftPvt. Ltd.	9.25%	13.76%
Hindalco Industries Ltd.	0.09%	0.05%
Hindustan Petroleum Corpn. Ltd.	0.11%	0.04%
Hindustan Unilever Ltd.	0.09%	0.05%
Housing Development Finance Corpn. Ltd.	0.08%	0.04%
I C I C I Ltd. [Merged]	0.08%	0.03%
I T C Ltd.	0.28%	0.24%
Infosys Ltd.	1.02%	1.00%
Larsen & Toubro Ltd.	1.31%	0.69%
Mahanagar Telephone Nigam Ltd.	0.29%	0.06%
Mahindra & Mahindra Ltd.	0.55%	0.26%
Ranbaxy Laboratories Ltd. [Merged]	0.37%	0.97%
Reliance Industries Ltd.	0.46%	0.27%
Reliance Infrastructure Ltd.	0.31%	0.05%
Reliance Petroleum Ltd. (1993) [Merged]	0.10%	0.07%
Satyam Computer Services Ltd. [Merged]	5.41%	3.88%
State Bank Of India	0.32%	0.06%
Sterlite Technologies Ltd.	1.03%	1.30%
Tata Communications Ltd.	0.20%	0.13%
Tata Global Beverages Ltd.	0.90%	0.21%
Tata Motors Ltd.	0.76%	0.24%
Tata Power Co. Ltd.	0.47%	0.08%
Tata Steel Ltd.	0.71%	0.22%
All 31 Firms	<b>0.59%</b>	<b>0.42%</b>

Thus, our result appears to confirm the prediction of Faff and Hillier (2005) that option introduction causes at least some informed investors to move to the option market from the spot market, thereby leading to a decline in liquidity in the spot market. Such result has so far not been reported from India.

## Conclusion

Analysis of returns and volatility (as measured by standard deviation of daily returns) for a period starting from six month before option introduction up to a period of six month after option introduction for the first set of 31 stocks on NSE show that daily average excess return declines from 0.1155% before introduction to 0.0324% after introduction. Over all volatility (measured over six-month period) has also declined marginally (volatility ratio coming down from 1.13 before option introduction to 1.03 after the introduction of option). However, there is no definitive trend in volatility

on a month to month basis after option introduction. But what is rather conclusive is that introduction of options has led to significant decline in secondary market liquidity of these stocks. **MA**

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**1** CMA H. Padmanabhan, Vice President & Chairman, Regional Council & Chapters Co ordination Committee addressing the group of representatives from Eastern India Regional Council and Chapters under EIRC at the "Regional Council and Chapters Co ordination Meet" organised at Head Quarters of the Institute on March 10, 2018.

From Right: CMA Avijit Goswami, Council Member, CMA Manas Kumar Thakur, Council Member & Immediate Past President, CMA Biswarup Basu, Council Member and CMA Pranab Kumar Chakrabarty, Chairman EIRC are also seen

**2** CMA H. Padmanabhan, Vice President & Chairman, Regional Council & Chapters Co ordination Committee, CMA Manas Kumar Thakur, Council Member & Immediate Past President and CMA Pranab Kumar Chakrabarty, Chairman, EIRC presenting memento to Shri P. S. Vasudevan, International Corporate Trainer & Life Coach at the "Regional Council and Chapters Co ordination Meet" organised at Head Quarters of the Institute on March 10, 2018

**3** CMA H Padmanabhan, Vice President of the Institute being the chief guest with dignitaries on the dais on the occasion of silver jubilee celebrations at Serampore Chapter of the Institute on 11th March 2018

**4** CMAs celebrating successful completion of orientation program with CMA Manas Kumar Thakur Immediate Past President, CMA Dr A Mayil Murugan Chairman, SIRC and CMA H Padmanabhan, Vice President of the Institute at Chennai

**5** CMA Manas Kumar Thakur, Council Member & Immediate Past President lighting the lamp during the Campus Placement 2018 program at SIRC. CMA H Padmanabhan, Vice President of the Institute, CMA Dr A Mayil Murugan , Chairman SIRC were among eminent dignitaries who were also present in the programme.

**6** Brahmakumari Sister Ranjani inaugurating on Empowered Woman - Nations Pride celebrating International Womens Day organized by the Institute at Chennai.

CMA H Padmanabhan, Vice President, CMA Dr A Mayil Murugan, Chairman SIRC, CMA Dr Ashish Thatte, Former Chairman WIRC, Ms. Vineetha Menon Woman Fraternity Social Worker were among the eminent dignitaries who also attended the programme.



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## RISK ANALYSIS IN BANKING SECTOR STOCKS IN INDIAN CAPITAL MARKET

Capital market is the platform where savings and investments are channelized between the suppliers and users of capital. Capital markets are vital to the functioning of an economy, since capital is a critical component for generating economic output. Capital markets include primary markets, where new stocks and bonds are issued to investors, and secondary markets, where through stock exchanges trading of securities or stocks take place. Most of the trading in the Indian stock markets takes place in two stock exchanges viz. the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). The BSE was established in 1875 (BSE Limited) whereas, the NSE, was founded in 1992 and started trading in 1994 (National Stock Exchange of India Ltd.). However, both exchanges follow the same trading mechanism, trading hours, settlement process, etc. BSE is largest stock exchange in terms of number of securities listed whereas, NSE the largest stock exchange in India in terms of total and average daily turnover. NSE is the fourth largest in the world by equity trading volume in 2015, according to World Federation of Exchanges (WFE) (National Stock Exchange of India Ltd.).

Generally, every developed stock exchange has its own flagship index, which normally indicates performance of stocks traded in the exchange. It is popularly known as the barometer of stock market. Such index is generally constituted of selected large cap stocks and is computed

by way of taking weighted average of free float capital and corresponding share prices. Flagship Index of BSE is Sensex whereas, that of NSE is Nifty 50. However, for closely monitoring the performance of any specific sector, special indices based on selected stocks of that sectors are developed. 'Nifty Bank' is a very popular Index for banking sector.

At present, Indian economy is in developing stage and Indian banking sector has huge potential to future contribute in Indian economy. Indian banking sector although have a long history but still it is in a growing stage. "Services sector is the largest sector of India. Gross Value Added (GVA) at current prices for Services sector is estimated at 73.79 lakh crore INR in 2016-17. Services sector accounts for 53.66% of total India's GVA of 137.51 lakh crore Indian rupees." (Statisticstimes.com). In service sector, banking has been a leading contributor. Public Sector Banks (PSBs) have been a part of exciting journey of retail banking revolution (Shastri & Rajpurohit, 2017). Indian capital market is truly globalised and moving towards maturity (Mittal, Choudhary, & Goyal, 2011). Many stock market experts highlighting that stock of banking sector in India are still under performing and it is a right time to invest in banking sector stocks. Therefore, the purpose of this study is to evaluate the risk in banking sectors stocks in Indian capital market.



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## Objectives of the Study

The objectives of this study are:

- ❖ To study the systematic risk in major banking sector stocks of Indian capital market.
- ❖ To rank the banking sector stocks in order of the systematic risk.

## Methodology

**The Study:** The study is descriptive in nature and describing the systematic risk in the banking sector stocks of Indian Capital Market.

**The Data and Sample:** Daily closing prices of Benchmark Index and 6 selected banks over duration of six months from 1 September 2017 to 28th February 2018 were collected from official website of NSE to conduct the study. One stock in six months has total 124 observations.

The 'Nifty Bank' was selected to play the role of Benchmark Index. "Nifty Bank Index is an index comprised of the most liquid and large capitalised Indian Banking stocks. It provides investors and market intermediaries with a benchmark that captures the capital market performance of Indian Banks. The index has 12 stocks from the banking sector which trade on the National Stock Exchange." (National Stock Exchange of India Ltd.) "The Nifty Bank Index represent about 15.6% of the free float market capitalization of the stocks listed on NSE and 93.3% of the free float market capitalization of the stocks forming part of the Banking sector universe as on March 31, 2016. The total traded value for the last six months ending March 2016 of all the Index constituents is approximately 12.5% of the traded value of all stocks on the NSE and 88.1% of the traded value of the stocks forming part of the Banking sector universe." (National Stock Exchange of India Ltd.)

The non-probabilistic judgemental sampling method was adopted for selection of banks. Accordingly, three leading public sector banks and three leading private sector banks based on their representation in the Benchmark Index have been selected. These banks are State Bank of India, Punjab National Bank, Bank of Baroda, ICICI Bank Ltd. HDFC Bank Ltd. and Kotak Mahindra Bank Ltd. (Refer: Table No. 1)

**Tools for Data Analysis:** Generally, stock market data is non stationary. "Using non-stationary time series data in financial models produces unreliable and spurious results and leads to poor understanding and forecasting. The



*Capital markets play a very important role in the development of an economy, since capital is a critical component for generating economic output. Capital markets include primary market and secondary market. Secondary markets function largely through stock exchanges where trading of securities or stocks take place. NSE is the leading stock exchange in India, which has highest turnover of trading. The flagship Index of NSE is 'Nifty 50' which is also known as benchmark index for measuring the stock market performance and risk. NSE has many other sector specific indices including 'Nifty Bank'. In this study an attempt is made to analyse the risk involved in banking sector stocks. Three major public sector banks and three major private sector banks out of total 112 banks constituting 'Nifty Bank' have been selected and their daily closing stock prices from 1 September 2017 to 28th February 2018 were analysed using Beta which is a well-established statistical tool for measurement of the risk. This study used secondary data available on official website of NSE. It is found that public sector banks' stocks have more volatility in relation to 'Nifty Bank'. Apparently, volatility exhibited by public sectors banks' stock was much higher as compared to private sector banks. Management of public sector banks need introspection as firm value is a key indicator of their performance.*



solution to the problem is to transform the time series data so that it becomes stationary.” (Investopedia)

To convert into stationary series, returns have been calculated based on today's price – yesterday price divided by yesterday's price. Then on the six months' return series, beta of the six stocks was calculated by using MS Excel in comparison of Nifty Bank Index of NSE. Further, month wise beta is also calculated (from Sept 2017 to Feb. 2018) to check the changes in volatility in stock returns.

Beta coefficient is most commonly used and valuable measure of systematic risk that investors should take into account in the process of making a decision regarding the capital investments. (Karacic & Bukvic, 2014). Beta is the slope of the characteristics regression line. Beta describes the relationship between the stock's return and the index returns. Beta indicates that one percent change in index return would cause how much percent change in the stock return.

### Findings and Analysis

Findings highlight the beta in three major stocks of public sector banks and three major private sector banks (Refer Table No. 2). Major findings and their interpretations are as follows:

Beta of three major public sector banks can be analysed from table no. 2. Overall beta of State Bank of India (SBI) is 2.16. This indicates that 1% change in 'Nifty Bank' return is likely to cause 2.16% change in SBI returns. Further, it has indicated that SBI stock has shown more volatility than 'Nifty Bank'. If bank nifty returns increase by 1% then SBI returns is likely to increase by 2.16% and if bank nifty returns decrease by 1%, then SBI returns are also likely to decrease by 2.16%.

Overall beta of Punjab National Bank (PNB) is 3.24, which is highest among all six banks. This means 1% changes in the 'Nifty Bank' return is likely to cause 3.24% change in PNB returns. This has indicated that volatility in PNB stock is highest.

Overall beta of Bank of Baroda (BOB) is 2.11. This is almost close to that of SBI. Further, if bank nifty returns increase or decrease by 1% then BOB returns are also likely to increase or decrease by 2.11%.

Beta of three major private sector banks can also be analysed from table no. 2. Overall beta of ICICI bank is

1.68. This is indicating that ICICI bank stock has shown moderate volatility. 1% change in 'Nifty Bank' return is likely to cause 1.68% change in ICICI bank returns.

Overall beta of HDFC bank and Kotak Mahindra bank is 0.506 and 0.465 respectively. This has indicated that these two stocks have shown much lower volatility as compared to other four banking stocks. Further, it can be explained that 1% change in 'Nifty Bank' return is likely to cause close to 0.5% change in stock's returns of HDFC bank and Kotak Mahindra bank.

It can be summarised from the above analysis that volatility is much higher in public sectors banks' stocks as compared to private sector banks. Here, Beta is indicating that PSB stocks have more volatility in relation to 'Nifty Bank' and as compared to private sector banks. Higher volatility does not mean that investors should not invest in public sector banks. Therefore, before investing investors should evaluate their risk appetite and accordingly investors with higher risk appetite may like volatility as exhibited by PNB stock whereas, investors with lower risk appetite may prefer volatility as exhibited by HDFC bank and Kotak Mahindra bank.

From the 1st September 2017 to 28th February 2018, there were many major news flows e.g. announcement of Banks' Recapitalisation, Neerav Modi fraud, Rotomac fraud, RBI monetary policy reviews or movements of interest rate in international market etc. which most probably influenced stock performances of the banking sector. Therefore, during this six months' period, monthly beta of all these six banks were also analysed. Table no. 3 revealed that beta in October 2017, was abnormally higher in case of public sector bank. On the contrary, beta of two major private sector banks was negative in the same duration. This might be reflecting response of these stocks towards Bank Recapitalisation announcement on 24th October 2017. This indicates that investors might have considered announcement of Bank Recapitalisation in a very positive sense and the investment bias shifted from private sector banks towards public sectors banks. This trend continued till the end of November 2017. Table 3 also reveals that beta of PNB was highest i.e. 8.53 indicating very high risk in that stock. This is really the alarming situations for the investors with lower risk appetite and they may like to keep themselves away from these types of volatile stocks.

Monthly beta in the months of Sep. 2017, Dec. 2017 and Jan. 2018 is in the range from 0.90 to 2.35. This indicated




that trading in the stocks lead to usual volatility and risk in stocks during this tenure. Table 3 further revealed that all three public sector banks' beta is less than 0.90 in the month of February 2018, which normally maintain level of above 1. This may be due to some corporate frauds related to public sector banks were disclosed. Again, this indicated that PSB's stock shown sensitive movements in prices.

### Implications of the Study

Various reasons may make it essential to analyse the systematic risk in major stocks of banking sector. The analysis provides information to investors in understanding volatility and therefore, risk in their stocks. This analysis will help the investors in diversification of portfolios, new strategies of investments and to hedge risk.

It can be concluded from the overall analysis that stock of public sector banks exhibited more volatility as compared to private sector banks. Further, it can be inferred that among these three public sector banks' stocks, Bank of Baroda has shown less volatility while PNB exhibited most. Moreover, private sector banks offered least volatile avenues among banking sector stocks as the beta of HDFC Bank and Kotak Mahindra Bank is lowest.

The management of PSBs having very high beta may also introspect and review their management practises. For example (Shastri & Shastri, 2014) emphasised that "for better synergy within the group banks, it is extremely important to bring coordination in HR issues". In fact, one of the important reasons in Neerav Modi fraud was inferior HR and Ethical practices in PNB which hammered the firm value getting reflected in downward movement of PNB stock. Thus, human resource aspects like employee engagement are more important in services sector, especially in financial services with emphasis on banking and play a vital role in enhancing firm value (Handley-Schachler, Juleff, & Paton, 2007)(Wickramasinghe & Fonseka, 2012)(Shastri & Rajpurohit, 2017). Conclusively there is an apparent need of revising the way PSBs are management so as to enhance their firm value. 

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**Table No. 1: Details of Selected Banks from 'Nifty Bank'**

Type of Bank	Symbol	Bank Name	Index Cap. (Rs. In Cr.)	Weight in Nifty Bank
PSB	SBIN	State Bank of India	99476	8.92
PSB	BANKBARODA	Bank of Baroda	13410	1.2
PSB	PNB	Punjab National Bank	10576	0.95
Pvt.	HDFCBANK	HDFC Bank Ltd.	385238	34.53
Pvt.	ICICIBANK	ICICI Bank Ltd.	201161	18.03
Pvt.	KOTAKBANK	Kotak Mahindra Bank Ltd.	145380	13.03

Source: (National Stock Exchange of India Ltd.)

**Table No. 2 : Beta of the Characteristics Regression Line**

S.No	Bank Name	Beta (Based of 6 Months Data)
1	SBIN	2.163807114
2	PNB	3.247161792
3	BOB	2.112665172
4	ICICIBANK	1.677133885
5	HDFCBANK	0.506513289
6	KOTAKBANK	0.465196779

(Source: Analysis performed on Collected Data on MS Excel)

**Table No. 3 : Monthly Beta of the Characteristics Regression Line**

S.No	Bank Name	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Avg.
1	SBIN	0.935	5.117	2.522	0.918	1.364	0.889	1.958
2	PNB	1.142	8.534	2.087	1.498	2.352	0.870	2.747
3	BOB	1.165	5.820	1.468	0.856	2.047	0.523	1.980
4	ICICIBANK	0.878	2.997	1.596	1.333	1.622	1.131	1.593
5	HDFCBANK	0.888	-0.337	0.449	1.093	0.511	0.804	0.568
6	KOTAKBANK	0.942	-0.629	0.358	0.323	0.964	1.072	0.505

(Source: Analysis performed on Collected Data on MS Excel)

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## CAPITAL MARKET AND FINANCIAL STATEMENTS

The financial reporting system has been evolving in the world, detailed and demanding accounting principles and standards are augmented by extensive disclosure requirements. Close to half of the annual report comprises of financial statements; they have an important role to play in explaining how the business has been operated and they provide a base-line from which to assess the ability of the business to generate future earnings. When FASB and IASB set standards for financial reporting, they make many judgements and they formulate standards by keeping in mind the objective of financial reporting. The objective of financial reporting is “to provide information that is useful to present and potential investors and creditors and others in making investment, credit and similar resource allocation decisions”. Financial information is most useful to decision makers when it possess certain qualitative characteristics, subject to practical constraints.

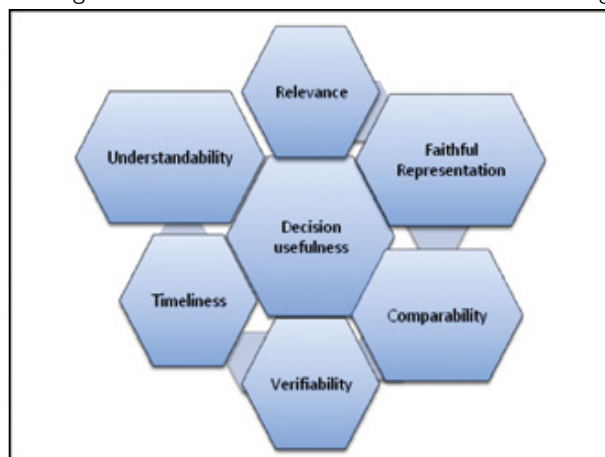
For accounting information to be useful for decision



**CMA Dr. Meena Bhatia**

Associate Professor  
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making it is essential that it is relevant for decision making,



if information has no impact on a decision it is irrelevant. Information should also truly capture the economic substance of the transactions, events, or circumstances it describes and the information needs to be complete, neutral and free from material errors. The accounting information further needs to have four characteristics that will further enhance relevance and faithful representation and that is the information needs to be comparable, verifiable, timely and understandable. For information to be comparable it is essential that similar accounting concepts and policies have been used consistently. For variability of information it is essential that the information can be checked to ensure that it is correct. Information loses its utility if it is not available timely and if it is clear and concise.

### Capital Markets Research in Accounting

Capital Markets Research is a broad area of research

that originated from seminal work of Ball and Brown (1968). A large portion of this research examines the relation between financial statement information and capital markets, referred to as capital markets research. This voluminous published research is an indication of the demand for capital markets research, there are at least four sources of the demand for capital markets research (Kothari 2001):

- (i) Tests of capital market efficiency
- (ii) Positive accounting theory
- (iii) Disclosure regulation and
- (iv) Fundamental analysis and valuation

**i) Tests of capital market efficiency:** An efficient capital market is one in which stock prices absorb the arrival of new information quickly, therefore the current prices of equity reflect all information about the security. The question of whether capital market is efficient is the most controversial in investment research, most interesting and important academic research during past four decades has analysed whether the capital markets are efficient. Whether security markets are informationally efficient is of great interest to investors, managers, standard setters, and other market participants. Reward for fundamental analysis would diminish in case of efficient market, it certainly has implications on the role of portfolio managers and investment advisors. Efficiency of capital markets certainly have implications on accounting profession. When there is a change from one accounting method to another accounting method and same doesn't involve cash it doesn't affect the share price in an efficient market; similarly information reflected in financial statements vs the information reflected in foot notes will have different effect on security prices in an efficient market.

To test these effects short horizon and long horizon event studies are conducted; it involves impact of earnings announcements and market efficiency with respect to accounting methods and changes in accounting methods.

**ii) Positive accounting theory:** Positive accounting is the branch of academic accounting research that seeks to explain and predict actual accounting practices. This theory predicts the use of accounting numbers in compensation and debt contracts and in the political process affects a firm's accounting choices (Watts and Zimmerman, 1986).

These predictions entail use of capital market data. As per the efficiency perspective, the accounting practices adopted by organisations are explained on the basis of showing the true image of financial performance of the firm. As per the opportunistic perspective, managers act on the basis of their self-interest and therefore adopts accounting policies which reflects them in the better position and thus the organisation performance is also reflected positively. This is normally due to management compensation and debt contracts, which is at times tied to the performance of the company therefore managers' adopt accounting methods which result in reflecting better accounting profit. As per the political process hypothesis firms show lower profits to avoid getting attention from politicians and therefore adopt accounting policies that shows low profit. These organisations want to avoid higher regulation by doing so.

**iii) Disclosure regulation:** Accounting and reporting practices are always significantly influenced by the regulatory requirements of the country (Bhatia 2017). In India, Institute of Chartered Accountants of India (ICAI) issues standards that are followed by the companies. Capital Market research help in ascertaining whether the stated objective of accounting standard board (ASB) of ICAI are being met, either singly or exhaustively. For eg. Do the financial statements prepared as per the Ind AS convey incremental value relevant information? How the changes in the IFRS converged standards associate with stock prices/returns? The standard setters take keen interest in this kind of research which tests on the market efficiency from regulation perspective.

**iv). Fundamental analysis and valuation:** Fundamental analysis deals with identifying the intrinsic value of equity shares. To ascertain the intrinsic value of the stock present value of the future cash flows/dividends/earnings is calculated. Current financial statements are important but it's also the future earnings that determine the value of the firm. The most important purpose of the fundamental analysis is to identify the mispriced securities. Fundamental analyst analysis economic, industry as well as company. For company analysis apart from strategic analysis, historical financial statements are used. As per this approach the accounting information causes stock prices to change.

The other interpretation of Value relevance of accounting information is relating to the prediction view. As per this view, financial statements are relevant if it helps in

predicting/forecasting cash flows/dividends/earnings.

Accounting information is considered by the investors for company analysis and is also used for predicting the future earnings; this definitely helps in taking investment decisions. Value relevance research deals with the statistical association between the stock prices/returns and accounting information. International accounting standard board (IASB,2001,p.24),defined the word relevance as the principal qualitative characteristic that financial statements should have in order to be useful in the decision making. Also financial statement information considered to be relevant when it has ability of influencing user's economic decision by helping them to evaluate past, present and future events and correcting their past evaluation (IASB,2001,p.26).

### Approaches for Value relevance of accounting information

There are two major approaches used for value relevance research, that is information approach and measurement approach.

**Information approach:** As explained by Bernard (1995) information approach focused on measuring the usefulness of accounting information to individual investors and not much attention is given on the specific structure of the relation between accounting information and market value. As per Ball and Brown (1968), usefulness of accounting information is determined by observing the reactions of stock market to specific accounting information.

**Measurement approach:** The measurement approach is originated on the theoretical framework of equity valuation (Ohlson 1995), which focused on measuring the relationship between accounting information and market value. As per Ohlson (1995), the market value of the firm is expressed as a linear function of earnings, book value and other relevant accounting information.

As per (Holthausen and Watts 2001) value relevance studies can be classified into three categories. The first category is named as relative association studies, which examine whether relationship exist between stock prices and accounting information. Through this category, the concept of value relevance is measured by using regression analysis, and for the accounting information with high value of R-squared is considered as more relevant than the others.

The second category is incremental association studies which investigates the usefulness of accounting information in influencing market values (market returns) given other specified variables (Holthausen and Watts,2001). By using this category, accounting variable is measured to be relevant by using estimated coefficient from the regression, if the estimated value of coefficient found to be statistical significantly different from zero accounting variable would be considered to be more relevant.

Lastly, the third category is called marginal information studies, where event study methodology adopted for the purpose of determine whether release of accounting information related with the changes in the value of stock prices. Accounting information would be considered relevant if the stock prices reacted due to the release of such information. A study of Bayezid and Chowdhury (2010) and Menike and Wang (2013) employed event study methodology for the purpose of investigating the reactions of stock price due to the release of annual financial statements and found that their certainly is association between the two.

Numerous studies have been conducted in matured and emerging financial market to examine value relevance by using price model and return model. In returns model, earnings and change in earnings are used as independent variables and expressed as a linear function of stock returns (dependent variable) and price model, stock price is a dependent variable.

Correlation and multiple regression analysis are used as the method of analysis to examine value relevance of accounting information, the method of analysis mostly used in the value relevance studies were simple and multiple regression, pooled ordinary least square and fixed regression, Price Logarithmic regression, Cross sectional linear regression, Ordinary least squared, fixed effects model and random effects model.

### Concluding remarks

Financial reporting is considered to be relevant when it influences the economic decision of users including investors, employees, lenders, customers and other agents (Beaver,2002). However, the understandings and interpretation of accounting information is hindered by a mass of factors, including the diversity of the accounting principles and rules which govern the preparation of financial reports (Ball and Brown, 1968). It will be interesting to study the association between the Ind AS and stock



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returns, in many other countries where the IFRS has been adopted many such studies have been conducted, majority of them concluded that accounting information improved after IFRS adoption. **MA**

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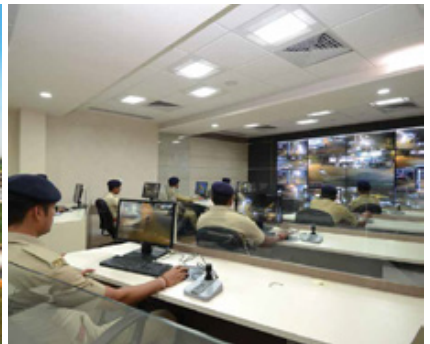
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## AN OVERVIEW OF THE DERIVATIVES

*Derivative is a financial instrument that derived its value from the underlying asset. The futures, options and swaps play an important role in the derivatives market. Derivatives are useful to management of risk, discovery of price and the efficiency in the transactions. GST is levied on the charges which are collected by the stock broker. It is suggested that to adopt the suitability and appropriateness policy, integrate the procedures and systems for measurement of risk, obtain the liquid collateral or cash margin from the users. Interest rate futures may be undertaken by the banks to hedge over the risks, restrict on the structural products, adopt a detailed scenario analysis and review the customer appropriatenes*

**D**erivative is a financial instrument, its value is derived from the underlying asset through changes in the price of security, commodity, interest rate and the credit index. The Over-the-Counter (OTC) derivatives traded directly without interference of stock exchange and the exchange traded derivatives traded on an exchange as a markets of the derivatives. The participants of the derivatives markets are user and the market maker. The purpose of the derivatives are to hedge particularly in mitigate or extinguish present traceable risk on continuing basis during the life of the derivative



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transaction or the transfer the risk through guidelines given by the RBI. The market makers consider as a counter parties in the transactions of the derivatives. The market makers includes the all commercial banks and the primary dealers except the RRBS&LABS and the users are the risk exposure business firms. The market makers can own a transaction in the form of derivative structural product, comprises of the derivative instruments in the nature of generic and cash and they should be reach to the fair value of all instruments of derivatives.

### Review of Literature

Dr. P Chellasamy and Anu KM (2016) examined that Indian economy was not influenced by the derivatives market. Juraj Lazový & Juraj Sipko (2014) found that negative correlation between the outstanding notional amounts to the market value of the OTC derivatives. David Bosch, (2017) opined that structure of the market is more influence for the development of the markets of the futures. Arturo Leccadito Emilio Russo (2016) analyzed the options through the stochastic volatility models and the backward induction. Orosi (2016) consider the pricing of the exotic options which are in the nature of the illiquid. Ihsan Ullah Badshah (2015) applied the VDAX volatility index to predict the daily value at risk

(VaR) and he found that implied volatility was better than the historical volatility regarding the DAX 30 stock index. Sebastián A. Rey (2015), used the non-arbitrage arguments for the derivative pricing. Zhigang Tong (2015) developed the valuation model of the VIX futures based on the continuous time model and found that it was useful to improve the predictive power of the existing models. Paulo Pereira Da Silva (2014) stated that integration influence between the CDS spreads and the credit spreads

## Objectives of the Study

1. To overview the basics and mechanics of the derivatives.
2. To examine the economic functions of the derivatives.
3. To trace out the various risk minimization techniques
4. To identify the applicability of the GST towards the Derivatives.
5. To offer a suitable suggestions to strengthen the trading of derivatives.

## Derivative Mechanics

**Futures:** Buying and selling the basket of securities consisting of an index in their relative weights is called as index futures. It is required to increase in value of beta in an index futures in bullish market and also the number of contracts of futures to buy also can be ascertained by the value of portfolio multiplied by the difference of the expected value of beta to existing value of beta divided by the futures contract value.

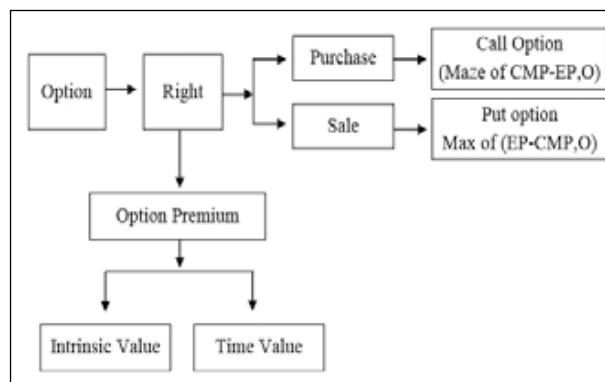
$$= \frac{(\text{value of portfolio} \times (\text{Expected value of beta} - \text{Actual beta of the portfolio}))}{(\text{futures contract Value})}$$

and the number of futures contract sold

$$= \frac{(\text{value of Portfolio} \times (\text{Actual beta of the portfolio} - \text{Expected value of beta}))}{(\text{futures contract value})}$$

The index value of portfolio ascertained through the proportionate amount of closing market capitalization to opening market capitalization multiplied by the opening index. The hedge ratio applies to minimize the risk through the standard deviation of changes in spot price multiplied by the standard deviation of changes in futures price multiplied by the correlation between changes in the future price and the spot price.

**Options:** Option holder acquires the right through the payment of premium to buy (call option) and sell (put option). The option premium includes the time value as well as the intrinsic value of an option. The option holder exercises the option in the case of In-the-Money, may be At-the-Money and rejected in the case of Out-of-Money.



## Option Pricing Methods

The pricing methods are qualitative (Time value and the Intrinsic Value) and the quantitative methods (Black-Schole Model and the Binomial Model). The procedure for the value of call option under Binomial Model approach is step 1, calculate the value of call option at upper as well as lower market prices, step 2 calculation of Hedge ratio is the proportionate from the difference of possible option values to the market prices. Step 3 refers to the value of portfolio is the upper current market price multiplied by the beta and deduct the value of the call option. Step 4: Present value of portfolio = (Portfolio value)/(1+rt)<sup>t</sup>, step 5 refers to current market price multiplied by the beta minus the desired value of call option = Present value of portfolio.

**Black-Scholes Model Approach:** According to this = Spot price, N(d<sub>1</sub>) = Normal distribution, E = Exercise Price, Rf = risk free rate, t = time period and σ = Standard deviation

Approach, the value of call option is

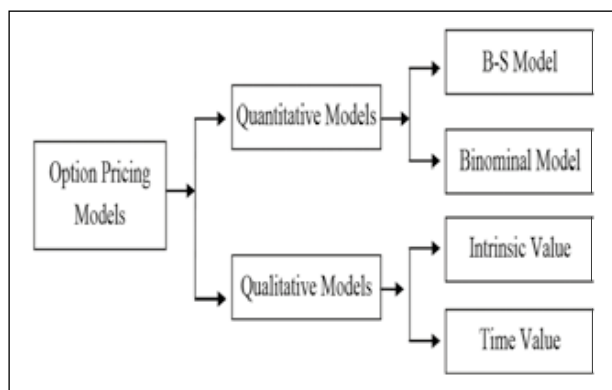
$$C_0 = S_0 \times N(d_1) - E \times e^{-rt} \times N(d_2),$$

$$N(d_1) = \frac{\ln(S_0/E) + (r + \sigma^2/2) \times t}{\sigma \sqrt{t}}$$

$$\text{Where } N(d_2) = N(d_1) - \sigma \sqrt{t}$$

The Intrinsic value of call option is Maximum of (CMP-EP), 0] whereas the value of put option is maximum of (EP- CMP), 0) The minimum intrinsic value of any option will be zero and not loss, since an option would not be

exercised, if it over not advantageous . The time value is the risk premium that the writer of an option requires to sell the right to the holder. It is also called as “Extrinsic value “. It is the value of premium over and above the intrinsic value. Symbolically, it is maximum of ( (Premium less intrinsic value), 0).



**Swap:** Swap is one of the derivatives in the available market. These have been used widely in the derivatives market to reduce and transfer the risk from one individual to another individual. For exchange of cash flows between the two parties in the future through the agreement is called as the swap and divided into Interest rate swaps , Currency swaps, Equity swaps, Credit default swaps and Commodity swaps . Fixed for floating rate swap, floating for floating rate swaps considered as an interest rate swap. The other interest rate swaps, consist of basis swap, zero coupon to floating swap, forward swap, swap option, amortizing swap, leveraged swap and power swap.

**Economic Functions of the Derivatives:** The economic functions of the derivatives are the management of risk through structuring of the financial contracts, discovery of the price and efficiency in the transactions. The derivatives help in identify the current prices as well as the future prices, through convergence of the derivative prices at the expiration date of the contract with the prices of the underlying asset. They also helps in transfer of risk and converged with the underlying cash market. The derivatives facilitate to the participants regarding supervision and surveillance and useful to create a new business opportunities, new products and new employment and act as a catalyst for building entrepreneurship.

**Risk Mitigation:** Spread is one of the strategies of options which considers the two or more options of the same type in terms of calls or puts in same underlying stock or the underlying asset. It is divided in to the

Particulars	Diagonal Spread	Horizontal Spread	Vertical Spread
Exercise Price	Different	Same	Different
Expiry Date	Different	Different	Same

**Straddle Call Option and Put Options:** It is divided in to long straddle refers to buy a call as well as put at the same expiry date, where the expected spot price far away from the strike price and the short straddle refers to write a call as well as put at the same expiry date, where the expected spot price is within certain limits on either side of the stock price.

**Strip Vs Strap:** The strategy of strip is relevant to purchase two puts as well as one call, due to decrease in price is more likely than increase. The strategy of strap refers to the to buy two calls as well as one put, because of increase in price is more likely than decreases.

**Goods and Services Tax- Derivatives:** The GST levy on services which are supplied by the stock broker regarding the securities. But these securities are excluded from the services or goods under the bracket of the GST, Therefore, the service which is provided by the stock broker only come under the ambit of the GST. As per the definition of the securities, the derivatives also included along with the shares, stocks, debentures and the units issued to the collective investment scheme. The stock brokers who are deal with these securities comes under the GST. The payment of late fee, interest and delayed payment of amount is also comes under the GST. It means interest is levied by the broker on arrears amount for delay in the payment on a purchase of security liable to GST. The rate of GST on interest same in case of broking of stock ie 18 per cent IGST or 9 per cent CGST and 9 per cent SGST.

**Valuation of Stock Brokers Service Under GST:** The valuation of a transaction is determined as per the sec 15 of the Central Goods and Services Tax Act. The GST is levy on the charges which are collected by the stock broker , if these charges are recovered on the actual basis, such amount will be deduct from the valuation, subject to satisfy the conditions of the pure agent. The services of SMS or morning calls offered by the broker also liable to the GST.

The service is rendered by the stock broker to the registered person and the nature of tax will be charge based on the address of the registered person on the





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records of the stock broker. If the address of the location of the recipient of the service or registered person is not available on record of the stock broker, then the location of the supplier address considered for levy the tax. If Chennai based stock broker issues an invoice to trader or investor in Tamil Nadu, he will have to pay GST under the CGST and SGST. However, if the same stock broker deliver an invoice to trader or investor who are belong to other than Tamil Nadu, he has to pay the IGST. If the service is rendered to non-resident or foreign entity, if such entity register in a state of a broker, such a case CGST and SGST of the state will be considered otherwise IGST applicable (Non-resident location place different from the broker place). The IGST and GST of state of location of stock broker will applicable where the concern foreign entity has no official address of place of business in India.

**Input Tax Credit:** The stock broker electronic credit ledger record the transactions of the input tax regarding services, goods and the capital goods. For this credits of membership of club, health, motor vehicles, rent a cab, health insurance and the life insurance are not permitted. GST paid on the purchase of gadgets related to the electronics, computers, and air conditioners comes under the capital goods of the input tax credit. The rent paid for fully or partly for usage of the commercial premises is allowed for the input tax credit.

**Conclusion and Suggestions :** The risk should be analyzed at the level of portfolio as well as at transaction arising from the exposures of the derivatives, adopt the suitability and appropriateness policy, integrate the procedures and systems for measurement of risk, obtain the liquid collateral or cash margin from the users, interest rate futures may undertake by the banks to hedge over the risks, restrict on the structural products, adopt a detailed scenario analysis and review of the customer appropriateness. **MA**

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## HEDGING: A PRACTICAL PERSPECTIVE ON CURRENCY OPTION, SWAP AND METAL PRICE RISK

**E**very business faces some-kind of risk related to foreign currency fluctuation and due to change in commodity prices. We cannot avoid or eliminate these kinds of risks. However, we can manage and effectively control this through hedging mechanism. If we manage successfully, we can neutralize the risk and can be rewarded with profits and most importantly avoid losses.

### What is Hedge ?

When people decide to hedge, they are insuring themselves against a negative event. This doesn't prevent a negative event from happening, but if it happens and we are properly hedged, the impact of the event is reduced.

In financial markets, hedging against the risks means strategically using instruments in the market to offset the risk of any adverse price movement. Hedgers participate in the derivatives market to lock the prices at which they will be able to do the transaction in the future.

### What is Derivatives ?

Derivatives are financial contracts that derives its value from the performance of an "underlying asset". These underlying assets can be shares, index, interest rate, bond,



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FX rates, commodities, metals, crude oil, soya bin, coffee etc. and are often simply called the "underlying".

*"A derivative can be defined as a financial instrument whose value depends on (or derived from) the value of other, more basic underlying variables".*

---John C. Hull

### Derivatives are used by;

- ✱ Hedgers
- ✱ Market makers
- ✱ Speculators
- ✱ Arbitraders

### Types of Derivatives Instruments

#### A) Forward Contract

There are no certain things in the market place. Prices that looks good now can quickly turn around against us, if unforeseen economic and political developments trigger that bring fluctuations in exchange rate or commodity prices.

- ✓ a forward contract is a customized contract between two parties to buy or to sell an asset at a specified future date at a price agreed upon today
- ✓ "In forward contracts one of the parties assumes a long position and agree to buy the underlying asset at a certain future date for certain price. The specified price is called delivery price"

#### Characteristics of Forward Contracts

- They are OTC contracts

- Both Buyer & Seller are committed (to take delivery or deliver underlying Assets)
- Price-fixing in nature (decided upfront, committed to full-fill respective obligation)
- Counter party risk (credit risk prevails; forward contracts are between parties having good credit standing; hence forward contracts not available for common man)

### Currency Forward

- Cash/ tom/ spot
- Buyer of the forward
  - The right to buy a currency at a specified rate at a specified date in future
- Seller of the forward
  - The right to sell a currency at a specified rate at a specified date in the future
- The specified rate is referred to as the forward rate
- Theoretically, the forward rate for a currency pair can be derived from the interest rate differential between the two currencies

### Currency Forward – How to derive the theoretical value:

- If S is the USD/INR spot rate, R<sub>1</sub> and R<sub>2</sub> are the continuously compounded Indian and US risk-free zero interest rates for a maturity T, then the forward rate F is given by
- $F = S \times \exp(T * (R_1 - R_2))$

-This is the interest rate parity relationship

### Users of Currency Forward:

- Can be deployed by importers and exporters for hedging their future payables/receivables
- Consider an Indian company having USD imports, where the payment is due after 3 / 6 months

- The importer can buy a USD/INR forward now

- Consider an Indian company having USD exports, where the receivable is due after 3 / 6 months

- The exporter can sell a USD/INR forward now

### B) Future Contracts:

Future have evolved out of forwards and are exchange traded versions of forward contracts.

A futures contract' is a standardized contract between two parties to buy or sell a specified asset of standardized quantity and quality for a price agreed upon today (the futures price) with delivery and payment occurring at a specified future date (the delivery date), making it a derivative product (i.e. a financial product that is derived from an underlying asset). The contracts are negotiated at a futures exchange, which acts as an intermediary between buyer and seller. The party agreeing to buy the underlying asset in the future, the "buyer" of the contract, is said to be "long", and the party agreeing to sell the asset in the future, the "seller" of the contract, is said to be "short"

The agreed price is known as **strike price**. The underlying assets can be commodity, currency, debt, equity or index. The futures are usually performed by **payment of difference** between strike price and market price on fixed future date and **not** by physical delivery and full payment on that date.

### Characteristics of Future Contract

- Exchange traded (credit risk is mostly eliminated through a system of margin requirement through the clearing house)
- It is a standardized contract with standard underlying instruments, a standard quantity and quality of the underlying instrument and standard time for such settlement transactions
- Existence of regulatory authority
- Margin requirement and daily settlement to act as a safeguard
- Trading in either direction- short / long
- Index trading

## ● Hedging / Arbitrage opportunity

● **Example:** On 1/January/2018 Mr. A enters into a future contract to purchase 100 equity shares of ABC Company at an agreed price of Rs 780 per share in 31/March/2018. If on maturity date (31/March/2018) the

price of equity share rises to Rs 820, Mr. A will receive RS 40 per share and if the price of share falls to Rs 750, Mr. A will pay Rs 30 per share. As compared to forward contract, futures are settled only by difference between the strike price and market price on maturity date.

## Difference between forward and future contract:

	Forward Contract	Futures Contract
Structure	Customized to customers need. Usually no initial payment required.	Standardized. Initial margin payment required.
Method of pre - termination	Opposite contract with same or different counterparty. Counterparty risks remains while terminating with different counterparty.	Opposite contract on the exchange.
Risk	High counterparty risk	Low counterparty risk
Market regulation	Not regulated	Government regulated market
Institutional guarantee	The contracting parties	Clearing House
Contract size	Depending on the transaction and the requirements of the contracting parties.	Standardized
Expiry date	Depending on the transaction	Standardized
Transaction method	Negotiated directly by the buyer and seller	Quoted and traded on the exchange
Guarantees	No guarantee of settlement until the date of maturity only the forward price, based on the spot price of the underlying asset is paid.	Both parties must deposit an initial guarantee (margin). The value of the operation is marked to market rates with daily settlement of profits and losses.

## C) Option Contracts:

An option is a contract which gives the buyer (the owner) the right, but not the obligation, to buy or sell an underlying asset or instrument at a specified strike price on or before a specified date. The seller has the corresponding obligation to fulfill the transaction—that is to sell or buy—if the buyer (owner) “exercises” the option. The buyer pays a premium to the seller for this right. An option that conveys to the owner the right to buy something at a certain price is a “call option”; an option that conveys the right of the owner to sell something at a certain price is a “put option”.

The underlying asset can be a share, index, interest rate, bond, FX rate, metal, crude oil, sugar, Soya bean, cotton, coffee etc.

<b>Option Buyer /Holder</b>	<b>Right-Yes</b>	<b>Obligation- No</b>
<b>Option Seller /Writer</b>	<b>Right- No</b>	<b>Obligation- Yes</b>

● **American Option:** This type of option, the right (buy/call) can be exercised by the buyer at any time during

the life of the option contract.

● **European Option:** In this type of option, the right can be exercised by the buyer only at the end of the life of the option contract.

● In India all stock options are American style options and index options are European style options.

● Option buyer will exercise the option only when he is **in the money**, that is he gains by exercising the option.

*Example: X is holding a security of Rs 1,000 buys an option to put the security at its current price with Y. Now if the price of the security goes down to Rs 900, X may exercise the option of selling the security to Y at the agreed price of Rs 1,000 and protect against the loss on-account of decline in the market value.*

If on the other hand, the price of security goes up to Rs 1,100



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● **X is out of money** and does not gain by exercising the option to sell the security at a price of Rs 1,000 as agreed. Hence, X will not exercise the option.

● Had this been a futures contract or forward contract, Y could have compelled X to sell the security for the agreed price of Rs 1000 on either case. While future contract *can result into both loss and a profit*, an **option can only result into a profit and not a loss.**

## Call Option:

A Call option gives the buyer the right to buy a set amount of one currency for another at a specific rate (Strike) on a certain date (expiration). An example of Call Option;

- USD/INR Spot 64.80
- 6 months Swap +1.15
- 6 months (Strike) 65.95
- Call Option Premium at Strike rate of INR 65.95 is USD 23,000 per Notional USD 1 mio

● ATMF ( at-the-money-forward) means “ Option Strike = Forward Rate”

● If spot  $\geq$  65.95, customer has the right to buy 1mio at 65.95

● If spot  $<$  65.95, customer has no obligation; as he is at the market

● Key Advantage for purchasing an Option

- Known Payment outgo
- Unlimited Profit Potential
- Flexibility

## Put Option:

A Put option gives the seller the right to sell a set amount of one currency for another at a specific rate (Strike) on a certain date (expiration). An example of Put Option;

- USD/INR Spot 64.80
- 6 months Swap +1.15
- 6 months (strike) 65.95
- Put Option Premium at Strike rate of INR 65.95 is USD 21,000 per Notional USD 1 mio

● ATMF ( at-the-money-forward) means “ Option Strike = Forward Rate”

● If spot  $\leq$  65.95, customer has the right to sell 1mio at 65.95

● If spot  $>$  65.95, customer has no obligation; he is at market

● Key Advantage for purchasing an Option

- Known Payment outgo
- Unlimited Profit Potential
- Flexibility

## # Examples of Option Contract:

### (i) Zero cost Participating Forward (USD/INR)

A participating forward gives a hedger FX protection. Hedgers can benefit from favorable spot movements, whilst still maintaining protection against adverse FX moves. The participating Forward gives a hedging rate that is better than the average OUTRIGHT FORWARD RATE.

Currency Pair:	USD / INR
Trade Date:	01/01/2018
Buyer of USD:	XYZ Ltd
Seller of USD:	ABC Bank
Spot Reference:	64.00
Strike Rate:	65.00
Average outward Forward	65.50

Rate:

Expiry Date:	28/02/2018 (2 months)
	31/03/2018 (3 months)

Notional Amount: USD 1,000,000 OR USD 2,000,000- on each date

Premium: ZERO PREMIUM

Outcomes: On the Expiry date,  
If spot is at or below strike rate 65.00, XYZ Ltd buys USD 2.0 Mio @ 65.00  
If spot is above strike rate 65.00, XYZ Ltd buys 1.0 Mio @ 65.00

Remarks: This contract guarantees an exchange of principal, but the amount is variable, with a fixed hedge rate at 65.00

### (ii) Rang forward Option (USD/INR)

Currency Pair: USD / INR  
Trade Date: 01/02/2018  
Buyer of USD: XYZ Ltd  
Seller of USD: ABC Bank  
Spot Reference: 64.20  
Lower Strike Rate: 64.40  
Upper Strike Rate: 65.10

Expiry Date: 31/03/2018 (2 months)  
30/04/2018 (3 months)

Notional Amount: USD 2,500,000- on each date

Premium: 0.35%(USD 17,500) payable upfront on Trade date

Outcomes: On the Expiry date,  
**a)** If spot is at or below Lower strike rate 64.40, XYZ Ltd buys USD 2.50 Mio @ 64.40  
**b)** If spot is between 64.40 and 65.10, XYZ Ltd can buy at the prevailing spot FX rate (no obligation on either party)  
**c)** If spot is at or above Upper strike rate 65.10, XYZ Ltd buys 2.50 Mio @ 65.10

Remarks: This contract guarantees that the worst rate at which XYZ Ltd can buy USD is 65.10. The Rang Forward gives us the benefit of any fall in spot, but this benefit is capped at 64.40 – which represents the best-case exchange rate under this contract.

### D) SWAP:

A swap is a derivative in which two counterparties exchange cash flows of one party's financial instrument for those of the other party's financial instrument. Specifically, two counterparties agree to the exchange one stream of cash flows against another stream usually through an intermediary like a financial institution.

#### Types of Swaps:

- (i) Interest rate Swap
- (ii) Currency Swap

#### Interest rate SWAP:

- In interest Rate swap; one party agrees to make fixed rate of interest payment in return for *floating-rate interest payments* from counter party.

#### Currency SWAP in India:

- Marketed started in 1995-96
- RBI allows the use of swaps as hedge instruments
- Banks and FIs initially the market makers
- Hedging in the spot market as well as use by banks of their offshore offices to manage USD risk
- Corporates are hedging currency exposures for the ECBs loans, forex trade etc.

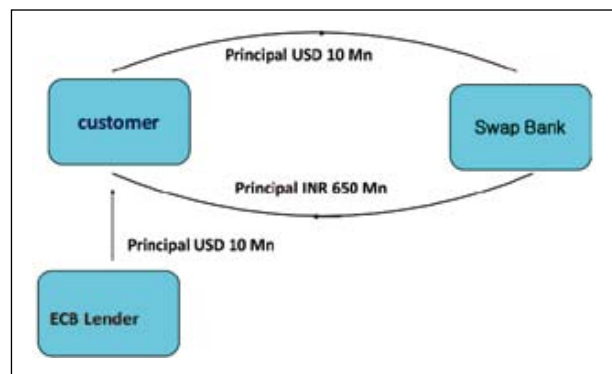
#### Currency Swap – Type:

- Total currency swap
  - Exchange rate risk on both coupon and principal
- Coupon-only swap
  - Exchange rate risk only on coupon
- Principal-only swap
  - Exchange rate risk only on principal

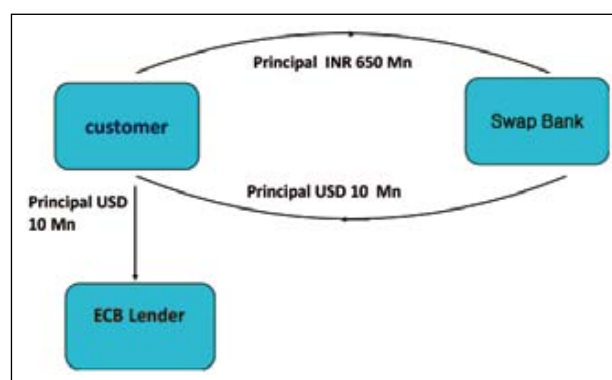
#### # Examples of Currency Swap on an ECB Loan:

- Swap Bank provided Customer with a fixed INR rate, whereby
  - Customer protected against interest risk - changes in LIBOR
  - Customer protected against exchange - changes in USD/INR exchange rate
- Swap Bank- Customer - Rupee-Dollar swap - Basic terms
  - Principal : USD 10 mn
  - Customer receives : USD 3m LIBOR + 2%
  - Customer pays : 9.5%
  - Current USD/INR rate : 65.00
  - Maturity : June 202

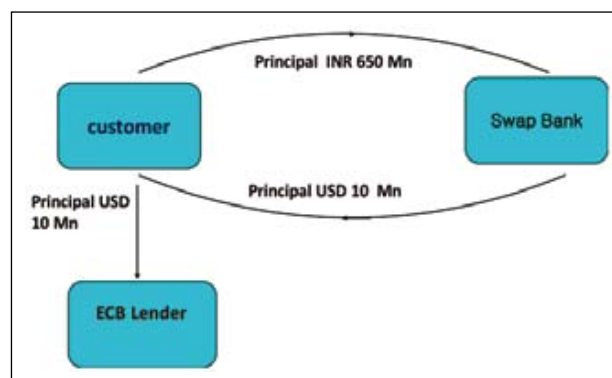
## Currency Swap – Initial Principal (Drawl) Exchange:



## Currency Swap – Interest Flow:



## Currency Swap – Final Principal (Repayment) Exchange:



## Currency Swap – An advantage:

- Lock in a fixed Rupee interest rate and principal amount for the tenor of the swap
- No uncertain cash flow implications on settlement
- Operationally convenient
- Complete hedge for interest rate and exchange rate risk for the entire tenor

## # Examples: Managing metal price risk: Aluminum price hedging

### SWAP

“A hedging company (shipping entity) enters into a swap by paying a **Fixed Price** for its aluminum against a given reference, for a known tonnage over an established future period”.

- Any price settlement above the **Fixed Price** leads to an offsetting cash payment from Bank to the shipping entity.
- Any price settlement below the **Fixed Price** leads to an offsetting cash payment from the shipping entity to Bank.

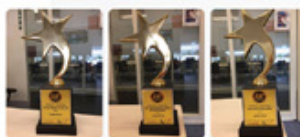
Example: SWAP

Period	Second Half (July – December) 2018
Fixed Price Payer (shipping entity)	XYZ Ltd
Fixed Price Receiver (Bank)	ABC Bank
Price	US\$ 2,625 per tonne
Reference	LME Official Primary Aluminium Price
Settlement	Monthly average rate, monthly cash settled
Amount	500 metric tonnes per month
Total Amount	3,000 metric tonnes

### Collar

“A hedging company (shipping entity) agrees to pay a **Minimum Price** for its aluminum, in return, for a given maximum price over a pre-determined period on an agreed volume”.

- Price settlement above the maximum “**Cap**” Price leads to an offsetting payment from Bank
- Price settlement below the “**Floor**” Price result in a payment from the hedging co.
- Price settlement between the min. **floor** and max **cap** price levels result in, no offsetting payments



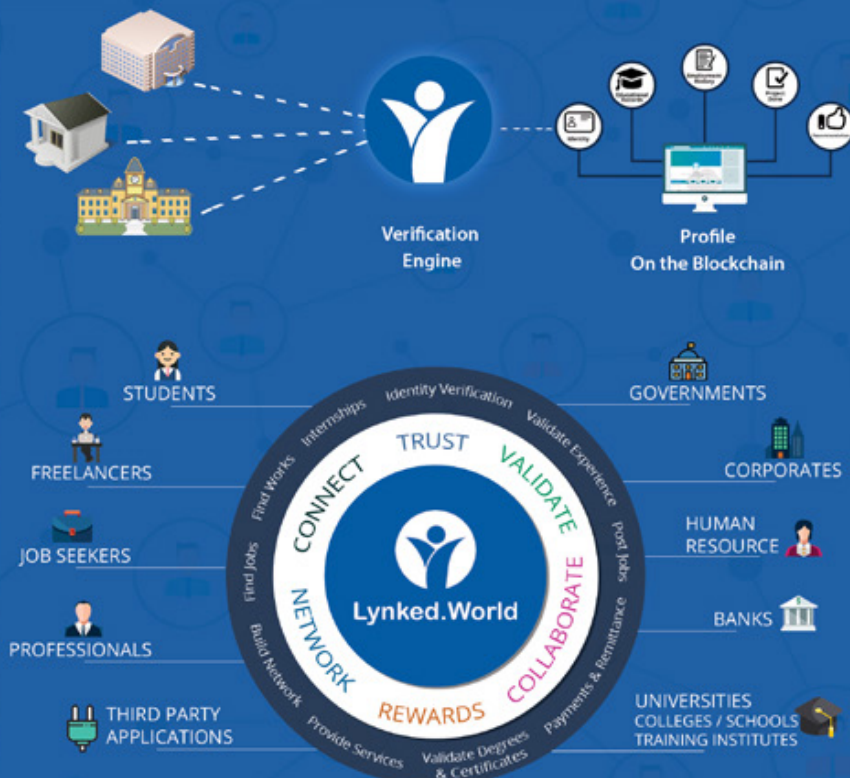
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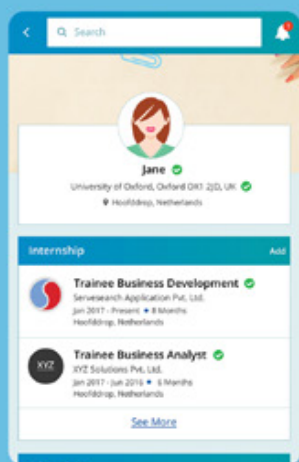
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- ✓ Digital Wallet
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- ✓ Share your document via QR code
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- ✓ End to End Encryption
- ✓ Biometric



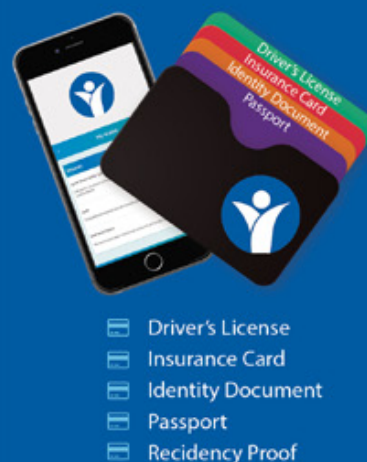
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## Example: Collar

Period	Second Half (July – December) 2018
Cap Buyer (shipping entity)	XYZ Ltd
Cap Strike	US\$ 2,875
Floor Buyer (Bank)	ABC Bank
Floor Strike	US\$ 2,410
Reference	LME Official Primary Aluminium Price
Settlement	Monthly average, monthly cash settled
Amount	500 metric tonnes per month
Total Amount	3,000 metric tonnes
Premium	Zero – Cost

## Three- way Hedge

“A three-way hedge is a variation on the zero-cost collar. It has a minimum floor price and a maximum **cap** price, but in-order to reduce the **cap** price level, the buyer agrees to limit the cap payout compensation to an agreed maximum. It does this by selling another **cap** at a higher strike.


- Price above the lower cap level leads to a compensation payment, but the payout is limited to the difference between the first cap and the higher priced (sold) cap.
- Price below the **floor** price lead to a payment from the shipping entity to Bank.
- Price above the floor, but below the cap lead to no payment.

## Example: Three – Way Hedge

Period	Second Half (July – December) 2018
Cap 1 Buyer (shipping entity)	XYZ Ltd
Cap 1 Strike	US\$ 2,800
Cap 2 Buyer (Bank)	ABC Bank
Cap 2 Strike	US\$ 2,950 (i.e. max. payout \$150)
Floor Buyer (Bank)	ABC Bank
Floor Strike	US\$ 2,300

Period	Second Half (July – December) 2018
Reference	LME Official Primary Aluminium Price
Total Amount	3,000 metric tonnes
Premium	Zero – Cost

## Benefits on hedging metal price risk on Aluminum

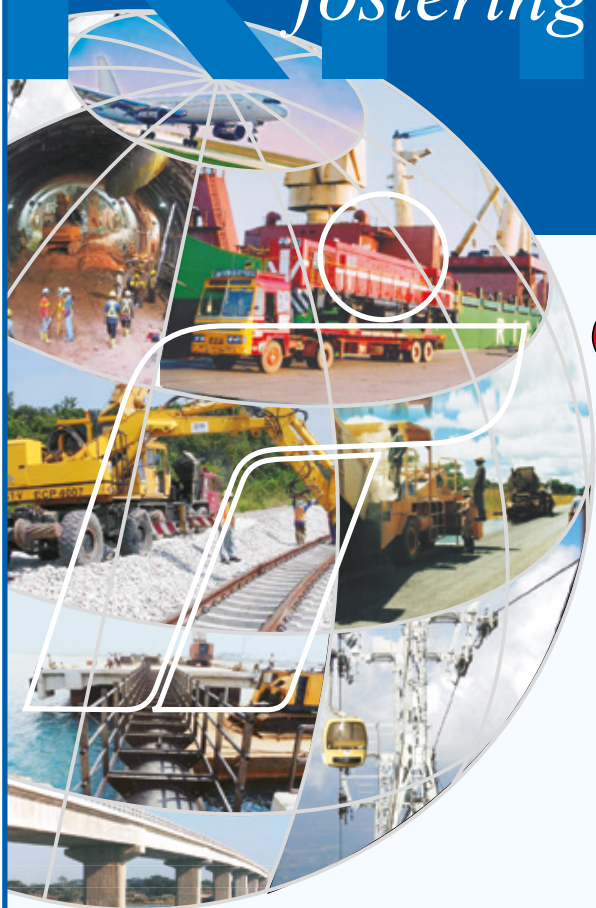
- ✓ Hedging helps protect against lower profits caused by higher Aluminum costs
- ✓ Many consumers employ a hedging policy
- ✓ Hedgers are often opportunistic in the timing of their traders, taking advantage of dips in the market to increase their hedge volumes
- ✓ Successful hedging programme pre-established aluminum strategies, including price targets and volumes 

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3. *Managing commodity risk (2001)* by John J. Stephens

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## STOCK MARKET TRADE TIMING

### IN MANAGING IMPLEMENTATION SHORTFALL

There is extant literature that address investors' activity surrounding several market anomalies such as "January Effect", "Weekend Effect", and "Day of the Week Effect" among others. Market seems to offer abnormal returns supporting each and every one of these effects in local and international markets. One of the widely tested results is the day of the week effect. Cross (1973), Gibbons and Hess (1981), Keim and Stambaugh

(1994), Rogalski (1984), and Smirluk and Starks (1986) in earlier literature establish this phenomenon that Friday offers positive and higher returns compared to any other day of the week. Other literature that further support the Friday's positive return includes Kiymaz and Berument (2001), Chen and Singal (2003), Nath and Dalvi (2004), and Mangala and Mittal (2005). Plausible explanations for such phenomenon are investors' optimism in trading Fridays, perception of having full information, closing out position before the weekend which may bring negative information. Cross (1973), French (1980), Rystrom and Benson (1989), Poshakwale (1996), Wang et al (1997), Connolly (1999), Boynton et al (2006), Christof et al (2007), and Racicot (2011), on the other hand, show that Monday offers a negative return among different days of the week. Given these phenomena on the day of the week effect, it would be interesting to explore how traders actually trade in each of the five trading days and how they perform.

While day of the week effect is present and are constantly used by traders and portfolio managers, cost minimization in trading and investment decision is also



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**6** *The research intends to explore how traders behave in each of the five trading days and implementation shortfall. It analyzes real time trading data from a sample of traders and analyze simultaneously how and whether traders can manage implementation shortfall by trading any particular day of the week and at any particular time of the day. Also, does trader's behavior resonate with the findings of day of the week effect literature. This research, hence, merge the literature from two streams to address investors' investment timing and management decision. The research considers real trading decisions of a sample of traders to analyze the impact of implementation shortfall by the day-of-the-week. Using real-time trading data on certain stocks for six consecutive months, it observes that, trading on Tuesday's last trading hours, traders incur positively significant implementation shortfall. Friday's first period trading gives traders a better position as the results indicate that trader's implementation shortfall is reduced if traded in the first trading period on Friday.*

another aspect that traders focus in portfolio decisions. Performance can also be influenced by the price (limit price vs market price) traders pay, inability to be fully invested, and related fixed charges such as commission related to the transaction. In his seminal paper, Perold (1988) is the first to address this aspect and its importance in portfolio performance measures. It is widely recognized by Wall Street pundits and academicians that stock picking ability, investment timing, and optimal allocation though highly critical in superior portfolio performance, it is however, also critical how strategies are implemented considering the cost, explicit and or implicit. According to Perold, any inefficiency can adversely affect the performance. According to Perold, by the time order comes to the market, there could be a price run up in the market already and the trader would have to revise the order price upward. As a result, execution cost would be higher than expected that results in implementation shortfall. In this paper, using real time trading data for actual traders from a major brokerage firm, the research analyze the execution cost and implementation shortfall to see if this concern is really impactful. The significance of implementation shortfall is also recognized by academician and practitioners alike and is further expanded in the existing literature (please see Wagner (1991), Wagner and Edwards (1993), Kissell (2006), Khandoker et al (2017)).

The Implementation Shortfall is a real threat for traders these days due to intense competition where some traders

are empowered with high frequency trading software, artificial intelligence, and other higher level intelligent trading platform which can significantly and adversely affect other traders who do not have any such facilities. Amihud and Mendelson (2013) indicate that in era of high frequency trading, transaction cost is an essential element of market microstructure that cannot be removed but can and should be managed by traders.

### Objective and Hypothesis

The research intends to explore how traders behave in each of the five trading days and implementation shortfall. The research analyze real time trading data from a sample of traders and analyze simultaneously how and whether traders can manage implementation shortfall by trading any particular day of the week and at any particular time of the day. The main objective is to identify market timing of stock trade to minimize transaction costs (measured by implementation shortfall).

To fulfill the objective, the following null hypothesis is tested.

$H_0$ : There is no significant association between implementation shortfall and market timing of stock trade.

### Data

Stock transaction data has been collected from finEngine Inc. - a US based trading software company that supports



big US investment houses. The researcher has been given access to use this data for academic research purpose and hence the source should remain anonymous. The data is real time intraday trading and buy side data for all clients for six consecutive months. An appropriate sample size of 81 stock at 95% confidence level, and 10% confidence interval are taken for the study using fair representation of all the sectors and industry proportionately that are part of S & P 500. All trades of these 81 stock for all clients are recorded from June 1, 2016 to November 30, 2016. Using Perold's model the research proceed with the calculation of opportunity cost for the unexecuted shares. Each calculation is sorted by each trading day of each week. The research also classifies trading hours into five equal time zones, namely, P1 (First Phase Timing: 9:30AM-10:48AM), P2 (Second Phase Timing: 10:48AM-12:06PM), P3 (Third Phase Timing: 12:06PM-01:24PM), P4 (Forth Phase Timing: 01:24PM-02:42PM), P5 (Fifth Phase Timing: 02:42PM-04:00PM). The research then clusters all trades for each time zone and calculate each type of cost under each trading zone. The objective is to see if any trading day offers any significance in implementation shortfall and execution cost. Similarly, it also tests whether any trading time zone of any trading day offers a significant

relationship with implementation shortfall. During these periods, traders have transacted a total of 8892 trades. The research calculates implementation shortfall for each trade of each client.

### Analysis and Findings

Table 1 presents the relationship between implementation shortfall (IS) and different trading days individually. It appears that except for Friday and Tuesday, there is no relationship between day of the trading with implementation shortfall with any of the other three days. Implementation shortfall is positively influenced by Tuesday's trading at 10% level of significance. It implies that there are not many sellers/supply of liquidity on Tuesday for which IS rises while trading. IS, on the other hand, is negatively influenced by Friday's trading at 5% level of significance indicating that trader can reduce IS if trades on Friday. It is an indication that market participation on Friday is quite high and highly competitive. As a result, traders can lower IS compared to other trading days contributing to higher portfolio return. This result is consistent with the literature that test for the day of the week effect on stock return and existing findings suggest that return on Friday is higher than any other days.

**Table 1:** Regression results show the significance of Implementation Shortfall (IS) based on trading days. All trading days are included to test whether trading any particular day significantly affects IS.

	Variable	Coefficient	t-Statistics	Probability	R <sup>2</sup>	Adj R <sup>2</sup>
MO	Constant	11.21235	3.19678	0.0014	0.000078	-0.000035
	Beta	-6.83003	-0.83067	0.4062		
TU	Constant	6.98477	1.95766	0.0503	0.000375	0.000026
	Beta	14.23090	1.82663	0.0678		
WE	Constant	8.65387	2.38592	0.0171	0.000063	-0.000050
	Beta	5.59761	0.74821	0.4544		
TH	Constant	9.68952	2.76041	0.0058	0.000004	-0.000109
	Beta	1.52856	0.18639	0.8521		
FR	Constant	13.15158	3.73183	0.0002	0.000482	0.000370
	Beta	-6.74238	-2.07112	0.0384		

Table 2 presents the results of trade timing effect on IS. Trading hours are classified into five categories. The research objective is to explore whether any particular time of the day is cost effective in trading. All trading days' data are combined in the analysis and result shows that none of the time period has any significant impact on IS.

**Table 2:** Regression results for the relationship between IS and different trading times of all trading days combined.

	Variable	Coefficient	t-Statistics	Probability	R <sup>2</sup>	Adj R <sup>2</sup>
<b>P1</b>	Constant	11.66301	3.25604	0.0011	0.000117	0.000004
	Beta	-7.85100	-1.01796	0.3083		
<b>P2</b>	Constant	10.05614	2.84069	0.0045	0.000000	-0.000112
	Beta	-0.43974	-0.05512	0.9560		
<b>P3</b>	Constant	9.73223	2.81839	0.0048	0.000003	-0.000109
	Beta	1.52146	0.17402	0.8619		
<b>P4</b>	Constant	10.04122	2.88902	0.0039	0.000000	-0.000112
	Beta	-0.42947	-0.05048	0.9597		
<b>P5</b>	Constant	8.26031	2.23315	0.0256	0.000091	-0.000022
	Beta	6.46196	0.89847	0.3690		

The research then continues to analyze trade timing for each of the trading day individually. Table 3 includes Monday's to Friday's trading times and regression results imply that none of the trading time has any significance in IS except Last Phase Timing of Tuesday's (**TU\_P5**) and First Phase Timing of Friday's (**FR\_P1**) implementation shortfall.

**Table 3:** Regression results for the relationship between IS and different trading times of Monday's to Friday's trading.

	Variable	Coefficient	t-Statistics	Probability	R <sup>2</sup>	Adj R <sup>2</sup>
<b>MO_P1</b>	Constant	10.35939	3.198382	0.0014	0.000040	-0.000072
	Beta	-9.575895	-0.596527	0.5508		
<b>MO_P2</b>	Constant	10.18319	3.160121	0.0016	0.000016	-0.000096
	Beta	-6.933329	-0.377691	0.7057		
<b>MO_P3</b>	Constant	9.963089	3.094302	0.0020	0.000000	-0.000112
	Beta	0.220937	0.011733	0.9906		
<b>MO_P4</b>	Constant	9.860728	3.060210	0.0022	0.000004	-0.000108
	Beta	3.544454	0.192741	0.8472		
<b>MO_P5</b>	Constant	10.54604	3.239409	0.0012	0.000070	-0.000043
	Beta	-11.41678	-0.788031	0.4307		
<b>TU_P1</b>	Constant	10.72119	3.304418	0.0010	0.000137	0.000024
	Beta	-17.04991	-1.103361	0.2699		
<b>TU_P2</b>	Constant	9.547978	2.947183	0.0032	0.000046	-0.000066
	Beta	10.24210	0.641395	0.5213		

	Variable	Coefficient	t-Statistics	Probability	R <sup>2</sup>	Adj R <sup>2</sup>
TU_P3	Constant	10.26872	3.185206	0.0015	0.000031	-0.000082
	Beta	-9.433491	-0.521097	0.6023		
TU_P4	Constant	9.664507	2.990812	0.0028	0.000028	-0.000085
	Beta	8.423690	0.496067	0.6199		
TU_P5	Constant	7.148170	2.190878	0.0285	0.001500	0.001387
	Beta	50.37691	3.654010	0.0003		
WE_P1	Constant	8.878956	2.721732	0.0065	0.000230	0.000118
	Beta	19.99495	1.431446	0.1523		
WE_P2	Constant	9.835646	3.035202	0.0024	0.000005	-0.000108
	Beta	3.217998	0.202568	0.8395		
WE_P3	Constant	9.732591	3.005706	0.0027	0.000015	-0.000097
	Beta	5.902033	0.365220	0.7150		
WE_P4	Constant	10.39220	3.211159	0.0013	0.000049	-0.000063
	Beta	-10.79949	-0.660157	0.5092		
WE_P5	Constant	9.941067	3.038974	0.0024	0.000000	-0.000112
	Beta	0.478751	0.035697	0.9715		
TH_P1	Constant	9.555176	2.953209	0.0032	0.000048	-0.000065
	Beta	10.71106	0.651130	0.5150		
TH_P2	Constant	10.19501	3.154964	0.0016	0.000015	-0.000097
	Beta	-6.226188	-0.366655	0.7139		
TH_P3	Constant	9.748016	3.032968	0.0024	0.000021	-0.000092
	Beta	8.602061	0.429509	0.6676		
TH_P4	Constant	9.760057	3.024763	0.0025	0.000014	-0.000098
	Beta	6.272067	0.355245	0.7224		
TH_P5	Constant	10.35689	3.183887	0.0015	0.000033	-0.000080
	Beta	-7.917811	0.538367	0.5903		
FR_P1	Constant	11.69989	3.619440	0.0003	0.000855	0.000742
	Beta	-45.92906	-2.757844	0.0058		

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	Variable	Coefficient	t-Statistics	Probability	R <sup>2</sup>	Adj R <sup>2</sup>
FR_P2	Constant	10.15607	3.125063	0.0018	0.000008	-0.000105
	Beta	-3.958270	0.264391	0.7915		
FR_P3	Constant	9.930191	3.083907	0.0020	0.000001	-0.000112
	Beta	1.340888	0.071344	0.9431		
FR_P4	Constant	10.23233	3.180910	0.0015	0.000027	-0.000085
	Beta	-9.576516	-0.493150	0.6219		
FR_P5	Constant	10.51289	3.232660	0.0012	0.000065	-0.000048
	Beta	-11.20971	-0.758877	0.4479		

The research observes that Last Phase Timing of Tuesday's (TU\_P5) is positively significantly influences IS at 1% level of significance. A plausible explanation is that traders seem to wait after the weekend and until by the end of the Tuesday trading to rush and place orders. That probably creates a bidding war and with less supply of the stocks, traders end up adding more to the implementation shortfall than other trader hours. Intuitively, if any trader wishes to manage implementation shortfall, it is better not to trade on Tuesday last trading hours.

It shows that First Phase Timing of Friday's (FR\_P1) is negatively significantly influences IS at 1% level of significance. That is a clear indication that if trader wishes to reduce implementation shortfall, probably the best time period to trade is the first trading period of Fridays. Many plausible explanations why Friday's liquidity is very high and as market makers and other traders who like to close their inventory by the weekend are present in the market at the last trading days. As a result, bid-ask spread is probably low and there is pressure in lowering ask price as well increasing bid price by the traders who wish to close their inventory of holdings either short position and or long position. Day traders also tend to close their positions before the end of the week as they do not wish to carry inventory for the following week as weekend may bring surprising and adverse information to the market.

## Conclusion

The Implementation shortfall is first introduced by Perold (1988). In his seminal paper, Perold points out that cost of trading is not simply the cost of execution, it can magnify due to unfavorable price paid in transaction and opportunity cost for not being able to trade total quantity

desired. Wagner and Edwards (1993), Kissell (2006) and Khandoker et al (2017) further expand on the analysis to give better insights and understanding of implementation shortfall. The research explores the practical implication of implementation shortfall on traders' trading decision whether it is indeed critical as the theoretical literature suggests. The research considers real trading decisions of a sample of traders to analyze the impact of implementation shortfall by the day-of-the-week. Using real-time trading data on certain stocks for six consecutive months, The research observes that, trading on Tuesday's last trading hours, traders incur positively significant implementation shortfall at 1% level of significance. Friday's first period trading gives traders a better position as the results indicate that trader's implementation shortfall is reduced if traded in the first trading period on Friday. This finding support the seasonality literature that support that returns are positive on Fridays and traders indeed enjoy bargaining power trading first trading period of Fridays. The research contributes to the literature as it is the first, to the best of knowledge, who study real traders' trading data to estimate implementation shortfall at various times and day of the week to see if it can be managed. A future direction of research would be to incorporate implementation shortfall in measuring performance and alpha for traders. **MA**

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## IMPACT OF CAPITAL STRUCTURE DECISIONS ON SIZE OF FIRM

### AN EMPIRICAL STUDY UTILIZING FACTOR ANALYSIS

Capital Structure decisions are one of the crucial decisions in corporate finance. The finance managers are always in dilemma regarding what should be the proportion of debt and equity in the capital structure. If more debt is included in the capital structure it increases the financial risk of the company while inclusion of more equity may result in dilution of ownership control. Hence the finance managers should always aim towards optimal capital structure so as to maximize the wealth of the shareholders and minimize the cost of capital.

This study has been undertaken so as to investigate the variables related to capital structure decisions influencing the Size of the firm of BSE Sensex companies. BSE Sensex has been taken into consideration for the present study because it consists of 30 actively traded securities of well established and financially sound companies of Bombay Stock Exchange. It consists of companies comprising of cross sectional of different industries rather than to concentrate on one industry. The period of the study is from 2009-10 to 2013 -14 (i.e. for 5 years). 6(Six) independent variables related to capital structure decisions and 1 (one)

dependent variable namely “Size of the Firm” has been taken into consideration for the study.

#### Literature Review

A thorough literature review has been done before selecting the appropriate variables for this study. Those variables which might have an influence on the capital structure decisions of an organization are taken as Independent variables for the study. Six variables related to capital structure determinants are extracted from previous work. It has been an endeavour in this paper to study the impact of these variables on the ‘Size of the firm’. A number of past works has been refereed to while preparing for this paper. Some of these past works are mentioned below:

- Thomas et al in their research paper titled “Do Profitability, Firm Size and Liquidity affect Capital Structure? Evidence from Kenyan Listed Firms have tried to determine the effect of liquidity, firm’s size and profitability on the capital structure by using panel regression technique. It was concluded from the study that while liquidity and profitability are negatively and significantly influencing capital structure decisions, firm’s size is positively correlated but not significantly influencing the capital structure decisions of the organization.
- Phuja and Sahi in their research paper titled “Factors Affecting Capital Structure Decisions: Empirical Evidence from Selected Indian Firms have tried to determine the variables significantly influencing the capital structure of firms in Indian Scenario with reference to BSE Sensex. The dependent variable taken for the study was Debt equity ratio. The independent variable taken into consideration for the study included size, growth, profitability and tangibility. It



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was concluded from the study that two independent variables were found to be significant determinants of capital structure namely growth and liquidity.

- Alipour et al in their research paper titled “Determinants of capital structure: An empirical study of firms in Iran” have analysed the capital structure determinants in Iranian environment emphasising on the manufacturing firms listed in Tehran Stock Exchange from 2003 to 2007. The result of the study concluded that variables like asset structure, size of the firm, profitability, liquidity and growth are the main determinants of capital structure in the Iranian environment.
- Keshar Baral in his research paper titled “Determinants of Capital Structure: A Case Study of Listed Companies of Nepal” tried to investigate into the variables determining the capital structure of companies listed in Nepal Stock Exchange. It was revealed from the result that Size, Growth rate and earning rate are significantly influencing the capital structure of the companies in Nepalese environment.
- Patrik Baur in his research paper titled “Determinants of Capital Structure: Empirical Evidence of Czech Republic” concluded from the results of his study that financial leverage is significantly and positively related to size and tax but is negatively related to profitability, tangibility and growth opportunity.

## Research Methodology

The present research paper is based on secondary data of BSE Sensex companies derived from CMIE Prowess data base software. The data has been collected for 30 companies. The data has been collected for the financial year from 2009-10 to 2013-14 (i.e. for 5 years). SPSS 20.0 has been used analysis purpose.

## Objectives of the study

The major objective of the study is as follows:

- ★ To determine the independent variables related to capital structure decisions which are significantly influencing the ‘Size of the firm’ of BSE Sensex companies.
- ★ To rank those independent variables significantly influencing the ‘Size of the firm’ as per the Beta values derived from the regression analysis.

## Definition of the different variables taken for this study

The definition of the different variables taken for this study is given below in the Table 1:

**Table 1: Definition of different variables:**

Variables	Definition used in the study
Size of the Firms (Dependent Variable)	Log (Average Total Sales)
Tangibility (Independent Variable)	Average Net Fixed Assets/ Average Total Assets
Non Debt Tax Shield (Independent Variable)	Average Depreciation/ Average Total Assets
Financial Leverage (Independent Variable)	Average Total Debt/ Average Total Assets
Interest Coverage Ratio (Independent Variable)	Average EBIT/ Average Total Interest paid
Current ratio (Independent Variable)	Average Current assets/ Average Current Liability
Return on Assets (Independent Variable)	Average EBIT/ Average Total assets

*Compiled by the author*

Note:

i) Total Debt = Total Borrowings + Current Liability and Provisions

ii) Average denotes the Average of the variables from 2009-10 to 2013-14 (i.e. for 5 years)

## Analysis

Multi-collinearity problem has been investigated using Collinearity diagnostic option in SPSS 20. Variance Inflation Factor has been utilized to investigate into the multicollinearity problem. If multicollinearity exists between the independent variables then multiple regression analysis will not yield correct results. Hence it is very important so as to remove the multicollinearity problem (if any existing) among the independent variables before proceeding with the regression analysis. Six independent variables namely ‘Financial Leverage’, ‘Interest Coverage Ratio’, ‘Current Ratio’, ‘Return on Assets’, ‘Tangibility’ and ‘Non debt Tax Shield’, has been taken into consideration for investigating into the multicollinearity problem. If VIF = 1 then it can be said that multicollinearity problem doesn’t exist among the independent variables. But in practical situation it is almost impossible that VIF =

1 because some sort of multicollinearity problem will exist among the independent variables. It can be observed from the Table 2 that 'Current Ratio', 'Tangibility' and 'Non debt Tax shield' are having multicollinearity problem (as  $VIF > 2$ ). Hence we cannot proceed with the regression analysis taking 'Size of the Firm' as dependent variable and the above six as independent variables. Thus Factor analysis was conducted on the six independent variables. The result of Table 2 is given below:

**Table 2: VIF (Variance Inflation Factor) of the independent variables**

Model		Collinearity Statistics	
		Tolerance	VIF
1	Financial Leverage	.617	1.620
	Interest Coverage ratio	.658	1.519
	Return on assets	.786	1.273
	Current Ratio	.486	<b>2.059</b>
	Tangibility	.375	<b>2.670</b>
	Non Debt Tax Shield	.342	<b>2.924</b>
a. Dependent Variable: Log sales			

*Computed by the author*

Factor Analysis has been conducted taking 6 independent variables namely 'Financial Leverage', 'Interest Coverage Ratio', 'Current Ratio', 'Return on Assets',

'Tangibility' and 'Non debt Tax Shield' so to identify those independent variables which can be used in the multiple regression analysis. Factor Analysis is basically conducted as multicollinearity problem was found among the independent variables. It is observed from Table 3 that KMO (Kaiser Meyer Olkin test) is .640. As the KMO is above .60 we can safely proceed with the factor analysis. The significance level as per Bartlett's Test of Sphericity (.000) is  $< .05$  indicating sample adequacy. The result of Table 3 is given below:

**Table 3: KMO and Bartlett's Test:**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.640
Bartlett's Test of Sphericity	Approx. Chi-Square	52.925
	df	15
	Sig.	.000

*Computed by the author*

Eigen Values basically represents that total variance explained by each factor. It is observed from the Table 4 that first 3 factors represent 81% of the total variance explained. Factor numbers 4, 5 and 6 are not taken into consideration for the final analysis, their cumulative Eigen value is approximately 19%. Hence three factors are extracted through Principal Component Analysis by utilizing SPSS. The result of Table 4 is given below:

**Table 4 : Eigen Values (Total Variance Explained)**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.410	40.163	40.163	2.410	40.163	40.163	1.954	32.564	32.564
2	1.426	23.772	63.935	1.426	23.772	63.935	1.521	25.353	57.916
3	1.049	17.475	81.411	1.049	17.475	81.411	1.410	23.494	81.411
4	.617	10.286	91.696						
5	.300	4.997	96.693						
6	.198	3.307	100.000						

Extraction Method: Principal Component Analysis.

*Computed by the author*

It is observed from the Rotated component matrix in Table 4 that 3 factors has been derived. The first factor comprises of 'Tangibility' and 'Non debt Tax Shield' with factor loadings of .915 and .901 respectively. The second factor comprises of 'Financial Leverage' and 'Current Ratio' having factor loading of .941 and -.778 respectively. Further it is observed

that factor 3 comprises of 'Interest Coverage ratio' and 'Return on Assets' with factor loadings of .765 and .883 respectively. The result of Table 5 is given below:

**Table 5 : Rotated Component Matrix**

	Component		
	1	2	3
Financial Leverage		.941	
Interest Coverage ratio			.765
Return on assets			.883
Current Ratio		-.778	
Tangibility	.915		
Non Debt Tax Shield	.901		
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 4 iterations.			

*Computed by the Author*

After the three Factors has been derived from the above table (Table5) we take the absolute values of the factor loadings and select those variables having the highest factor loading in each factor. Thus we select 'Tangibility' (factor loading of .915) from factor 1, 'Financial Leverage' (factor loading of .941) from factor 2 and 'Return on Assets' (Factor loading of .883) from Factor 3 respectively.

Hence we will run a multiple regression analysis using the selected independent variables from the respective factors i.e. 'Tangibility', 'Financial Leverage' and 'Return of Assets' and 1 dependent variable i.e. 'Size of the firm'.

Before conducting the regression analysis the VIF of each selected variables as above is checked through Collinearity Diagnostic. It is observed from Table 6 that VIF of the three

independent variables are around 1. Hence we can safely deduce that multi-collinearity problems are not present among the independent variables. The result of Table 6 is given below:

**Table 6 : VIF computation**

Model		Collinearity Statistics	
		Tolerance	VIF
1	Financial Leverage	.983	1.018
	Tangibility	.982	1.018
	Return on assets	.999	1.001
a. Dependent Variable: Size of the Firm			

*Computed by the Author*

It is observed from Table 7 that the regression analysis result reflects that  $R^2$  (Coefficient of Determination) is .316 i.e. 31.6 % of the variation of the dependent variable is explained by the three independent variables taken together. The result of Table 7 is given below:

**Table 7: Determination of  $R^2$**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.562 <sup>a</sup>	.316	.237	.69877

*Computed by the Author*

It is further observed from the Regression Analysis results in Table 8 below that 'Financial Leverage' with t value of -2.506 and p value of .019 and 'Tangibility' with t value of 2.685 and p value of .012 are significantly influencing the 'Size of the firm' while 'Return on Assets' is insignificant variable (with t value of -.294 and p value of .771). The result of Table 8 is given below:

**Table 8: Regression results**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.678	.412		13.767	.000
	<b>Financial Leverage</b>	-1.934	.771	-.410	<b>-2.506</b>	<b>.019</b>
	<b>Tangibility</b>	2.673	.995	.439	<b>2.685</b>	<b>.012</b>
	Return on assets	-.381	1.294	-.048	-.294	.771
a. Dependent Variable: Size of the Firm						

*Computed by the Author*



## Conclusion

It is observed from the above study 'Tangibility' and 'Financial leverage' is significantly influencing the 'Size of the Firm'. If we rank the above variables by using their absolute beta it is observed from Table 9 that 'Tangibility' is the most significant variable influencing the 'Size of the firm' followed by 'Financial Leverage'. **MA**

The result of Table 8 is given below:

**Table 9: Ranking of the Variables as per the beta values**

Name of the Variables	Beta	Rank	Significant Influence
Tangibility	2.685	1	Positive
Financial Leverage	2.506	2	Negative

It is also further observed from Table 8 that 'Tangibility' is positively influencing the 'Size of the firm' while 'Financial Leverage' is negatively influencing the 'Size of the Firm'.

It implies that with the increase of the 'Tangibility', 'Size of the Firm' also increases. Hence it can be said that with the increase of the fixed assets, the size of the firm also increases. It can be further said that with the increase of the debt component in the capital structure i.e. 'Financial Leverage', the Size of the firm decreases and vice versa is also true.

Thus it can be concluded from the study that 'Financial Leverage' and 'Tangibility' is significantly influencing the 'Size of the firm' in the BSE Sensex companies.

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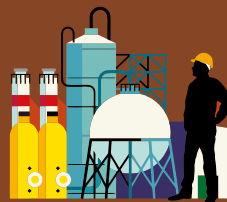
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Commercial Enterprise  
**Highest**  
Highest sales turnover  
among corporates  
in India



## Tops

Tops Indian Corporates  
in the prestigious  
*Fortune* 'Global 500'  
listing of the world's  
largest companies



## Biggest

Owens the biggest  
network of fuel  
stations in the  
country

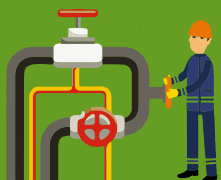


## Largest

Owens the largest  
combined refining  
capacity in  
the country

## Widest

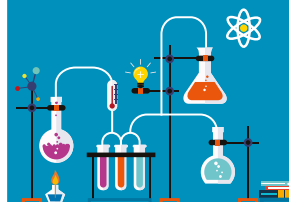
Owens the widest  
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pipelines



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## Advanced

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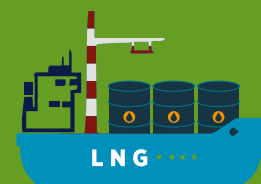
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and gas marketing

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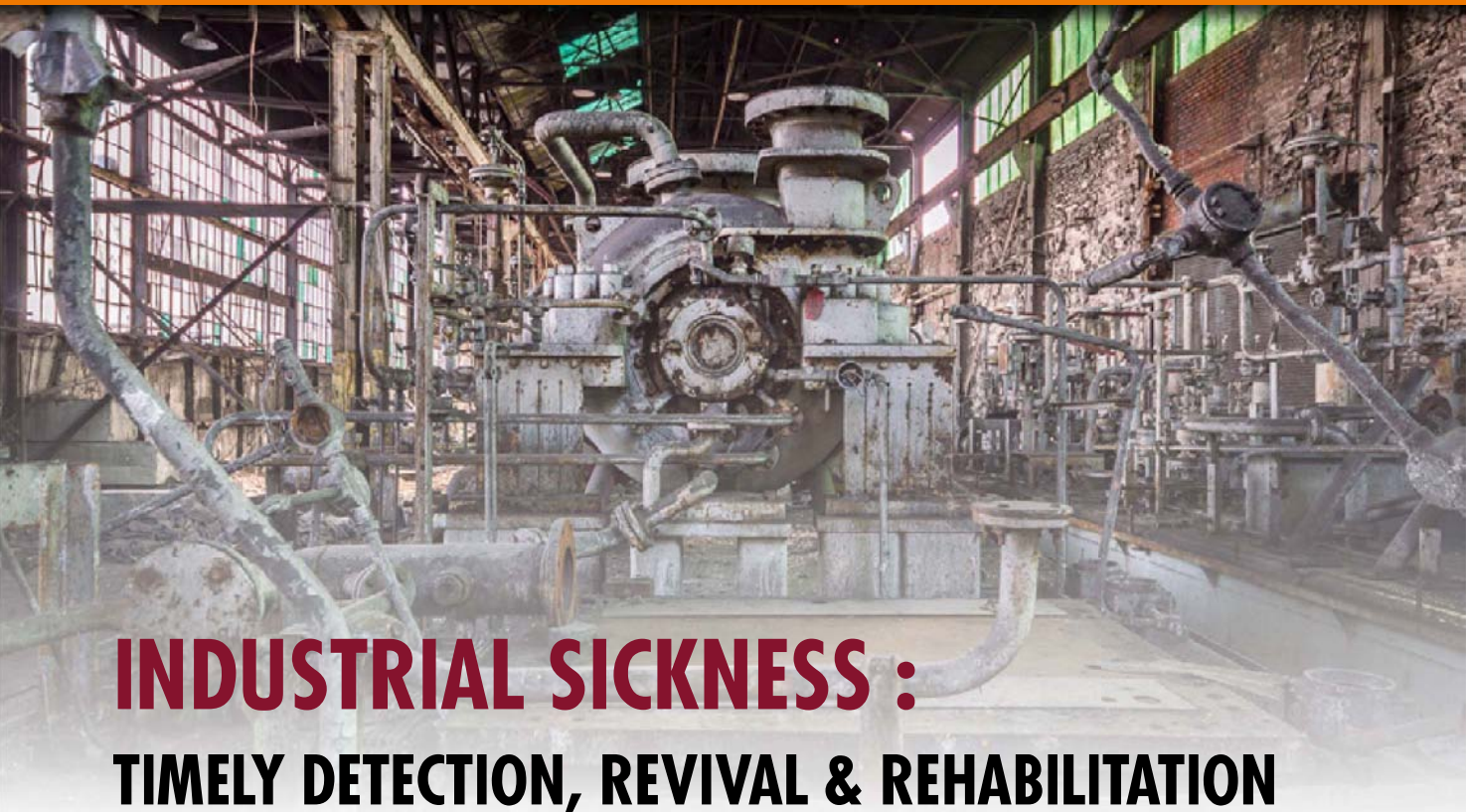
## Leader

Bagged the prestigious  
Platts Global Energy  
Award-2017 for  
Industry Leadership -  
Downstream



## Best

Emerged as 'Best PSU  
Company to work For'  
in India



## INDUSTRIAL SICKNESS : TIMELY DETECTION, REVIVAL & REHABILITATION

**E**conomies all over the world both in developed and developing nations have had to rely on Industrialization as one of the factors for speedy growth in the Country. Industrialization has led to the setting up of manufacturing units in all sectors, may it be in engineering both light & heavy, pharmaceuticals, chemicals, plastics, aeronautical, agricultural & farm equipments, vehicles manufacturing, IT Equipments, Furniture & Fixtures etc. Setting up of Manufacturing facilities has benefited in terms of proper utilization

of local natural resources, creation of employment opportunities for the local population both educated and the non educated class, production of goods and services, creation and development of ancillary units in and around the manufacturing facility and facilitated in improvement of infrastructure in terms of road and railways. Many units are being conceptualized and other are being set up on a regular basis both in the private & public sector.

However Industrialization does have its own shortcomings. Poorly conceptualized projects, Over Optimistic business plans, delayed project implementation, cost over runs, obsolete technology, inefficient plant & machinery, poor capacity utilization, delayed loan disbursements by financial institutions, highly leveraged capital structure, delayed approvals by local authorities, production problems, faulty marketing strategies, market recession, poor industrial relations, mismanagement by the top management of the company and frauds & mis-appropriation of funds by promoters have resulted in industries becoming sick.

Industrial Sickness causes under utilization of precious capital assets of the nation, delays capital formation,



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**Industrial Sickness has a far reaching impact on the economy of the country. It becomes imperative that the health of the industrial units is regularly and properly monitored, indications of sickness timely detected, the units which have shown signs of sickness or are becoming sick or who have already fallen sick are treated, revived and rehabilitated in the overall interest of the economy. This research paper submits the meaning of sickness, enumerates the causes of sickness, lists out the indicators of sickness & the various types of sick units. It also discusses the mechanisms available for revival and rehabilitation**

leads to large scale un-employment and labour unrest, profitability of commercial banks and financial institutions gets severely affected and investor confidence reaches a low ebb.

### Objectives

1. To Understand the meaning of Industrial Sickness
2. To Identify the Causes, Indicators of Industrial Sickness & Types of Sick Units.
3. To Briefly Understand the Mechanisms of Revival & Rehabilitation of Sick Units

### Literature Review

#### Descriptive Studies

Dutt Ruddar (1979) "Sickness in Indian Industry" enumerated the exogenous and endogenous factors responsible for Industrial sickness and the available revival options.

Dholakia Bakul (1989) "Industrial Sickness in India - A Weed for Comprehensive Identification Criteria" discussed the Identification criteria used by RBI and Financial Institutions and concluded that there was a need for revisiting and restricting the processes of early identification and detection of sickness.

Khandwala Pradeep (1998) in his paper "What Financial Institutions can do to prevent Sickness" carried out a Interview and Questionnaire Survey with 36 Rehabilitation Officers from banks & financial institutions. The study confirms the findings of earlier studies that the major cause of enterprise sickness is in appropriate management.

Singh Navneeta (2011) "Industrial Sickness – Causes and Remedies" discussed the various stages of sickness and the importance of preventive measures.

Datta Dilip Kumar (2012) "Industrial Sickness In India - A Macro Economic Concept" wanted to create an awareness amongst the management of industrial units in regard to impact of sickness on the economy..

#### Empirical Studies

Sharma Subhash & Mahajan Vijay (1980) "Early Warning Indicators of Business Failure" enumerate the predictive models like Beaver(1966), Altaman (1968), Blum (1974) and Taffler and Tisshaw (1974). Sharma & Mahajan also developed their model to predict failed and non failed firms.

Murthy AVN & Mishra DP (2004) "Cash Flow Ratios as Indicators of Corporate Failure" discuss a cash flow model which can act as a potential forewarning system for corporate failure or sickness.

#### Research Method

Since the Research Paper is conceptual and review in nature, the researcher has applied exploratory search design by using secondary data. Various Indian Economy Reports, RBI Annual Reports and Statistics, Journals and Newspaper articles and Websites have been referred to and reviewed.

#### Sickness in India

Table 65 of the RBI ( Reserve Bank of India ) Hand Book on Statistics of Indian Economy published in its website [www.rbi.nic.in](http://www.rbi.nic.in) shows the magnitude of the non performing assets (NPA's) in the books of commercial banks and the indicative industrial sickness prevalent in the Indian Economy.



**Figure 1: Gross & Net NPAs of Scheduled Commercial Banks**

GROSS AND NET NPAs OF SCHEDULED COMMERCIAL BANKS BANK GROUP-WISE								
(Amount in Billion)								
Year (end- March)	Advances		Non-Performing Assets (NPAs)					
	Gross	Net	Gross			Net		
			Amount	As Percentage of Gross Advances	As Percentage of Total Assets	Amount	As Percentage of Net Advances	As Percentage of Total Assets
1	2	3	4	5	6	7	8	9
Scheduled Commercial Banks								
2004-05	11526.82	11156.63	593.73	5.2	2.5	217.54	2.0	0.9
2005-06	15513.78	15168.11	510.97	3.3	1.8	185.43	1.2	0.7
2006-07	20125.10	19812.37	504.86	2.5	1.5	201.01	1.0	0.6
2007-08	25078.85	24769.36	563.09	2.3	1.3	247.30	1.0	0.6
2008-09	30382.54	29999.24	683.28	2.3	1.3	315.64	1.1	0.6
2009-10	35449.65	34970.92	846.98	2.4	1.4	387.23	1.1	0.6
2010-11	40120.79	42987.04	979.00	2.5	1.4	417.00	1.1	0.6
2011-12	46488.08	50735.59	1423.26	3.1	1.7	650.19	1.3	0.8
2012-13	59718.20	58797.73	1935.09	3.2	2.0	986.09	1.7	1.0
2013-14	68757.48	67352.13	2633.72	3.8	2.4	1423.83	2.1	1.3
2014-15	75606.66	73881.60	3233.35	4.3	2.7	1758.41	2.4	1.5
2015-16	81673.45	78964.67	6119.47	7.5	4.7	3498.20	4.4	2.7

## Sickness : Meaning , Indicators , Causes and Types of Sickness

### (a) Meaning of Sickness :

RBI has defined a sick unit as one which has incurred a cash loss for 1 (one) year and is likely to continue incurring losses for the current year as well as in the following year and the unit has an imbalance in its financial structure such that its current ratio is less than 1:1 and there is worsening trend in its debt equity ratio.

Whereas as per Section 2(46AA) of the Companies Act, 1956 "Sick Industrial Company " means an Industrial Company which has at the end of any financial year (a) Accumulated Losses Exceeding 50% of the average net worth during 4 years(b) Has failed to repay its Debts to the Creditors in 3 consecutive quarters on demand made in writing for such repayment.

### (b) Indicators of Sickness

Industries do not become sick over night , Units become

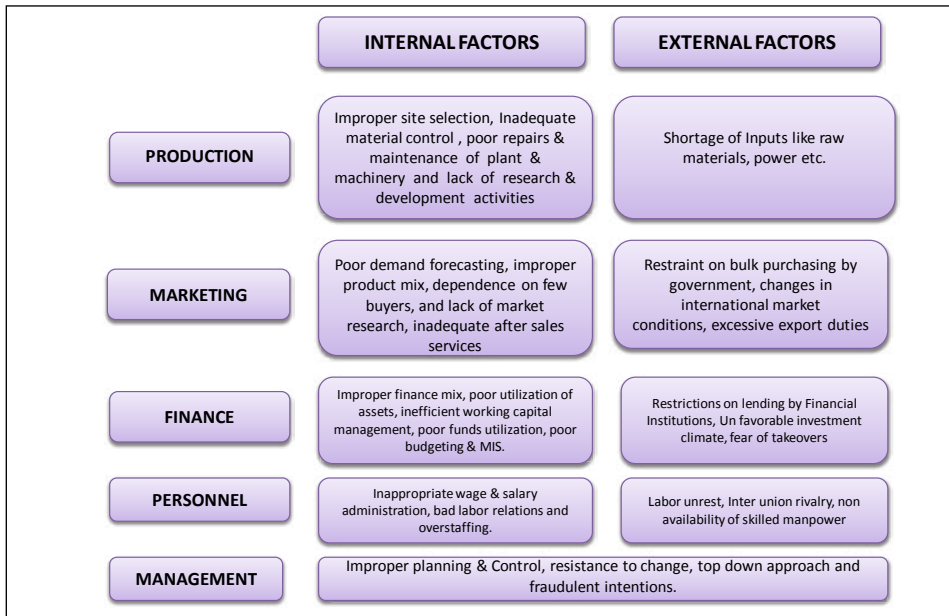
sick over a period of time .

The indicators of sickness can be enumerated as follows :

- Continuous reduction in turnover.
- Piling up of Inventory.
- Continuous reduction of net profit to sales ratio.
- Short term borrowings at high interest rates.
- Continuous cash losses leading to erosion of tangible net worth.
- Default in payment of Interest and term loan installments
- High levels of Sundry Debtors and Sundry Creditors.
- Approaching the bankers for temporary overdrafts at frequent intervals
- High turnover of key personnel
- Change in accounting procedure with a view to window dress and
- Delay in finalization of annual accounts.

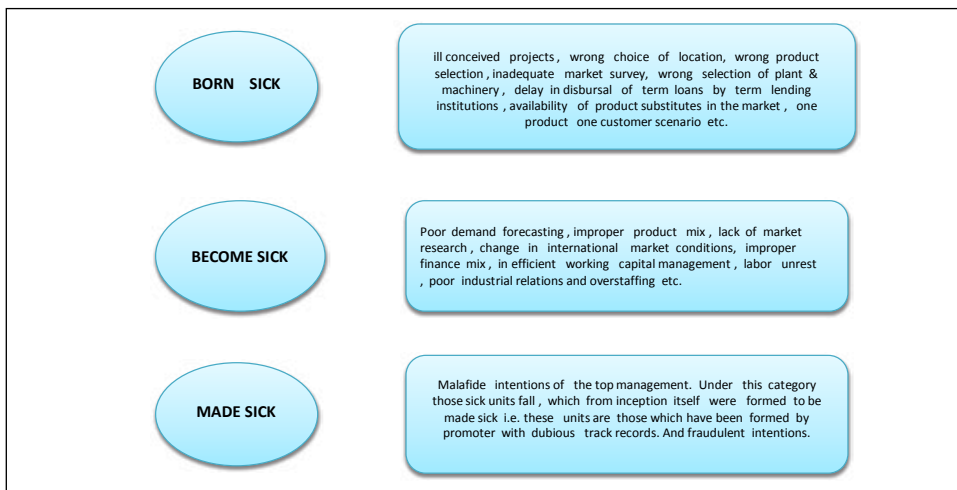
(c) Causes of Sickness :

Figure 2 : Factors affecting Sickness



(d) Types of Industrial Sick Units :

Figure 3 : Types of Sick Units



(Source : Dr Navneeta Singh , Industrial Sickness : Causes & Remedies(Lucknow 2011 ( PP15-17)

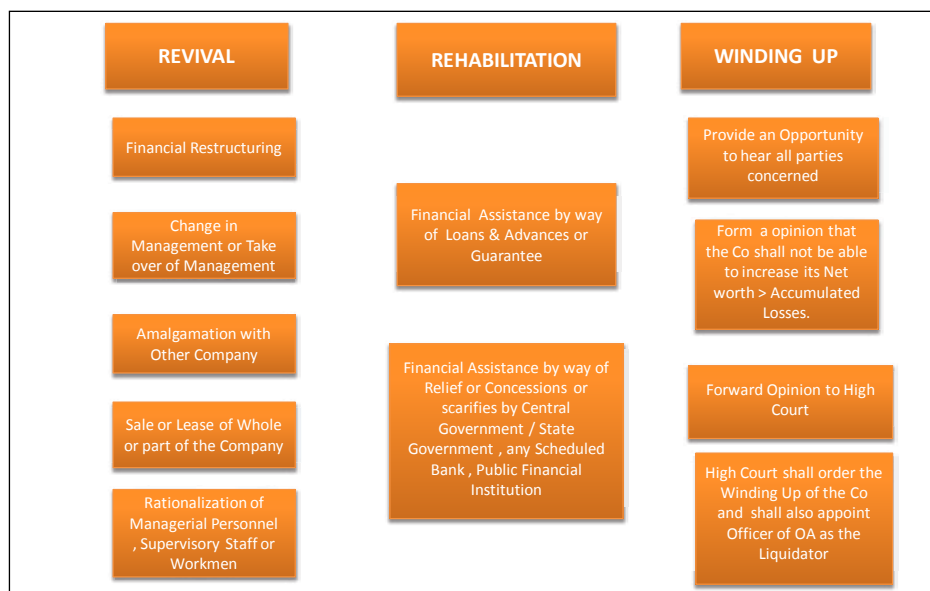
## Mechanisms of Revival & Rehabilitation

### (1) BIFR

The Board for Industrial and Financial Reconstruction (BIFR) is an agency of the government of India, part of the Department of Financial Services of the Ministry of Finance. Its objective is to determine sickness of industrial companies and to assist in reviving those that may be viable and shutting down the others.

However BIFR has failed in achieving its objectives since it has been misused by promoters to delay legal action by lenders for debt recovery.

**Figure 4 : BFR Process**



Source [www.bifr.nic.in](http://www.bifr.nic.in)

## (2) CDR ( Corporate Debt Restructuring )

The Corporate Debt Restructuring (CDR) Mechanism is a voluntary non-statutory system based on Debtor-Creditor Agreement (DCA) and Inter-Creditor Agreement (ICA), the principle of approvals by super-majority of 75% creditors (by value) which makes it binding on the remaining 25% to fall in line with the majority decision , it covers only multiple banking accounts, syndication/consortium accounts, where all banks and institutions together have an outstanding aggregate exposure of Rs.100 million and above.

Reference to the CDR Mechanism may be triggered by Any or more of the creditors having minimum 20% share in either working capital or term finance, or by the concerned corporate, if supported by a bank/FI having minimum 20% share as above.

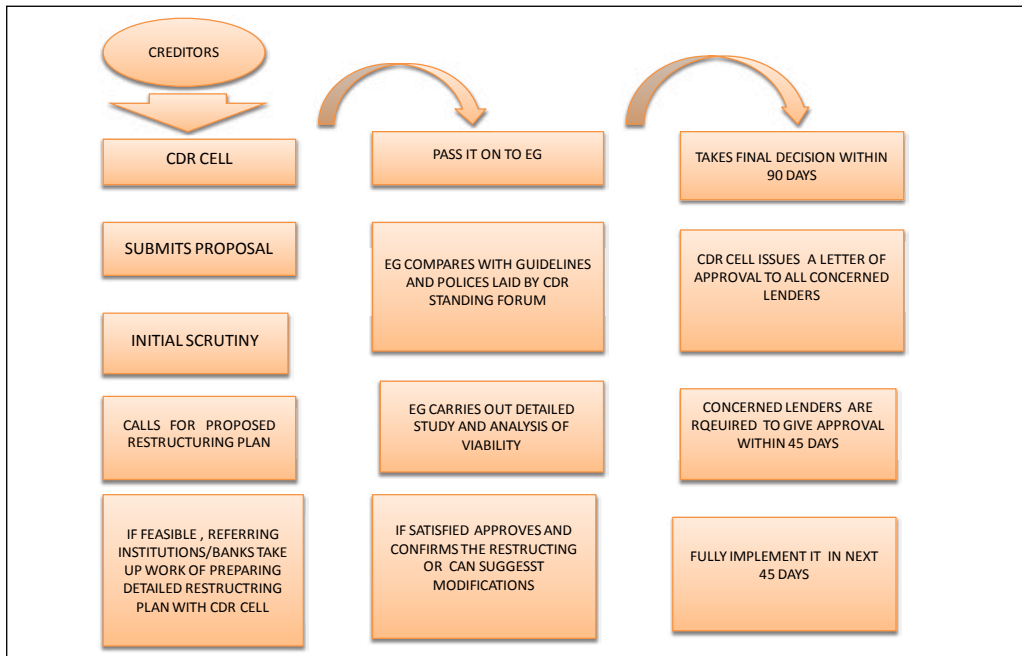
**Figure 5 : The CDR Structure**



Source : [www.cdrindia.org](http://www.cdrindia.org)

## The CDR Process

Figure 6 : The CDR Process

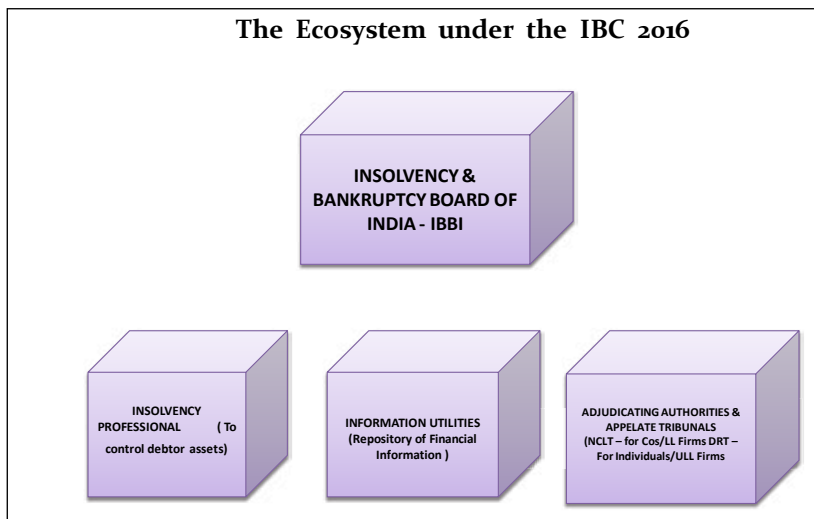


Source : [www.cdrindia.org](http://www.cdrindia.org)

### (3) The Insolvency & Bankruptcy Code 2016 :

According to the ASSOCHAM India April, 2017 Report, IBC 2016 consolidates and amends the laws relating to re-organisation and liquidation of corporations and bankruptcy of natural persons. It seeks to achieve insolvency resolution of a corporate entity in financial distress and failing that its liquidation in a time bound manner. It introduces a shift from the "Debtor in possession" regime under the SICA, 1985 to a "Creditor in Control" regime making it a creditors friendly legislation. An application for commencement of corporate insolvency resolution process can be filed upon occurrence of a payment default of debt of atleast Rs 1 Lac before the NCLT.

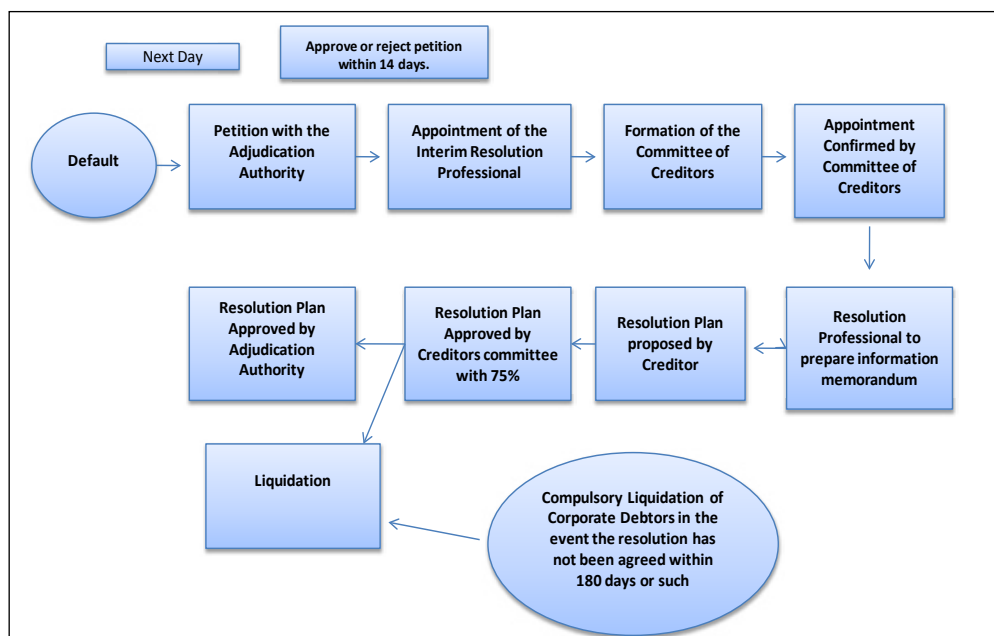
Figure 7 : The Ecosystem under the IBC 2016



Source : KPMG Report Insolvency and Bankruptcy Code, 2016 May '16



The Insolvency Resolution Process under the Insolvency & Bankruptcy Code 2016 :  
**Figure 8 : The Insolvency Resolution Process**



## Conclusion

Corporate sickness has reached the proportions of an epidemic. Public financial institutions have a major stake in the revival of the sick units, because they assist most and up to well over half their invested capital. While inappropriate management is the major cause of sickness, financial institutions' own procedures and practices are also an important cause. Early detection and timely preventive action by Financial Institution like Commercial Banks, Regulatory bodies like RBI, BIFR, CDR India, IBBI & NCLT, ATNCLT are a necessity. For Revival & Rehabilitation and also Liquidation as the case may be to ensure protection of valuable economic resources. **MA**

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# लाएं ताज़गी भरा बदलाव

- हरित ईंधन प्राकृतिक गैस अपनाएं
- सार्वजनिक वाहन का इस्तेमाल करें
- प्रदूषण-मुक्त वातावरण बनाएं



#HawaBadlo



## ANALYSIS OF TILL REGULATION : A DECISION DILEMMA FOR PPP AIRPORTS IN INDIA



Infrastructure plays a vital role in the development of a nation. It provides a platform for competitive environment to flourish thereby enhancing efficiency leading to best in class services to the consumer. One of the major pillars of Infrastructure is transportation which consists of Roads, Railways, Airports, Bus Terminals etc. The development of the aviation sector is spearheaded by improvement in GDP and other sectoral developments. It is been estimated (ACI report, 2013) that worldwide, over 3 billion passengers have travelled using world carriers. If

we assume aviation industry as a country then in terms of GDP alone, it will be positioned 21st in the globe (ACI report, 2013), which is considerably larger than the GDP of some G20 members.

During the last 10-15 years, Airports in India have gained a lot of attention due to rise of Public Private Partnership airports. Today airports are at par with the international standards. They run as businesses hubs with higher emphasis on service delivery. The obviously deemed idea



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of airports has changed drastically from being run merely as public utilities offering runway, apron services and terminals to accept, process and receive passengers to being a customer oriented firm delivering multi-product aeronautical services to a wide range of customers, terminal retail and access services to passengers. The modern airport offers a completely new experience compared to how airports were taken in the past.<sup>1</sup> Today an Airport is a city with a runway. As globalization has increased business relation with different countries and air traffic demand has grown in India. In 2014, domestic carriers flew 81.09 million passengers, a growth of 20.34 percent over 2014<sup>2</sup>.

As demand for air travel has increased the need for world-class airports in India has gained critical importance, which needs huge capital investment. This motivates and necessitates the government for allowing and attracting the private sector. Different types of ownership patterns have evolved in the last 10 years. With the emergence of PPP Airports; Airport regulation has gained significant importance. The idea of increase in Commercial revenue in the airports had never seemed so lucrative, until the new PPP airports emerged.

When Airport is under pure public ownership, regulation may not play a major role, but as private participation increases, the need for regulation also enhances. The impact of Private participation can be ascertained from the fact that the viability of Government operator AAI is based on the performance of 2 major PPP airports- Delhi and Mumbai . Due to revenue share agreement of 45.6% and 38.9% respectively, upto one third of total revenue of AAI is contributed by Delhi and Mumbai airports alone (Standards, Business 2016). The importance of PPP mode in airport business has elevated because it reduces the dependency of the operator on Aeronautical Revenue. Five PPP Airports handle more than 60% of the travel activity and carry 70% air cargo load of the nation. It is estimated that airport would be carrying about 450 million passengers by 2020, apart from 6.5 million tons of cargo<sup>3</sup>.

The development and sustenance of PPP airport will depend on the investment made in the sector and the amount of incentive the private airport operators earn . Rise of private participation in airport sector has made it imperative for the regulators to create a conducive policy environment in which Airport Operators can reap the benefits of developing the infrastructure while simultaneously extending the benefits of improved service quality with affordable price to the consumer. The kind



*Increasing air travel and private participation to promote and develop the aviation sector has made India a major airport player in the world. Owing to change of airport ownership through private investment and nature of airport business as a public utility displaying a substantial amount of monopoly power, the debate between incentive of the private airport operators and the type of regulation for controlling the airport by the Government is still not settled. Pricing adopted and performance of an airport are both influenced significantly by the type of regulation employed. Accordingly this article examines the present till regulation in Indian PPP (public private partnership) Airports. It also examines the existing literature on price regulation. It argues in favors of suitability of dual till for PPP Airports in India and presents five different propositions like Dual till may not actually increase Aeronautical Charges, Dual till has the ability to increase countervailing power of Airlines over airports, Dual Till will shift focus on Quality of Customer service, Private Investment will increase for future expansion of airport and Dual Till has likelihood of increasing retail Competition.*





of price regulation India has and will adopt for coming years would be the major determining factor. Some of the Authors (Starkie 2001, tae hoon oom, anming Zhang and Yimin Zang 2004) suggest that Dual Till is more positive and has better total factor productivity. Some (Czerny 2006) have expressed that single-till approach might prove to be more appropriate than 'approximate Ramsey-optimal aeronautical charges'. There are Studies (Yang and Zhang (2011) which showed that Single till is better for the non-congested airport and Dual till will be better for a congested airport. The better alternative with respect to India has been a debatable for quite long now. The Governments support to a middle path (Hybrid till) is a clear evidence that the choice of till has left the regulator in a dilemma of choosing between the interest of airport viz a viz airlines. Our article is trying to argue the significance of Dual till as policy and how it is better for Indian Airport sector to create long run Competitive Environment, more participation of private investors and better Services at affordable cost to customers.

First we shall discuss the market power of Indian PPP airports, then the type of regulation and existing literature on price regulation followed by analysis of Single till and Dual Till with respect to Indian Airports, concluding with summary of our findings.

## Market Power Analysis of Indian Airport

Around the world Authors have said that airports usually display substantial amount of monopoly power in the market. Major airports have substantial market power for their aeronautical services. Since the price elasticity of the demand for aeronautical services is much lower, airport levy generally add upto a relatively small part of an airline's total cost (OECD and Forum 2009). Therefore, when regulation is not present, a profit-committed airport may even exhibit twice its aeronautical charges without having to incur any loss on traffic (Fu, Lijesen and Oum, 2006). But the actual market power of an airport is influenced majorly by the below mentioned attributes (OECD and Forum 2009)<sup>4</sup>:

- The present Airport capacity of the region as compared to the increase in demand for capacity;
- Airline market and competition at the airport and in the region;
- Influence of connecting passengers;

- Intermodal competition, between airlines and high-speed rail;
- The extent and nature of competition with other airports, whose traffic catchment areas overlap significantly with the airport under consideration.

In the Indian Context, Intermodal transportation also limits the pricing power of an Airport because dependency on the airline will depend on distance, location, and destination to reach via flights. Travelers may decide to travel by rail because it is still cheap particularly for the destination which is less than 4 hours in travel, also India is yet to see a point to point airport connectivity. Even today most of the rural areas have no airport connectivity. Hence if the airport infrastructure charges increase, shift of passenger to other mode of transport is possible. Other than that passenger who is part of connecting flights (transfer passengers) may try to find alternative routes, which can further limit airport pricing.

## Types of airport regulation

Some forms of regulation commonly adopted across sectors and regulatory jurisdictions is as given below. (AERA, 2010).

## Rate of Return Regulation

It determines the effect of price level on the earnings of a company so that investor gets a fair rate of return.

## Price Cap Regulation

Price cap regulation is one of the most popular forms of regulation. As per guidelines issued by AERA, the formulae for determining prices under such a system includes values which reflects inflation (e.g. CPI) also known as 'CPI-X regulation'. The 'X' factor basically takes into account the change in economic environment, depreciation, & cost implication of increased level of service on one hand and expected efficiency improvements and growth in volumes and productivity improvement on the other.

## Light Touch Regulation

Light-handed regulation (LHR) is a kind of price monitoring regulation, where prices are not directly determined by regulation unless specific condition arises, basically light touch regulation means fewer barriers.

## Type of Till regulation

Under a single-till approach, revenue generated from



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# अत्याधुनिक तकनीक एवं अंतरराष्ट्रीय मापदंड के साथ भा.वि.प्रा. का सुरक्षित हाथ

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**23**

अंतरराष्ट्रीय हवाई अड्डे  
(3 सिविल एन्क्लेव तथा  
3 संयुक्त उद्यम हवाई अड्डे)  
**International Airports**  
(3 Civil Enclaves &  
3 Joint Venture Airports)

+

**08**

कस्टम हवाई अड्डे  
(4 सिविल एन्क्लेव)  
**Custom Airports**  
(4 Civil Enclaves)

+

**78**

अन्तर्देशीय  
हवाई अड्डे  
**Domestic  
Airports**

+

**20**

अन्य  
सिविल एन्क्लेव  
**Other  
Civil Enclaves**

=

**129**

हवाई अड्डे  
**Airports**

an airport's non-aeronautical activities are subtracted from the revenue requirement for aeronautical services before determining the level of aeronautical charges (typically covering aircraft take-off, landing, parking and use of air bridges, provision of terminal services to passengers and airlines, including processing and screening of passengers and their baggage). Under a dual-till approach, instead, the regulator excludes non-aeronautical activities from its calculation and focusses solely on aeronautical functions.<sup>5</sup> Under the hybrid-till approach, a portion of non-Aero Revenue is cross subsidized.

Privatisation of Airport is mostly followed some form of price regulation. This is fundamentally due to the fact that airports are supposed to exhibit market power (Czerny 2004). Determination of X (RPI-X) of the price cap is much influenced by the Till Approach (Starkie 2001). The regulators view on policy will be based not only on the aeronautical charges but also non-aeronautical. It has been established empirically that economic efficiency can be improved by a huge margin in terms of total factor productivity for large, busy airports compared to a single-till approach (Starkie and Yarrow 2000) by use of dual-till price-cap regulation. It was Beesley (Beesley 2005) who was the first economists to question the single-till approach and advocate for a light hand regulation for Airports. Authors claim that the regulation must be defined by natural monopoly and must not be influenced by commercial activities. It is also argued that aeronautical activities can be isolated from other activities. Accordingly, he usually dismisses the idea of employing price-cap regulation mechanism in airports. Starkie, in contrast, is in favor of a dual-till price-cap regulation. He argues that, for non-capacity constrained airports, commercial airport activities should not be regulated because they could provide the airport with an incentive to reduce aeronautical charges. Starkie argues that incremental airport levy not only brings down the demand for flights but, also effects the demand for commercial Services. The spiral effect leads to reduction in location rents and eventually the returns generated for the tenant, i.e., the airport itself. Accordingly, the airport might not want to raise airline fee so much that airport regulation might render unnecessary.

Many researchers prove that even on considering a welfare point of view, single-till dominates a dual-till regulation. But recent studies pointed that even the single-till approach may not provide the organization to implement Ramsey<sup>6</sup> charges. This "failure" of the single till to perform as historically expected is the basis on which

the CAA(civil aviation authority, UK) advises for a better study on how a dual till could be implemented, its effects. The single most important conclusion reached is that levy of single till is not less than dual till ones. Charges for dual till airports were on average lower than single till ones, especially so when standardized for GDP (Mendes and Teixeira 2012). Moreover, it is important to have a strong airport-airline relationship and regulation should not be negative for market or detrimental to their relation. So regulator cannot directly assume airport as a monopoly (Bush and Starkie 2014), this needs to be kept in mind while providing regulation in the airport market.

From the above, we can easily conclude that the type of regulation employed influences pricing behavior and the overall achievement of an airport significantly.

## Why Dual till can be better option for Indian PPP Airports

Choice of Till around the World is not confined to certain Principles, it will depend on many factors, Here arguments are presented on the suitability of dual till for PPP Airports in India.

### Proposition 1: Dual till may not actually increase Aeronautical Charges

#### Under Single Till

Let us take the equation given by (Zhang and Czerny 2012), in which profits from airport concession services is denoted as  $S$ , and airport infrastructure costs is denoted by  $F$ . The upper limit of aeronautical charges (price cap) as  $\tau$ .

As definition goes if airport's commercial services are employed to cover the airport infrastructure cost. The equation will be

$$\tau^{ST} = \min \tau : \tau = (F - S) / q(\tau)$$

ST=Single Till Regulation

The Right-hand side is the difference between infrastructure cost and commercial profit divided by the passenger quantity.

Same is true under Hybrid Till as the actual value or portion of percentage share for cross subsidization (30 % of concession revenue in Indian PPP Airports), will eventually increase with increase of commercial revenue

with time, this will eventually demotivate private operator invest more of commercial aspect of Airport

### Under Dual Till

The author has demonstrated the equation as below

$$\tau^{DT} = \min \tau: \tau = F/q(\tau)$$

In the above equation, it is evident that aeronautical charges cover the complete infrastructure costs (concession service revenue are not included).

Let's take the first condition, a PPP airport having 30 years of contract agreement with government and has commercial revenue of around 50 % of total revenue

Now if we take the first equation for instance (Hybrid Till), as the government has provided the contract for the span of 30 years to private operators to develop the airport into world class standard, the capital investment year on year will depreciate. Under Hybrid Till approach if non aero-revenue increases such that  $S > F$ , the result is in negative which also means increase of non-aero revenue will not be a direct benefit to airports but it eventually decreases airline charges, with huge capital invested and future expansion needed, this approach may be detrimental as operators may not be motivated to expand commercial revenue sources for saving extra expenditure. It will also increase the price of commercial services as airports will be motivated to take maximum revenue with minimum goods by increasing the prices.

Under **Dual Till** Approach in order to increase commercial revenue, the airport operator need more passengers ( $q(\tau)$ ), if operator focuses on non-aero revenue to increase which will be proportional to a number of passenger traffic going to the airport. As  $q(\tau)$  increases, the aeronautical charges will decrease as:

$$\tau^{DT} = 1/q(\tau)$$

The risk of an increase in airport charges under dual till may not hold true, and also, in reality, the theory of single till reducing aeronautical charges may not hold true. For example, Heathrow airport is one of the most expensive airports in the world and it is single till<sup>7</sup>.

The cross-subsidization in Single Till approach is followed by unproductive deployment of resources and does not promote capacity addition nor attract investment into

the sector. Accordingly world over, airports are moving towards Dual Till regulatory regime.<sup>8</sup>

Paris Airport (ADP) currently employing Single Till has been found to be charging much more than near neighbour European hub Amsterdam (Dual Till) or Copenhagen and Brussels (Hybrid).

Mexico and Cancun (both Dual Till) are the lowest priced regulated airports on the list

### **Proposition 2: Dual till has the ability to increase countervailing power of Airlines over airports:**

*In Single till* the focus of the airports will be towards a number of Flights landing at the airport as an increase of aeronautical revenue is the primary motivation for Business. *Under Dual Till*, the airport's primary motivation is to increase Commercial revenue which needs higher number of passengers travelling inside airport, airports will increase more focus on number of passengers arriving at airport, for that purpose airport will reduce charges to attract more flights which will help airlines to negotiate with airports for better airport charges favorable to airlines. A recent example is the reduction of landing charges by Bengaluru Airport for airlines which makes Bengaluru airport as a base. (*Economic Times* 2014) because of which AirAsia is shifting a part of its operations to Bangalore from Chennai, despite having the distance of more than 300km between the two airports this shows they have got considerable competitive influence. The example given does not relate with till regulation but it shows that a slight shift in price can shift airline traffic, even if the distance between two airports is 300 Km(approx). So under Dual Till when airports are not much dependent on aeronautical revenue, chances of airport reducing airline charges is considerably higher, which will provide considerable choice for airlines to choose between airports.

### **Proposition 3: Dual Till will shift focus on Quality of Customer service:**

*Under Single Till* the primary source of revenue for the operator remains Aeronautical Business, This gives less motivation of Airport operator to enhance the quality of service to customers coming to the airport as Cost of providing quality will increase but the commercial Revenue will get cross-subsidized. *Under Dual Till* focus will shift to Non-Aviation Revenue, more focus will move towards better customer service for attracting them to buy more products



from airports. Lower service quality under Single Till may result in prices being in highside if quality increases.

**Proposition 4: Private Investment will increase for future expansion of airports:**

Profit attraction in Single Till or Hybrid Till is less due to Cross-Subsidization, To build New Airport with help of Private Operator is slightly difficult due to higher cost but lesser revenue. *Under Dual Till* As investors will be able to get a good return from airport Commercial revenues, they can reinvest the money generated, back into the airport development without taking any additional money from the market, this will increase investors' confidence. With which the future private investment will tend to increase.

**Proposition 5: Dual Till has likelihood of increasing retail Competition:**

Under Single Till non-Aviation revenue is not a major attraction. When Dual Till is implemented, the Airport Operator will focus on non-aero revenue which will create an opportunity for multiple players to enter airport retail business, which will increase Competition inside the airport for airport space, rental, shops, where multiple players from retail segments can invest.

**Observation**

Indian PPP Airports need more investment and there is an urgent need for capacity expansion. For this to happen dual till should be implemented at least for a certain Tariff period and with the passage of time the effectiveness / revenue generation can further be evaluated to decide over continuation of dual till.

The fear of price increase, which is assumed to be covered by putting additional burden on passenger may not hold true. Our observations are stated as under:

1) Airlines competition is so high that the increase in rent beyond a certain level will motivate consumers to shift to some other affordable airline.


2) Wherever the distance of journey is less than 4 hours(through train etc..) other modes of transport are also one of the competitors, so increase in price for a passenger might lead to selection of alternative mode of transport by consumers.

3) Airports under Dual till will eventually reduce non-

aeronautical prices to attract more customers to buy from airports. As non-aeronautical services will expand, the customer will have more choices and will try to compare market price (outside airport) of the same product. With higher traffic and subsequent further lowering of prices, a win win situation shall arise for consumer and airport.

4) As price cap is already in place, the airports will try to increase their efficiency by reducing the cost of producing non aeronautical services.

**Conclusion**

Overall our observation suggests that to develop Indian Airport Sector for the betterment of economy and better services to customer, Dual till will be better than Single till or even hybrid till. Single till gives the wrong signal to Airport Operator and in the long term, larger airport (like Delhi, Mumbai) will be focused more on aeronautical revenue as commercial revenue will not provide better incentive. Implementation of Dual till will provide the operator to utilize commercial space in a better way due to the incentive associated with it. To begin with, the regulator could implement Dual Till regulation for one control period, Also if competition needs to be developed, commercial space needs to be focused on. This will only happen when retail and other non-aeronautical source of revenue expand, which will be better served through Dual till Regulation. 

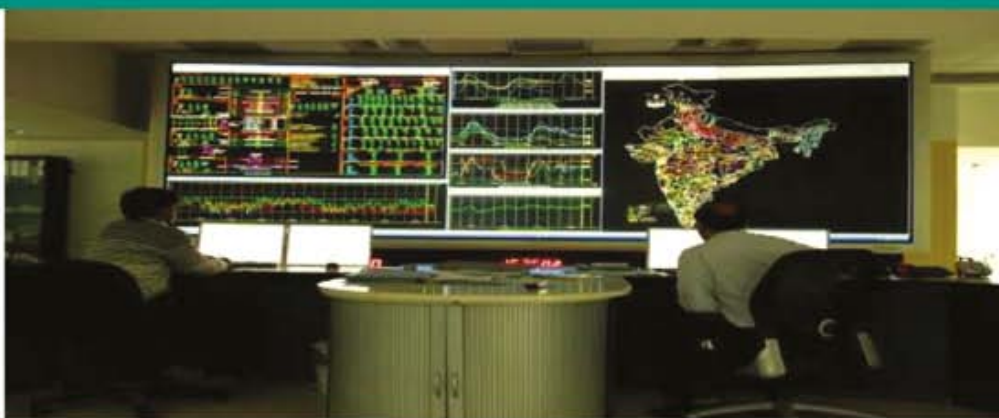
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## Footnotes

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## CORPORATE GOVERNANCE LAPSE IN INDIAN BANKS



**C**orporate Governance is a system of structuring, operating, and controlling a company / body corporate with a view to achieving long-term strategic goals to satisfying its shareholders, creditors, employees, customers and suppliers. It includes the policies and procedures adopted by an organisation to achieve its objectives in relation to its all stakeholders. A framework of effective accountability to the

stakeholders is the essence of corporate governance.



**CMA (Dr.) Subhash Chandra Das**  
Former Director (Finance)  
HPC Ltd. Kolkata

The principles or cornerstones of corporate governance in an organisation revolve around the basic interrelated segments such as, (i) Integrity and Fairness, (ii) Transparency and Disclosures, and (iii) Accountability and Responsibility. The success of a business organisation depends on how seriously the organisation practices these principles in its corporate functioning. Unfortunately, in our country, most of the corporate houses do practice these principles only in black and white, more so our commercial banks in general, nationalised banks in particular. Right from the year 1992 and onwards till date, mis-governance in the Banking Sector is continuing, resulting in thousands of crores of rupees fraud in banks' lending transactions, thereby weakening our financial system. Recent cases of frauds perpetrated by the absconding fraud stars like Vijay Mallya, Jatin Mehta, Nirav Mody, Mehul Choksi etc. only points out to us that nothing has improved in the matter of corporate governance in our banking system post Harshad Mehta, Ketan Parekh, and Ramesh Gailie cases.



It is estimated that around Rs. 30000 crore public money has been swindled by these fugitive offenders involving State Bank of India, Punjab National Bank, Canara Bank, Indian Bank, Oriental Bank of Commerce, United Bank of India, Allahabad Bank etc. and a few Private Sector Banks.

On a closure look at the present functioning of these banks many loopholes are observed, some of which deserve immediate attention, as follows:

- ★ Inadequate Internal Financial Control System in banks' functioning;
- ★ Ineffective performance of the banks' Boards;
- ★ Ineffective and inefficient follow up and monitoring system adopted by the Risk Management Committee, and Audit Committee of the Board of Directors;
- ★ Lack of proper Risk Management Policy of the Banks and the process of mitigation;
- ★ Lack of Monitoring System in banks' functioning, particularly the lending transactions;
- ★ Inadequate coverage or no coverage of insurance on the moneys lent to the big clients/borrowers;
- ★ Loopholes in drafting Loan Agreements causing inadequate pledge or charge on the borrowers' assets;
- ★ Tremendous political pressure on bank officials advocating for bank loans for their vested interests;
- ★ Failure of Internal Auditors in detecting frauds and irregularities;
- ★ Lack of proper functioning of the banks' Vigilance Cell in discharging vigilance activities;
- ★ Huge vacancies in the position of Independent Directors in the Public Sector Banks' Boards & Board Committees and the Ministry's lackadaisical attitude in regard to filling the posts of Independent Directors;
- ★ Lack of complete autonomy in the functioning and decision making activities of the public sector banks particularly in regard to appointment of Directors in the Banks' boards and remuneration of senior officials and Board Members;

- ★ Failure in proper discharging of audit activities by the Banks' Statutory Auditors;
- ★ Lack of Transparency & Disclosure in Banks' reporting; and
- ★ Lack of Accountability & Responsibility of Banks' officers at various levels;
- ★ Lack of demanding accountability by RBI on the Banks

It has also been observed that in total 30 bank officials were prosecuted for corruption from the period January, 2015 to December 2017, of whom 5 officials belonged to Punjab National Bank (PNB), 5 to United Bank of India (UBI), 4 to State Bank of India (SBI), and 16 to 10 other Banks. During the same period, a total of 5000 PSB staff were punished for fraud (not referred to CVC), of whom 184 staff belonged to PNB, 141 to UBI, 1538 to SBI, and 3137 to other Banks.

The affected banks, RBI and the Central Government have suddenly wakened up and started fire fighting activities to control damage any further. In the process several properties and bank accounts of the fraud perpetrators have been seized, confiscated and frozen. But the quantum of recovery as on date is negligible as compared to the total monies siphoned off from the banking system. However, the Central Government has taken certain actions after the damage is done. The Government has moved on setting up a new agency viz. National Financial Reporting Authority (NFRA) provided for in the Companies Act to take away "Review and Disciplinary" functions of the Institute of Chartered Accountants of India (ICAI). This is a right step, though belated, in line with US and UK legislations by which Public Company Accounting Oversight Board (PCAOB) and the Financial Reporting Council (FRC) respectively were formed for similar purpose. In addition, the Government has also asked the PSBs to fix operational gaps within 15 days and they must check all bad loan accounts over Rs. 50 crore for possible fraud and willful default and refer such cases to CBI and other investigating agencies. The Govt. has also brought a Bill in the Parliament for enactment against such fugitive offenders.

As a matter of abundant caution, the Central Vigilance Commission (CVC) advisory has been issued soon after the PNB fraud unfolded, to transfer officers having completed 3 years of service in a bank branch and clerical staff having completed 5 years as on December 31, 2017. Accordingly,

some 7000 PSB employees from across Gujarat have been transferred. But all these actions of the Government so far are not going to stop the menace permanently. In order to curb or minimise the bank fraud of this huge magnitude, host of permanent and objective remedial measures are required to be taken immediately.

There has to be integrity and fairness in the mind of bank officials and they have to feel that they are the public servants and the society largely depends on them for safe preservation of public deposits and wise investments. They must be accountable and responsible to the public at large for their business dealings. Therefore, good corporate governance prescribes a Code of Corporate Conduct as well as a Code of Ethics which should be prepared and distributed to the employees to follow strictly. The books of accounts and the reporting system of Banks should be such as to ensure highest standard of Disclosure and Transparency of the banking transactions.

Under Section 134 of the Companies Act, 2013 a Directors' Responsibility Statement (DRS) is required to be furnished in the Annual Report of the banks, duly certified by no other than the Chairman/CMD of the Bank. It is observed that the Chairpersons/CMDs of all Banks have certified adequacy and effective operations of Internal Financial Control System in DRS published in the Annual Reports. It is for sure that had there been adequate and effective Internal Financial Control System in operation in true sense, the Banks would not have suffered in this manner. Therefore, the Chairpersons/CMDs of all Banks should be more careful in certifying DRS in order to avoid inviting trouble for themselves in future in terms of civil and criminal proceedings against them for false declaration in the Annual Report.

All Banks mentioned in their Annual Reports, 2016-17 that they have put in strong credit appraisal and risk management frameworks in place for identification, measurement, monitoring and control of the risks in credit exposures regularly. SBI, for example, mentioned that it has put improved mechanism in place to manage Credit Concentration Risk, by way of introduction of risk sensitive Internal Prudential Exposure Limits framework for single as well as group borrowers. Here the question is, if there was strong credit appraisal and risk management frameworks in place and the Credit Concentration Risk adequately managed, then how so much of public money were swindled by these fugitive offenders over the time? And what type of follow up and monitoring system was

adopted by the Risk Management Committee, and Audit Committee of the Board of Directors? It is no denying the fact that there is a clear lack of proper Risk Management Policy of the Banks and its process of mitigation. There is a lack of Monitoring System as well, in banks' functioning, particularly the lending transactions, which needs to be relooked.

In the midst of these incidents a question naturally arises: Was there adequate coverage of insurance on the moneys lent to the big clients repeatedly? Were there loopholes in drafting Loan Agreements causing inadequate pledge or charge on the borrowers' assets? Proper answers to these questions can be provided only by the senior officials and Board members of the affected Banks. In any case, there should be immediate adequate coverage of insurance on the large credits to the borrowers if not taken earlier. The Loan Agreements must be foolproof enough not to give any undue leeway to the borrowers in regard to the pledge or charge on their assets.

There is no doubt that prima facie officials of both Internal Audit Department and Vigilance Department of the affected Banks have failed to discharge their duties properly and effectively. Otherwise, the fraud of this huge magnitude would have been detected. Audit Committee of the board has also failed in monitoring the functions of the Internal Audit Department. There is a need for redefining the roles of Internal Audit officers and the responsibility fixed on them on such lapses.

Role of the Statutory Auditors of the affected Banks in these episodes are dismal no doubt. It is no denying the fact that they did not discharge their duties honestly and diligently. Time is ripe that not only the concerned auditors but the audit firms also should be punished severely. Exemplary punishment (both civil and criminal) should be given to the audit firms debarring them from audit jobs of the listed companies for a period 3 to 5 years depending on the magnitude of the lapses.

Last but not the least, both RBI and the Central Government cannot avoid their responsibility for the recent banks' frauds. Pressure on bank officials advocating for bank loans for the vested interests of the political parties must stop so that the bank officials can work freely and fearlessly. Simply issuing circulars for compliance without constant vigil, monitoring and follow up are not going to help in any way. Accountability and Responsibility must be demanded by these Agencies from the senior officials

of the Banks regularly in order to avoid recurrence of this type of debacle in future. At the same time the Government should seriously think of providing complete autonomy in the functioning and decision making activities of the public sector banks particularly in regard to appointment of Directors in the Banks' boards and remuneration of senior officials and Board Members. The posts of Independent Directors in the Banks' Boards must be filled immediately from the lists/registers kept by the Institute Cost Accountants of India (ICAI) and similar other professional Institutes of our country in order to ensure appointment of genuine capable, experienced and qualified persons in the Board of Directors of the Banks. After all, an effective and vibrant Board of Directors, with ethical principles, can confirm improvement in the standard of Corporate Governance at the International level by way of their valuable contribution to the Boards and the society at large. **MA**

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## At the Helm



*Our heartiest congratulations to CMA Subhash Kumar, a fellow member of the Institute for taking the charge as Director (Finance), ONGC. Prior to this, he served a brief stint with Petronet LNG Limited where he joined as Director (Finance) in August 2017. He also worked as Head Business Development, Finance & Budget and also as Head Treasury Planning & Portfolio Management Group at ONGC Videsh from April 2010 to March 2015.*

*We wish CMA Subhash Kumar the very best for all his future endeavours.*

## Northern India Regional Council

### The Institute of Cost Accountants of India-Jaipur Chapter

The Chapter organized a seminar on 'MS Excel – adding an extra edge to professional working' on 10th February, 2018. Key Speaker CMA Arun Agrawal explained in detail about MS Excel. Rank holders were felicitated by the chapter on 22nd February, 2018 at its premises.



## Southern India Regional Council

### The Institute of Cost Accountants of India -Visakhapatnam Chapter

The Chapter organized a Professional Development Programme on "Talk on Budget 2018" on February 3, 2018 at its premises. Sri G. Prabhakara Sastry, Practising Advocate & GST Consultant explained the various provisions in the current budget proposals like E Way Bill, GST provisions etc.



### The Institute of Cost Accountants of India-Cochin Chapter

The Chapter organized an Annual Post Budget Analysis 2018-19 on February 3, 2018 and Mr. Homi P. Ranina was the moderator of the programme. On February 10, 2018 the chapter organized a programme on Insolvency and Bankruptcy Code, 2016 (IBC) and CMA Sankar P Panicker, Practising Cost Accountant was the moderator of the

programme. The Chapter organized a career counselling programme on February 6, 2018. A certificate course on GST session was organized on February 17, 2018 and Shri Balagopal M. G., Law Officer, GST Department, Ernakulam was the chief guest of the programme. On March 9, 2018 a PD programme was organized on the Companies (Amendment) Act 2017. The seminar was opened by CMA (Shri.) Anil Xavier, secretary of the chapter. Speaker of





Strategy. The Chapter conducted a felicitation programme for the successful students of December 2017 examination on March 02, 2018, at CMA Bhawan, "Center for Excellence", Ernakulam. CMA Sunil Chacko, Chief Financial Officer, CIAL, and CMA Sankar Panicker, Treasurer SIRC, CMA Pushpy B Muricken, chairperson of the chapter, CMA Anil Xavier, secretary of the chapter and CMA Rakesh Warriar, Vice Chairman of the chapter addressed the students and also gave mementos to the successful students.



the session was CS (Shri.) Abhilash Nediylil Abraham, Practicing Company Secretary. Another programme was organised on March 28, 2018 on CMA and Turnaround

## The Institute of Cost Accountants of India-Hyderabad Chapter



The Chapter organized a State Level Convention for Students 'CMA Prathibhotsav' on February 24, 2018 and





CMA Sanjay Gupta, president of the Institute was the chief guest of the programme. The Chapter organized sessions on Companies act 2013 from February 1, 2018 till February 9, 2018. On February 13, 2018 the chapter organized programmes on Practical issues in Internal controls, Block Chain Management, Crypto Currency, Digital Marketing etc and many eminent dignitaries attended the programme. Other programmes like Coaching Classes Inauguration, career counseling , faculty meet etc were organized on various dates of February 2018 and many eminent dignitaries attended the programme. On February 23, 2018 a study circle meeting was organized and CMA D. Zitendra Rao, Practicing Cost Accountant & Member SIRC attended the programme.

## The Institute of Cost Accountants of India-Trivandrum Chapter

The Chapter conducted a PD programme on March 4, 2018 and there was a felicitation function for the winners of December 2017 Examinations. The PD Programme was handled by Dr. Sunil Narayanan, Assistant Registrar (Revaluation), University of Kerala. The subject of the PD Programme was Impression Management for Cost Accountant Professionals.



## The Institute of Cost Accountants of India-Bangalore Chapter

The Chapter organized Professional Development Meets on February 2018 at its premises. Practitioners' Meet on Discussion on Cost Audit was organized on February 23, 2018 and CMA Pranabandhu Dwibedy, Practicing Cost Accountant was the chief guest of the Meet. 103rd oral coaching inauguration function was organized on February 21, 2018 at Vijaya Junior College, Jayanagar. Research Units were inaugurated and programmes on 'Macro-Economic impact of GST on Indian economy- Union Budget 2018' and 'Analysis of cost price mechanism in Indian farming' were organized on February 9 and 24, 2018 respectively. CMA Ms. Gayathri.A.R, Assistant General Manager – Finance, Krishna Bhagya Jala Nigam Limited., Government of Karnataka and CMA Satish.R, Chairman Students Bureau were the chief guests of the programme.







## Western India Regional Council

### The Institute of Cost Accountants of India- Kolhapur Sangli Chapter

The Chapter organised a one day workshop on 'Recent Changes & Trends in GST' and 'Finance Bill 2018-19 Highlights' on 3rd March 2018. The faculties for the workshop were CMA (Dr) A. G. Anikhindi and CA Ajinkyo Jogoje. First Technical Session was conducted by CMA Dr. A. G. Anikhindi where he explained the recent changes and trends in GST with special reference to preparation for GST Audit and Annual GST returns. Second technical session was conducted by CA Ajinkyo Jogoje on the Finance Bill 2018-19 Highlights. He covered the subject of the proposed Long Term Capital Gains Tax on stocks and amendments to various important provisions of the Income Tax Act, 1961.



### The Institute of Cost Accountants of India -Ahmedabad Chapter

The Chapter organized inaugural function of CMA Ladies wing of Ahmedabad on February 3, 2018. CMA Ilaben Patel,

convener of CMA Ladies wing welcomed chief Guest Smt. Rajshreeben Pandya, Dy. Commissioner of State Tax. Chief Guest Smt. Rajshreeben Pandya shared her experience and interacted with participants. A CEP program on "Analysis of







Union Budget 2018” was organized on February 5, 2018 and the faculty CMA P G Tulsian submitted the presentation on Budget proposal 2018 on Direct and Indirect Taxation. The Chapter organized a Press Meet on February 26, 2018 and the chapter organized a felicitation function on February 27, 2018 at Haribhai Auditorium for the students who qualified in the examination of December 2017.

## **The Institute of Cost Accountants of India- Pimpri Chinchwad Akurdi Chapter**

The Chapter conducted a CEP on ‘Coffee with Live Telecast on Budget 2018 and Panel Discussion’ on 1st February, 2018 at CMA Bhawan. The Chapter conducted a seminar on ‘Budget Changes 2018’ on 3rd February, 2018 at CMA Bhawan, Pimpri. Chief Guest CMA Brijmohan Sharma, Past President, CMA L D Pawar, RCM & Vice-Chairman, WIRC and the speaker CMA CA Manoj Behede were present in the seminar. CMA Brijmohan Sharma briefly focused on major changes highlighted in the Budget 2018.



## **The Institute of Cost Accountants of India – Bharuch Ankleshwar Chapter**

The Chapter organized a post budget seminar on Indirect Tax and Direct Tax on February 3, 2018 inaugurated by Asst Commissioner of SGST, Shri Malaviya ji and IDT Head of Birla Copper, Shri Anand Mohan Mehta Ji. CMA Shailendra Saxena made brief presentation about expectation of industry from Budget. Shri Abhay Desai, author of various books on GST had explained the overall impact of changes of indirect tax on industry specially on Transitional provision under GST and import of services under GST.



# The Institute of Cost Accountants of India

(Statutory body under an Act of Parliament)

[www.icmai.in](http://www.icmai.in)

## **NOTIFICATION**

11-CWR(549-580)/2017: In pursuance of sub-Regulation (3) of Regulation 11 of the Cost and Works Accountants Regulations, 1959, it is hereby notified that the Certificates of Practice granted to :

1. Shri V Srinivasan, FCMA, Flat No. 1, Fourth Floor, Block No. E-2, V. G. N. Minerva, Nolambur, Chennai -600095 (Membership No. 966), is cancelled from 29<sup>th</sup> March, 2017 to 31<sup>st</sup> March, 2017 at his own request,
2. Shri Kiran Mittal, BCOM,ACMA, I - 19, Sai Apartments, Sector - 13, Rohini, New Delhi,(Membership No. 15215), is cancelled from 15<sup>th</sup> December, 2016 to 31<sup>st</sup> March, 2017 at his own request,
3. Shri. Inder Hemandas Bhatia MCOM,FCMA, 1002 A Brentwood, Main Street, Hiranandan Garden Powai, Mumbai - 400076 (Membership No. 3882), is cancelled from 20<sup>th</sup> February, 2017 to 31<sup>st</sup> March, 2017 at his own request.
4. Shri Bibhuti Ranjan Das, BSC,FCMA, South High Apartment, Garia Main Road, Kolkata-700084(Membership No.-6259) is cancelled from 07<sup>th</sup> November, 2016 to 31<sup>st</sup> March, 2017 at his own request.
5. Shri, Yogesh Kumar Garg, BCOM,LLB,FCS,FCMA, 1145, Magestic Tower, Mahagun Mascot, Dundhera, Crossing Republic Ghaziabad-201016 (Membership No.-15328) is cancelled from 06<sup>th</sup> September, 2017 to 31<sup>st</sup> March, 2018 at his own request.
6. Shri, Gautam Mukhopadhyay, MCOM,ACS,ACMA, 252/H/5, Gopal Lal Tagore Road, Kolkata-700036 (Membership No.-17695) is cancelled from 13<sup>th</sup> March, 2017 to 31<sup>st</sup> March, 2017 at his own request.
7. Shri Sumit Goyal, BCOM,MBA,FCMA, SD -172, Shastri Nagar, Ghaziabad-201002 (Membership No-17908) is cancelled from 28<sup>th</sup> October,2016 to 31<sup>st</sup> March, 2017 at his own request,
8. Ms Manik Sharad Kulkarni, MCOM,ACMA, Manik Paunikar & Co. Block No. 5, Purshottam Bldg. Balraj Marg, Dhantoli Nagpur-440012 (Membership No-22507) is cancelled from 03<sup>rd</sup> May, 2017 to 31<sup>st</sup> March, 2018 at her own request.
9. Shri Sridhar Guda, BCOM, MBA, FCMA, B 202, Saket Pranam, Saket Colony, Kapra, Hyderabad-500062. (Membership No.22536) is cancelled from 27<sup>th</sup> November, 2016 to 31<sup>st</sup> March, 2017 at his own request.
10. Shri Atul Balduva, BCOM,FCMA, 18, Ho Chi Minh Sarani, Diamond City West, Tower - 10, Flat No. 8H, 8th Floor, Kolkata-700061. (Membership No. 22543) is cancelled from 07<sup>th</sup> October, 2016 to 31<sup>st</sup> March, 2017 at his own request.
11. Shri Vijaya Bhaskar Dantu, BCOM,ACMA, 408, IV Floor, Ganapathi Homes, Phanigiri Colony Road, Dilsukhnagar, Hyderabad-500060 (Membership No. 29099) is cancelled from 27<sup>th</sup> October, 2016 to 31<sup>st</sup> March, 2017 at his own request.
12. Shri Rajan Sahdev, BCOM,ACMA, F-13, Om Vihar, Uttam Nagar, New Delhi-110059. (Membership No-29104) is cancelled from 09<sup>th</sup> November, 2016 to 31<sup>st</sup> March, 2017 at his own request.
13. Shri Vineet Chopra, BCOM,LLB,FCS,ACMA, 17-B, Goyal Nagar, Kanadia Road, Indore-452001 (Membership No-34189) is cancelled from 25<sup>th</sup> September, 2017 to 31<sup>st</sup> March, 2018 at his own request.
14. Shri Ajith Sivasdas BCOM,ACA,ACMA, Anugraha, Vaniyar street, Nallepilly, Palakkad-678553. (Membership No-34465) is cancelled from 13<sup>th</sup> July, 2017 to 31<sup>st</sup> March, 2018 at his own request.
15. Shri Alwar S. MCOM,ACMA, 84 C/1, Sundarar Street, Tirunelveli Town, Tirunelveli-627006.(Membership No. 36507) is cancelled from 01<sup>st</sup> December, 2016 to 31<sup>st</sup> March, 2017 at his own request.

16. Shri Sreenu Onipents, BCOM,ACMA, S/o. Shri Ramulu, Vill – Vallayapalem, Md – Marripudi, Dist – Prakasam, Ongole-523240 (Membership No. 36764) is cancelled from 20<sup>th</sup> June, 2017 to 31<sup>st</sup> March, 2018 at his own request.
17. Ms. Kanchan Suresh Rane, BCOM,ACMA, 408/Shree Darshan, Shiv Lane, Road No.16, Kishan Nagar - 3, Wagle Estate, Thane-400604. (Membership No-37285) is cancelled from 06<sup>th</sup> February, 2017 to 31<sup>st</sup> March, 2017 at her own request.
18. Shri. Ajit Balakrishna Shinde, MCOM,ACMA, C/o. Shri Shashikant Gulabrao Deshmukh, Vishal Housing Society, Scheme No. 10, Sector – 21, Bldg. No. 4, Flat - 14, Yamunanagar, Nigdi, Pune-411044(Membership No. 38065) is cancelled from 20<sup>th</sup> September, 2016 to 31<sup>st</sup> March, 2017 at his own request.
19. Shri Sumit Gupta, BCOM,ACMA, S/o. Shri Ved Parkash, Khatiyon ka Mohlla, Naya Bazar, Near Bhuton ka Mandir, Bhiwani-127021(Membership No. 38577) is cancelled from 15<sup>th</sup> November, 2016 to 31<sup>st</sup> March, 2017 at his own request.
20. Shri Anil Komban Varghese, BCOM,FCMA, Komban House, Chettupuzha, Thrissur, Thrissur-680012, (Membership No-30359) is cancelled from 30<sup>th</sup> September, 2017 to 31<sup>st</sup> March, 2018 at his own request.
21. Shri Tapash Paul, BCOM,FCMA, Tapash Paul & Associates, 66, Bidhan Road, Post Office Building, 1st Floor, Siliguri-734001(Membership No-23921) is cancelled from 16<sup>th</sup> October, 2017 to 31<sup>st</sup> March, 2018 at his own request.
22. Shri Ritesh Kumar Kaushik, MCOM,ACMA, House No 4 Block 129 Sector 1, Pushp Vihar, New Delhi, Delhi-110017, (Membership No-39924) is cancelled from 03<sup>rd</sup> February, 2017 to 31<sup>st</sup> March, 2017 at his own request.
23. Shri, Sankalp Wadhwa, ACA,ACMA, 204 & 204A, Krishna House, 4805 / 24, Bharat Ram Road, Daryaganj, New Delhi-110002(Membership No-38933) is cancelled from 16<sup>th</sup> February, 2017 to 31<sup>st</sup> March, 2017 at his own request.
24. Ms. Monika Tiwari, BCOM,ACMA, G-3/43A, Gali No. 4, Sai Encalve, Near Bala Ji Chwok, Mohan Garden, Uttam Nagar, Landmark- Stree Shakti Suvidha Kendra, Delhi-110059. (Membership No-39926) is cancelled from 11<sup>th</sup> February, 2017 to 31<sup>st</sup> March, 2017 at her own request.
25. Shri Raj Jaiswal, MCOM,ACMA, 51 B, Canal Circular Road, Near Vivek Bulbs, Kolkata-700054,(Membership No-40348) is cancelled from 20<sup>th</sup> September, 2016 to 31<sup>st</sup> March, 2017 at his own request.
26. Ms. Vaibhavi Jagdish Patil, BCOM,ACMA,, B - 35, Geetanjali Bldg, Ciba Society, Amrut Nagar, Ghatkopar West, Mumbai-400086(Membership No-41208) is cancelled from 26<sup>th</sup> April, 2017 to 31<sup>st</sup> March, 2018 at her own request.
27. Shri Chetan Kumar Sharma, BTECH,LLB,FCS,ACMA, Plot 18,19, Taranagar, Lingampally, Hyderabad-500019(Membership No-41311). is cancelled from 16<sup>th</sup> August, 2017 to 31<sup>st</sup> March, 2018 at his own request.
28. Shri Anandprakash Kishore Uttamani, MCOM,ACMA, I wing,Flat No 701, Palacia, Near Corsica Building, Bh Hiranandani Estate, Ghodbunder Road, Waghbil, Thane (West)-400615 (Membership No-37268) is cancelled from 16<sup>th</sup> August, 2017 to 31<sup>st</sup> March, 2018 at his own request.
29. Shri. Chandrika Prasad Subbaramu Kollegala, BCOM,ACMA, 1023/03, Out – House, Khille Mohalla, 3rd Main, 6th Cross, Vidyaranyaapuram, Mysore-570008(Membership No-41698) is cancelled from 20<sup>th</sup> March 2017 to 31<sup>st</sup> March, 2017 at his own request.
30. Ms. Anju Pardesi, BCOM, ACA, ACMA, H.No. 149-A. G. K. Estate, Bhamian Khurd, Near Ansal Enclave, Chandigarh Road. Ludhina-141015(Membership No-25376) is cancelled from 01<sup>st</sup> October, 2017 to 31<sup>st</sup> March. 2018 at her own request.
31. Shri B. Ravindran, MCOM,MBA,ACA,ACMA UK CIMA UK,FCMA, 71/1 A, Kazura Garden 2nd Street, Neelankarai, Chennai – 600115(Membership No. -15540) is cancelled from 15<sup>th</sup> January, 2018 to 31<sup>st</sup> March. 2018 at his own request.
32. Shri Hemant Kumar Bind,BCOM,ACMA, B 2 / B I I - 6 B Rajapuri, Gali No. 9, Uttam Nagar, New Delhi – 110059 (Membership No. 42098) is cancelled from 01<sup>st</sup> February, 2018 to 31<sup>st</sup> March. 2018 at his own request.

(Arnab Chakraborty)  
Secretary (Acting)

**EXAMINATION TIME TABLE & PROGRAMME – JUNE – 2018**

**FOUNDATION COURSE EXAMINATION**

Day & Date	Foundation Course Examination Syllabus-2016 Time 2.00 p.m. to 5.00 p.m.
Monday, 11th June, 2018	Fundamentals of Economics & Management
Tuesday, 12th June, 2018	Fundamentals of Accounting
Wednesday, 13th June, 2018	Fundamentals of Laws & Ethics
Thursday, 14th June, 2018	Fundamentals of Business Mathematics & Statistics

**Examination Fees**

Foundation Course Examination	Inland Centres	₹ 1200/-
	Overseas Centres	US \$ 60

- The Foundation Examination will be conducted in Offline, descriptive (Pen & Paper) mode only. Each paper will be of 100 marks and for 3 hours duration.**
- Application Forms for Foundation Examination has to be filled up through online and fees will be accepted through online mode (including Payfee Module of IDBI Bank).
- STUDENTS OPTING FOR OVERSEAS CENTRES HAVE TO APPLY OFFLINE AND SEND DD ALONGWITH THE FORM.
- (a) Students can login to the website [www.icmai.in](http://www.icmai.in) and apply online through payment gateway by using Credit/Debit card or Net banking.  
(b) Students can also pay their requisite fee through pay-fee module of IDBI Bank.
- Last date for receipt of Examination Application Forms is 10<sup>th</sup> April, 2018.**
- Examination Centres: Adipur-Kachchh(Gujarat), Agartala, Agra, Ahmedabad, Akurdi, Allahabad, Asansol, Aurangabad, Bangalore, Baroda, Berhampur(Ganjam), Bhilai, Bhilwara, Bhopal, Bewar City(Rajasthan), Bhubaneswar, Bilaspur, Bokaro, Calicut, Chandigarh, Chennai, Coimbatore, Cuttack, Dehradun, Delhi, Dhanbad, Duliajan (Assam), Durgapur, Ernakulam, Erode, Faridabad, Ghaziabad, Guntur, Guwahati, Haridwar, Hazaribagh, Howrah, Hyderabad, Indore, Jaipur, Jabalpur, Jalandhar, Jammu, Jamshedpur, Jodhpur, Kalyan, Kannur, Kanpur, Kolhapur, Kolkata, Kota, Kottakkal (Malappuram), Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Naihati, Nasik, Nellore, Neyveli, Noida, Palakkad, Panaji (Goa), Patiala, Patna, Pondicherry, Port Blair, Pune, Raipur, Rajahmundry, Ranchi, Rourkela, Salem, Sambalpur, Shillong, Siliguri, Solapur, Srinagar, Surat, Thrissur, Tiruchirapalli, Tirunelveli, Trivandrum, Udaipur, Vapi, Vashi, Vellore, Vijayawada, Vindhyanagar, Waltair and Overseas Centres at Bahrain, Dubai and Muscat.
- A candidate who is completing all conditions for appearing the examination as per Regulation will only be allowed to appear for examination.**
- Probable date of publication of result: 23<sup>rd</sup> August, 2018.**

\* For any examination related query, please contact [exam.helpdesk@icmai.in](mailto:exam.helpdesk@icmai.in)

**Arnab Chakraborty**  
**Secretary (Acting)**



# THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)

## INTERMEDIATE AND FINAL EXAMINATION TIME TABLE & PROGRAMME – JUNE 2018

PROGRAMME FOR SYLLABUS 2016		
Day & Date	Intermediate Time: 2.00 P.M. to 5.00 P.M.	Final Time: 2.00 P.M. to 5.00 P.M.
Monday, 11th June, 2018	Financial Accounting	Corporate Laws & Compliance
Tuesday, 12th June, 2018	Laws & Ethics	Strategic Financial Management
Wednesday, 13th June, 2018	Direct Taxation	Strategic Cost Management – Decision Making
Thursday, 14th June, 2018	Cost Accounting	Direct Tax Laws and International Taxation
Friday, 15th June, 2018	Operations Management & Strategic Management	Corporate Financial Reporting
Saturday, 16th June, 2018	Cost & Management Accounting and Financial Management	Indirect Tax Laws & Practice
Sunday, 17th June, 2018	Indirect Taxation	Cost & Management Audit
Monday, 18th June, 2018	Company Accounts & Audit	Strategic Performance Management and Business Valuation

### EXAMINATION FEES

Group (s)	Final Examination	Intermediate Examination
One Group (Inland Centres) (Overseas Centres)	*1400/- US \$ 90	*1200/- US \$ 90
Two Groups (Inland Centres) (Overseas Centres)	*2800/- US \$ 100	*2400/- US \$ 90

- Application Forms for Intermediate and Final Examination has to be filled up through online only and fees will be accepted through online mode only (including Payfee Module of IDBI Bank). No Offline form and DD payment will be accepted for domestic candidate.
- STUDENTS OPTING FOR OVERSEAS CENTRES HAVE TO APPLY OFFLINE AND SEND DD ALONG WITH THE FORM.
- (a) Students can login to the website [www.icmai.in](http://icmai.in) and apply online through payment gateway by using Credit/Debit card or Net banking.  
(b) Students can also pay their requisite fee through pay-fee module of IDBI Bank.
- Last date for receipt of Examination Application Forms is 10<sup>th</sup> April, 2018.
- The provisions of direct tax laws and indirect tax laws, as amended by the Finance Act, 2017, including notifications and circulars issued up to 30<sup>th</sup> November, 2017, are applicable for June 2018 term of examination for the Subjects Direct Taxation, Indirect Taxation (Intermediate), Direct Tax laws and International Taxation and Indirect Tax laws & Practice (Final) under Syllabus 2016. The relevant assessment year is 2018-19. For Paper 11- Indirect Taxation (Intermediate), and Paper 18- Indirect Tax Laws & Practice (Final) please also refer to Notification dated Ref No GST/2/8/2017 dated 16 August 2017. Please also refer to <http://icmai.in/upload/Students/Circulars/Relevant-Info-June-2018.pdf>. For revised contents and study materials please refer to <http://icmai.in/studentswebsite/Syl-2016.php>
- Companies (Cost Records and Audit) Rules, 2014 as amended till 20<sup>th</sup> Dec 2017 is applicable for June 2018 examination for Paper 12- Company Accounts and Audit (Intermediate) and Paper 19-Cost and Management Audit (Final) under Syllabus 2016 for June 2018 term examination. Please also refer to <http://icmai.in/upload/Students/Circulars/Relevant-Info-June-2018.pdf>
- The provisions of the Companies Act 2013 are applicable for Paper 6- Laws and Ethics (Intermediate) and Paper 13- Corporate Laws and Compliance (Final) under Syllabus 2016 to the extent notified by the Government up to 31<sup>st</sup> December 2017 for June 2018 term of examination.
- For Applicability of IND\_AS and amended AS for paper 5 –Financial Accounting and Paper 12-Company Accounts and Audit(Intermediate) and Paper 17-Corporate Financial Reporting(Final) refer to relevant circular in website for June 2018 term examination. Please refer to <http://icmai.in/studentswebsite/Syl-2016.php>
- Pension Fund Regulatory and Development Authority Act, 2013 is being included in Paper 6- Laws and Ethics(Intermediate) and Insolvency and Bankruptcy Code 2016 is being included in Paper 13- Corporate Laws and Compliance (Final) under Syllabus 2016 for June 2018 term of examination. For clarification visit our website [www.icmai.in](http://www.icmai.in)
- Examination Centres: Adipur-Kachchh (Gujarat), Agartala, Agra, Ahmedabad, Akurdi, Allahabad, Asansol, Aurangabad, Bangalore, Baroda, Berhampur (Ganjam), Bhilai, Bhiwara, Bhopal, Bewar City(Rajasthan), Bhuvanewar, Bilaspur, Bokaro, Calicut, Chandigarh, Chennai, Coimbatore, Cuttack, Dehradun, Delhi, Dhanbad, Duliajan (Assam), Durgapur, Ernakulam, Erode, Faridabad, Ghaziabad, Guntur, Guwahati, Haridwar, Hazaribagh, Howrah, Hyderabad, Indore, Jaipur, Jabalpur, Jalandhar, Jammu, Jamshedpur, Jodhpur, Kalyan, Kannur, Kanpur, Kolkata, Kota, Kottakkal (Malappuram), Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Nalhati, Nasik, Nellore, Neyveli, Noida, Palakkad, Panaji (Goa), Patiala, Patna, Pondicherry, Port Blair, Pune, Raipur, Rajahmundry, Ranchi, Rourkela, Salem, Sambalpur, Shillong, Siliguri, Solapur, Srinagar, Surat, Thrissur, Tiruchirappalli, Tirunelveli, Tiruvallur, Tiruvannamalai, Tiruvengadam, Udaipur, Vapi, Vashi, Vellore, Vijayawada, Vindhyannagar, Waltair and Overseas Centres at Bahrain, Dubai and Muscat.
- A candidate who is fulfilling all conditions specified for appearing in examination will only be allowed to appear for examination.
- Probable date of publication of result: Inter & Final – 23<sup>rd</sup> August, 2018.

\* For any examination related query, please contact [exam.helpdesk@icmai.in](mailto:exam.helpdesk@icmai.in)

Arnab Chakraborty  
Secretary (Acting)

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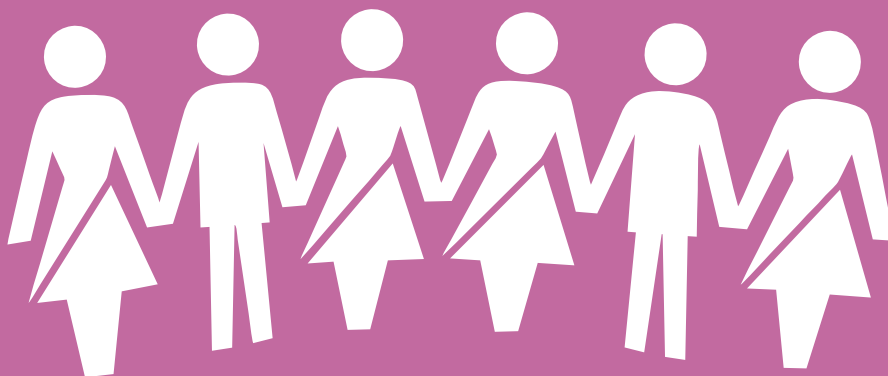
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