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EDITORIAL

I am happy to present before all of you twenty first issue of this journal under my editorship. The need to examine the current trends and issues in accounting and research is feeling all over the world. The joint paper written by Dr. Paliwal and Beukes gives a vivid description of education practices in South Africa. Prof. Harish Oza in his presidential address emphasised the need to link ethics with accounting. Dr. Hitesh Shukla and Dr. G. Soral have also raised pertinent issues regarding accounting education and research in their paper. Against the backdrop of transparency in annual reports, Dr. Amitabh Joshi and Silky Janglani tried to establish relationship between readability of annual reports and firm's performance. Dr. Dipen Roy critically reviewed NPCCIRR controversy. His attempt to resolve the issue is really commendable. Dr. Vijayakumar in his study on industry influence on financial structure brought -----relating to automobile industry. Direct Tax Code: Strategic issues and weather derivatives were the informative articles. Dr. C.K. Shah and others have made comprehensive analysis regarding banking crisis. Dr. R.K. Raul tried to raise a few strategic issues relating to world's anchor Currency. Measuring shareholder's wealth is a nice research work conducted by Bhanawat. Dr. Ghosh has also made an empirical study on performance evaluation with respect to cash management.

As this is the last issue of journal under my editorship. I sincerely thank all of you for giving me your valuable guidance, strong patronage and fruitful cooperation in my endeavours.

December 31, 2011

Professor Nageshwar Rao
Chief Editor

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PRESIDENTIAL REMARKS

This year must be celebrated as a team building year. Still few states or areas are there where our association could not open its branches. It is the responsibility of all of us to cover those areas.

However our efforts should not be limited to opening of branches but also we should give a deep thought to get everyone involved fully. It is not the opening of the branch that makes an association successful but they should be made active to the fullest. Whatever is going on in the field of accounting at the international level must be brought at the local level preferably in regional languages. Then only the aim of branch can be achieved.

Establishing branches and designating the post is not sufficient for the betterment of association. We are supposed to reduce the gap between the theory and practice. At the same time, emerging issues and challenges related to accounting at the local level also be addressed.

In the era of globalization, change is desired. People are against the corporate sector all over the world. They are protesting on different issues as they believe that profit maximization is the only motive of corporate sector. Moreover the measures like CSR , social accounting, welfare etc are just like white elephant. There are number of industrialists in India who make boundless presentation of their wealth and take the advantages of policies such as LPG and free market but ask for bailout packages whenever they are in crisis. We need to think that the accountants have to play a great role in safeguarding corruption.

Till date we've been talking about net profit and ROI. Why don't we talk about " Shubh-Labha"? But before that we should know that what is Shubh -Labha? In Manu Smirti it is mentioned that

**यात्रामात्र प्रसिद्धयर्थ स्वैः कर्मभिरगर्हितैः
अक्लेशेन शरीरस्य कुर्वीत धनसंचयम् ।**

One should safeguard money for himself and for his family to fulfill his basic necessity and protect their lives that too without defamatory activities. This is the true CSR.

But nowadays we're giving priority only on earning money inspite of lot many criticism. Reason today we seek education for packages rather than becoming a good human being.

Now we should understand that money and comfort are negatively correlated and they can't be isolated. Therefore Upnishad versed that

**अभावो वा प्रभावो वा यस्त नास्त्यर्थ कामयो
समजावेशात्त्व रूपत्वम् धर्मचक्र प्रवर्तनम् ॥**

There should neither the scarcity nor the effect of money in one's life. Individual self sense should always remain in society than only dharma chakra will get induced.

Prof. Umesh Holani
President
Indian Accounting Association

ACCOUNTING EDUCATION AND CHANGING ENVIRONMENT

**Harish S. Oza*

The first Challenge facing to accounting educators in this global economy is very exciting due to Global Financial Meltdown. Global Financial Crisis (GFC) September 2008, has waded the world from root. Property price has gone down, share market has lost its value, unemployment rate has gone up and most importantly young generation of the people across the world has lost confidence in market economy. Government in many countries had to declare bail-out packages. Luckily, India is a exception in such situation. India is not only "Growing" but also "Shining" now-a-days. However, the year 2012 will be a shocking year for our economy as per experts' opinion. Therefore in such situation, accounting profession has to train teachers, students, practitioner and others for good accounting practices in the future. IAA has to play a pivotal role in producing better accountant for future.

The second challenge to our profession is climate change and global warming. According to Slimnett, reports on green-house gas emissions are growing at rate of about 20-30% a year. He also referred to the Climate Disclosure Standards Board (CDSB). The CDSB reporting framework is a practical tangible response to widespread demands for globally applicable common protocols and standards on climate change related reporting. It is a time to disclose climate change effect in financial reporting of corporate sector. Further, the corporate sector has to play an important role to make our earth more clean and green in such climate change. It will be the responsibility of the future chief financial executive to highlights such matter in corporate reporting.

The third challenge to the profession is ethics in accounting. The flood of accounting scandals has raised a question-What are the boundaries of ethical financial reporting? The increasing number of corporate scandals in last few years have stained corporate governance reputation and created a doubt for effectiveness of its current structure. Mahatma Gandhi said that "Earth provides enough to satisfy everyone needs, but not everyman's greed." The greed is a root cause of all malpractices. It is interesting to note that modern society afflicted by "Moral Pollution". What is required is an evolution of a "Culture of Conscience". Therefore we need ethical approach in accounting. Fairness, justice and truth signify that accounting reports and statements are not subject to undue influence or bias. Robin Matthews has suggested that "Once we create mindset where the role of honesty in our social contracts becomes significant, the very threat of losing honour within society becomes a preventive measure of greed."

**President, Indian Accounting Association, delivering Presidential Speech at Jaipur on 18th December 2011.*

The fourth challenge is Global Accounting. One world one accounting increasingly seems realistic in the era of International Financial Reporting Standards (IFRS). Initially accounting is known as a business language, later on it was developed as a management control system and now it is recognized as a management information system. We are in the era of information technology. The rapid change in technology has changed the accounting system. This is the critical time in the global history of accounting as US GAAP and IFRSs are operating together for convergence. Indian Accounting Standards (ASs) are also in the process of convergence with IFRSs by 1st April, 2012. Over 110 countries either require or permit the use of IFRSs. We have to change our syllabus, to guide teachers, to give the knowledge to the students and to train the accountants and practitioners for the accepting the future challenge.

The last one, I would like to highlight is XBRL. It is a changing face of business reporting system. The emergence of Extensible Business Reporting Language (XBRL) is a significant recent development in business reporting XBRL is a web-enabled standard designed to eliminate the constraints of incompatible formats and vocabularies of traditional reporting system and to use recent trends in technology to enhance business reporting with greater transparency. Consumer of financial data, including investors, analysts, financial institutions, regulators, stock exchanges and researchers can receive, find, store, compare and analyze data much more rapidly and efficiently if it is in XBRL format. We have to accept such technology system and say good-bye to our traditional system of business reporting.

The second decade of the 21st century witnesses climates changes as a "global problematique". In the world, there are basic four problems-Poverty, Population, Pollution, and Terrorism. In the USA the Environmental Protection Agency and SEC are beginning to require additional disclosures about greenhouse gas emissions and other climate change matters. To solve the problem, the world has developed one solution 'Carbon Credit' and the accounting profession has started Carbon Credit Accounting. We have to discuss this new emerging issue in the conference.

After independence, our present Income tax Act had so many changes every year and it becomes more complicated. Therefore, now we require simple and smooth new tax law. There will be tremendous impact of direct tax code on our economy. We would like to implement DTC from 1st April, 2012. Therefore, this is a right time to Discuss DTC in our present conference.

Accounting education is meaning less without good research. To develop the subject and the profession, we require sound remarkable research in accounting. We have Accounting Education and Research as a part of International Seminar. I hope that our participants will highlight not only Indian Research but also various researches at International level. For better future of the accounting profession, we require quality research from academicians and professionals. Let me conclude my speech with Robert Greenleaf statement:

**"Not much happens without a dream,
And for something great to happen, there must a great dream.
Behind every achievement is a dreamer of great dreams".**

ACCOUNTING EDUCATION AND RESEARCH IN SOUTHERN AFRICA

*U.L. Paliwal
**E.D. Beukes

ABSTRACT

Most of Southern African Universities emphasize greatly on research as a means of knowledge creation and dissemination by including "education, research and community service" as an integral part of their vision and mission statements. According to the "Global Competitiveness Report 2010 - 11" South Africa is ranked number one out of 139 countries on Strength of auditing and reporting standards (WEF, 2010), however, the profile of accounting research in south Africa is not very promising (West, 2006). This paper is an attempt to discuss and document the state and focus of research done by accounting academics and practitioners in South Africa and Namibia.

Accounting as a social science involves the application of the scientific method (and philosophical reasoning) to accounting problems. This extends beyond mere accumulation of data to the application of empirical data to theory and vice versa. This can then assist in explaining a particular problem or in providing predictions regarding a particular issue (West, 2006). Over the years accounting education, practice and research have undergone a paradigm shift. Given the increasingly important and changing role accountants play in society, regulatory bodies such as International Federation of Accountants (IFAC) have developed skill sets required of professional accountants. IFAC encourages a 'general education [that helps] candidates become broad-minded individuals who think and communicate effectively and who have the basis for conducting inquiry, carrying out logical thinking and undertaking critical analysis' (IFAC 2003:54). Past two decades witnessed commendable growth in accounting research both in developed and developing world. Most of Southern African Universities emphasize greatly on research as a means of knowledge creation and dissemination by including "education, research and community service" as an integral part of their vision and mission statements. According to the "Global Competitiveness Report 2010 - 11" South Africa is ranked number one out of 139 countries on Strength of auditing and reporting standards (WEF, 2010), however, the profile of accounting research in south Africa is not very promising (West, 2006). This paper is an attempt to discuss and document the state and focus of research done by accounting academics and practitioners in South Africa and Namibia.

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Methodology

The paper is based on both primary and secondary data. Primary data was collected from academics through a questionnaire, while secondary data was obtained from Journals including South African Journal of Accounting Research (SAICA); Meditari Accounting Research (Emerald); Southern African Journal of Accountability and Auditing Research and Southern African Business Review; and websites of various universities as well as South African Institute of Chartered Accountants (SAICA). The findings and discussion are based on research articles published in above mentioned South African Journals or those published in journals of repute elsewhere by South African academics or practitioners during the period 2000-2010. Apart from identifying the current profile and focus of accounting research in Southern Africa, the article also attempts to investigate the reasons thereof and makes some recommendations on how to improve both quality and quantity of accounting research in the region.

Literature Review

Though accountants are one of the best paid breed of workforce in Southern Africa and Universities offering accounting programmes have "teaching, research and community service" as their mission statements, research output of accounting academics still remains low when compared to that with accountants elsewhere (West, 2006). In a descriptive study Nieuwoudt, Wilcocks & Kilpert (2006), found that South African academics spend excessive time on teaching. South African accounting academics spend 10% of their time on management tasks, 78% on teaching, 5% on research and 7% on service. They concluded that the effort allocations of professors (the highest academic rank in South Africa) in South Africa to research activities are in line with the effort levels of instructors (the lowest rank in US universities) in the USA. Gopalakrishnan (2009), states that Accountancy is not even considered as a subject for further research and development by the Universities or the colleges in India. The University Grants Commission does not consider Accountancy as a subject worthy of getting its attention and elevating it to the status of Commerce or other Management subjects. He further cites that there are no Doctoral theses accepted or classified under the subject Accountancy; rather they are classified under the head "Commerce" or "Management". Chan, Chen and Cheng (2005) ranked research productivity of faculties from Asia - Pacific region by analyzing 18 of the top international journals in Accounting and related fields for the period from 1991 to 2002 and found that research productivity of the top 20 Asia - Pacific institutions is comparable with that of leading universities in North America. According to Nieuwoudt, Wilcocks and Kilpert (2006), compensation for accounting academics lags far behind the salaries earned by Accountants in practice; thus the financial reward system for research output has to be taken into account when evaluating academics' perceptions and attitudes regarding research.

Findings

The following section presents the main findings of the survey and the journal articles published by faculty members of Southern African Universities:

Some facts about accounting education in Southern Africa

In South Africa, the entrance requirements for becoming a chartered accountant (CA) are set by two professional bodies. The South African Institute of Chartered Accountants (SAICA) sets the requirements for the Certificate in the Theory of Accountancy (CTA), which is required in order to write Part I of the Qualifying Examination (QE). Part II of the examination is set by the public Accountants and Auditors Board (PAAB) (except for the financial management examination in Part II of the QE, which is set by SAICA). In order to write Part II of the QE, candidates must complete Part I successfully, and must have done 18 months of a three-year training contract (SAICA 2005). Universities provide education up to the level of the CTA, and the CTA programmes are accredited by SAICA. However, not all South African universities have been accredited. This fact has given accredited Accounting departments the leverage they need to obtain a favourable dispensation for their academic staff. The curriculum or syllabus set by SAICA became the curriculum of the honours degrees awarded by the accredited universities, as a low or inadequate pass rate could result in these universities' losing SAICA accreditation. CAs were appointed at a senior lecturer level to compensate for the loss of income involved when they moved from the practice to the academic environment. The academic ranking system was therefore used, not for academic reasons per se, but for remuneration purposes (Nieuwoudt & Wilcocks, 2005). SAICA stipulates that majority of faculty members lecturing on Certificate in Theory of Accounting (CTA) and accredited undergraduate programmes should be SAICA qualified chartered accountants (SAICA, 2010). However, as mentioned earlier the focus of professionally qualified accounting faculties is more on teaching due to the high expectations of SAICA and to retain the accreditation. Apart from teaching, they mainly focus on practice, leaving very little time for research and related activities. The Table 1 presents a brief overview of Non-CA qualifications held by faculty members in the region.

Table 1
Higher degrees held by faculty members at selected institutions

University	Number of faculty members		
	Total	Masters	Doctorates
South Africa*			
UNISA (Financial Accounting)	33	12	5
UNISA (Management Accounting)	31	19	3
University of the Witwatersrand	34	16	4
University of the Western Cape	9	3	0
Namibia**			
University of Namibia	17	7	3
Overseas*			
University of New South Wales (Australia)	36	29	16
Leeds University (UK)	17	14	11

Source: *Adapted from West A. (2006) and **data collected through survey

SAICA Accreditation

In its role as an Education and Training Quality Assurer (ETQA) and in terms of its current recognition standing with the Independent Regulatory Board for Auditors (IRBA), the South African Institute of Chartered Accountants (SAICA) accredits certain programmes specifically designed to allow access to Part I of the Qualifying Examination (QE I).

An essential element of accreditation is quality control. Hence SAICA assesses and monitors the relevant programmes of higher education institutions / universities. The quality assurance process performed by SAICA includes:

- The completion of an annual self-evaluation by each provider / university offering an accredited programme; and
- A monitoring visit at least once in every five year cycle

The following table 2 provides a brief overview of higher education institutions and the programmes offered.

Table 2
List of Higher Education Institutions and accounting qualifications offered

Country	No of HEIs	No of HEIs offering accredited UG programme	No of HEIs offering bridging programme	No of HEIs offering accredited PG programme (Honours/CTA/PGD)	No of HEIs offering Master's programme
South Africa	26	14	5	13	20
Namibia	3	1*	1*	0	1
		*Accreditation awaited	*Accreditation awaited	(CTA/ PGD/Hons)	

HEIs in Southern Africa have only constituent faculties

Source: SAICA and primary data collected through survey

The Academic Traineeship Programme (ATP) affords top quality students an opportunity to further their Technical and Professional skills for a year in the academic environment. Prospective academic trainees (AT's) are selected from the top CTA students and are required to be exposed to academic activities such as lecturing, tutoring, preparation of course material, preparation of Assessments, marking and research.

Thutuka Programme:

"Thuthuka" is a Zulu verb, meaning "to develop", indicating the action-based perspective with which transformation is being driven (SAICA, 2011). Since its inception in 2002, Thuthuka has grown from one provincially-based project to over 20 projects throughout South Africa. The number of potential candidates reached is significant, and the results of the programmes are providing indications of the impact to be made. Thuthuka Projects are supported by the Department of Labour's National Skills Fund, the Department of Science

and Technology, Department of Education along with numerous other private partners. In order to drive this process and to manage and account for the external funding needed to initiate such large scale skills development programmes properly, SAICA established two separate entities.

- The first is the wholly owned Thuthuka Education Upliftment Fund (TEUF), established in 2002. In 2005, this company was granted Public Benefit Organisation status with a Section 18(A) tax exemption. A separate Board of Directors oversees the governance of the donated funds and the running of this organisation.
- The second entity is the Thuthuka Bursary Fund (TBF), a trust emanating out of the CAs Eden Trust, also registered with a Section 18(A) tax exemption and its own Board of Trustees.

Thuthuka successes

- In 2002, a total of 142 first year students enrolled in the Thuthuka tertiary education programme at Fort Hare University with 83% of these students passing at the end of 2002;
- Thuthuka Bursary Fund-supported students' in participating universities achieved a 90% overall pass rate for 2005;
- 22 nationwide projects since 2002
- Over 1 500 African and coloured Thuthuka students at universities in the pipeline to become prospective CAs (SA).

Accounting research in Southern Africa

Following table 3 gives an overview of research done by southern African faculty members and published in journals such as South African Journal of Accounting Research (SAICA); Meditari Accounting Research (Emerald); Southern African Journal of Accountability and Auditing Research and Southern African Business Review.

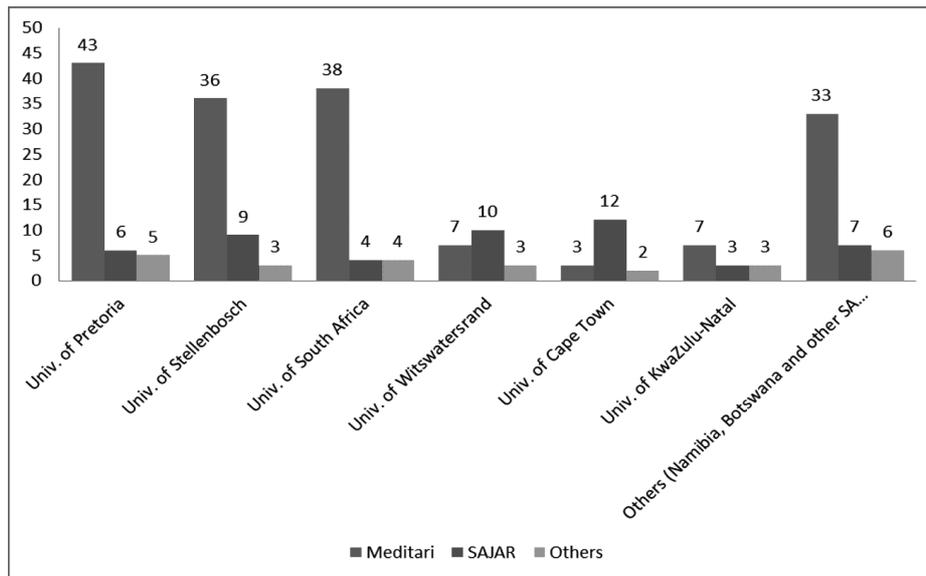
Table 3
An overview of Accounting Research in Southern Africa

Area of research	Meditari	SAJAR	Others	Total	% of total
Accounting Education	25	9	4	38	15.57
Accounting Research	7	0	0	7	2.87
Auditing, risk management and corporate governance	17	4	3	24	9.84
Cost and management accounting	17	8	4	29	11.89
CSR, Environmental Accounting	10	1	2	13	5.33
Ethics	4	0	0	4	1.64
Finance	20	12	4	36	14.75
Financial Accounting, reporting and disclosures	35	12	3	50	20.49
Tax	24	4	3	31	12.70
Others	8	1	3	12	4.92
Total	167	51	26	244	100.00

Source: Journal articles

The figure 1 depicts the contribution of various universities to the publications cited in this article. University of Pretoria was found to be most productive on research front (contributing 22% of all publications) followed by University of Stellenbosch and University of South Africa contributing 20% and 19% respectively.

Figure 1
Contributing Universities (Based on First Author)



Source: Journal articles

Classification of accounting research by type of research

The following table 4 explains the classification basis (Coetsee & Stegmann, 2011) that was used for classifying the articles used for this research. Table 5 classifies the surveyed articles using the above classification criteria.

Table 4
Classification of research (research approach)

Classification	Research approach	Explanation
I	Pure scientific	Model or Hypothesis is developed which is tested through empirical means
II	Archival research	Content analysis of data such as financial statements and data basis
III	Quantitative surveys	Closed-ended surveys used to test perceptions
IV	Qualitative or interpretative	Includes case studies, field work, interviews and open-ended surveys
V	Combined	Combination of research approaches

Source: Coetsee & Stegmann, 2011

Table 5
Classification of research (Number of articles)

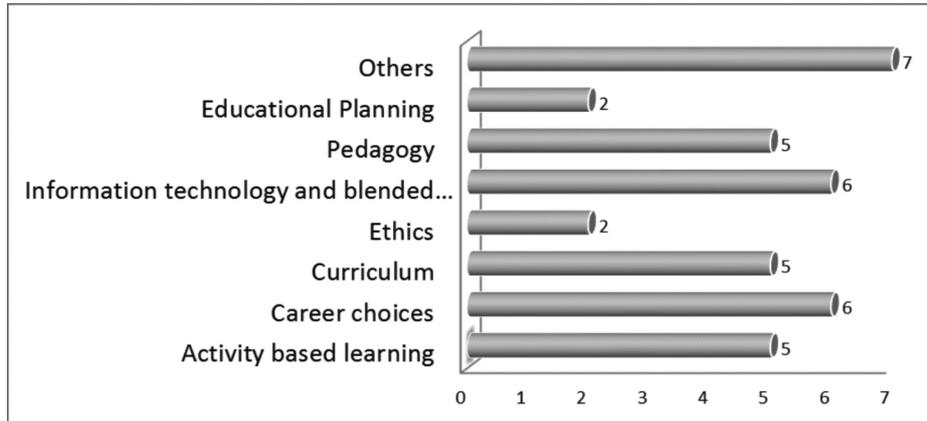
Research approach	Meditari	SAJAR	Others
Pure scientific	38	17	4
Archival research	34	12	6
Quantitative surveys	52	9	9
Qualitative or interpretative	17	9	5
Combined	26	4	2
Total	167	51	26

Source: Journal articles accessed for this research

More on research focusing on accounting education

As depicted in the Figure 2, pedagogy, curriculum design, career choice, activity based learning and use of technology in teaching - learning process are main stay of research focusing on issues that affect accounting education directly and the profession as whole ultimately.

Figure 2
Sub field of accounting education - research (Number of articles)



Source: Journal articles accessed for this research

Barac (2009) studied the perceptions of TIPP and TOPP training officers whether the content of management accounting and financial management syllabuses correspond to the subject knowledge as applied in practice. Though there were significant differences between the opinions of TIPP and TOPP training officers, there was significant positive correlation between the opinions of two groups about the depth of the topics to be taught. International Accounting should not be integrated with other accounting courses but rather needs to be taught as separate courses ranging from one to two courses. They advocate including an ethics course in the Accounting curriculum as a strategy to improve the ethical standing of

the accounting profession. Naudénmmu (2008) discussed the ethics education in accounting by elaborating on questions such as: 1. Why ethics matter? 2. Can ethics be taught? 3. What is to be taught? and 4. How is ethics to be taught?

Activity (practice) based learning

Stainbank (2005) investigated the role of an annual report project in simulating a real-life situation to encourage students to integrate knowledge, develop skills and self-directed enquiry and research, use technology, work in groups and be active participants in the learning process, question, seek answers and learn independently. Stainbank (2003) found that students doing the project gained a better understanding of the practical implications of the GAAP statements and also have an understanding of the various other reports that are often found in annual reports. Accounting project enhances a number of accounting and professional skills considered important and enables students to take responsibility for their learning and helps to relate theory to real-life practice (Stainbank, 2010). Jordaan, Smithard & Burger (2009) found differences regarding career indecisions among students from different fields of study and employment status. Understanding career indecision and its contributory factors might help students and educational institutions to formulate effective strategies that they could use to enhance students' chances of career advancement.

Information technology and accounting education

Wessels & Steenkamp (2007), emphasised that the IT competencies and skills that the students learned at university are real-life issues that can and should be applied even in their personal lives. Furthermore, serious consideration should be given to addressing security issues early in the courses that students take including finance, management accounting and auditing. Wessels (2007), conducted a position audit to investigate the current position regarding the education of students at South African universities in ICT skills. Although 50% of universities use accountants to teach the ICT skills to students, 50% of universities use other professionals to teach these subjects. This can have a severe impact on the competency of students in the use of ICT skills in a relevant business and/or accounting context. Other related ICT skills (in Auditing, Management Accounting and Taxation) are not covered by a significant number of universities, nor is there any evidence of universities currently integrating ICT skills with the professional subjects.

Halabi, Essop, Joosub, Padia, Vawda, & Yasseen (2010), found that the students with no prior accounting knowledge who completed the Computer Based Learning (CBL) materials achieved a significantly higher test mark than the face-to-face teaching group. Van Rooyen (2010), recommends use of mobile technology which can enhance the learning experience of accounting students and provide them with information, academic guidance, motivation and the "personal touch", so often missing in distance education. Most of the core subjects in the accounting curriculum are taught without any reference to the role and impact of information systems and information technology on the specific subject due to the fact that a vast number of lecturers are not comfortable with information technology.

Furthermore, universities have limited capacity in providing modern information systems and technology to their students and the volume of the current training of professional accountants also takes up most of the available time (Wessels, 2004).

Factors influencing success of accounting students

Sadler & Erasmus (2005) studied the perceptions of lecturers and black CTA students regarding factors that contribute to black students' academic success to help black CTA students to understand the reasons for success and failure better, and to improve lecturers' teaching approaches. The lecturers ranked written communication and the ability to read in the top ten, indicating that these skills are a priority, whilst students ranked these items only 25th and 13th respectively. From the top ten results for both lecturers and students, only four items can be grouped together. The four items which both lecturers and students consider to be important and which are among the top ten were:

- timeous and regular examination preparation (lecturers 1st; students 3rd);
- ability to reason logically (lecturers 2nd; students 6th);
- consistent effort (lecturers 4th; students 1st); and
- effective examination techniques (lecturers 8th; students 4th).

Overemphasis on written examinations at the expense of a combination of assessment methodologies, does not assess all the elements of professional competence (Botha, 2001). In a similar study Wet & Niekerk (2001), identified weaknesses in the current approach and highlighted possible areas regarding the improvement of the course. They suggested to

- Have more focus on practice
- Change in lecturing approach (students to be active participants; prepare for lecture, interact)
- Change the assessment methods (group tasks, module assignments, tests marked by students, open book exams)

Conclusions

From the above findings it is clear that despite the small number of research degree holders in southern African universities, faculty members are relative active in research and publishing. Since Universities have a greater role to play in imparting profession educational through accredited undergraduate and post graduate programmes a good deal of research (15.6%) was found focusing on accounting education. Other areas of research interest were financial accounting and reporting (20.5%), finance (14.8%), taxation (12.7%), cost and management accounting (11.9%) and auditing (9.8%) among others. However, when compared with accounting research on global level it is clear that there is a further need for emphasising research and sensitize academics about their coveted role of research and publish so that a better balance between teaching and research can be achieved. There is also need for focusing research on contemporary topics in line with international trends. Inclusion of research methodology and accounting theory in the South African undergraduate accounting curriculum will prove helpful in this direction.

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INDUSTRY INFLUENCE ON FINANCIAL STRUCTURE: AN EMPIRICAL EVIDENCE FROM INDIAN AUTOMOBILE FIRMS

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ABSTRACT

The association between a firms' financial structure and its size, profitability similar to other operating characteristics have gained considerable importance. Review of literature on the subject showed that some studies presented affirmative evidences in respect of a particular factor or a group of factors as determinant of corporate financial structure, others have presented dissenting evidences in respect of the same factors to be a clear determinant of financial structure. Therefore, in this study an attempt has been made to study the corporate financial structure relationship with reference to size, profitability, operating leverage, ,external financing and income gearing and economic interpretation to the factors which determine the financial structure of selected Indian automobile companies. The results of the study showed that size followed by external financing, operating leverage, profitability and income gearing are found to be most important factors explaining the variations in the financial structure of Indian automobile industry during the study period.

Over the past, many researchers have tried to establish the factors which influence a firm's financial structure. The association between a firm's financial structure and its size, profitability similar other operating characteristics have gained considerable importance. Some of them have presented affirmative evidences in respect of a particular factor or a group of factors as determinant of corporate financial structure; others have presented dissenting evidences in respect of the same factor or factors to be a clear determinant of financial structure. In this paper, an attempt has been made to study the corporate financial structure relationship with reference to size, profitability, operating leverage, external financing and income gearing. Attempts are also made here to offer an econometric interpretation to the factors which determine the financial structure of selected Indian automobile companies. In this regard, the following hypotheses are framed and tested.

- Financial Leverage is independent of Industry class
- Financial Leverage is independent of Industry size
- Financial Leverage and Profitability are independent of each other
- Financial Leverage and Operating leverage have got no association between them
- Financial Leverage and External financing are independent of each other
- Financial Leverage has got no association with Income gearing

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Sample Desing

Keeping in view the scope of the study, it is decided to include all the companies under automobile industry working before or from the year 1996-97 to 2008-09. There are 26 companies operating in the Indian automobile industry. But, owing to several constraints such as non-availability of financial statements or non-working of a company in a particular year etc., it is compelled to restrict the number of sample companies to 20. The companies under automobile industry are classified into three sectors namely; Commercial vehicles, Passenger Cars and Multiutility vehicles and Two and Three wheelers. For the purpose of the study all the three sectors have been selected. It accounts for 73.23 per cent of the total companies available in the Indian automobile industry. The selected 20 companies include 5 under Commercial vehicles, 6 under Passenger Cars and Multiutility vehicles and 9 under Two and Three wheeler sectors. It is inferred that sample company represents 98.74 percentage of market share in commercial vehicles, 89.76 percentage of market share in Passenger Cars and Multiutility vehicles and 99.81 percentage of market share in two and three wheelers. Thus, the findings based on the occurrence of such representative sample may be presumed to be true representative of automobile industry in the country.

Data

The study is mainly based on secondary data. The major source of data analysed and interpreted in this study related to all those companies selected is collected from "PROWESS" database, which is the most reliable on the empowered corporate database of Centre for Monitoring Indian Economy (CMIE). Besides prowess database, relevant secondary data have also been collected from BSE Stock Exchange Official Directory, CIME Publications, etc.

Financial leverage and industry class

The first hypothesis relates to the possible association between industry class and financial structure. Since business risk has got relationship with the types of product, and the product with types of industries, there is reason to believe that a firm's financial structure is influenced by its industrial classification. The same logic should also hold good for inter-industry comparison. Since industries deal with different products, operate under different environment, rely on different technology, have different cost structure, their business risks should essentially be different. As such, their financial structures should also be different. To test whether the financial leverage of selected sectors of Indian automobile industry significantly differs, Analysis of Variance (ANOVA) has been applied and result of which is displayed in Table 1. It is evident from Table 1 that F ratio (3.752) is higher than the table value of F (3.40) at 5 per cent level of significance. This indicates that the means of the financial leverages of the selected sectors of Indian automobile industry differ significantly. Thus the null hypothesis that financial leverage is independent of Industrial class is rejected leading to the conclusion that financial leverage depends up on industrial class.

Financial leverage and size

Large firms are generally more diversified, enjoy easier access to capital markets, receive higher credit ratings, and pay lower rates of interest on borrowed capital. Moreover as the level of activity increases with size, more debt is expected in the financial structure of large corporations. Hence, size of the firm should be positively related to its financial structure. The same logic should also hold good for inter-industry variations. In order to test the validity of the second null hypothesis that financial leverage and industry size are independent, correlation co-efficient between financial leverage and industry size have been calculated for all the three sectors namely commercial vehicles, passenger cars and multiutility vehicles, two and three wheelers and whole industry during the study period. To test the significance of correlation co-efficient, significance level is also presented in the Table 2. Table 2 exhibits details of empirical results found in respect of the hypothesis concerning financial leverage and industry size. It is apparent from the Table 2 that not only there exists positive correlations between financial leverages and industry size but also the relations are statistically significant at 1 per cent level in case of passenger cars and multiutility vehicles, two and three wheelers and whole industry and at 5 per cent level in case of commercial vehicles sector during the study period. Therefore, the null hypothesis that leverage is independent of industry size is rejected and hence concluded that size has got bearing on financial structure.

Financial leverage and profitability

The third hypothesis is pertaining to the relationship between a firm's profitability and its financial structure. A firm's ability to generate internal surpluses for business expansion depends upon its earning capacity. A more profitable firm may be considered to be in a better position to generate internal funds by way of reserves and surpluses. As reserves and surpluses will grow, the firm's dependence on external financing will decline, and consequently its dependence on debt capital too. This is because, a firm going for external funds will certainly prefer low-cost source and debt will be the first choice. Hence, a negative relationship should exist between a firm's financial leverage and its profitability. In order to test the validity for the null hypothesis that financial leverage and profitability are independent of each other, correlation co-efficient between financial leverage and profitability have been calculated for all the three sectors and whole industry and empirical results are presented in Table 2. It is evident from the Table 2 that the existence of negative correlation between financial leverage and profitability in all the three sectors and whole industry and also the relationship are statistically significant at 1 per cent level. Thus, the null hypothesis that financial leverage is independent of profitability is rejected and concluded that there exists negative correlation between them.

Financial leverage and operating leverage

The fourth hypothesis relates to the suspected influence of operating leverage on financial structure. Determining the validity of this hypothesis in case of Indian automobile

industry was thus the purpose of the fourth test. In order to test the validity of the null hypothesis that financial leverage and operating leverage have got no association between them, correlation co-efficient between financial leverages and operating leverages have been calculated for all the three sectors of automobile industry and whole industry and empirical results are presented in Table 2. In case of Indian automobile industry, however a definite conclusion could not be reached as far as the relationship between operating leverage and financial leverage is concerned. Empirical evidences from the Table 2 show that there exists negative correlation between operating leverages and financial leverage in case of two and three wheeler sector and whole automobile industry. Interestingly in case of commercial vehicles and passenger cars and multiutility vehicles positive correlation between financial leverage and operating leverage. However, in all the cases the relationships are statistically insignificant. Thus, the null hypothesis that operating leverage and financial leverage are independent of each other could not be fully rejected in the sense there exists both negative as well as positive correlation between them in different sectors in the same period.

Financial leverage and external financing

The fifth hypothesis relates to the association between the external financing and financial structure. Generally firms prepare internal to external financing and they will prefer the safest security first, i.e., they will choose debt before equity financing, in case they seek external financing to finance real investments with a positive net present value. This implies that when external financing will increase, the proportion of debt in the total financing will also increase. Hence there should exist, a positive relationship between external financing and firm's financial leverage. This logic should also be valid for inter- industry comparison. Empirical evidence from the Table 2 shows that there exists a statistically significant positive relationship between financial leverage and external financing in all the three sectors and whole industry. Thus, the null hypothesis that financial leverage and external financing are independent of each other could be fully rejected in the sense there exists positive correlation between them in different companies in the same period.

Financial leverage and income gearing

The sixth and the last hypothesis relates to the possible association between income gearing and a firm's financial leverage. Income gearing is considered to be a measure of corporate vulnerability to fluctuations in general economic conditions. Since firms operate under different economic conditions, and economic conditions have bearing on capital as well as debt markets, there should exist relationship between income gearing and a firm's financial leverage. Empirical evidence from the Table 2 shows that there exists a statistically significant positive relationship between income gearing and corporate financial structure in all the three sectors and whole industry. Thus, while rejecting the null hypothesis that there is no association between income gearing and financial leverage, it may conclude that income gearing and financial leverage are positively correlated.

Determinants of financial structure-Econometric analysis

In this part an attempt is made to measure the degree of relationship that exists between a firm's financial structure and the different factors which have bearing on the financial structure. The objective of this discussion is to examine the determinants of financial structure in the selected sectors of Indian automobile industry during the study period. Based on earlier empirical studies, the specific factors are chosen for analyzing determinants of financial structure in Indian automobile industry. The specific factors, which have been taken in to consideration are Payout Ratio (PR), Operating Leverage (OL), Size (S), Profitability (PROFIT), External Financing (EF) and Income Gearing (IG). These factors have been taken as the independent variables and Financial Leverage (FL) as the dependent variable. Multiple regression analysis has been applied to measure the effects of the independent variables on the dependent variable. The model to be estimated using from specific cross section data proposed is as follows

$$FL = b_0 + b_1 PR + b_2 OL + b_3 S + b_4 PROFIT + b_5 EF + b_6 IG.$$

The results of the regression analysis in respect of whole industry, commercial vehicles, passenger cars and multitality vehicles and two and three wheelers have been presented through Table 3 to Table 6.

Whole Industry

Analysis of the regression results of Indian automobile industry (Table 3) reveals that the adjusted R^2 is 0.96 and the F ratio is significant, which implies that the independent variables collectively explain 98 percentages of the total variations in the dependent variable. The analysis shows that variables like payout ratio, size, profitability, external financing and income gearing which are found to be statistically significant in explaining financial structure of Indian automobile industry. As far as the importance of individual variables are concerned, size, Income gearing and payout ratio are found to be the most important factors explaining variations in the financial structure of Indian automobile industry during the study period. The results thus indicate that the independent variables explaining the dependent variable well during the study period.

Commercial Vehicles

Analysis of regression results of the factors determining financial structure of commercial vehicles sector are presented in Table 4. It is evident from the table that the independent variables explain about 94 per cent variation in the dependent variable in this sector. The analysis shows that factors like payout ratio, size, profitability, external financing and income gearing are found to be statistically significant in explaining the financial structure of commercial vehicles sector. However, operating leverage is found to be statistically insignificant. It is evident from the results that size is the stronger determinant of financial structure followed by income gearing, profitability, external financing and payout ratio. The overall explanatory power of regression appears to be good. This may be inferred from the co-efficients of determinants (R^2). It is 94 per cent and the adjustment explanation is around 87%.

Passenger cars and Multi-utility vehicles

The results of analysis of the regression of passenger cars and multi-utility vehicles are presented in Table 5. Analysis of the regression results shows that the R^2 is 0.94 and the F-ratio is significant, which implies that the independent variables collectively explain 94 percentage of the total variations in the dependent variable. The analysis shows that all the selected independent variables except operating leverage are found to be statistically significant in explaining financial structure of passenger cars and multi-utility vehicles. It also found that payout ratio has been the most important factor influencing the financial leverage of passenger cars and multi-utility vehicles followed by size, income gearing and profitability. The results thus indicate that the independent variables explain dependent variable well during the study period.

Two and Three Wheelers

The results of regression analysis of the factor determining the financial structure of two and three wheelers sector are presented in Table 6. It is found from the Table 6 that the independent variables collectively explain 99 per cent of the total variations in the dependent variable in two and three wheelers sector during the study period. The analysis shows that all the factors are found to be statistically significant in explaining financial structure of two and three wheelers sector. As far as individual variables are concerned, it is found that income gearing, size, payout ratio and profitability are the most significant variables influencing the financial structure of two and three wheelers sectors during the study period. The results also indicate that the independent variables explain the dependent variable well in two and three wheelers sectors during the study period.

Conclusion

The analysis of industry influence on financial structure of Indian automobile industry reveals that the selected variables collectively explain 88 percentages of total variations in whole industry, 90 per cent in commercial vehicles sector, 60 per cent in passengers and multiutility vehicles sector and 89 per cent in two and three wheelers sectors during the study period. As far as the importance of individual variation of concern size followed by external financing, operating leverage, profitability and income gearing are found to be most important factors explaining the variations in the financial structure of Indian automobile industry during the study period.

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Table 1

Analysis of variance (ANOVA) for financial leverages of Indian Automobile Industry

Sectors	Mean	No. of items			
Commercial vehicles	0.266	13			
Passenger cars and Multi-utility vehicles	0.286	13			
Two and Three wheelers	0.223	13			
Source of variations	Sum of squares	df	Mean square	F-ratio	F-value (at 5%)
Between the years	0.249	12	0.020	5.771	2.18
Between the sectors	0.027	2	0.013	3.752	3.402
Error	0.086	24	0.003		
Total	0.362	38			

Table 2
Statement showing correlation co-efficient, t-values and levels of significance of financial leverage and different factors

Industry class	Correlation between	r-value	Significance level	Significant/ Not significant
Commercial vehicles	FL and Size	0.128	0.031	Significant**
	FL and PR	-0.458	0.000	Significant*
	FL and OL	0.038	0.763	Not significant
	FL and EF	0.091	0.041	Significant**
	FL and IG	0.026	0.034	Significant**
Passenger cars and Multi-utility vehicles	FL and Size	0.327	0.003	Significant*
	FL and PR	-0.494	0.000	Significant*
	FL and OL	0.054	0.639	Not significant
	FL and EF	0.077	0.018	Significant**
	FL and IG	0.172	0.081	Significant***
Two and three wheelers	FL and Size	0.390	0.000	Significant*
	FL and PR	-0.892	0.000	Significant*
	FL and OL	-0.035	0.708	Not significant
	FL and EF	0.014	0.093	Significant***
	FL and IG	0.024	0.045	Significant**
Whole Industry	FL and Size	0.218	0.000	Significant*
	FL and PR	-0.886	0.000	Significant*
	FL and OL	-0.016	0.802	Not significant
	FL and EF	0.023	0.056	Significant***
	FL and IG	0.020	0.031	Significant**

FL-Financial Leverage; OL-Operating Leverage; IG-Income Gearing; PR-Profitability; EF-External Financing.

*-Significant at 1% level; **-Significant at 5% level; ***-Significant at 10% level.

Source: Computed.

Table 3
Factors Determining the Financial Structure of Indian Automobile Industry-
Regression Analysis (Dependent variable - Financial Leverage (FL))
[FL = b₀ + b₁PR + b₂OL + b₃S + b₄PROFIT + b₅EF + b₆IG]

Independent Variables	Regression co-efficients	t-value	Significant/Not significant
Payout Ratio (PR)	-0.04	2.82	Significant**
Operating Leverage (OL)	-0.003	0.87	Not Significant
Size (S)	0.40	5.04	Significant*
Profitability (PROFIT)	-0.01	3.27	Significant*
External Financing (EF)	0.005	4.63	Significant*
Income Gearing (IG)	0.10	2.88	Significant**

R² = 0.98; Adj R² = 0.96; F ratio = 53.69*; * - Significant at 0.01 level; ** - Significant at 0.05 level.

Source: Computed.

Table 4
Factors Determining the Financial Structure of Indian Commercial Vehicles
Sector-Regression Analysis (Dependent variable - Financial Leverage (FL))
[FL = b₀ + b₁PR + b₂OL + b₃S + b₄PROFIT + b₅EF + b₆IG]

Independent Variables	Regression co-efficients	t-value	Significant/Not significant
Payout Ratio (PR)	0.005	3.12	Significant*
Operating Leverage (OL)	0.001	1.05	Not Significant
Size (S)	0.09	4.14	Significant*
Profitability (PROFIT)	-0.02	2.22	Significant***
External Financing (EF)	-0.009	5.06	Significant*
Income Gearing (IG)	-0.08	1.89	Significant***

R² = 0.94; Adj R² = 0.87; F ratio = 14.90*; * - Significant at 0.01 level; *** - Significant at 0.10 level.
 Source : Computed.

Table 5
Factors Determining the Financial Structure of Indian Passenger Cars and Multi-utility
vehicles sector - Regression Analysis (Dependent variable - Financial Leverage (FL))
[FL = b₀ + b₁PR + b₂OL + b₃S + b₄PROFIT + b₅EF + b₆IG]

Independent Variables	Regression co-efficients	t-value	Significant/Not significant
Payout Ratio (PR)	0.13	3.54	Significant*
Operating Leverage (OL)	0.006	0.69	Not Significant
Size (S)	0.09	1.94	Significant***
Profitability (PROFIT)	-0.01	3.77	Significant*
External Financing (EF)	-0.009	3.22	Significant*
Income Gearing (IG)	0.013	4.14	Significant*

R² = 0.97; Adj R² = 0.94; F ratio = 14.86*; * - Significant at 0.01 level; *** - Significant at 0.10 level.
 Source : Computed.

Table 6
Factors Determining the Financial Structure of Indian Two and Three Wheeler Sector -
Regression Analysis (Dependent variable - Financial Leverage (FL))
[FL = b₀ + b₁PR + b₂OL + b₃S + b₄PROFIT + b₅EF + b₆IG]

Independent Variables	Regression co-efficients	t-value	Significant/Not significant
Payout Ratio (PR)	0.03	4.10	Significant*
Operating Leverage (OL)	0.0092	2.04	Significant***
Size (S)	-0.13	3.62	Significant*
Profitability (PROFIT)	-0.01	2.89	Significant**
External Finance (EF)	0.0003	5.96	Significant*
Income Gearing (IG)	0.22	5.26	Significant*

R² = 0.99; Adj R² = 0.99; F ratio = 160.17; * - Significant at 0.01 level; ** - Significant at 0.05 level; *** - Significant at 0.10 level.
 Source : Computed.

READABILITY OF ANNUAL REPORTS AND FIRM'S PERFORMANCE

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**Amitabh Joshi

ABSTRACT

This study examines the readability of corporate disclosure (annual reports) communication for a sample of listed companies on NSE of automobile sector. The study employs Readability Formulae and finds that the extent of syntactic complexity making it difficult to comprehend the corporate communication of the listed companies varies from very difficult to fairly difficult. The readability of annual reports is measured by using both the Fog Index from computational linguistics and Flesch Reading Ease Score. There is strong relationship between performance of the company and the difficulty level of corporate communication. Whereas when debt equity ratio is higher the annual reports becomes difficult to comprehend. Liquidity and firm size have again justified the level of readability of company's annual report.

Introduction

There are three important elements of corporate disclosure: content (what), timing (when) and presentation (how) (Courtis, 2004), the usefulness of which, depends upon their readability and understandability. Firms may manipulate the content and presentation of information in various ways, essentially using what is known as 'impression management' (Godfrey et al., 2003). Using this practice, firms can manipulate verbal information through the reading ease manipulation (e.g., to make the text difficult to read) or through the rhetorical manipulation method/practice (e.g., using persuasive language). The reading ease manipulation method is used with the intention to hide bad news, and given the fact that corporate disclosures attract much attention; there have been numerous studies on the reading ease of firms' annual reports (Smith and Taffler, 1992b; Jones and Shoemaker, 1994; Courtis, 1998; Rutherford, 2003; Smith et al., 2006).

Such studies may reveal whether corporate communication in the form annual reports could reduce information asymmetry or not. If disclosure readability is strategically used by managers to hide adverse information, a relationship between firm performance and readability would be expected. This management opportunism story argues that managers have incentives to obfuscate information when the current performance is bad (Bloomfield (2002)). This paper is an attempt to provide evidence on the readability of corporate communications, which is

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being done through annual reports based on the firms of automobile sector enlisted in the NSE. Also, this paper evaluates the correlation and regression between reading ease scores and the variables like: current performance (ROA), the level of leverage of companies etc.

There are many prior studies investigating the relationship between the readability of the corporate narrative and firm performance, and hence this study is motivated to test some of hypotheses that have been developed in this respect. The variables that represent the firm's financial performance are ROA, Firm Age, Financial Gearing, profitability, liquidity, leverage and size. Besides these seven financial performance measures this study also includes the market-based performance measurement (measured as the market value of equity at the end of the accounting year plus the book value of liabilities divided by the book value of total assets or the price-to-book value).

Determinants of Annual Report Readability

- **Current Performance (ROA):** The primary independent variable of interest, firm performance, is captured by return on assets, ROA. Rather than accounting income, however, we define the numerator as funds from operations (FFO) since this is generally regarded as the key measure of financial performance in the Automobile industry.
- H1: There is a positive relationship between the readability of annual reports and companies' current performance**
- **Size:** Size captures many aspects of a firm's operation and business environment. For instance, the accounting literature has used firm size to proxy for a firm's political cost (e.g., Watts and Zimmerman (1986)). Hence, I include SIZE, defined as logarithm of the total assets at the end of the fiscal year, as a variable to explain annual report readability. Ex ante, I expect bigger firms to have longer and more complex annual reports.
- H2: The readability of the annual reports is positively related to companies' size.**
- **Debt-Equity Ratio:** In a study of large firms, Anderson et al. (2009) report that the debt ratio is positively associated with their measure of opacity (an index reflecting trading volume, bid-ask spread, analyst following, and analyst forecast errors). Firms with more debt in their capital structure may therefore be expected to have more complex disclosures elaborating the covenant details associated with that debt.
- H3: There is a negative relationship between the readability of annual reports and companies' leverage.**
- **Profitability:** Smith and Taffler (1992b) found a significant relationship between readability and firm performance, their findings being consistent with the obfuscation hypothesis, i.e., good financial performance was significantly associated with ease of readability and poor financial performance with poor readability. Profitability of firm is calculated as $EBIT / \text{Total Assets}$

H4: There is a positive relationship between the readability of annual reports and companies' profitability.

- **Liquidity:** Liquidity is calculated as Current assets / Current Liabilities. A company with good short term financial performance then its readable score must be low. So there exist a positive relationship between liquidity and readability of annual reports.

H5: There is a positive relationship between the readability of annual reports and companies' liquidity.

- **Financial Gearing:** Financial gearing refers to the total liabilities/total assets. If the financial gearing ratio is less than companies' readable score will be high hence it will be difficult to read.

H6: There is a negative relationship between the readability of annual reports and companies' financial gearing.

- **Firm Age:** Old firms may exhibit different annual report readability because there is less information asymmetry and information uncertainty for these firms. If investors are more familiar with and have more precise information about the business models of older firms, then annual reports of older firms should be simpler and more readable. Proxy for firm age using the number of years since a firm is been started.

H7: There is a positive relationship between the readability of annual reports and companies' AGE.

- **Price to Book Value Ratio:** Since there is a lack of research on market-based performance measures in connection with readability issues, this study will use price to book value ratio (measured as the market value of equity at the end of the accounting year plus the book value of liabilities divided by the book value of total assets or the price-to-book value) as a market-based performance measurement for the firm's performance (Wiwattanakantang, 2001). It is expected that growing firms ensure their corporate narratives can be easily read, and thus, hypothesis 8 is:

H8: There is a positive relationship between the readability of annual reports and companies' price to book value ratio.

Sample

The population consists of all listed companies whose financial year-end fell on 31st March 2011. The study deals with the annual reports of the firms of automobile sector enlisted in the NSE as on 31st March 2011. There were 2 companies in this sector i.e. Bajaj Auto Ltd., & Hero Honda. The analysis is done for two years for both of the companies. Basically availability of data was a constraint during data collection. Therefore, for Hero Honda data is been taken up only for one year. Also some parts of annual reports were taken up for calculations such as chairman's message, director's report, auditor's report etc.

The term "readability" is used in this paper as a formula-based measure that predicts the ease of comprehension or understanding of written matter. To determine the proper software to calculate readability score it was initially started working with MS Word's tool. Later help was taken from a website (<http://www.readability.info/>) to analyze the characteristics of the management reviews, which ascertains a multitude of readability scores, such as Kincaid, Automated Readability Index (ARI), Coleman-Liau, Flesch Index, FOG Index, Lix, and Simple Measure of Gobbledygook (SMOG) Grading. Large deviations were found between the results generated by MS Word and that of the website. So two statistics are used to measure the annual report readability. The first is the Fog Index from computational linguistics. The Fog index, developed by Robert Gunning, is a well known and simple formula for measuring readability. Assuming that the text is well formed and logical, it captures text complexity as a function of syllables per word and words per sentence. The index indicates the number of years of formal education a reader of average intelligence would need to read the text once and understand that piece of writing with its word sentence workload. It is calculated in the following way:

$$\text{Fog} = (\text{words per sentence} + \text{percent of complex words}) * 0.4$$

Documents with a resulting index of greater than 18 are considered unreadable, while those with a score less than 10 are considered childish. Therefore, for instance an increase in profitability of any company will give a low score of Fog Index. Hence, if the hypothesis says that there should be positive relationship then result of correlation values must be negative to accept the hypothesis.

The second is the Flesch Readability score as a readability measurement was used, since the formula takes these two important variables into account (Flesch, 1960). Therefore, the readability score is represented by the formula is as follows:

$$\text{Readability Score} = 206.835 - 1.015\text{SL} - 0.846\text{WL}$$

Where: SL = Average sentence length (Number of words/number of sentence)

WL = Average Word Length (Number of syllables/100 words)

(Source: Flesch, 1960, p. 309)

The higher the score, the easier is the text to read, whereas the lower the point scale, the greater the reading difficulty. Scores can be interpreted as shown in the table below.

Score	Notes
90.0-100.0	easily understandable by an average 11-year-old student
60.0-70.0	easily understandable by 13- to 15-year-old students
0.0-30.0	best understood by university graduates

Tools for Analysis

Firstly Pair wise correlation is applied on the readability score and the determinants of firm's performance which affects the readability of annual reports. Secondly, regression model is carried out on the basis of following formula:

FLKGRADE = $\beta_0 + \beta_1 \text{ROA} + \beta_2 \text{SIZE} + \beta_3 \text{DEBT - EQUITY RATIO} + \beta_4 \text{PROFITABILITY} + \beta_5 \text{LIQUIDITY} + \beta_6 \text{FINANCIAL GEARING} + \beta_7 \text{FIRM AGE} + \beta_8 \text{PRICE TO BOOK VALUE RATIO}$

Data is analyzed by the help of SPSS Software (version 17).

Results and Discussion

Table 1
Details of variables

Variables	Bajaj Auto 2011	Bajaj Auto 2010	Hero Honda 2010
FLK Readability Score	48.44	62.055	27.942
FOG Index	14.46	10.3088	15.9047
No. of Sentence	557	4836	139
Words per Sentence	16.99	8.31348	16.0504
Character per Word	5.08	5.1123	6.4303
ROA	55.08	-35.46	-2.09
Size	4.07135	3.9412	3.78427
Debt - Equity Ratio	0.07	0.46	0.02
Profitability	0.38	0.29	0.32
Liquidity	0.8	0.69	0.46
Financial Gearing	0.58337	0.66471	0.18087
Firm Age	15	15	27
Price to Book Value Ratio	8.62308	9.96	10.21594

As it can be observed from the table (refer table no.2) the calculations of FLK readability Score and FOG Index. In combination various independent variables are also calculated by the formula stated above respectively. Correlation between all the variables and readability tools is carried and afterwards regression model is also carried out taking readability calculation as dependent variable and other determinants of performance as independent variables. The discussion on the models is followed by the calculations.

Table 2
Descriptive statistics of all the variables

	Mean	Std. Deviation	N
FLK Readability Score	46.1457	17.17182	3
FOG Index	13.5578192	2.904991981	3
ROA	5.8433	45.78839	3
Size	3.93227167	.143745516	3
Debt - Equity Ratio	.1833	.24090	3
Profitability	.3300	.04583	3
Liquidity	.6500	.17349	3
Financial Gearing	.4763151200	.25907379400	3
Firm Age	19.0000	6.92820	3
Price to Book Value Ratio	9.5996727020	.85538309394	3

Table 3
Correlation between the variables

Variables	Pearson Correlation with FLK		Pearson Correlation with FOG Index	
	Pearson Correlation	Sig. (1-tailed)	Pearson Correlation	Sig. (1-tailed)
ROA	-.254	.418	.601	.295
Size	.639	.279	-.403	-.300
Debt - Equity Ratio	-.860	.170	-.989	.047
Profitability	-.216	.431	.569	.307
Liquidity	.745	.232	-.437	.356
Financial Gearing	.969	.080	-.803	.203
Firm Age	.918	.130	.700	.253
Price to Book Value Ratio	-.263	.415	-.123	.461

Table 4
Regression for Independent variables and FLK Grade

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
ROA	.254	.065	-.871	23.4870	.065	.069	1	1	.836
Size	.639	.408	-.183	18.6772	.408	.691	1	1	.559
Debt - Equity Ratio	.860	.740	.479	12.3939	.740	2.839	1	1	.341
Profitability	.216	.047	-.907	23.7125	.047	.049	1	1	.862
Liquidity	.745	.555	.110	16.1985	.555	1.248	1	1	.465
Financial Gearing	.969	.939	.878	6.0079	.939	15.339	1	1	.159
Firm Age	.918	.843	.686	9.6272	.843	5.363	1	1	.260
Price to Book Value Ratio	.263	.069	-.862	23.4297	.069	.074	1	1	.831

Table 5
ANOVA for Independent variables and FLK Grade

Model		Sum of Squares	Degree of freedom	Mean Square	F	Sig.
ROA	Regression	38.105	1	38.105	.069	.836
	Residual	551.638	1	551.638		
Size	Regression	240.907	1	240.907	.691	.559
	Residual	348.837	1	348.837		
Debt - Equity Ratio	Regression	436.134	1	436.134	2.839	.341
	Residual	153.610	1	153.610		
Profitability	Regression	27.462	1	27.462	.049	.862
	Residual	562.281	1	562.281		

Liquidity	Regression	327.353	1	327.353	1.248	.465
	Residual	262.390	1	262.390		
Financial Gearing	Regression	553.649	1	553.649	15.339	.159
	Residual	36.094	1	36.094		
Firm Age	Regression	497.059	1	497.059	5.363	.260
	Residual	92.684	1	92.684		
Price To Book Value	Regression	40.795	1	40.795	.074	.831
	Residual	548.948	1	548.948		

Table 6
Regression for Independent variables and FOG INDEX

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
ROA	.601	.362	-.277	3.282210	.362	.567	1	1	.589
Size	.300	.090	-.820	3.918551	.090	.099	1	1	.806
Debt - Equity Ratio	.989	.978	.957	.603073	.978	45.407	1	1	.094
Profitability	.569	.324	-.352	3.377247	.324	.480	1	1	.614
Liquidity	.437	.191	-.618	3.695151	.191	.236	1	1	.712
Financial Gearing	.803	.645	.290	2.447733	.645	1.817	1	1	.406
Firm Age	.700	.489	-.021	2.93535	.489	.959	1	1	.507
Price to Book Value Ratio	.123	.015	-.970	4.0769084	.015	.015	1	1	.921

Table 7
ANOVA for Independent variables and FOG INDEX

Model		Sum of Squares	Degree of freedom	Mean Square	F	Sig.
ROA	Regression	6.105	1	6.105	.567	.589
	Residual	10.773	1	10.773		
Size	Regression	1.523	1	1.523	.099	.806
	Residual	15.355	1	15.355		
Debt - Equity Ratio	Regression	16.514	1	16.514	45.407	.094
	Residual	.364	1	.364		
Profitability	Regression	5.472	1	5.472	.480	.614
	Residual	11.406	1	11.406		
Liquidity	Regression	3.224	1	3.224	.236	.712
	Residual	13.654	1	13.654		
Financial Gearing	Regression	10.887	1	10.887	1.817	.406
	Residual	5.991	1	5.991		
Firm Age	Regression	8.262	1	8.262	.959	.507
	Residual	8.616	1	8.616		
Price to Book Value Ratio	Regression	.257	1	.257	.015	.921
	Residual	16.621	1	16.621		

The analysis reveals the following:

1. the calculation of ROA says that there is relationship between the readability and firm's performance. Nut there is a contradictory view between correlation values of FLK Grade and Fog Index (refer table no. 3). FLK grade have a negative relationship whereas Fog Index have a positive relationship. If the regression values (refer table no. 4 & 6) are analyzed then again it can be predicted that the level of impact is low or negative in both the readability tools. Also the difference between the regression and residual values (refer table no. 5 & 7) is also high which says that model i.e. ROA is not a good predictor of readability score of annual reports of companies. Hence hypothesis H1 is rejected.
2. firm size is the logarithmic value of Total assets of companies. The correlation values (refer table no. 3) of this variable shows a moderate degree level of relationship and also the value R2 square (refer table no. 4 & 6) depicts that there exist an impact but with a lower value of regression. But overall it can be concluded that there is positive relationship between Firm size and readability tools but the level of impact is less (refer table no. 5 & 7). Hence hypothesis H2 is accepted.
3. it is ratio between the borrowed capital and shareholders capital. There exist a negative relationship between Debt-equity ratio and readability tools (refer table no. 3). If there is an increase in borrowed capital then the level of readability is toughened. The impact of this ratio is also very high (refer table no. 4 & 6) with both readability tools. The difference between regression and residual values is also low (refer table no. 5 & 7). Hence hypothesis H3 is accepted.
4. the ratio of EBIT with assets puts a positive degree of relationship with FLK grade but shows a negative relationship with Fog Index which makes it contradictory (refer table no. 3). To go in depth if the regression values are analyzed then the level of impact is very low (refer table no. 4 & 6). The difference between regression values and residual values is high (refer table no. 5 & 7). So the relationship is not justified and the hypothesis H4 is rejected.
5. liquidity is calculated with the help of current ratio. The correlation values with FLK and Fog Index again gives a contradictory view (refer table no. 3). But if the regression values are seen then the value shows a moderate degree of impact between FLK Grade and Fog Index (refer table no. 4 & 6). Hence it can be concluded that increase in current ratio lowers the level of readability of annual reports. So the hypothesis H5 is accepted.
6. Increase in this ratio must have a negative relationship between readability scores and the above ratio. So the correlation values does not supports the above point ((refer table no. 3) and the regression values are not in line with the concept (refer table no. 4 & 6). The difference between regression and residual values is high (refer table no. 5 & 7). Hence the hypothesis H6 is rejected.
7. : firm age must have a positive relationship with readability tools. The correlation values shows a positive relationship between the variables (refer table no. 3) and

the regression values also show a high degree of impact of firm age and the easiness of level of reading of annual reports (refer table no. 4 & 6). Only the correlation values are giving a contradictory view. The difference between the regression and residual values is low (refer table no. 5 & 7). Hence the hypothesis H7 is accepted.

8. Increase in market price will lead to a good position of companies and the level of readability of annual reports of these companies is also easy. But the values of correlation do not support the above concept (refer table no. 3) and the value of regression also shows a low level of impact of price to book value ratio (refer table no. 4 & 6). Hence the hypothesis H8 is rejected.

Conclusion

This study demonstrates that in the sample of NSE listed companies of automobile sector investigated the companies communication was very difficult to read according to the Readability formulae. These results suggest that companies with good financial performance report their annual report narratives in a manner that is easy to comprehend, by using simple words and sentences, and fewer technical terms than companies with poorer financial performance.

The findings imply that in the event of poor company performance, management makes the company disclosure more prolix or syntactically complex in an effort to hide bad news. Company disclosure that is more concise and syntactically simple can therefore be taken to indicate that the firm's performance was good. By making the text more concise and syntactically simple, the management is indicating its strong financial condition and ability to perform. Such a strategy is important for a company in its attempt to secure stakeholder trust. Hence, everything is communicated and reported transparently and effectively, thereby laying the foundation for enhanced reputation.

NET PRESENT VALUE VERSUS INTERNAL RATE OF RETURN: A REVIEW IN SEARCH OF THE RESOLUTION OF THE DEBATE

**Dipen Roy*

ABSTRACT

The conflicting rankings so offered to mutually exclusive projects by appraisal methods NPV and IRR is a topic of discussion in financial literature. The paper argues that the conflicts so pointed are apparent, not real; because, these two methods have been deduced from the same valuation model. A single mathematical model cannot give two conflicting methods. The conflicts that get reflected are not due to methods, but due to the use of the examples of divergent characters. Even if a single method is applied to such examples, conflicts get manifested. Thus, the debate is not important. What is important is the violation of accounting principles resulting from the careless application of these two methods. If such careless application is continued, the gains so computed from evaluation of investment plans have the risk of being fictitious indices of non-existing gains.

Gains from an investment can be expressed in two ways, one in absolute terms and another in relative terms. The popular Net Present Value (NPV) method, which is extensively used in corporate sector, expresses the gain in absolute terms, while Internal Rate of Return (IRR) expresses it in relative terms in the form of a rate of earning on invested amount. In spite of this difference in their modes of measurement and reporting, there is a fundamental similarity. Both the methods have been obtained from the same fundamental valuation model. Despite their similarity of the origin, a debate called 'NPV versus IRR' has been getting discussed since long back. Almost all authors of Financial Management including Van Horne & Wachowicz (2003), Brigham and Houston (2004), etc. accommodated this debate in their textbooks. Brealey and Myers (2003) spared a whole chapter for the debate. It is understandable that the aim of the academicians has been to establish the superiority of one over the other so that the best one could be identified and used. Now the question is whether the debate is valid and logical.

The Fundamental Valuation Model

To initiate the discussion the first step should be to have a look at the general valuation model as given below:

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$$NPV = \frac{C_1}{(1+r)} + \frac{C_2}{(1+r)^2} + \frac{C_2}{(1+r)^3} + \dots + \frac{C_n}{(1+r)^n} - C_0 \quad \dots\dots(I)$$

In the equation there are five variables. These are NPV, discounting rate (r), initial investment cost C₀, project life (t = n) and future cash inflows (C_t) of respective years. The notations C₁, C₂, C₃,C_n stand for future cash inflows of first year, second year and so on till the nth year of the investment life.

In every 'problem of investment evaluation' when the values relating to three variables namely investment cost (C₀), life of the asset (t = n) and projected values of future cash inflows [i.e., C₁, C₂, C₃,C_n] are available, the turn of evaluation comes up. The task of the evaluator is to find the value of one of the remaining two variables, i.e., either NPV or the unknown discounting rate, r.

When an acceptable discounting rate r is available to the evaluator, he can discount the cash inflows at that rate to find present values of cash inflows, which are then added to obtain the figure of aggregate present value. The surplus of '*aggregate present value of future inflows*' over '*the present value of investment cost*' is called NPV. This is an absolute index of value addition. The above valuation model can be expressed in the following summarised form [see expression (II)]. The first part of the RHS represents aggregate present value of inflows and the second part represents the present value of investment cost. The difference between these two is defined as NPV.

$$NPV = \sum_{t=1}^n \frac{C_t}{(1+r)} - C_0 \quad \dots\dots(II)$$

Alternatively, when a target value of NPV is known or planned, the evaluator's task is to find the discounting rate, which can give the projected NPV.

Relationship IRR and NPV

Given the summarised form of value equation as shown in expression (II), when the values of the set of C_ts, C₀ and length of asset life (t=n) are substituted in the equation as constants, discounting rate becomes inversely related with NPV.

$$NPV \propto \frac{1}{r}$$

That is, lower the discounting rate, higher the NPV and vice versa. The inverse relationship between NPV and discounting rate r has been explained with the example of Project M as shown in Box 1. It needs initial investment cost of Rs 400000 at time t = 0.

Box 1
The inflows of Project M

Year	1	2	3	4	5
Cash inflows (Rs)	80,000	150,000	200,000	150,000	102,240

Table 1 shows a set of discounting rates and corresponding NPV values of Project M obtained from equation II. When these set of discount rates and NPV values are plotted, it results in a downward sloping NPV curve as shown in Fig. 1.

Table 1
Discounting Rates and Corresponding NPV Values of Project M

Discount Rate:	0%	5%	10%	15%	20%	25%
NPV (Rs):	282241	188617	112893	51084	0	-42658

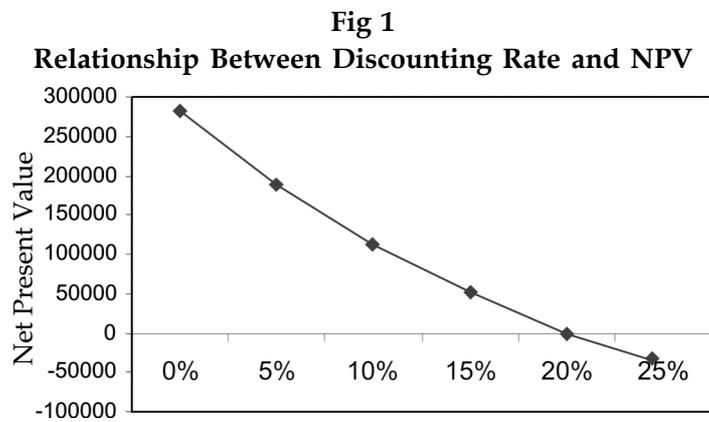


Fig. 1 shows that lower discounting rate gives higher NPV; i.e., if $r_1 < r_2$, then $NPV_1 > NPV_2$. Given the discounting rate, NPV can be obtained from the graph; alternatively, given the required NPV, the discounting rate can be obtained from the curve. After all, the points on the graphical diagram represent corresponding pairs of discounting rates and NPVs.

In a specific case if the anticipated value of NPV is taken to be equal to zero, the required rate so computed is defined as IRR. Table 1 shows that $NPV = 0$ at 20% discounting rate. Therefore, IRR is 20%. However, from methodological point of view for finding IRR from the given data, it requires us to solve the expression-III for the value of r . [The values of other variables like C_t s, C_0 and length of asset life ($t=n$) are given in Box.1.]

$$0 = \frac{80000}{(1+r)} + \frac{150000}{(1+r)^2} + \frac{200000}{(1+r)^3} + \frac{150000}{(1+r)^3} + \frac{102240}{(1+r)^5} - 400000 \quad \dots\dots\dots\text{(III)}$$

It is a polynomial equation of 5th order. It needs writing a C++ program for solving it. The answer can also be obtained from using Microsoft Excel or other accounting packages. Solving it, the rate so obtained is 20%. The same can be visually obtained from NPV curve as shown in Fig. 1. NPV curve cuts horizontal line (i.e., NPV=0) at 20%. It means IRR is equal to 20%. It is the highest rate at which fund may be obtained from market to finance the investment under consideration and remain financially break-even. Therefore, IRR comes as only one point of the relationship shown in the diagram. Unless the point is undefined or there are many such points, there is supposed to be no conflict between IRR and NPV. It is the first simple truth.

It follows from the discussion that NPV and IRR have been obtained from the same mathematical relationship. One fundamental equation cannot give two theoretically conflicting methods. It is the first argument against the NPV versus IRR debate. This truth is evident from the fact that for an independent project both methods give similar decision outcomes. However, when these two methods are simultaneously applied on mutually exclusive projects of divergent character conflicts occur.

It is observed that 'IRR and 'NPV' are two ways of estimating the same quantum of gain from the same set of values using the same fundamental valuation model. However, the ways 'the gains' are expressed are different. In case of Project A shown in Box.1, NPV at 15% cost of capital is Rs 51084, while IRR is 20%. Both represent the same quantum of benefit contained in the set of inflows and outflow. The NPV method is telling that the investment will create value addition of Rs 51084, while IRR method is telling that it will earn 5% additional return, i.e., 20% minus 15%, on investment. That is, same surplus generation is once expressed in absolute terms, and once in percentage terms. Nonetheless, both refer to same quantum of gain contained therein. [See Note. 1]

Conflict Between IRR and NPV

Misled by the experience of conflicting rankings, experts have begun to regard NPV and IRR as two theoretically divergent methods. In Financial Management as well as in Management Accountancy authors have placed the apparent conflicts with illustrative examples. The debate ends with a conclusion that NPV is better than IRR.

Since the underlying value equation is non-linear, the simple law of proportion does not work. Being puzzled by the outcomes of non-linearity some people admit that these methods do offer conflicting ranking. Let the truth be verified.

According to most of the authors conflicting rankings occur at the time of evaluating mutually exclusive projects for the following reasons:

- i) Differences in scale of investment
- ii) Differences in timing of cash inflows
- iii) Differences in life of the project

Each of these cases has been discussed below with similar examples used by the authors of popular financial textbooks.

i) Difference in Scale of Investment and Conflicting Ranking

A and B are two mutually exclusive projects. The size of investment for Project A is only Rs 1000, while that of Project B is as high as Rs 100000. The rankings obtained from both methods have been tabulated below in Table 2:

Table 2
Ranking of Projects as per NPV and IRR Rule

Project	IRR	Ranking on the basis of IRR	NPV at 10%	Ranking on the basis of NPV
Project - A	100%	1 = Accept	2306	2 = Reject
Project - B	25%	2 = Reject	28925	1 = Accept

Project A appears acceptable as per IRR method, whereas Project B appears acceptable as per NPV method. The example helps the experts to argue that when scale of investment differs, these two methods offer conflicting rankings to related projects.

The point is that the above comparison is hardly making any sense: In any valid sense, it is hard to find a project of Rs 1000 that can be truly 'mutually exclusive and equivalent' to another investment of Rs 100,000. If it could be found, all rational investors would invest in project A costing Rs 1000, without bothering for the result from evaluation process. It shows that the above comparison is a meaningless design to argue for a point.

Every investor understands that when the sizes of investments are different, 'comparing the rates of return obtained from the investments' is good way to make comparison. Otherwise, size of investment should be made equal to impart a meaningful sense to the comparison. The comparison can be imparted a meaningful sense only when hundred similar Project As (i.e., 100× Project A) are considered as a group costing similar amount of Rs 100,000 (i.e., 100 projects of Rs 1000 each) and compared with Project B. In that case NPV from first alternative would be equal to 100 times Rs 2306, i.e, Rs 230600, which is much higher than that of Project B. So, a project, which is better according to IRR method, is also better as per NPV method, given investment bases are made at par or they are compared on the basis of rates of return.

Unless the highly restrictive assumption is made that in the world there is no alternative investment other than Project A and B, the debate cannot be established. It is really foolish to imagine an economy that has no money market or capital market where the surplus fund could be parked. As Brigham and Houston (2004) suggested that after choosing the smaller project, the balance cash (i.e., Rs.100000 minus Rs.1000 = Rs. 99000) should be invested elsewhere to earn return on it. Then sum of the 'return from Project A' and 'the

return from investment of balance sum of Rs. 99000' may be taken to be equivalent for comparison with earning of Project B. If comparison is made in this rational way, the question of conflicting ranking between NPV and IRR is not likely to occur.

ii) Timing Difference and Conflicting Ranking

To show a case of conflicting ranking arising because of the significant difference in the timing difference of cash inflows, the following example as shown in Table 3 has been used.

Table 3
Projects with Significant Difference in Timing of Cash Inflows

Project	Initial investment cost	Cash inflows		
		C1	C2	C3
Project X	Co = 1200	1050	550	100
Project Y	Co = 1200	120	706	1150

In case of Project X the greater proportion of cash inflows occurs in the early part of the project life, while for Project Y greater proportion of cash inflows occurs in the later part of the project life. When timings of cash inflows of the projects differ, these two methods, IRR and NPV, assign conflicting rankings to the projects as shown in Table 3A below:

Table 3A
Ranking of Projects with Difference in Timing of Cash Inflows

Project	IRR	Ranking on the basis of IRR	NPV at 10%	Ranking on the basis of NPV
Project - X	28%	1 = Accept	284	2 = Reject
Project - Y	22%	2 = Reject	356	1 = Accept

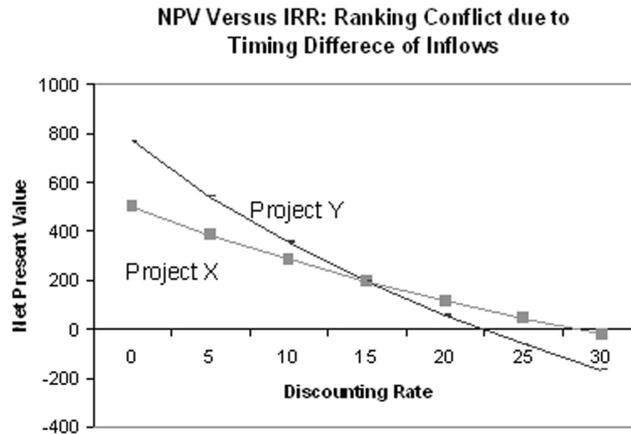
The conflicting ranking shown in Table 3A above is due to the inherent nature of discounting factors. Projects receiving higher cash inflows in the later years appear attractive at lower rate of discounting; however, as the discounting rate is increased, the same cash inflows (arising in the later part of the project life) get heavily discounted. Contrary to this, if cash inflows in the later part of project life appear low, the impact of sharp discounting causes marginal impact on final NPV. This becomes clear from the following NPV profile of the projects:

Table 3B
NPV Profile of Project X and Project Y

Discount Rate	NPV X	NPV Y
0%	500	770
5%	385	542
10%	284	356
15%	194	194
20%	114	55
25%	43	- 63
30%	(-) 21	- 167

Table 3B shows NPV profile of the two projects. At lower discounting rate Project Y appears attractive. However, as discounting rate is increased, Project Y loses its attractiveness. In turn, Project X, which appeared less attractive at lower discounting rate, turns attractive at higher rate of discounting. Looking at NPV values computed at various discounting rates [as shown in Table 3B], it appears that there is a *conflict between 'NPV computed at higher rate' and 'NPV computed lower rate'*.

Fig 2
Comparison of Two Projects with Timing Difference of Cash inflow



When discounting rate is 10%, NPV criteria leads to acceptance of Project Y, whereas at 20% discounting rate the same NPV criteria leads to rejection of Project Y. Project X, which seemed less profitable at 10% turns better than Y when discounting rate has been increased to 20%. As in Table 3B, there is no IRR data, it shows that the debate is not between NPV and IRR, rather it is debate between NPV at higher discounting rate and NPV at lower discounting rates. Unfortunately this event has been focused as a conflict between IRR and NPV.

The conflict occurs because of the nature of discounting factors, not because of two methods. Since NPVs are computed normally at relatively lower rate, say, at 10%; hence, in general, decisions based on NPV method correspond to the first part (i.e., points to the left the indifference point, O) of the story as illustrated in Fig 2 [and Table 3B]. Contrary to this, IRRs are normally higher than cost of capital, K. Thus, IRR outcomes correspond to second part (i.e., points to the right of the indifference point, O) of Fig 2 [and Table 3B]. If $IRR < K$, the points of arguments will be diametrically opposite. The point can be made further clear with the help of following two-country explanation.

Two-Country Explanation: Consider a case of a multinational company, which is considering the same investment alternatives, projects X and Project Y as shown above in Table 3A in two different countries having two different prime lending rates 12% and 25% respectively (hence, different cost of capital). Use of NPV method gives conflicting decision outcomes in two different countries. For example, if evaluation is done on the basis of NPV criteria, in India, where PLR is around 12%, project Y will be selected, whereas in Georgia, where PLR is around 25%, project X will be selected there.

iii) Difference in Lengths of Project Life and Conflicting Ranking

To show a case of conflicting ranking arising because of the significant difference in lengths of project life, the following example as shown in Table 4 has been used. Project P requires initial investment of Rs 40,000 and Project Q Rs 20,000. Life of Project P is six years, while that of Project Q is just three years.

Table 4
Difference in Project Life and Evaluation Conflict

Projects	Cash inflow of next six years (in Rs)						NPV @ 10%	IRR
Project P	8000	15000	13000	12000	11000	10000	Rs 10092	18.1%
Project Q	7000	14000	12000	--	--	--	Rs 6939	27.1%

The table shows that use of NPV leads to selection of Project P, whereas use of IRR method leads to selection of Project Q.

In general, a project with higher rate of earning fetches higher amount of absolute earning. But the authors used examples like this to convince the learners that under such circumstances ranking conflict really exists between NPV and IRR.

Many authors like Houston and Brigham (2004) presented rational explanation to refute this argument of conflicting ranking. According to them if the firm has Rs 40,000 as its investible surplus, Project Q blocks only half of the capital (Rs. 20,000). The remaining half can be invested elsewhere or simply may be parked in a fixed deposit. If IRR from the remaining half appears little more than 14% or NPV little more than Rs 3153 [i.e. Rs 10092 - Rs 6939], Project Q becomes accepted. Secondly, cash inflows realised from Project Q in the

first three years can be put to other investment, which is a valuable option. Without pointing to these options, the debate just diverted students' attention to the confusing number game ignoring rationality.

For the sake of simplicity, if it is assumed that the firm will invest in Project Q once more after three years, then it will definitely make aggregate NPV equal to Rs 12,150 [i.e., Rs 6939 + .751× Rs 6939] within the time-span of six years, other things remaining the same. It proves that higher rate of IRR is nothing different from higher amount of NPV. [It is assumed that the firm is not operating in isolated imaginary world, where there is no re-investment option.]

NPV and IRR: Which one is more Popular?

Pioneers like Van Horne & Wachowicz (2003), Brigham and Houston (2004), etc. concluded that NPV is better than IRR. This is a pronouncement of financial theory. However, studies done to find real world corporate practice do not come to validate their conclusions. Had their conclusions been correct, actual corporate practices would reveal greater uses of NPV instead of greater uses of IRR. As a method of evaluation NPV is less transparent, because it measures benefits in absolute terms and costs in relative percentage terms. Use of two different scales for measuring benefits and costs renders the evaluation under NPV criterion quite hazy/opaque. The absolute NPV figure does not tell at what rate the business will grow or at what rate fund should be mobilized from market. Compared to NPV, the message of IRR is quite distinct and easily intelligible. It expresses both the costs and benefits in percentage terms. That is, same scale is used for measuring benefits and costs. Thus, IRR distinctly outlines how a business will grow.

Now-a-days computers in corporate houses are loaded with accounting packages. So, simultaneous computation of IRR and NPV is nothing difficult. Thus, when questionnaires are sent to executives and asked what method they apply for investment appraisal, they unknowingly tick the both, NPV as well as IRR. Thus which is more popular is difficult to determine. However, the most important research findings have been noted below.

Pike and Neale (1996) from the study of top 100 UK companies report that 54% companies always use IRR, whereas use of NPV is as low as 33%. Manoj Anand (2002) from a study of Indian companies reports that 85% firms consider IRR as very important project choice criterion. Of them 65% respondents almost always use NPV. Graham and Harvey (2002) observe that in the USA the highest percentage of corporate houses use IRR as primary method for evaluation of long-term investments in projects. However, this percentage is marginally higher than that of NPV. Contrary to this, interviewing Chief Financial Officers of Fortune 1000 companies Ryan & Ryan (2002) report that 'use of NPV' has been marginally higher than IRR. These conflicting findings of research studies lead us to infer that with the progress of time the both methods tend to be equally popular.

Conclusion

'NPV versus IRR' is an unnecessary debate. The both methods have been obtained from the same valuation model. Given the set of inflows and outflows, once it is solved for one unknown value, NPV; at another occasion it is solved for another unknown value, IRR. These results cannot be contradictory, unless naive assumptions are made and contradictory examples are used to make the contradictions arise. Analyses reveal that even if a single method is applied to those so-called examples of diametrically opposite character, contradictions will be manifested. It suggests that the source of contradiction is not in the methods; it is there in the nature of discounting factors and type of example used. The usual claim that NPV method is better than IRR method is not tenable, because if there is any limitation in one method, the same limitation is inherent in the second method too; it just waits unearthing. Chronological survey of research findings reveals that with the progress of time both the methods tend to be equally popular.

Serious limitations associated with both the methods are careless application of discounting and violation of accounting convention. If care is not taken, a loss-making project may get selected with an index of fictitious gain. Existing software packages, used in this purpose, just give the output and fail to distinguish between real and fictitious ones. To check this limitation, the software-experts should come forward and modify the software packages immediately. Finally, no one knows how many business failures can be attributed to those unnoticed ditches of fictitious gains. To find the truth new research works need to be undertaken. Prior to this, the fallacies and assumptions associated with both the methods should be clearly understood and concrete resolutions should be taken in appropriate forum regarding those fallacies and their treatment.

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RESURRECTION FROM THE BANKING CRISIS

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ABSTRACT

The Financial Crisis of year 2007-09, also known as the Credit Crisis or Sub Prime Crisis, had a catastrophic impact on global economy, probably second only to the Great Depression. As per data of Federal Deposit Insurance Corporation of United States of America, more than 140 banks were declared bankrupt during this crisis. The creators as well as the bearers of the crisis were the financial institutions. The bank failures in US were stemmed by massive bailout by US Fed. Contrastingly, in India, the economic slowdown was evident but had no impact, whatsoever, on existence of the any of the banks. The strict regulatory norms were hailed for the resilience of the banking system on the whole. This article aims to evaluate the performance of the banks in India after the crisis and the focus will be on highlighting the performance of individual banks along with the composite performance as private and public sector banking space. The banks which form the part of Bank Nifty Index of National Stock Exchange have been included for the purpose of study. An effort is also made to locate possible reasons for over or under performance of banks.

Background

The financial crisis of 2007 - 09, emanating in US from the sub-prime lending was converted into full blown catastrophe because of greed of financial institutions and unregulated system. In fact, as per FDIC data, more than 140 banks filed for Chapter 11 bankruptcy during the period of crisis (www.fdic.gov). The crisis fuelled itself by ever increasing delinquencies with every passing day into the crisis. The losses led to closure of banks which led to further losses to other banks which had underwritten securitized products of the failing banks (Baxley, James, Haberman, 2010). Learning from the East Asian financial crisis, the developing countries followed a two pronged strategy to build forex reserves as a defense mechanism so that one may not have to look to IMF for rescue at cost of exorbitant conditions (Siddiqui, 2009) and maintaining strict regulatory norms on monetary flows. Taking example of India, tight monetary policy gave RBI options to infuse liquidity into the system at the time of peak crisis (Economist, 2008). As the systemic initiatives, such as bailouts and coordinated easing of monetary policies and fiscal policies across the globe helped in stemming the crisis, the economies stabilized from latter half of financial year

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2008-09. Tight liquidity position in international markets also choked funds for investments. This led to downturn of economy and this impacted the businesses of financial institutions (Varma, 2009). The accentuated impact on banks can be ascertained from the fact that Bank NIFTY lost almost 68% from its all-time high of 10,700 on 14.01.2008 in comparison to S&P CNX NIFTY which fell by approximately 59% during the same period. However, both the NIFTY and Bank NIFTY has recovered significantly after the lows and are trading near the pre crisis highs. It may be highlighted that recovery of Bank NIFTY has been better than S&P CNX NIFTY after the crisis (Source: www.nseindia.com).

However, despite being in a relatively better position, the financial performance of Indian banks has repeatedly come into stress because of one or more of the following reasons:

- a. High levels of inflation leading into progressively tightening of monetary policy
- b. Higher incidence of Non-Performing Assets
- c. Over Provisioning
- d. Rumors about bank failures
- e. Global financial developments such as European Debt Crisis, etc.

Objective and Scope of the study

The study aims to bring out the gaps in performance of banks and locate possible reasons for this gap. As there are numerous banks constituting the sector, to maintain focus of the study, we have selected the banks which constitute the Bank Nifty Index at National Stock Exchange. These banks are: State Bank of India, Punjab National Bank, Bank of Baroda, Bank of India, IDBI Bank, Oriental Bank of Commerce, Union Bank of India, Canara Bank (public sector banks), ICICI Bank, HDFC Bank, Kotak Bank and Axis Bank (private sector banks).

Top Line Performance

As far as top line for banks is concerned, the interest income constitutes its significant portion. On one hand, the easing of monetary policy to avert the impact of crisis was expected to have positive impact on the credit uptake and on the other hand, the reduction in interest has a southward impact on interest income. In totality, growth of economy and easing is supposed to have positive impact on interest income. During the period 2008 - 2011, out of the banks under study, the most impressive growth in interest income was posted by IDBI Bank whose interest income grew by almost 131%. The worst performer was ICICI Bank whose interest income fell by 15% (Table 1). In all, the interest income of public sector banks increased by 76% where as those of private sector banks increased by 30%. This primarily showed growing confidence of customers in public sector banks.

The dismal performance of ICICI Bank can be attributed to the fact that there were some rumors about failure of the bank which may have led to decline of confidence amongst the customers. Apart from ICICI Bank, performance of Axis Bank and HDFC bank was better than most of other Public Sector Banks. Still, the performance of Public Sector Banks is commendable considering the base effect.

Bottom Line Performance

The performance on front of net profits during three financial years throws up some surprises. The best performers amongst all the banks was Oriental Bank of Commerce which clocked a jump of 325% whereas the worst performance was given by State Bank of India whose bottom line increased by just 23% (Table 2). The overall performance of private banks was better than public sector banks as net profits of former increased by 87% in comparison to 76% growth shown by public sector banks. This shows better operational efficiency in private sector banks in comparison to public sector banks. However, the difference being insignificant, it shows improving efficiency in Public Sector Banks. The biggest drag for the Public Sector Banks was State Bank of India whose net profit declined significantly in last quarter of March because of huge provisioning done by the Public Sector giant (The Economic Times, November 2011).

There has been an increasing incidence of high provisioning banks in the financial year 2010-11. State Bank of India had been under provisioning for its bad loans or NPA's. The Provision Coverage Ratio (PCR) of SBI had been hovering around 60% whereas it should be around 70% as per RBI norms. In financial year 2010-11, SBI increased its PCR to 62.8% which led to serious decline in net profits of SBI in financial year 2010-11. (The Economic Times, November, 2010)

Asset Liability Management and operational efficiency

The Public Sector Banks have clearly led the sector in growth in advances. Leader as well as laggard for this parameter is from private sector as Kotak Bank has led the pack with 272% increase in short term advances and worst performer in this category being ICICI Bank which has lost 9% of its short term advances portfolio during these three years. The private sector banks in total booking a growth of 44%. Public Sector Banks in total have booked a robust 108% increase with most impressive performance by IDBI Bank which has chipped in with growth of 229% (Table 6).

As far as long term advances are concerned the growth has not been as impressive as for short term advances growth. Even then, the public sector banks have outperformed private sector banks with considerable margin. Although, individually Axis Bank has posted growth of 152% and again ICICI Bank is the worst performer with downfall of 3% in portfolio. In totality, the long term advances of public sector banks have grown by 77% whereas that of private sector banks has grown by 35%.

The increased credit disbursement by public sector banks indicates demonstration of customers into lending practices of public sector banks. They have clearly emerged as winner in so far as gaining market share in credit disbursement. It appears that private sector banks have earned better interest income on the incremental advances (both long term and short term) during the period under study in comparison to the public sector banks. The percentage of interest earned on additional advances in case of Public Sector Banks is 9.81% whereas for Private Sector Banks is 10.05%. This shows that private banks have been able to channelise the credit at higher interest rates.

Capitalisation

The financial crisis led to bank bankruptcies at massive level in USA as excessive losses wiped off the inadequate capital. There has been increased focus on recapitalization of banks since then. Basel II remains the most widely accepted capital adequacy parameter for banks worldwide. Although, it has been said all through the crisis and thereafter that Indian banks have adequate capital to ward off any contingency, however, there seems to be a conscious efforts by Indian banks to increase capital levels. HDFC Bank has led with over 121% increase in net worth (Table 3). Amongst public sector banks, Bank of Baroda, Oriental Bank and Canara Bank, all have posted an impressive growth of over 90% in net worth. However, SBI and ICICI Bank, the two largest Indian Banks, have added just 33% and 18%, respectively to their net worth. Comparing sector wise, there is no significant difference amongst public and private sector banks with 59% and 50% addition to net worth respectively.

Stock Evaluation

As far as performance on stock markets is concerned, all public sector banks performed better than private sector banks with Bank of Baroda providing a return of over 241% during a period of three years whereas Kotak Bank gave negative returns of 27%. All the public sector banks performed exceedingly well with five of them giving returns above 100% in the period of three years (Table 4 and 7).

On comparing with the Price Earnings Ratios for corresponding dates, it shows wide gap between valuation of public and private sector banks. The composite PE Ratio of public sector banks was 9 as on 31.03.2008 whereas composite PE Ratio of private banks on same date was around 28. This throws a startling fact that stocks of private sector banks were already 3 times more costly than stocks of public sector banks. PE Ratio of Kotak Bank was 71 in comparison to PE Ratio of 5 of Union Bank. This wide gap could have been sustained only if private sector banks gave earnings commensurate to their valuation. The staggering returns of public sector banks was sustained by increase in market price thus helping them to maintain the PE multiple at 11, an increase of only 2. The PE multiples of private sector banks took a hit as they fell to 24 from 28, thus establishing the fact that, over valuations cannot sustain for a long period.

A few observations are as follows:

1. The public sector banks have outperformed private sector banks in all respects except for growth in net profits.
2. The growth on all aspects including interest income, deposits and advances show increased confidence of customers on public sector banks. This could have been because of debacle of large private banks/ financial institutions in USA.
3. The valuation of private sector banks is significantly higher than in comparison to public sector banks. The public sector banks appear to be more value buy considering their fundamental performance and lower valuations.

4. The overall performance of banking sector has been robust with an exception of State Bank of India and ICICI Bank. The former is reeling under the pressure of non-performing assets and later because of loss of market share in the sector.

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The Economic Times

www.nseindia.com

www.moneycontrol.com

www.fdic.gov

ANNEXURE

Table 1

Change In Interest Income (Top Line)

	Type	31.03.2008 (Rs.'000)	31.03.2011 (Rs.'000)	Difference (Rs.'000)	% Change
BANKBARODA	PUB	1181347.67	2188591.6	1007243.9	85
ORIENTBANK	PUB	683818.33	1208781.4	524963.1	77
CANBK	PUB	1420073.7	2306401.3	886327.63	62
IDBI	PUB	804087.66	1860082.3	1055994.6	131
PNB	PUB	1426501.76	2698648	1272146.2	89
SBIN	PUB	4895030.71	8139436.4	3244405.7	66
BANKINDIA	PUB	1,235,522	2175172.4	939650.26	76
UNIONBANK	PUB	944730.24	1645261.5	700531.26	74
AXISBANK	PVT	700531.51	1515480.6	814949.07	116
HDFCBANK	PVT	1011500.87	1992821.2	981320.35	97
KOTAKBANK	PVT	253536.43	430355.82	176819.39	70
ICICIBANK	PVT	3078834.29	2597405.3	-481429	-16

Table 2

Bottom Line Performance (Net Profits)

	Type	31.03.2008 (Rs.'000)	31.03.2011 (Rs.'000)	Difference (Rs.'000)	% Change
BANKBARODA	PUB	143552.15	424167.97	280615.82	195
ORIENTBANK	PUB	35321.58	150286.8	114965.22	325
CANBK	PUB	156500.67	402588.82	246088.15	157
IDBI	PUB	72945.55	165031.94	92086.39	126
PNB	PUB	204876.31	443349.53	238473.22	116
SBIN	PUB	672912.47	826451.9	153539.43	23
BANKINDIA	PUB	200940	248,871	47930.64	24
UNIONBANK	PUB	138702.92	208194.72	69491.8	50
AXISBANK	PVT	107102.9	338849.06	231746.16	216
HDFCBANK	PVT	159019.3	392640.09	233620.79	147
KOTAKBANK	PVT	29393.28	81818.21	52424.93	178
ICICIBANK	PVT	415772.79	515137.62	99364.83	24

Table 3
Change in Owners' Funds

	Type	31.03.2008 (Rs.'000)	31.03.2011 (Rs.'000)	Difference (Rs.'000)	% Change
BANKBARODA	PUB	1104393	2099311	994919	90
ORIENTBANK	PUB	577590	1109715	532124	92
CANBK	PUB	1050049	2003982	953933	91
IDBI	PUB	882197	1456758	574561	65
PNB	PUB	1231835	2150856	919021	75
SBIN	PUB	4903266	6498604	1595338	33
BANKINDIA	PUB	1058939	1729068	670129	63
UNIONBANK	PUB	734770	1276452	541682	74
AXISBANK	PVT	876850	1899883	1023032	117
HDFCBANK	PVT	1149724	2537927	1388203	121
KOTAKBANK	PVT	353549	679647	326098	92
ICICIBANK	PVT	4682021	5509094	827073	18

Table 3
Pattern of Earnings per Share

	Type	31.03.2008 (Rs.'000)	31.03.2011 (Rs.'000)	Difference (Rs.'000)	% Change
BANKBARODA	PUB	39	116	77	195
ORIENTBANK	PUB	14	60	46	325
CANBK	PUB	38	98	60	156
IDBI	PUB	10	18	8	83
PNB	PUB	65	141	76	116
SBIN	PUB	127	130	4	3
BANKINDIA	PUB	41	47	7	16
UNIONBANK	PUB	27	40	12	45
AXISBANK	PVT	32	83	51	158
HDFCBANK	PVT	46	85	39	84
KOTAKBANK	PVT	9	11	3	29
ICICIBANK	PVT	39	45	6	15

Table 5
Demand and Time Liabilities

	Demand Liabilities				Time Liabilities			
	31.03.08 (Rs.'000)	31.03.11 (Rs.'000)	Difference (Rs.'000)	% Change	31.03.08 (Rs.'000)	31.03.11 (Rs.'000)	Difference (Rs.'000)	% Change
BANKBARODA	4747239	8758870	4011631	85	10456174	21785079	11328905	108
ORIENTBANK	2172348	3414800	1242453	57	5613322	10490625	4877303	87
CANBK	4852088	8311709	3459621	71	10555154	21085556	10530402	100
IDBI	1208997	3767796	2558799	212	6090801	14280783	8189982	134
PNB	7156086	12032502	4876416	68	9489636	19257371	9767734	103
SBIN	25236282	46152138	20915857	83	28504112	47241143	18737030	66
BANKINDIA	4591164	7596765	3005601	65	10410034	22291816	11881782	114
UNIONBANK	3620404	6430717	2810313	78	6765460	3815411	-2950049	-44
AXISBANK	4002699	7776740	3774041	94	4759923	11147040	6387117	134
HDFCBANK	6335966	10990828	4654862	73	7945192	9867813	1922620	24
KOTAKBANK	466991	879052	412062	88	1175374	2047044	871671	74
ICICIBANK	6378060	10164648	3786588	59	18065045	12395563	-5669482	-31

Table 6
Advances

	Short Term Advances				Long Term Advances			
	31.03.08 (Rs.'000)	31.03.11 (Rs.'000)	Difference (Rs.'000)	% Change	31.03.08 (Rs.'000)	31.03.11 (Rs.'000)	Difference (Rs.'000)	% Change
BANKBARODA	5711672	12749476	7037805	123	4958461	10118160	5159699	104
ORIENTBANK	2243255	4100938	1857682	83	3213328	5489884	2276556	71
CANBK	5175438	10971998	5796560	112	5548366	10274719	4726353	85
IDBI	1087514	3575766	2488252	229	7133755	12134040	5000285	70
PNB	6030495	12083107	6052612	100	5919662	12067559	6147898	104
SBIN	18873349	39154112	20280763	107	22803471	36517833	13714363	60
BANKINDIA	6951926	13130826	6178900	89	4394907	8178792	3783886	86
UNIONBANK	4190610	8607905	4417294	105	3244219	6490704	3246484	100
AXISBANK	1846686	3846163	1999477	108	4119428	10394619	6275191	152
HDFCBANK	2645254	4288909	1643655	62	7243051	11709357	4466307	62
KOTAKBANK	184559	686213	501654	272	1370663	2246718	876055	64
ICICIBANK	3948150	3606043	-342107	-9	18613458	18030547	-582911	-3

Table 7
Stock Price (NSE) and Price Earning Ratio

	Stock Price				PE Ratio			
	31.03.08 (Rs.'000)	31.03.11 (Rs.'000)	Difference (Rs.'000)	% Change	31.03.08 (Rs.'000)	31.03.11 (Rs.'000)	Difference (Rs.'000)	% Change
BANKBARODA	283	965	682	241	7	8	1	15.3193
ORIENTBANK	176	387	211	120	12	6	-6	-48.24
CANBK	218	626	408	187	6	6	1	12.0387
IDBI	88	143	55	62	9	8	-1	-11.068
PNB	498	1220	722	145	8	9	1	13.2204
SBIN	1625	2768	1144	70	13	21	8	65.7567
BANKINDIA	264	478	214	81	6	10	4	56.1289
UNIONBANK	141	347	206	147	5	9	4	70.5438
AXISBANK	790	1404	614	78	25	17	-8	-31.112
HDFCBANK	1331	2346	1015	76	29	28	-1	-4.2035
KOTAKBANK	626	458	-168	-27	71	40	-31	-43.413
ICICIBANK	769	1116	347	31	20	25	5	26.2308

PERFORMANCE EVALUATION THROUGH CASH MANAGEMENT

**Sudipta Ghosh*

ABSTRACT

Cash being a medium of exchange is one of the important components of working capital. The present research paper is an attempt to evaluate the cash management performance of two leading companies in the Indian steel industry, namely SAIL and TSL during the period 2003-04 to 2009-10.

Secondary data collected from the published annual reports of the sample companies are used in the study. Cash flow based measures are employed to evaluate the cash management performance as well as liquidity performance of the selected companies. Linear regression equation is applied to examine the impact of cash balances on profitability performance. The empirical findings of the study reveal that TSL on the average has utilized its cash more efficiently in comparison to SAIL. Moreover, TSL has better capacity to convert its sales into cash than that of SAIL.

Cash is the medium of exchange and therefore it is the most important component of working capital. Generally speaking, cash balances denote cash on hand and bank deposits. Maintaining cash balance at a high level is necessary but at the same time it is not desirable since cash in its present form is a non-earning asset.

The studies that are available in the context of cash management are briefly summarized as follows:

Boeschoten, Willem C. (1998) analyzed that the effect on total money outstanding is significantly lower due to considerable amounts of missing money in hoards, which are sensitive to new developments in the payment system.

Reddy, Y.V. and Patkar, S.B. (2003) examined that the overall size of cash balances maintained by SBI factors and Canbank factors were very low as compared to sales or factored debts. It was also found that increase in sales does not require to increase the cash balance.

Kytonen, Erkki (2004) investigated the potential behavioural change in cash management by examining the cash management practices behind the models explaining the cash management behaviour.

Doshi, S.H., Senthil, R. and Patidar, P. (2005) attempted to identify the reasons behind different cash practices adopted by the top three Indian information technology companies.

Nilson, Erik and Astrom, Maria (2005) indicated that the selected organization has great potential with cash management. It was further observed that many of the differences

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that were found in the control of cash management were caused by cultural differences between the sales units.

Ighodalo, E.B. and Qin, Yuanjian (2007) attempted to examine the factors influencing corporate cash holdings of the Chinese listed firms through the technique of panel regression model.

Wagner, Michael (2007) showed that major cost savings of up to 28% could be achieved by applying Wagner-Whitin algorithm for optimal inventory allocation and Dantzig, Fulkerson and Johnson integer program for identifying routs of least total distance.

Yucel, T. and Kurt, G. (2010) examined the relationship of cash conversion cycle (CCC) with profitability, liquidity and debt structure for a sample of 167 firms during the period 1995 to 2000.

Objectives

The main objective of the study is to make a comparative study on cash management performance between Steel Authority of India Limited (SAIL) and Tata Steel Limited (TSL) in the Indian steel industry. In conformity with the above objectives, the following hypotheses have been framed as under:

1. There are significant differences in average cash management performance between the sample companies.
2. There is no significant difference in average liquidity position between the sample companies.
3. There is significant positive impact of cash balances on the profitability performance of the sample companies.

The study has been carried out for a span of seven years i.e., during the period 2003-04 to 2009-10. The reason behind selecting this period is the availability of data for both the sample companies under study. Secondary data have been used which are collected from the published annual reports of the sample companies.

Cash management performance of the sample companies are examined with the help of the following ratios:

Performance Drivers	Performance Measures
a) Cash Turnover Ratio	Annual Sales ÷ Average Cash & Cash Equivalents
b) Cash Return on Assets	Cash Flow from Operating Activities ÷ Total Assets
c) Cash Flow Margin Ratio	Cash Flow from Operating Activities ÷ Net Sales

The liquidity position of the sample companies is measured by Cash Flow Liquidity Ratio. It is computed in the following way:

$$\text{Cash Flow Liquidity Ratio} = \text{Operating Cash Flows} \div \text{Current Liabilities}$$

To examine the impact of cash balances on the profitability performance of the selected companies, linear regression equation has been fitted to the relevant annual time series data. The regression model used in the study is shown below:

$$P = a + bCB + e$$

Where: P = Profitability (represented by Net Profit after Tax)

CB = Cash Balances

a and b = intercept and coefficient respectively

e = error term

The significance of beta coefficient has been tested by the popular 't' test. Furthermore, to detect the problem of autocorrelation, Durbin-Watson d (D.W.) statistic is employed in the study. The presence of autocorrelation (if any) is adjusted by the technique of first difference operator. The DW statistic is computed as follows:

$$d = \frac{\sum_{t=2}^{t=n} (\hat{U}_t - \hat{U}_{t-1})^2}{\sum_{t=1}^{t=n} \hat{U}_t^2}$$

The above ratio is simply the sum of squared differences in successive residuals to the RSS.

To examine whether or not there are significant differences in cash management performance as well as liquidity performance between the sample companies, Fisher's 't' test has been applied in the study. The Fisher's 't' statistic is computed in the following way:

$$t = \frac{X_1 - X_2}{S \sqrt{(1/n_1) + (1/n_2)}}$$

Where:
$$S = \sqrt{\frac{(n_1 S_1^2 + n_2 S_2^2)}{n_1 + n_2 - 2}}$$

Apart from the above, simple statistical measures like mean, Standard Deviation (S.D.) and Coefficient of Variation (C.V.) have also been used in the study.

Empirical Findings and Analysis

i) Cash Management Performance of SAIL and TSL

To examine the cash management performance of the sample companies, the following ratios are used:

- **Cash Turnover Ratio:** This ratio indicates how efficiently cash has been used to transform it in sales.
- **Cash Return on Assets:** This ratio measures the cash generating capacity of the assets of an enterprise.
- **Cash Flow Margin Ratio:** This ratio shows the relationship between cash generated from operations and sales.

The computed value of the above ratios relating to cash management performance of SAIL and TSL are presented in Table I:

Table I
Cash Management Performance of SAIL and TSL

Years	SAIL			TSL		
	Cash Turnover Ratio	Cash Return on Assets	Cash Flow Margin Ratio	Cash Turnover Ratio	Cash Return on Assets	Cash Flow Margin Ratio
2003-04	16.83	0.52	0.34	42.68	0.28	0.27
2004-05	6.94	0.50	0.31	58.29	0.31	0.26
2005-06	4.52	0.21	0.14	56.58	0.25	0.24
2006-07	4.30	0.25	0.17	4.40	0.20	0.29
2007-08	3.38	0.30	0.21	4.83	0.13	0.32
2008-09	2.70	0.17	0.14	23.66	0.13	0.31
2009-10	1.99	0.09	0.12	10.37	0.13	0.33
Average	5.81	0.29	0.20	28.69	0.20	0.29
S.D.	5.11	0.16	0.09	23.70	0.08	0.03
C.V.	87.95%	55.17%	45.00%	82.61%	40.00%	10.34%

Cash Turnover Ratio

The cash turnover ratio of SAIL reveals a declining trend during the entire study period with an average of 5.81 and C.V. at 87.95%. The ratio ranged between 1.99 in 2009-10 to 16.83 in 2003-04. This indicates deterioration in the utilization of cash during the study period.

For TSL, a fluctuating trend is observed in cash turnover ratio with an average of 28.69. The ratio ranged between 4.40 in the year 2006-07 to 58.29 in the year 2004-05 and C.V. of the ratio is observed to be 82.61%. The first three years indicate a higher level of cash utilization as compared to the remaining years under study.

Cash Return on Assets

The cash return on assets (i.e., cash generating capacity of the assets) of SAIL reveals a decreasing trend (except the years 2006-07 and 2007-08) with an average of 0.29 and C.V. at 55.17%. The ratio moved between 0.52 in the year 2003-04 to 0.09 in the year 2009-10.

On the other hand, TSL shows a fluctuating trend in the cash return on assets during the first four years and then it remained constant at 0.13 during the last three years under study. The ratio varied between 0.13 to 0.31 with an average of 0.20 and C.V. at 40.00%.

Cash Flow Margin Ratio

Cash generated from operations in relation to sales (as indicated by cash flow margin ratio) of SAIL reveals a decreasing trend (except the years 2006-07 and 2007-08) with an average of 0.20 and C.V. at 45.00%. The ratio ranged between 0.12 in 2009-10 to 0.34 in 2003-04.

In case of TSL, cash flow margin ratio shows a decreasing trend in the first three years and then a fluctuating trend in the remaining years under study. The ratio moved between 0.24 in 2005-06 to 0.33 in 2009-10 with an average of 0.29 and C.V. at 10.34%.

To know whether there are significant differences between the two sample companies with respect to average cash management performance, Fisher's 't' test is applied. The results are shown in Table II below:

Table II
Fisher's 't' Test for Cash Management Performance between SAIL and TSL

Cash Turnover Ratio	Calculated Value of 't' = -2.33 Critical Value of 't' = 2.18 (5% level) = 3.06 (1% level) Result = Significant at 5% level (2 - tailed)
Cash Return on Assets	Calculated Value of 't' = 1.29 Critical Value of 't' = 2.18 (5% level) = 3.06 (1% level) Result = Insignificant
Cash Flow Margin Ratio	Calculated Value of 't' = -2.25 Critical Value of 't' = 2.18 (5% level) = 3.06 (1% level) Result = Significant at 5% level (2 - tailed)

Table II indicates that on the average, there are significant differences in cash turnover ratio and cash flow margin ratio between SAIL and TSL, while the result is insignificant with respect to cash return on assets. Since majority of the performance indicators relating to cash management performance shows significant differences between the two selected companies, it leads to the acceptance of the first hypothesis of our study. Thus, cash management performance on the average, with respect to cash turnover ratio and cash flow margin ratio is found to be better in TSL as compared to SAIL during the study period.

ii) Liquidity Position of SAIL and TSL

Liquidity position of the sample companies are analyzed with the help of cash flow liquidity ratio. The results are presented in Table III below:

Table III
Liquidity Position (represented by Cash Flow Liquidity Ratio) of SAIL and TSL

Years	SAIL	TSL
2003-04	1.63	1.32
2004-05	1.86	1.42
2005-06	0.74	1.28
2006-07	1.04	1.45
2007-08	1.31	1.62
2008-09	0.79	1.25
2009-10	0.44	1.26
Average	1.12	1.37
S.D.	0.51	0.13
C.V.	45.54%	9.49%

The cash flow liquidity ratio of SAIL shows a fluctuating trend with a range between 0.44 in 2009-10 to 1.86 in 2004-05. The average and C.V. of the ratio is 1.12 and 45.54% respectively.

On the other hand, TSL also reveals a fluctuating trend in their liquidity position during the study period. The ratio moved between 1.25 in 2008-09 to 1.62 in 2007-08 with an average of 1.37. The C.V. of the ratio is observed to be 9.49%.

Fisher's 't' test is applied to judge whether there is any significant difference in liquidity position between the selected companies under study. The result of Fisher's 't' test is shown below:

Calculated Value of 't' = -1.19; Critical value of 't' = 2.18 (5% level) and 3.06 (1% level)
Result = Insignificant

The above result indicates that there is no significant difference in liquidity position between the sample companies, since the calculated value of 't' is less than that of the critical value of 't'. This also leads to the acceptance of the second hypothesis of the study.

iii) Impact of Cash Balances on the Profitability Performance of SAIL and TSL

The impact of cash balances on the profitability performance of the sample companies are examined by fitting linear regression equation to the annual time series data. In this respect, profitability is represented by net profit after tax. The results of regression analysis are shown in Table IV below:

Table IV
Regression Analysis between Cash Balances and Profitability of SAIL and TSL during 2003-04 to 2009-10

Sample Companies	P = a + bCB + e			D.W.
	R2	a	b	
SAIL	0.425	3925.222	0.160 ⁱ (1.924)	2.597
TSL	0.115	3692.785	0.148 ⁱ (0.805)	0.751

Key Notes:

Figures in the bracket are t values

D.W. indicates Durbin-Watson d statistic

i marked values indicate insignificant

The above results (Table IV) imply that although there is positive impact of cash balances on the profitability performance of both SAIL and TSL, the results are found to be statistically insignificant. This leads to the rejection of the third hypothesis of the study.

Main Findings

- TSL on the average, has used its cash more efficiently (i.e., cash remained less idle) as compared to SAIL. Fisher's 't' test further strengthens our analysis in this respect.
- On the average, SAIL has higher cash generating capacity of its assets (i.e., higher managerial efficiency in the effective use of assets) in comparison to TSL during the period under study. However, statistically there is no significant difference between SAIL and TSL in terms of cash generating capacity of their assets.
- On the average, TSL has higher capacity to convert its sales into cash than that of SAIL. This is further strengthened by Fisher's 't' test.
- The average liquidity position of TSL is better in comparison to SAIL, although statistically there is no significant difference between them as revealed by Fisher's 't' test.
- The cash balances of both SAIL and TSL have positive influence on their profitability performance, although the results are found to be insignificant as revealed by 't' test.

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MEASUREMENT OF SHAREHOLDERS' WEALTH

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ABSTRACT

The shareholders' wealth should be measured in terms of total shareholders return. In this study, an attempt has been made to measure shareholder wealth in terms of Total Shareholders' Return (TSR) for the pharmaceutical industry so that a prospective shareholder can judge the wealth of a particular corporate unit before making an investment. This TSR is much higher than opportunity cost of investment (may be bank rate or bank fixed deposit interest rate).

A lot of work has been done in the field of shareholder wealth and it is suggested that shareholders' wealth can be measured in terms of Economic Value Added. Basically Economic value added is a measurement of company's performance. Mostly researchers have been identified that EVA is a better measurement for shareholders' wealth. But they could not focus on wealth actually a shareholder receives. It is not much significant for the shareholders that what a company earns profit or generating economic value added, but what he receives in monetary form that is important. So the concept of total shareholders return came into existence. As per our opinion shareholders' wealth should be measured in terms of total shareholders' return (TSR). During present study an attempt has been made to measure shareholder wealth in terms of Total Shareholders' Return (TSR) for the pharmaceutical industry so that a prospective shareholder can judge the wealth of a particular corporate unit before making an investment. No other published study exists, to our knowledge, which has examined this issue in the Indian context.

The total returns of a shareholder consists two components viz., dividends and capital gain due to change in the company's share price. Total Shareholder Return (TSR) is measured by adding the value of any dividend received per share to the increase in share price over the period of measurement and dividing by the initial share price and multiply with 100. The resultant percentage is known as rate of total shareholders' return. If the rate of TSR is greater than the opportunity cost of equity (the minimum rate of return expected by shareholder), it means shareholders' wealth is 'Created'. If rate of TSR equates to the opportunity cost of equity, wealth is said to have been 'Maintained' and if rate of TSR is less than the opportunity cost of equity, value is said to have been 'Destroyed.'

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The study is based on secondary data. Secondary data were gathered through annual reports of respective sample units, Bombay stock exchange official directory, electronic data base 'PROWESS' of CMIE (Center for Monitor Indian Economy), Government publication etc. Ten pharmaceutical companies are randomly selected for the purpose of present research work. All these pharmaceutical companies are selected from the Company listed at Bombay stock exchange and covered under BSE-A group. Five financial years pertaining 2003-2004 to 2007-2008 are used for the purpose of present research work. A study of five years seems to be appropriate for establishing a trend. In order to carry the present research work statistical techniques like average, coefficient of variations and analysis of variance (ANOVA) are used. All the calculations are made on Microsoft excel sheet through in built data analysis tool.

Analysis and Discussion

Total Shareholders' Return (TSR) is computed for the sample units of pharmaceutical industry for measuring the shareholders' wealth. Total shareholders' return is presented for sample units of pharmaceutical industry below. Thereafter, ranking of sample units and testing the hypothesis are elaborated. TSR figures for the pharmaceutical companies under study are shown in Table no. 1(Refer to End notes for computational procedure).

Table 1
Total Shareholders' Return (TSR) (In %)

Sample Units	2004	2005	2006	2007	2008	Average	C.V. %
Aventis pharma ltd.	194.87	75.03	45.81	-34.63	-18.89	52.44	174.5439
Cadila Health Care Ltd	268.64	-5.73	56.60	-55.04	-19.26	49.04	263.4743
Cipla Ltd.	70.40	-76.30	115.51	-61.45	-10.88	7.46	1116.767
Dr.Reddy's laboratories	25.38	76.37	76.37	-51.23	-19.51	21.48	265.5187
Glaxo Smith	-10.50	39.85	95.27	-16.59	16.85	24.98	181.4449
Novartis	75.51	56.52	11.31	-38.36	-6.19	19.76	234.4188
Pfizer ltd.	49.75	47.73	43.68	-32.64	-11.46	19.41	199.0807
Piramal Health Care Ltd	241.96	-64.43	6.21	-13.45	17.63	37.58	315.2761
Ranbaxy Laboratories	49.63	9.33	-54.82	-18.05	28.90	3.00	1363.107
Sun Pharma	137.75	-26.34	62.85	5.40	15.75	39.08	163.1308
Average	110.34	13.20	45.88	-31.60	-0.71	27.42	
C.V	86.646	419.176	106.617	-66.610	-2607.131		

Source: Computed

The Total shareholders' return of sample units for five years is given in above table 2. On an average the pharmaceutical industry could able to provide 27.42% return to shareholders during last five years. This TSR is much higher than opportunity cost of investment (may be bank rate or bank fixed deposit interest rate). So it can be concluded that pharmaceutical industry could able to generate sufficient wealth for shareholders during

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the study period. The highest average TSR (52.44%) is reported by Aventis Pharma Ltd and followed by Cadila Healthcare (49.04%) and sun pharma (39.08%). It clearly indicates that shareholders of aventies Pharma Company got 52.44% return on their investment. The lowest mean value of TSR (3%) is reported by Ranbaxy laboratories. It means this sample unit could not able to generate sufficient wealth for shareholders during last five years. The rate of TSR is less than the opportunity cost of equity so wealth of shareholders is said to have been destroyed.

If bank interest rate is considered as opportunity cost of equity (Max.9.25%) then only two companies viz. cipla and Ranbaxy laboratories are unable to create wealth for shareholders because these companies having a lower rate of TSR as compared to bank interest rate. other all sample units could able to generate sufficient wealth for shareholders.

As far as variability of TSR is concerned, maximum inconsistency has been observed in Ranbaxy laboratories as it is evident by its highest C.V. (I.e.1363.107%). In contrast the uniformity in rate of TSR during last five years as compared to other sample units has been observed in the sun pharma sample unit because this company reported least C.V. i.e. 163.1308. It may be concluded that return of shareholders is the highest volatile and fluctuate in the Ranbaxy Laboratories as compare to other units of sample, This company may be categorized in risky zone for whom who are not risk takers.

The year 2004 may be considered as successful year for the shareholders of Pharmaceutical sector because highest average rate of TSR (110.34%) is reported by industry in this year While year 2007and 2008 may be considered worst years from the shareholders point of view because the negative average rate of TSR is noticed. It indicates that the pharmaceutical industry could not generate wealth for shareholders during this period and destroyed wealth to the extent of -31.6% and - 0.71% in the year of 2007 and 2008 respectively. It is further a matter of investigation that what reasons are responsible for such rate of TSR. The rank of sample units on the Basis of average rate of TSR is given in the following table.

Table 2
Ranking of Sample Units

Rank	Sample Units	Average TSR %
1	Aventis pharma ltd.	52.44
2	Cadila Health Care Ltd	49.44
3	Sun Pharma	39.08
4	Piramal Health Care Ltd	37.58
5	Glaxo Smith	24.98
6	Dr.Reddy's laboratories	21.48
7	Novartis	19.76
8	Pfizer ltd.	19.41
9	Cipla Ltd.	7.46
10	Ranbaxy Laboratories	3

In order to examine the hypothesis that there is no significant difference among the average value of TSR of different years of sample units, Analysis of variance (ANOVA) technique has been used. The relevant data are given below:

Table 3
Output of Analysis of Variance (ANOVA)

Source of Variation	S.S.	d.f.	M.S.	F
Between groups	116933.2	4	29233.31	
Within Groups	138423.9	45	3076.087	9.503406
Total	255357.2	49		

Source: Computed

F critical value at 5% level of significance at d.f. (4, 45) =2.5787

The output of ANOVA analysis is presented in above table 3. The table shows that the calculated value of 'F' (9.503406) is much greater than critical value (2.5787) at 5% level of significance; hence, the null hypothesis is rejected i.e. the difference among the average value of TSR of sample units are significant. It clearly indicates that the differences of TSR among various sample units are due to major reasons not due to sampling fluctuations. The performance of the all sample units of pharmaceutical industry under study period is not similar. Some units are performed very well but not others. Now it is further matter of research to identify the reasons for such differences.

The following conclusions can be drawn from the above analysis and discussions:

- On an average the pharmaceutical industry could able to provide 27.42% return to shareholders during five years of present study. This TSR is much higher than opportunity cost of investment (may be bank rate or bank fixed deposit interest rate).
- The highest average TSR (52.44%) is reported by Aventis Pharma Ltd and followed by Cadila Healthcare (49.04%) and sun pharma (39.08%). It clearly indicates that shareholders of aventies Pharma company got 52.44% return on their investment.
- The lowest mean value of TSR (3%) is reported by Ranbaxy laboraties. It means this sample unit could not able to generate sufficient wealth for shareholders during last five years.
- the calculated value of 'F' (9.503406) is much greater than critical value (2.5787) at 5% level of significance; hence, the null hypothesis is rejected i.e. the difference among the average value of TSR of sample units are significant

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End Notes

1. Rate of appreciation % = (Change in share price / opening share price) *100
2. Rate of Dividend % = (Dividend per Share / Closing Share Price)*100
3. TSR = Rate of appreciation (%) + Rate of Dividend (%)
4. Sample calculation of TSR for the year 2003-04 is hereby given:

S.N.	Sample Units	2003-2004					
		Share Price		Appreciation	Dividend	RATE %	TSR
		1-Apr 1	31-Mar 2	Rate % 3 = 2-1/1	Per Share 4		
1	Aventis pharma ltd.	236.30	690.00	192.00	19.779	2.87	194.87
2	Cadila Health Care Ltd	123.50	454.20	267.77	3.949	0.869	268.64
3	cipla Ltd.	705.00	1200.00	70.21	2.256	0.188	70.40
4	Dr.Reddy's laboratories	916.80	1145.00	24.89	5.640	0.493	25.38
5	Glaxo Smith	286.80	247.55	-13.69	7.898	3.190	-10.50
6	Novartis	221.00	383.00	73.30	8.461	2.209	75.51
7	Pfizer ltd.	311.00	460.00	47.91	8.462	1.840	49.75
8	Piramal Health Care Ltd	210.85	720.00	241.47	3.483	0.484	241.96
9	Ranbaxy Laboratories	622.50	925.00	48.59	9.596	1.037	49.63
10	Sun Pharma	271.50	645.00	137.57	1.138	0.176	137.75

WEATHER DERIVATIVES

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ABSTRACT

In an agricultural based industry performance of agriculture, industry and financial market is mainly affected by the weather conditions like rainfall, temperature, snowfall and others. Therefore certain industries need the risk coverage against the volatility of the weather condition measurements. These help not only in hedging but also provide an opportunity to speculate as well. Weather derivatives are like trading on nature which is beyond the control of any of the business entities. Weather derivatives were first introduced in US market in the year 1997. India is in the process of introducing.

A weather derivative contract is the one that is written on an underlying weather condition or measurement parameter of weather, the pay-off from this is contingent upon the weather condition prevailing at specified location. Weather derivatives are a tool to hedge against the weather conditions that affect a particular business or profit from a business deal. Weather derivatives are like an insurance against adverse weather condition so as to ensure a particular gain for the buyer of the derivatives. These are used to have speculative gains also. The most common hedging application of weather derivatives is in agricultural sector or the industry which is affected by changing weather conditions.

Weather derivatives are the one that have weather - heat, rainfall, snowfall, temperature and others as underlying asset. The pay-off (value) from these derivatives is derived from the movement of underlying weather parameter/condition. Usually derivatives are the financial products that derive the value from an underlying asset like shares, commodity, currency, interest rate, interest bearing bonds, etc. The outcome i.e. value of a derivative product completely depends on the movement in the price of the underlying asset on which such derivative has been created.

A derivative contract hedges the risk relating to the underlying asset but weather derivatives can be used to hedge the risk not only from the underlying weather measurement but from certain other asset like a position in the agricultural product or a product which gets affected by changing weather condition. Therefore weather as an underlying asset can be called as *surrogate underlying asset for derivatives*.

Weather Derivatives A Tool to Control the Uncontrollable

Weather is one of the uncontrollable factors which can not be controlled by human efforts. A farmer who is likely to reap the crop of chana can hedge the risk by taking a long

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on put option on chana. But this will help him only when he receives the crop. His crop is affected by rainfall or heat/temperature in the climate. An adverse change in the climate may spoil the crop therefore he needs to hedge against such adverse movement in the climate.

Hedging against such adverse changes in the climate can be achieved by taking a position on weather derivatives. A long position on weather option or futures will generate a pay-off for the buyer of such derivatives thus he will be protected against such adverse movement of weather.

Historical Development

Use of weather as derivatives is the recent trend. It was the year 1997 when first time in the derivatives history of US weather was introduced as an underlying asset. These were OTC traded derivatives. In the year 1999 Chicago Mercantile Exchange (CME) introduced exchange traded weather derivatives. Weather derivatives have been introduced with the aim to provide hedging for those who are affected by the changes in weather or who want to speculate on the changing weather conditions like rainfall, snowfall, heat, temperature, and others. In India these are yet to be introduced on regular exchanges in an organized manner.

Underlying Asset - Measurement of Weather/Climate

Weather derivatives based on temperature use HDD and CDD as the standard for measuring the weather condition, similarly the amount of rainfall and the amount of snowfall are also the measurement used in weather derivatives. An HDD is the number of degree by which day's average temperature is below base temperature. And CDD is the number of degree by which day's average temperature is above the base temperature. Day's average is the average of day's high and low temperature. The base temperature is usually between 65 degree Fahrenheit and 75 degree Fahrenheit. HDD and CDD values are accumulated over the period by taking daily HDD and CDD values as discussed above.

The common mechanism is to calculate the value of HDD and CDD on daily basis and cumulate the value of HDD and CDD separately. This cumulated value of HDD and CDD is used to arrive at the pay-off from the option or futures.

Structure of Weather Derivatives

Most of the weather derivatives are structured as put and call option with standard parameters. Few of the weather derivatives are designed as exotic options like "binary or digital option" which require the settlement in a fixed amount of pay-off or nothing. In these when option is in-the-money the buyer of the option receives a fixed pay-off irrespective of the actual outcome or he receives nothing.

As weather is most uncertain factor therefore sometimes weather derivatives are styled as "capped weather derivatives". In a capped weather derivative the maximum amount of pay-off is limited to a particular amount. Here buyer of the option receives actual pay-off or the capped pay-off whichever is lower subject to the option being in the money.

- Conventional Option
- Exotic Option
- Futures
- Forwards

Conventional Option

A conventional option is the one in which buyer of the option makes the payment of premium upfront to obtain the right without any obligation to buy or sell the underlying asset. The seller of the option has all the obligation without any right. When such option is in-the-money it generates unlimited gains for the holder of the option and pay-offs are zero when it is out-of-the-money. All the parameters like underlying asset including lot size, exercise price, expiry, premium of such option are known to both the parties on the date of transaction.

Exotic Option

An exotic option is the one in which certain additional parameters/features are added along with the regular features like capping the maximum amount of pay-off. Similarly, few of the existing regular parameters may not be available in this type of option like in case of Asian option exercise price is decided at a later date before the expiry of the option. Due to this these are called exotic options.

Conventional Call Option on Weather Derivatives

In a call option on weather derivatives the underlying asset may be HDD or CDD. The buyer of the option makes the payment of premium upfront which entitles him the right to buy HDD or CDD at the strike level. As the underlying asset - temperature (HDD or CDD) is a non-deliverable asset therefore the settlement is through cash difference called cash difference settlement. For every degree of temperature a fixed amount in rupee or dollar terms is fixed.

$$\text{Pay-offs} = \{\text{Max} (0, \text{Actual price} - \text{Strike price})\} * \text{amount per degree days}$$

Conventional Put Option on Weather Derivatives

In a put option on weather derivatives the underlying asset may be HDD or CDD. The buyer of the option makes the payment of premium upfront which entitles him the right to sell HDD or CDD at the strike level. As the underlying asset - temperature (HDD or CDD) is a non-deliverable asset therefore the settlement is through cash difference called cash difference settlement. For every degree of temperature a fixed amount in rupee or dollar terms is fixed.

$$\text{Pay-offs} = \{\text{Max} (0, \text{Strike price} - \text{Actual price})\} * \text{amount per degree days}$$

Parameters of Option Contract

These option contracts have the following parameters

- Underlying asset - weather condition
- Buyer and seller of option
- European vs. American
- Pay-offs
- Premium
- Strike/Exercise price
- Position of option
- Expiry vs. Settlement

Exotic Option

An exotic option is the one which has certain different condition either affecting the pay-off or right of the buyer of the option. Most of the features of these option are at par with the conventional options and an additional parameter or condition is associated with the conventional option. These may be

- Binary or Digital option
- Knock-in and knock out option
- Caped option
- Double trigger option

Futures on Weather - Weather Futures

Futures on weather is like a swap between two parties whereby one party receives the pay-off and another party makes the pay-off subject to the satisfaction of parameters as specified in the futures contract. Majority of the parameters on futures on weather are standardized and regulated by the exchange on which it is traded.

The party having long on weather futures receives the pay-off as soon as actual measurement of the weather condition exceeds the strike measurement on the contrary to this he will be required to pay the pay-offs when actual measurement of the weather condition remains below the strike measurement. Thus, it always generates a pay-off and never gets expired on the expiry, due to this the expiry of a futures is called value date.

Parameters of Weather Futures

- Underlying asset - weather condition
- Strike price - strike measurement
- Duration and Value month - Expiry
- Square off
- Open position
- Settlement

Forward on Weather - Weather Forward

Weather forward is a forward contract in which weather condition or measurement of one of the parameter of climate is the underlying asset. It is OTC traded derivative and majority or almost all the parameters like - underlying asset, lot size, mode of settlement, duration and value date. As majority of the parameters of the transaction are decided mutually by transacting parties therefore it is a customized transaction. Due to customization square up of the transaction is not possible and it is to be settled between both the parties.

Parameters of Weather Forward

- Underlying asset - weather condition
- Strike price - strike measurement
- Duration and Value month - Expiry
- Square off
- Open position
- Settlement

Strategic Application of Weather Derivatives

The primary objective of introducing weather derivatives was to provide a tool to hedge against the adverse movement of weather/climate so as to ensure a definite pay-off for those who get influenced by such adverse movement of weather/climate.

Weather derivatives discussed above can be used by different traders for different purposes like hedging and speculation.

Hedging

With the help of hedging risk is either eliminated completely or minimized up to certain extent. With the help of weather derivatives one can counterbalance the risk arising on account of adverse movement of weather or climate. An asset like crop, sea produce or dairy produce the output of which is subject to the movement of weather can certainly be put to hedging by taking a long on weather derivatives - weather option or weather futures.

Weather option will generate unlimited outcome when weather moves in favourable direction and it will ensure a fixed outcome if weather makes an adverse movement. Similarly weather futures will ensure a fixed outcome irrespective of the movement of weather.

Example

Agricultural produce of Miss Wind having a farmhouse is affected adversely when CDD during the next two months happens to be more than 800 however she will have unlimited gain when CDD is less than 800. She plans to ensure a particular pay-off by paying the premium for it.

Miss Wind buys a call option from Mr. Sun on CDD with strike 800 having expiry of two months. The option is European styled to be settled in cash with a provision to make the payment of Rs. 1,500 for each degree by which the option is in-the-money. She makes a premium of Rs. 10/- per CDD i.e. Rs. 8,000 ($800 * 10$). Now on the expiry if cumulative CDD value happens to be 890 then the option is in-the-money by 90 degree points then Miss Wind will receive the pay-off of Rs. 1,35,000 ($90 * 1,500$).

On the contrary to it when CDD happens to be less than 800 then option will be out-of-the-money and she will have sufficient gain from her crop.

Thus it not only helps in hedging against the adverse movement of weather but generates unlimited pay-offs as well. Hedging can be ensured through a long on weather futures also.

Speculation

Weather derivatives like weather option provides an opportunity to generate pay-offs from the adverse movement of weather condition only at the cost of premium. The position on option on weather will generate pay-offs when it is in-the-money otherwise the maximum loss for the speculator will be the premium paid for it.

Example

Mr. Badam Gussain wishes to take a long on put option on weather with HDD as underlying asset and strike price being 1000 HDD the expiry is one month. The option is European styled to be settled in cash with a provision to make the payment of Rs. 1,500 for each degree by which the option is in-the-money. For this a premium of Rs. 5 per degree of strike price is paid. Now on the expiry if cumulative HDD value happens to be 900 then the option is in-the-money by 100 degree ($1000 - 900$) points then Mr. Badam Gussain will

receive the pay-off of Rs. 1,50,000 ($100 * 1,500$). On the contrary to it when on the expiry HDD is more than 1000 the option will be out-of-money and it will simply expire without generating any pay-offs for Mr. Badam Gussain. Thus by paying the premium one can speculate on the adverse movement of weather and have gain out of it only at the cost of premium. The maximum loss is the amount of premium.

Conclusion

Weather derivatives are created by using weather conditions or measurement of weather/climate as an underlying asset. Weather derivatives are the tools for hedging the risk arising on account of adverse movement of weather/climate conditions like heat, cold, temperature, rainfall and snowfall and others. The hedging comes at no cost by taking a position on weather futures and weather forward, with the help of both of these a definite gain can be ensured. With the help of weather options risk gets hedged and at the same time it leaves an opportunity for unlimited gain only at the cost of premium.

Weather derivatives can be used as a tool to generate speculative gains also. Buy taking a position on weather option one can have unlimited gain even if he is not exposed to the risk on account of holding any asset. The speculative gains are reaped at the cost of premium only. The maximum amount of loss in this case is the amount of premium paid for taking a position on weather option. Option on weather are structures either as conventional option or as exotic option like 'capped option', 'as you like it option', 'barrier option' and others.

Thus weather derivatives offer twin benefit of hedging as well as speculation.

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DIRECT TAX CODE: STRATEGIC ISSUES

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ABSTRACT

The draft of Direct Tax Code will be introduced as a Bill in the winter session of Parliament. If passed, it will become the new Income Tax Act, replacing the existing four decade old Income Tax Act of 1961. The code is a combination of major tax relief and removal of most tax-exempted benefits. It is expected to usher in a new tax regime of transparency and greater compliance.

Direct Taxes Code, the buzzword today, which will replace the Income Tax Act, is proposed to be implemented from April 1, 2012. The aim of the code is to eliminate distortions in the tax structure, introduce moderate levels of taxation, expand the tax base, improve tax compliance, and simplify the language & lower tax litigations. The new proposals are in the right direction. They will simplify regulations and reduce unnecessary litigations significantly (Vikas Vasal, KPMG Executive Director Personal Taxation). The Code is a completely new law and not an amendment of the existing Income Tax Act. This is a commendable change as one has always experienced tinkering of existing laws ((K. R. Girish, Bangalore Chamber of Industry & Commerce President). In the DTC Bill, currently, income up to Rs 1.6 lakh per annum is exempt from tax for individuals. For women and senior citizens, the limit is 1.9 lakh and 2.4 lakh, respectively. The tax is levied at a 10 per cent rate on income between Rs 1.6 lakh and Rs 5 lakh, 20 per cent on Rs 5-8 lakh and 30 per cent above Rs 8 lakh. The highlights of the Direct Taxes Code bill include -

- Only half of Short-term capital gains will be taxed
- Surcharge and education cess are abolished.
- Deductions for Rent and Maintenance would be reduced from 30% to 20% of the Gross Rent. Also all interest paid on house loan for a rented house is deductible from rent.
- Tax exemption on Education loan to continue.
- Tax exemption on LTA is abolished.
- For sale within one year, gain is to be added to taxable salary.
- Dividends will attract 5% tax.

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- Maximum limit for medical reimbursements has been increased to 50,000 per year from current 15,000 limits.
- Income tax exemption limit proposed at Rs. 2 lakh per annum, up from Rs. 1.6 lakh
- 10 per cent tax on annual income between Rs. 2-5 lakh, 20 per cent on between Rs. 5-10 lakh, 30 per cent for above Rs. 10 lakh
- Tax burden at highest level will come down by Rs. 41,040 annually
- Proposal to raise tax exemption for senior citizens to Rs. 2.5 lakh from Rs. 2.4 lakh currently
- No mention about tax exemption to women in proposed bill
- Corporate tax to remain at 30 per cent but without surcharge and cess
- MAT to be 20 per cent of book profit, up from 18 per cent
- Exemption for investment in approved funds and insurance schemes proposed at Rs. 1.5 lakh annually, against Rs. 1.2 lakh currently
- Proposed bill has 319 sections and 22 schedules against 298 sections and 14 schedules in existing IT Act
- Once enacted, DTC will replace archaic Income Tax Act.

Issues of DTC

Direct Tax Code will be effective from April 1, 2012 onwards and will bring several changes as regards how we invest across various asset classes. Let us discuss the emerging issues of the new code in the following sub-headings:

Effect on Individual

The new tax code is regressive in nature as it punishes the people in the lower income bracket while those in higher income bracket will enjoy a higher post-tax income. We can understand with the help of a calculation, people falling in the Rs 5-6 lakh category that forms a large chunk of taxpayers would be affected most. The basic exemption limit continues to be Rs 1.6 lakh. The highest tax rate of 30% that was earlier applicable for individuals earning above Rs 5 lakh has now shot up to Rs 25 lakh. This measure has been the most talked about. In fact, surcharge and cess are also proposed to be abolished. But the most popular exemptions - interest deduction on home loan, house rent allowance, leave travel allowance; medical reimbursements are either removed completely or will now form part of the taxable income. There are three salary levels and for all levels, the exemptions will not be more than 10% of the salary. Basic salary has been taken as 40% of the total salary (as it is widely seen) and for HRA calculation we take 50% of the basic salary for four metros as prescribed by the Income tax Act.

For home loan and basic exemption, full claim of Rs 1.5 lakh and Rs 1.6 lakh, respectively, is made. The maximum deduction under Sec 80C of Rs 1 lakh has been considered and in the proposed case we have taken it as Rs 3 lakh. In the new scheme of things, an individual with an annual salary of Rs 5 lakh will witness a significant drop in disposable income if he utilises full Rs 3 lakh deduction, hence we have a hypothetical number of Rs 1.5

lakh for investments. The calculations show that taxpayers with falling in the Rs 5-6 lakh slab would be affected negatively as it will increase in their tax liability. For individuals with salary levels upwards of Rs 10 lakh, the total tax outflow will come down. The new DTC induces consumption as it reduces the effective tax rate for individuals by 5-7 %. However, people in the highest income bracket will capture maximum gains. This may prove beneficial for companies in sectors that serve the needs of upper middle class households such as FMCG, financial services, retail, entertainment and other life style products.

Effect on the MAT

The Tax Code proposed changes in the calculation of MAT payable by corporate. MAT will now be levied at 2 per cent of the value of gross assets of a firm in case of all companies except for banks which will pay tax at 0.25 per cent. This shift in MAT from book profits to gross assets is aimed at encouraging optimal utilization and increased efficiency of assets. However, owing to tax incentives, the liability on total income, in many cases, has been found to be extremely low or even zero. Internationally, a variety of economic bases and methods are used to calculate presumptive income so as to overcome the problem of excessive tax incentives. These presumptions could be based on net wealth, value of assets used in business or gross receipts of the enterprise.

Effect on Wealth Tax

The threshold limit for wealth tax will be raised to Rs 50 crore from the present Rs 30 lakh and the tax rate was reduced from 1 per cent to 0.25 per cent. But, to expand the scope of taxation the Tax Code included financial assets like shares, bonds, fixed deposits, etc in wealth tax. The valuation of these assets will be done at cost or at market price, whichever is lower. In case of capital gains tax too, the Tax Code proposed some sweeping changes. It has done away with the present system of short-term and long-term capital gain tax, and replaced it with a uniform structure and gains will be taxed at the marginal tax rate as applicable to the tax payer.

Effect on Insurance

The Code will have significant impact on insurance. Under DTC, to be eligible for tax deduction, a policy should give life cover of at least 20 times the annual premium. If this condition is not met, people will not get any tax deduction on the premium and even the income from the policy will be taxable. Right now income received from insurance policies is free. So make sure if you are looking for tax deduction on insurance plan, make sure you buy a policy which offers a bigger cover. Under Income Tax act 1961, an individual can claim deduction on premium of up to Rs 1 lakh P.A. paid as premium for life insurance. Life insurance is among the many tax-saving avenues under section 80 C of the Act. The section also offers tax breaks on investments in provident fund, pension fund, and ELSS, besides home loan principal repayment and children's tuition fees. If DTC is implemented in its existing form, the total savings-related deduction will be Rs 1.5 lakh. However, out of this,

an aggregate deduction on life as well as health insurance premium and children tuition fees will be restricted to Rs 50,000. What's more, you will not be entitled to deduction on life insurance premium if it exceeds 5% of the policy's sum assured. That is, if your policy offers a cover of 10 lakh, then your annual premium cannot be more than Rs 50,000. If your policy structure does not meet this condition in any of the years, you will also have to pay tax on the proceeds received upon completion of the tenure. This apart, the maturity proceeds will be exempt from tax only if they are received upon completion of the original period of contract of the insurance. Another change is that both forms of insurance - life and health - are clubbed together for calculating deductions unlike now, where health insurance-related concessions for premiums up to Rs 35,000 (Rs 40,000 in some cases) fall under section 80D.

Effect on Equity Investment

Under the exemption on long term capital gains continuing is definitely positive news here. Investors can continue with their investments as planned without any need to rejig them due to DTC. However ELSS Mutual Fund scheme's tax exemption will go and they will be treated at par with other schemes in market with no tax exemption. Investors who are looking for Mutual Funds for tax exemption should consider this factor while investing.

Currently short term gains are taxed at a flat rate of 15 per cent, but this is set to change. But under the DTC, short-term capital gains will be added to income, and be taxed at the marginal tax rate. So the amount of tax will depend on the tax bracket you fall in. e. g., if an investor falls in the highest tax bracket that attracts a tax of 30 per cent and had a short-term capital gain of Rs 1,00,000, then he will have to shell out Rs 30,000 as tax as against Rs 15,000 currently. However, if he/she falls in the 10 per cent tax bracket, he will have to shell out only Rs 10,000 as per DTC and not Rs 15,000 as mandated now. Therefore, he will gain more. So, individuals in the lower tax bracket will benefit from this new move.

Long-term capital gains will also be clubbed with the income of the investor and taxed at the marginal tax rate. However, the income tax department will not levy tax on the total profit earned. The revenue department plans to introduce a deduction rate, which will be announced later. The deduction rate which will be a per cent of your capital gains will be tax free. If an investor had a long-term capital gain of Rs 1,00,000 and the deduction rate is, 40 per cent, then he will not have to pay tax on Rs, 40,000. The balance Rs 60,000 will be added to his income and will be taxed depending on the income tax slab he falls in. If he is in the 30 per cent bracket, he would have to pay Rs 18,000 as tax which is an effective rate of 18 per cent. However, if he was in the 10 per cent bracket, the tax he would have to pay would be Rs 6,000 which is an effective rate of 6 per cent. So investors in the lower tax bracket stand to benefit vis-a-viz the higher tax bracket investors.

The changes introduced by DTC, will benefit short-term investors who are in the lower tax bracket, while those in higher tax benefits will see higher tax outflow. On the other hand, given that long-term capital gains were not taxed so far, investors will find this new development difficult to take.

Effect on Pension Funds

Under the DTC, most of current tax saving investment will not be eligible for deduction. Instead focus has shifted to long term options with pension funds leading the way. An annuity is an investment that gives out a regular income to the investor. Pension plans require an investor to put at least 65% of corpus received on maturity in an annuity which then gives him monthly pension. Though more details are awaited but DTC has proposed to make annuity income exempt from taxation which makes them good tax saving instrument. The New Pension scheme is low cost pension fund which an investor can consider.

Effect on Real Estate

The repayment of principal of your home loan will not be eligible for tax deduction under the DTC. But there is also a bright spot wherein there is removal of tax on notational rent. Right now people who own more than one house have to pay tax on notational rental income even if second house is lying vacant. The DTC will remove this anomaly and make investment in second home more tax efficient. Another landlord friendly move is that advanced tax received from a tenant will be taxed in year it relates, not when it was received. DTC, more importantly has retained tax benefit on the interest paid on home loan. The tax benefits reduce the effective cost of home loan thus making it affordable for borrowers.

Effect on Debt Schemes

Investments in debt funds are the new rule for calculating the indexation of capital gains. Indexation takes into account inflation during the holding period and allows investor to adjust his buying price. The DTC has changed this and the asset will have to be held for more than 1 year from the end of financial year in which it was bought to avail indexation benefits.

Conclusion

From next year onwards direct tax will be implemented and all are looking for its impact in their savings and tax calculation. When we purchase new LIC policies or make any other tax saving investment it can be planned in consideration of DTC also. With the implementation of DTC (Direct Tax Code) from 01-04-2012, ELSS, NSC, 5-year tax saving bank FDs will be stripped off section 80C deduction. Instead, the government is encouraging saving for long-term goals by giving EEE status (fully tax exempt) to PPF and New Pension System and long-term Infrastructure bonds.

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ACCOUNTING EDUCATION IN INDIA: A FEW EMERGING ISSUES

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ABSTRACT

With the rapid growth in economy, careers in finance and accounts have gained tremendous popularity and the most prestigious career option in this field is that of professional accountants. It is the prime responsibility of accounting programs to prepare students as per the need of the business world. In this paper the researcher has tried to identify some of the challenges for accounting education in India. At the end provided models that may be useful to improve the current education system and even suggested a model course curriculum for the accounting education.

Professional accounting education system has three components for study: (1) general business education, (2) general accounting education, and (3) specialized accounting education. These components can be addressed in a variety of ways. Accounting programs should therefore include courses designed to develop knowledge of the functional activities of business, government, economic and non-profit organizations, accounting practices at local level and at global level. The courses should cover finance, marketing, operations, organizational behavior, and how the general manager integrates all these functions. The course should teach, reinforce, and reward the skills, abilities, and attitudes that are necessary for success in the accounting profession. This will give students accurate knowledge about the nature of accounting careers, which will help them make a well informed choice about entering the profession. At latter stage students should be given foundation of accounting course - Book Keeping, Financial Accounting, Cost and Management Accounting and Auditing should be taught as a foundation at under graduate level and at post graduate level students should be given specialized accounting education like strategic cost and management accounting, ABC, Target costing, conversion of accounts, IFRS, tax planning, corporate taxation, taxation for NRIs and NGOs, taxation requirements for new entrepreneurs who requires knowledge of government's various schemes and its tax benefits. In accounting area; decision accounting, behavioral aspect of accounting, situational accounting (like restructuring accounting, mergers and acquisitions), group accounting / consolidation of accounts, Forex accounting etc. At higher level specialization we should include securities accounting, Insurance and Mutual Fund accounting considering the guidelines of SEBI, IRDA and AMFI and other relevant authorities, accounting for Banks, Non banking Financial Corporate, Housing finance etc.

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There are six major categories of perceived problems: (1) course content and curriculum, (2) pedagogy, (3) skill development, (4) use of technology, (5) faculty development and reward structures, and (6) strategic planning and direction of accounting programs.

Preparing-for-certifying-exam educational model is inefficient, as it does not prepare students for the ready to use for business world. Our pedagogy often depends much on lecture and textbooks, and does not develop the students' ability-to-learn reading and writing accounting skills. We are bound by our class time and do not require enough student contact with business. There should be internship for accounting students. Practitioners and faculty believe an internship is the best out-of-classroom learning activity for professional accounting. However, also we heard frequently that, to be effective, an internship needs to be carefully managed by both the school and the firm. There must be ongoing faculty monitoring of the experience and the students must know that they will be evaluated by the school and the firm. The student teacher ratio in commerce education is very poor; in government colleges the ratio is 100 students is to 1 teacher is considered as normal ratio; as a result teachers can not look after the progress of each and every student. This ratio should be reduced to 30. Student need to understand the use of technology in accounting and auditing, perhaps this is lacking in all most all the university curricula. Today in organized sector the auditing is done online. So online auditing should be included in courses and necessary infrastructures should be developed at college and university level.

We are reluctant to develop creative types of learning, such as team work, assignments with real companies, case analysis, oral presentations, role playing, team teaching, technology assignments, writing assignments, involving business professionals in the classroom, and studying current events. We do not use enough out-of-classroom experiences, such field studies, foreign business trips, online (Internet) experiences, service-learning assignments. University teaching system is now sufficient to develop skills to write, read and interpret financial information. Student should be made aware about the technology. Information technology should be the vital part of our business world so curriculum should be designed in such a way that necessary software should be included in the second phase of education i.e. post graduation level. Our students should be exposed enough to the impact of technology on business and ways in which technology can be leveraged to make business decisions.

Changes Needed

1. An introductory accounting course where debits and credits are taught and emphasized on preparation of financial statement.
2. An introductory managerial course that teaches cost accumulation and the preparation of budgets.
3. One or more intermediate courses-where the students study detailed rules and pronouncements related to financial statement line items.
4. Cost accounting-managerial accounting fast-that reinforces and goes into more detail on the topics covered in introductory managerial accounting.
5. Several specific auditing and tax courses where students cover detailed auditing standards and IFRS rulings.

Along with the above accounting course following topics that practitioners felt were more important to study to become professional accountant: information systems, business strategy, business law, global/international business, e-commerce, ethics, and accounting research methods. These are generally broadening-type courses.

Basically, traditional accounting, book keeping, trail balance through software like Tally and use of computer should be the main area of learning at under graduate level course. While human brains are to be used in implementation of strategic decision in consultation with management should be included at post graduate level course.

At specialized study level, management information system and Business and ethics in accounting IFRS, XBRL should be included. XBRL - eXtensible Business Reporting Language is a language for the electronic communication of business and financial data which is revolutionizing business reporting around the world. It provides major benefits in the preparation, analysis and communication of business information. It offers cost savings, greater efficiency and improved accuracy and reliability to all those involved in supplying or using financial data. Institute of Chartered Accountants of India is taking necessary actions for the developing and adoption of XBRL in India.

Government of India, the Ministry of Finance has constituted the Government Accounting Standards Advisory Board (GASAB) set up by the C & AG for accounting for government machinery. This GASAB should be included in the advanced study of accountancy. By learning this standard, specialized man power can be prepared for government organizations.

Business ethics, corporate governance should be taught at specialized professional courses. This helps in developing ethical practices in accounting.

Educational Models that decide the relationships between University and Professional Bodies

Model - A

this model is in existence. Academic courses be prepared, teaching and researches is the main responsibilities of Universities. Development of teachers and researchers is the main task of universities. Students learn the foundations courses and core courses at this stage and at advance stage they learn specialization in their area of interest.

While the responsibility of professional bodies is to prepare professionals for practices, application of academic knowledge. They do not have any linkages with the university. Their courses again starts with foundations. Recommendation for this model is that there should be some linkages between university and professional courses. In other way the university post graduates can be allowed to practice at state level and professionals can practices at national level. (countries like US and Canada have this kind of practices). Professional training and continuous learning and regulation of the profession are done by the legally established professional bodies in addition to teaching and examination.

Model - B

University, institutes admit students under the observations of controlling bodies (like medicine, pharma, law). They should prepare courses considering model course provided by the regulatory bodies. The pass out students is allowed for academics (a doctor can be a professor in medical college) and even for practices (like doctors) i.e. a professional is prepared by the university / institutes under the control of controlling agencies like medical council of India / Bar council of India, AICTE etc. The norms and standards laid down by these bodies are to be complied with the institutes and universities. Thus academics and professionals are integrated. This model also exists in India in the fields like law, medicine, engineering, management etc.

In this case the teaching, training and research are the main task of university / institutes and professional regulations is done by professional bodies. With this model we can eliminate duality of professional and academic courses / degrees.

Model - C

Academic courses is the responsibility of university who provides conceptual and theoretically sound students, after some years of experience they are allowed for practice. There is provision for smooth lateral entry from academics to professionals and vice-versa. There is provision for national level practice and state level practice certifications. Academic degrees are given due weight for the purpose of this certification. This model exists in US and Canada.

Model Course Curricular for Accounting Education

Foundation Course

Conceptual framework of accounting, Accounting Process, preparation of Trial Balance, Capital and revenue expenditures, receipts, Contingent assets and contingent liabilities, Bank Reconciliation Statement, Inventories management, Depreciation accounting, Preparation of Final Accounts, Bills of exchange and promissory notes, Partnership Accounts, accounts of partnership firms, introduction to company accounts, Issue of shares and debentures.

Core Course

General Knowledge of accounting standards, national and international, accounting authorities, adoption of international financial reporting standards. Company final accounting, general knowledge of Accounting for business acquisition, Amalgamation and reconstruction, Accounting for Special Transactions like - Hire purchase and installment sale transactions, Investment accounts, Insurance claims for loss of stock and loss of profit, An overview of computerized accounting system

Costing

Introduction to Cost Accounting, Cost Ascertainment, Behavioural analysis of cost, cost book keeping and costing method, standard costing, marginal costing and budgetary control.

Specialization

Accounting Standards, Accounting Standards Interpretations their applications, overview of International Accounting Standards (IAS) / International Financial Reporting Standards (IFRS), XBRL, Corporate Financial Reporting, Accounting for Corporate Restructuring, Consolidation of Financial Statements, Accounting and Reporting of Financial Instruments. Financial Reporting by Mutual funds, Non-banking finance companies, Merchant bankers, Stock and commodity market intermediaries, valuation of tangible, intangible and liabilities, Value Added Statement, Economic Value Added, Market Value Added, Shareholders' Value Added, Human Resource Reporting, Inflation Accounting, Capital Market Instruments, Investment Banking, Retail Banking, Foreign Exchange Exposure and Risk Management.

Integration

the need of the hour is to integrate all functional areas of management with accounting and finance to decision making. Today almost all courses are made for decision support while there is an urgent need to develop courses that actually help in decision making process. Single discipline research is not feasible in current business world. Behavioral aspects of accounting, strategic finance, strategic management, strategic costing should be the area for study at this level. It is a matter to be decided by the university and professional institutes whether they intend to provide decision makers, or support service experts, researchers, and teacher or trainers. Course must be in harmony with the product design features.

Possible contents of the course includes Strategic decision making framework, Simulation and decision tree analysis, Sensitivity analysis, Capital Rationing, Adjusted Net Present Value, Replacement decisions, Application of Real Options in capital budgeting, Impact of inflation on capital budgeting decisions, Preparation of Project Report, Social cost benefit analysis, manufacturing resources planning, Techniques for profit improvement, cost reduction, and value analysis, Life cycle costing, Pricing strategies.

Conclusion

Curriculum reforms need clear cut answers to product design, courses objectives, pedagogy, training, professional regulation and control, research and continuous learning requirements. University and professional institutes / regulatory body relationship should be redefined for the betterment of accounting education. The Model - A, which is in existence in India, need changes as suggested in the paper incorporating the benefits of model - B and C in order to make universities and professional institute co-partners rather than competitors. It will serve larger interest of the nation.

A NOTE ON ACCOUNTING EDUCATION: ACCOUNTING FOR NGOS

*Archana Singh
**G. Soral

ABSTRACT

Non- Government Organization (NGO) sector is an important part of any country since this sector has noble intentions of serving the society. In present scenario, Accounting for NGO is the emerging area of accounting. Importance of books of accounts for an NGO may be even more than that of a business organization, since they are using the public money needed to be utilized in most proper way. There is lack of awareness among NGOs about the accounting functions. They do not follow adequate and systematic accounting. As survey has been conducted of 32 universities of India. There is lot of diversities in methods of accountings which are followed by NGOs. The finding of the survey indicated that NGO accounting is not at all included as a separate subject in the syllabus of any University under purview. It is suggested that it should be included in the syllabus of M.Com at least as an optional paper.

There are nearly 1.2 million Non-Government organizations (NGOs) in India. NGO sectors have grown so much that they employ huge financial as well as human resources. These NGOs employ nearly 20 million persons on paid or volunteer basis¹. The main source of income for these organizations are:

- (a) Grants from Government and international sources
- (b) Donations from Indian and foreign sources.
- (c) Self generated funds.²

There are some NGOs who may not be doing any real work, but maintain their accounts very nicely. These NGOs may be primarily vehicles for self-enrichment or for tax evasion. And there are many NGOs whose work is exemplary but the quality of accounting is quite poor. Sometimes, this may be due to faulty budgeting policies or organizational pressures or other times, this is due to lack of accounting personnel or skills.³ This underlines the need of NGO accounting and its education.

NGO accounting is a surprisingly complicated affair. There are several reasons for this:

- Organized charity is a relatively recent phenomenon;
- It is subject to pressures from various institutions, especially the donor agencies;

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- Professional accountants have paid relatively little attention to NGO accounting; and finally,
 - It's financial management is focused on spending money, rather than making it.⁴
- Importance of books of accounts for a NGO is the same as that for a business organization. However, in some cases it may be still greater, since they are using the public money to be utilized in most proper way and the expectation of society from NGOs is much higher than from business entities.⁵

The importance of accounting for NGOs can be better understood from the points given below:

- NGOs receive various funds both from national and international sources and the corresponding expenditure in accordance to the objects and purposes of the organization.
- To know how much money they have received and spent in a year. Also to know how much unspent funds they have, and how these are kept.
- To ensure that funds are spent/utilized properly for objectives of the organizations.
- According to the assets and liabilities of the society they give a true and fair view of state of affairs to the society.
- Various acts and legal provisions applicable to NGO may require it to maintain books of accounts.⁶

Survey Findings

The need of Accounting for NGOs has been highlighted in the previous sections of this paper. This underlines the need to include this subject area in the curriculum of undergraduate and postgraduate classes. In order to explore the extent to which Accounting for NGOs has been included in the syllabus of Indian Universities, a survey has been conducted.

As survey has been conducted of 32 universities of India. The Universities included in the survey were Andhra University, Andhra; Banaras Hindu University, Varanasi; Bangalore University, Bangalore; Bharathiar University, Coimbatore; Bharathidasan University, Tiruchirapalli; Calcutta University, Kolkata; Ch. Charan Singh University, Meerut; Christ University, Bengaluru; Devi Ahilya University, Indore; Gauhati University, Guwahati; Goa University, Panjim; Gujarat University, Ahmedabad; Jai Narayan Vyas University, Jodhpur; Jamia Millia Islamia, Delhi; Kannur Univeristy, Kannur; Karnataka University, Dharwad; Lucknow University, Lucknow; Maharshi Dayanand University, Rohtak; Mahatma Gandhi Kashi Vidhyapeeth, Varanasi; Mohan Lal Sukhaida Univeristy, Udaipur; Mumbai University, Mumbai; North Eastern Hill University, Shillong; Osmania University, Hyderabad; Pune University, Pune; Rajasthan University, Jaipur; Shivaji University, Kolhapur; SNTD, Women's University, Mumbai; University of Calicut, Calicut; University of Delhi, Delhi; University of Madras, Chennai; University of Punjab, Chandigarh; Utkal University, Bhubaneswar.

Accounting for NGO as a paper is not included in none of the universities listed above.

Proposed Curriculum of NGO Accounting

NGO is the fastest growing sector of the country's economy. That's why the NGO accounting is the emerging topic of present scenario so it must be considered the part of accounting education. It should be included in the syllabus of M.Com. as an optional paper. Outlines of the curriculum are being proposed as follows:

(i) Introduction about NGO accounting

Concept of NGO, Evaluation and growth of NGO, Meaning and definition of NGO, Formation of NGO, Classification of NGO, Strengths and weaknesses, Need for good governance for NGO.

(ii) Basic concepts of accounting

Meaning of accounting, Importance of accounting for NGO, Definition of terms which used generally in NGO accounting, Basis of accounting.

(iii) Accounting cycle

Process of accounting cycle, Need for maintenance of books of accounts for NGO, Objectives of NGO accounting, Types of books prepared by NGOs, Accounting standards for NGO, Essential parts of financial statement for NGO.

(iv) Government grant related issues

Definition of grant, Nature of grant, Process of receiving grant, Format of proposal of grant, Need of accounting for grant, Accounting standard with respect to grant and relevance for NGO, Treatment of Grant, Accounting of grant (grant recognized as liability, grant recognized as income only to the extent of expenditure incurred out of it).

(v) Foreign funding related issues

Meaning of foreign contribution, Foreign Contribution (Regulation) Act (FCRA), Process of registration of NGOs under FCRA, Operation of bank accounts in respect of foreign funds covered under FCRA, Foreign Contribution (Regulation) Bill, Meaning of foreign source, Maintenance of accounts for foreign funds, Format of form FC-3, Format of form FC-6.

(vi) Fund based accounting

Meaning of fund based accounting, Why fund based accounting is better for NGOs?, Types of funds, Financial statements in fund based accounting.

(vii) Income tax related issues

Meaning and definition of NGO according to I.T. Act, Conditions for NGOs under which they exempt from tax, Registration of NGO under I.T. Act, Registration of NGO u/s/ 80G, Business for profit by NGOs, Exemption under I.T. Act, Deductions in income tax for NGOs donors (u/s 80G, u/s 35AC).

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WORLD'S ANCHOR CURRENCY: DOES IT LOSING GROUND?

*R.K. Paul

ABSTRACT

The world witnessed concerted multilateral efforts, first time in the history of the international financial system, to combat global financial imbalances. With the shifting of geo-political and geo-economic power from North to South and West to East, the concept of global reserve assets (GRA) from the IMF, global reserve currency alternative to US dollar, has propped up in the context of preventing impending threats of further financial tsunami. The US \$14.66 trillion economy forms 20 percent of world's GDP is believed to have gradually slipped into recession. Two doses of quantitative easing (QE1 & QE2) had not boosted the GDP growth rate and checked unemployment rate presently hovering around 9 percent. Debt to GDP ratio reached ever highest level more than 100 percent. The continuous decline in the value of dollar since 1971 has a cascading effect on the whole world. However there is a craze towards US dollars as no other country looks safer heaven than the US. Besides, US remain unrivalled in the context of innovation and academic pursuits. The central banks across the globe parked their funds in the US debt bonds being the most secure from default risk though its yield is minuscule. So investors keep buying treasury bills and driving up prices. Thus, dollar's status as global anchor currency will remain 'bloodied but unbowed'.

1. Introduction

Unprecedented level of Debt to GDP ratio in the developed countries during post world war and gross financial mismanagement along with abrupt deterioration of fiscal position in the Euro zone and USA are undoubtedly the key reasons pertaining to the global financial crisis. Its momentum has further fuelled by sovereign debt crisis in the southern part of the Europe especially in the Greece, Portugal, Spain and Italy. However, one of the significant features of financial crisis regime is mismatch of demand and supply of dollar that triggered the liquidity contraction in almost every nook and corner of the globe. The equilibrium of real dollar rate is indeed positively affected by high trend growth in the US, whereas it is negatively affected by a positive output gap (Vlaar, 2007). The world has witnessed first time high level of international collaborations in the history of international monetary system in the context of combating financial crisis. A fresh out of box thinking emerged in respect of multilateral efforts to expedite the pace of level of global consistency of economic policies. Such efforts gradually are getting cemented in respect of shifting of

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geo-political and geo-economic power from North to South and West to East. It is believed that the world's anchor currency has sown the seed of the financial tsunami in the arena of international monetary system. Therefore claim for having global reserve assets (GRA) from the IMF has propped up.

With this backdrop the paper attempts to draw particular attention:

- to examine the efficacy of international reserve currency (US Dollar) in ensuring global financial stability in the context of its continuous depreciation in value.
- to explore the possibilities for relieving the global monetary system from the dollar trap for reducing the global imbalances.

Exploratory research methodology was adopted and secondary sources of data were considered for the brevity of analysis.

The entire study is organized in three parts. First, part is devoted to analysis of fiscal predicaments of the US over the years. The affect of dollar on dollarized country was discussed in the second part while final section delved the possible alternative currency to dollar, if any, in resolving issues of global imbalances.

2. Dollar and the US Economy

The economic predominance of the British Empire faded away in the era of post world wars because it ran large current account deficit especially in relation to finance her war efforts. The stigma of unacceptability of British Pound, therefore, spread internationally due to prolonged current account deficit. On the contrary, the US became undisputed leader amongst the market based economies. It was agreed in the Bretton Woods conference 1944 that countries would hold their reserves in dollars as well as gold. The international monetary system thereafter had fallen into dollar trap (www.cciee.org.in, 2010) and world's gold reserves ended up in the hands of the US (Johnson, 2011).

Of late, it is observed that the fundamental of economic model of America is based on consumption spree backed by credits. They buy more from the rest of the world than they earn by selling goods and services abroad clearly showing that the US economy is affected by earlier British Syndrome. Her share in the world GDP has significantly fallen since the mid 1960s. In 1980, US federal receipts were 19pc of GDP and debts was \$0.9 trillion. Presently the share of federal receipts to GDP is nearly 5 percent points lower and debts nearly 15 percent higher. The public debt to GDP ratio has substantially increased. In one estimate, the ratio of outstanding federal debt to GDP expected to be about 69 percent at the end of fiscal year 2011, would rise to 87 percent in 2020 and 146 percent in 2030. The budget deficit would likely to touch 6.5 pc and 13pc of GDP respectively during the period under consideration (Khedekar, 2011). The reasons for swelling of fiscal deficit are attributed to weak tax revenues owing to poor economic performance, continuous fall in housing prices, stubbornly high unemployment, fragility of the US banking system and its role in non transparent credit default swaps (CDS), and above all America's financial mismanagement (Stiglitz, 2011). Besides, the fiscal impasse of the USA was aggravated in the context of the unwillingness of political parties to increase tax, cut in defence expenditure inter-alia the

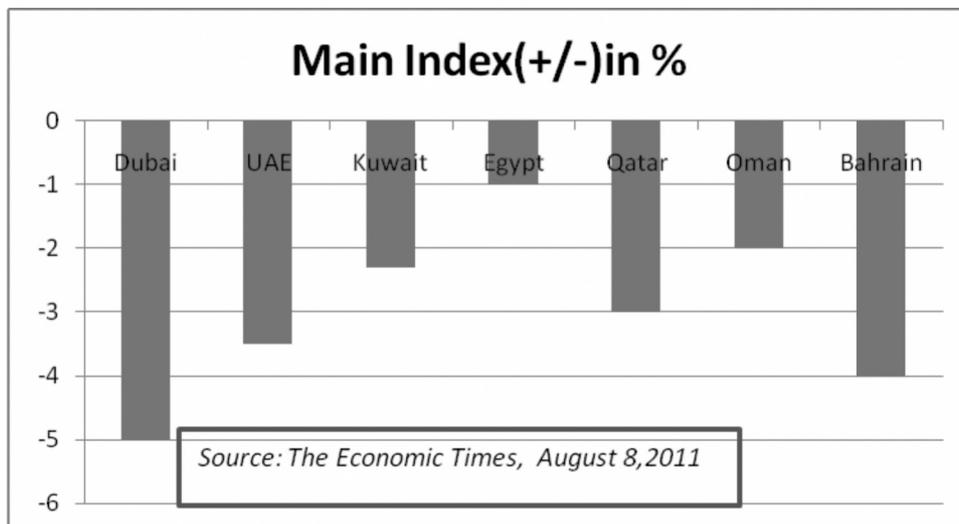
Obama administration's commitment towards implementation of health care schemes. As a result, the US seems to be declining economically, not just in a fiscal sense, but also in the sense that its growth prospects look somewhat dim (Subramanian, 2011). On the other hand the emerging markets are growing and China in particular has been running current account surpluses and building up foreign exchange reserves about \$3 trillion.

2.1 US-Dollar predicament and other countries

At present America faces long term as well as short term problems; decaying infrastructure, weakening educational systems and dysfunctional healthcare system (Delong, 2011). They slash job and never moved out of recovery into expansion. It as result has reached debt of 100pc of its GDP about \$15 trillion out of which \$4.5 trillion to the foreign countries holding US debt securities. The QE1 (Quantitative Easing) and QE2 had not generated enough euphoria in checking unemployment rate, hovering around 9pc, as well as in expediting the pace of growth of GDP. The US predicament drew a sharp reaction from other countries China in particular. Its holding to the tune of \$1.2 trillion in US treasuries has been eroded especially in the context of S&P's downgrade of US long term debts.

2.2 Is Dollar fading away?

The Dollar is international reserve currency and only medium of exchange for the central banks around the globe for invoicing trade, borrowing and lending currency. The continuous decline in the value of dollar has a cascading effect on the whole world. Hong-Kong, UAE and other countries pegged with dollar were benefited when US was booming. On the contrary their currency was weakening due to fall of such anchor currency-dollar.



The benchmark indices across the countries in the dollarized zone and others tumbled with S&P's down grade of US economy. Further, the emerging countries which depend on

cheap loans and FII inflow from the Dollar zone are worst affected. Thus, no country in the IT enabled globalised ambience could escape from dollar trap.

3. *Why do we rush to America's Dollar?*

The US government treasuries, being unrivalled to any currency in respect of safety and liquidity, are most sought after assets and despite weakness dollar remains as international reserve currency. S&P's downgrade on sovereign US debt to AA+ from AAA resulted in huge loss to holders of the US treasury, particularly, investors who had lent cash against treasuries and also loan for more bonds as collateral. The market has reacted sharply to this contagion resulting in deterioration in value of dollar, landslide in global stock market, slashing employment rate and insurance businesses (Kewalramani, 2011). But very significant factor is that, leaving all speculations at bay, the yield of long term US Govt Bond has not increased which was supposed to be. Actually, 10 years US bond yield fell from 2.75pc to 2.34pc during August1-4, 2011.

The global investors have exited emerging markets and rushed into dollar as a safe heaven. China is the single largest holder of the US treasury securities to the tune of \$1.15 trillion end May 2011 constituting over 25percent of the total outstanding US bonds. As on May 2011 top foreign creditors of the US were:

Table 1
Foreign creditors of US (as on May 2011)

Name of the country	Contribution in the US debts(\$)	Name of the country	Contribution in the US debts(\$)
China	1.15 trillion	Switzerland	108 bn
Japan	912 bn	Canada	91 bn
UK	346 bn	Germany	61 bn
Brazil	211 bn	Singapore	57 bn
Taiwan	153 bn	Luxemburg	68 bn
Hong Kong	122 bn	Thailand	60 bn
Russia	115 bn	India	41 bn

Source: US Treasury

The reasons pertaining to craze towards US dollars may be attributed to no other country looks safer heaven than the US. Besides, US remain unrivalled in the context of innovation and academic pursuits. The central banks across the globe increased their exposure because US debt bonds were one of the most secure from default risk though its yield is minuscule. So investors keep buying treasury bills and driving up prices.

4. **World Reserve Currency**

A reserve currency has to have two basic characteristics. One, it has to be liquid enough and it would be risk less and has minimum risk of default. The US dollar has fulfilled

all such criteria. But burgeoning trade deficits since 1987 and enormous public debts to GDP ratio in the US as well in the developed countries (about 80pc) over the period, there is every reason to believe that dependency of dollar would not be panacea rather it would import much economic and financial dilemmas.

China desires to turn the Renminbi (Yuan) into a global reserve currency though it has lack of dual convertibility which is pre-requisite of attaining that feat. The central banks across the world hesitate to hold Yuan. According to Bank of International Settlement (BIS) Renminbi's (RMB) share in the global foreign exchange turnovers was only 0.25 percent in 2007 and it was ranked 20th in the world and 5th among Asian emerging market currencies. Besides, RMB is considered as a non-convertible currency to most export-driven nations such as Russia, Brazil, and Argentina. Euro, on the other hand, is not a substitute to Dollars because entire euro zone is suffering from the financial strains of an imperfectly constructed currency. Other countries are following free floating rate. Thus Dollar remains unrivalled in the international financial system.

5. Conclusion

Global economic imbalances should be addressed with concerted efforts by all the major economies in the world. In this respect each country are required to sort out their domestic imbalances. Besides, country should consider global liquidity while framing its own monetary policy. In the context of global currency woes, US dollar is the key part to it. A structural alternative is needed that would pave the way for comparatively better ambience than the current framework which leaves us lurching from crisis to crisis. In absence, dollar's status as global anchor currency will remain 'bloodied but unbowed'.

Since December 7, 1941, the world has been relying on the America, somewhat competent hyper power, in respect of global governance. The situation presently warranted for developing institutions for global management. The idea of having a single currency backed by the major currencies of the world instead of gold has been floated. Special Drawing Rights (SDRs) is much touted idea for replacing the dollar. Dominique Strauss Kahn holds that "the country might be called upon IMF to provide global reserve currency as an alternative to the US dollar. Though time has not come, but I think it is intellectually wealthy to explore these kinds of ideas now. Such asset could be similar to but distinctly different from IMF's SDR and will be based upon a basket of major currency" (Strauss-Kahn, 2010).

However, dollar will continue to enjoy status of international currency and is unlikely to change unless strong alternative emerges. The real challenge ahead is to find ways to limit the tension arising from the high demand for precautionary. There is sufficient evidence for prevalence of Dollar as anchor currency of the world. The US has just 1.5pc of GDP about \$225bn as interest bill but its annual revenue is about 14.5pc of GDP which is about 10 times higher than interest payment.

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Table i
Glimpse of Macro variables (figures in % for 2010)

Country	Real GDP growth	Fiscal Deficit	Gross Public Debt	Primary Deficit
Ireland	-1.0	32.2	96.1	29.7
France	1.5	7.1	81.8	4.8
Spain	-0.1	9.2	60.1	7.8
Portugal	1.4	7.3	83.3	4.6
Belgium	2	4.6	97.1	1.3
Germany	3.5	3.3	80	1.1
Italy	1.3	4.5	119	0.2
Greece	-4.5	9.6	142	3.2
Euro Area	1.7	6.1	85.4	
USA	2.8	10.3	91.2	
Emerging Economies	7.3	3.7	35.3	
Japan	3.9	9.6	233.2	
UK	1.3	10.2	82.9	
India	10.4	9.2	68.1	
World	5	5.5	67	

Source: IMF (Published in The Economic Times August 18, 2011)

IAA NEWS

IAA General House

A meeting of the IAA General House will be held at the Venue of 35th IAA Conference, Rajkot with Prof. Umesh Holani in the Chair in Nov/Dec. 2012 with the following agenda:

1. Consideration of minutes of Jaipur AGM.;
2. Consideration of the Accounts of the Association;
3. Topics for the next IAA Annual Conference;
4. Venue of the 36th Conference;
5. Nomination of Two Senior members for panel to nominate Jr. Vice President;
6. Election of Executive Members as per rules; and
7. Any other item with the permission of the Chair.

All the members are requested to kindly attend the meeting (The date and time will be put on the IAA website in due course). Please contact Prof Prof Pratap S Chouhan for accommodation etc

IAA Executive Committee

A meeting of the IAA Executive Committee will be held at the Venue of 35th Annual Conference, Rajkot with Prof. Umesh Holani in the Chair in Nov/Dec.2012 with the following agenda:

1. Consideration of the minutes of Jaipur EC meeting;
2. Consideration of the Accounts of the Association;
3. Nomination of 3 EC members for panel to nominate Jr. Vice President;
4. Venue of the 36th Conference;
5. Consideration of election to EC as per rules;
6. Co-option of members to EC; and
7. Any other item with the permission of the Chair.

All the Executive Members are requested to kindly attend the meeting (The date and time will be put on the IAA website in due course).

IAA Special AGM

A meeting of the IAA Special AGM will be held at the Venue of 35th Annual Conference, Rajkot with Prof. Umesh Holani in the Chair in Nov/Dec.2012 with the following agenda:

1. Consideration of Amendments to the Constitution; and
2. Any other item with the permission of the Chair.

All the members are requested to kindly attend the meeting (The date and time will be put on the IAA website in due course).

Young Researcher Award - 2012

IAA invites proposals for Young Researcher Award - 2012, on the Research Work done during the last five years in the area of Accounting by scholars/faculty members of not more than 35 years of age as on 31-12-2011, for the consideration of IAA Young Researcher Award-2012. Proposals are invited only from the life members of IAA.

Proposals may be submitted on or before 25th Oct. 2012, to

Prof. D. Prabhakara Rao

General Secretary - Indian Accounting Association

Professor & Dean, Faculty of Commerce & Management Studies

Andhra University, Visakhapatnam-530003

Email: dean.dcms.au@gmail.com Mobile: 9440131863

Topics for 35th All India Accounting Conference - Rajkot

International Seminar on Accounting Education and Research

With Prof. Harish S. Oza of Ahmedabad as Chairman

Technical Session-I: **Shareholder Value Creation and Measurement**

With Prof B. Ramesh of Goa as Chairman

TechnicalSession-II: **Ethical Issues in Accounting and Finance**

With Prof Nageshwar Rao of Ujjain as Chairman

Technical Session -III: **IFRS and India**

With Prof. NM Khandelwal of Rajkot as Chairman

Best Papers at Jaipur Conference - Dec 2011

International Seminar on Accounting Education and Research

Paper: *Accounting Education in India: A Few Emerging Issues*

Dr. Hitesh J. Shukla

Technical Session - I: **E-Accounting:Problems&Prospects**

Paper: *E - Accounting in India*

Martina R Noronha and Aishwarya R. Kulkarni

TechnicalSession - II: **Carbon Credit Accounting**

Paper: *Carbon Credit Accounting in India: An Evaluation of Practices, Awareness and Concerns*

Manoz S. Kamat and Manasvi M. Kamat

Technical Session - III: **Impact of Direct Tax Code**

Paper: *Two Papers were selected as the best papers*

One paper presented by Dibansu Das and another paper presented by R.K. Patel

IAA Fellowship Award - 2011

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Mysore University, Mysore

Prof. Bhagirathi Singh
University of Rajasthan, Jaipur

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Indian Institute of Public Administration, New Delhi

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Two Day National Seminar on Direct and Indirect Tax Reforms in India

Organized by IAA, Midnapore Branch

at

K. D. College of Commerce & General Studies, Midnapore, W.B.

16th & 17th September, 2011

A two-day UGC-sponsored national seminar on 'Direct and Indirect Tax Reforms in India' was hosted by the Department of Commerce (Accounting & Finance), K. D. College of Commerce & General Studies, Midnapore, W.B. in collaboration with the I.A.A., Midnapore Branch on 16th & 17th September, 2011. The programme had Dr. Anupam Parua, Head, Dept. of Commerce, K. D. College of Commerce & General Studies and also Treasurer, IAA, Midnapore Branch as the Organizing Secretary with Dr. Samir Ghosh, Reader, Dept.

of Commerce with Farm Management, Vidyasagar University and member, IAA, Midnapore Branch and Dr. Kajal Baran Jana, Assistant Professor, Dept. of Commerce, Tamralipta Mahavidyalaya and Executive Committee Member, IAA, Midnapore Branch as Joint Organizing Secretaries.

- (1) Prof. K. Sasikumar, Dean, Faculty of Commerce, University of Kerala,
- (2) Prof. Jaydeb Sarkhel, Professor, Dept. of Commerce, The University of Burdwan and President, IAA, Midnapore Branch
- (3) Dr. Saumen Chattopadhyay, Associate Professor, Zakir Husain Centre for Educational Studies, School of Social Sciences, Jawaharlal Nehru University, New Delhi,
- (4) Dr. Chintaharan Sengupta, Principal, Sree Chaitanya Mahavidyalaya, Habra, WB,
- (5) Prof. Sudipti Banerjea, Professor, Dept. of Commerce, University of Calcutta, WB and Executive Committee Member, IAA, Midnapore Branch,
- (6) Prof. Arindam Gupta, Professor, Dept. of Commerce with F. M., Vidyasagar University & Secretary, Indian Accounting Association, Midnapore Branch,
- (7) Dr. Asis Kr. Sana, Assistant Professor, Dept. of Commerce, University of Calcutta

acted as resource persons in different sessions of the seminar. Prof. S. P. Singha, Dean of the Faculty of Arts and Commerce, Vidyasagar University, Midnapore inaugurated the seminar. Total twenty one (21) papers covering different aspects of Direct Tax Code (DTC) and Goods and Services Tax (GST) were presented and discussed at length at the seminar. The seminar was attended by nearly one-hundred and fifty delegates. Delegates came from distant places of the state, covering at least eight of the districts and also from other states of the country (namely from Delhi and MP). On the occasion of the seminar, one souvenir containing abstracts of presented papers was published and very shortly one edited volume is going to be published by a reputed publisher with required ISBN containing the full text of those papers.

Dr. Anupam Parua

Head, Dept. of Commerce, K. D. College of Commerce &
General Studies and Treasurer, IAA, Midnapore Branch as the Organizing Secretary

Two Day National Seminar on Emerging Issues in Financial Reporting and Financial Markets

Organized by IAA, Midnapore Branch

at

Dinabandhu Andrews College, Garia, Kolkata

18th & 19th November, 2011

A UGC-sponsored National Level Seminar on "Emerging Issues in Financial Reporting and Financial Markets" was organized by the departments of Commerce and Economics of Dinabandhu Andrews College, Garia, Kolkata in collaboration with Indian Accounting Association, Midnapore Branch at the premises of the College on November 18th and 19th

2011. The eminent and learned Prof. Nageshwar Rao, Former Vice-Chancellor, U.P. Rajarshi Tandon Open University, Allahabad, Uttar Pradesh and Chief Editor, Indian Journal of Accounting had kindly inaugurated the seminar and delivered a very lively inaugural speech. Two dignitaries from other states namely Professor G. L. Dave, Ex-Head, Department of Accounting and ex-Dean, Faculty of Commerce and Management Studies, Jai Narayan Vyas University, Jodhpur, Rajasthan & Past President, Indian Accounting Association and Prof. Harish S. Oza, Director & Professor, S. D. School of Commerce, Gujarat University, Ahmedabad, Gujarat & President, Indian Accounting Association enhanced the glamour of the seminar by taking the chairs of different sessions.

The presence and deliberations of Professor Jaydeb Sarkhel, Professor and ex-Head, Department of Commerce, The University of Burdwan, Burdwan, West Bengal and President, Indian Accounting Association, Midnapore Branch, Prof. Sudipti Banerjea, Professor and ex-Head, Department of Commerce & Director, I.Q.A.C., University of Calcutta, Prof. Kalyan Sanyal, Professor, Department of Economics, University of Calcutta, Dr. Ranjanendra Nag, Associate Professor of Economics, St. Xavier's College, Kolkata also made the seminar a very vibrant and successful one. It would be noteworthy to mention that seventeen promising papers were presented by academicians and professionals of different organizations and about 130 delegates actively participated to make the seminar very successful.

Dr. Asim Kr. Manna and Prof. Debashis Poddar

Dept. of Commerce,

Dinabandhu Andrews College, Kolkata as Joint Organizing Secretaries

Annual General Meeting of I.A.A., Midnapore Branch

at

Dinabandhu Andrews College, Garia, Kolkata

19th November, 2011

The second day of the two-day national seminar at Dinabandhu Andrews College was followed by the Annual General Meeting of the Indian Accounting Association, Midnapore Branch on 19th November, 2011. The new executive committee for the branch as unanimously elected in the AGM is given as follows: **Prof. Jaydeb Sarkhel**, Dept. of Commerce, The University of Burdwan, Burdwan, W. B. as President, **Prof. Arindam Gupta**, Dept. of Commerce with Farm Management, Vidyasagar University, Paschim Medinipur, W.B. as **Vice President (Co-opted)**, **Mr. Hrishikesh Paria**, Associate Professor and Head, Dept. of Commerce, Egra S.S.B. College, Egra, Purba Medinipur, W.B. as **Secretary**, **Dr. Sanjit Kr. Das**, Assistant Professor, Bhairab Ganguli College, Belgharia, 24 Parganas (North), W.B. as **Jt. Secretary (Co-opted)**, **Prof. Prithul Chakraborty**, Professor, Centre for Management Studies, JIS College of Engineering, Kalyani, Nadia, W.B. as **Treasurer**, **Prof. Sudipti Banerjea**, Professor, Department of Commerce & Director, I.Q.A.C., University of Calcutta, Kolkata, W. B., **Mr. Bijay Krishna Bhattacharya**, Teacher-in-Charge, Globsyn

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