

Role of CMAs in IFRS Era

CMA Dr. T. P.Ghosh*

Analysed from the perspective of the integration of Financial Accounting System (FAS) and Management Accounting System (MAS) , this paper critically reviews four issues :

- Fair value measurement framework
- Cost plus pricing and fair value based risk premium
- Componentisation of Assets
- Critical Estimation

and concludes that MAS would be the basis of FAS in the IFRS era. The paper also highlights the role of management accountants in different phases of IFRS implementation.

As IFRS influence and improve the decision making system in the process of delivering an improved financial reporting system, there is a need for developing International Management Accounting Standards in the form of best practices in the key decision making areas like fair value measurement, cost plus pricing, and componentisation and principles of estimation which would act as an accounting support system to IFRS.

Based on the limited review of four issues, this paper suggests to develop seven standards in the first phase.

Introduction :

International Financial Reporting Standards (IFRS) penetrate into the managerial decision making process and management control system to improve the quality of the financial reporting system. Whether the pervasive influence of IFRS would change the decision making process and management would lean towards fair value information rather than cost based information are the critical issues . In any case, the generation of IFRS based financial statements depends upon a supporting Management Accounting System (MAS). Neither the IFRS information can be generated exclusively through voucher accounting system nor is it expected

*Professor, Institute of Management Technology, Dubai. Email : tpgosh@imt-dubai.ac.ae

that fair value based accounting could be achieved through voucher recording. Convergence to IFRS is widely perceived as role enhancement of the management accountants on many counts.

The fallacy that the IFRS implementation project is finance specific rather than business initiative is now conclusively resolved with a general consensus that the implementation of the IFRS affects most of the processes and functions within an entity, e.g. finance, accounting, information systems, and human resources. MAS researchers like Juergen Daum viewed a missing link that "there are no analytical/management accounting concepts based on the IFRS performance philosophy to support management in detailed day-to-day decision making" and argued for developing Interna-

tional Management Accounting Standards (IMAS).

Researchers like Hemmer & Labro (2008) and Taipaleenmäki & Ikäheimo (2009) suggest that the financial accounting and managerial accounting are more integrated in the post-IFRS era than evidenced in the earlier literature. Hemmer and Labro (2008) further argued that management and financial accounting systems are not independent. Their study suggests that the managerial decision making role of a Management Accounting System (MAS) does not seem to be a concern in a Financial Accounting System (FAS). However, the MAS is directly linked to properties of the FAS.

In view of the above, this paper intends to review linkage of MAS and FAS in the context of IFRS becoming the basis of FAS and that specific issues wherein FAS would penetrate MAS are fair value measurement, cost principles, performance evaluation , asset management and disposal, operating segment, risk and capital management, assessment of uncertainty and impairment of assets including financial assets.

This paper critically reviews important issues like :

- *Fair value measurement* of financial and non-financial assets would essentially demand *collecting , recording and managing non-accounting information systematically*. Accordingly, there shall be a need for robust management accounting system.
- *Fair value based expenses and cost plus pricing* : All elements of historical cost like employee costs, spares and consumables, borrowing costs, depreciation, etc. are affected by fair value measurement resulting in a challenge to cost plus pricing

methodology vis-à-vis target return.

- *Controlling assets by components* as standardised in IAS 16. Property, Plant and Equipment links financial reporting to asset management strategies. Assets are managed by components not as a whole.
- Present value accounting of IFRS (like the case of IFRIC 12—Service Concession Arrangements) reflects a new performance evaluation base. MAS has to review how the management would use such information as performance evaluation criteria. In general, fair value based profitability parameters would essentially be different from the historical cost based profitability—posing challenge to shift the decision making parameters.
- Neither the traditional financial accounting concepts support *identification and valuation of many intangible assets* nor the management accounting system bridges the gap. This can be linked to IFRS 3—Business Combinations—wherein the traditional concept of goodwill is broken into marketing related, customer related, contract based, technology based and artistic based intangible assets. IFRS 3 demands reflection of boardroom decisions in the financial assets. Presently corporate financial statements mostly reflect physical assets and unreconciled goodwill.
- Linking the managerial decision making process to accounting and disclosures as reflected in IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, IFRS 8 Operating Segment and IFRS 9 Financial Instruments, IAS 19 Leases

would require *interlinking management information system to financial reporting system*.

- *Risk management issues* (like vertical domain risk, geographic channel risk, and much talked about financial risk like credit risk, liquidity risk, market risk) have so far lacked transparency that could be linked to weak corporate governance in many jurisdictions. IAS 1 Presentation of Financial Statements and IFRS 7 Financial Instruments : Disclosures sought to bring the much desired transparency in the field of risk management. Disclosures of sources of estimation uncertainty, financial risk disclosures or capital disclosures would necessitate a management accounting system to capture risks and uncertainties and reflect in the financial statements.
- *Impairment of financial assets* and application of accrued loss model rather than estimated loss model demands detailed impairment analysis of troubled debt.
- *Cost to company principle* of employee cost assessment in IFRS era is another aspect that modern cost accounting system shall capture. Valuation of concessional loans to employees as a financial instrument in accordance with IAS 39 Financial Instruments : Recognition and Measurement would capture better cost information. In particular, it would impact the cost plus pricing.

Although this is not an exhaustive list of issues that would require improvement in MAS, an attempt has been made in this paper to detail out four highly critical issues (e.g. fair value measurement, cost plus

pricing and risk premium, asset management and estimation uncertainty) leading to a conclusion that there shall be a need for management accounting standards to uphold and strengthen the IFRS based financial reporting system. This paper intends to review in details the MAS issues that would support IFRS and in specific, the role of the management accountants in the IFRS era.

Fair Value Measurement Parameters

Determination of fair value as an important measurement base is not adequately clarified in the existing IFRS and in the forthcoming standard on fair value measurement whereas various assets and liabilities shall be measured applying fair value (Table 1). The Exposure Draft on Fair Value Measurement has suggested three principal methods :

- Market approach
- Income approach
- Cost approach

Market approach : Under this approach, prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities (including a business) are used. Other than direct market quotation, valuation using multiples (like P/E multiples of similar companies) fall within this approach.

Income approach : Under this approach future amounts (eg cash flows or income and expenses) to a single present (discounted) amount. Present value technique falls under this category. Option pricing models like Black Scholes model (for valuation of European stock option) or Binomial model (lattice model), present value accounting discounting and categorized under this approach. Similar valuation approaches are

Table 1 : IFRS Measurement Bases of Assets and Liabilities

Items of assets and liabilities	Initial measurement	Subsequent measurement	IFRS guidance on Parameters
Property, Plant and Equipment	Cost	Cost or revaluation model	Earnings or depreciated replacement cost
Intangible Assets	Cost	Cost or revaluation model	No guidance
Financial Assets designated as at fair value	Fair value	Fair value	Level I, Level II, and Level III inputs
Financial Assets designated as at amortised cost	Fair value	Amortised cost	Amortised cost computation has been illustrated
Derivative Financial Instruments	Fair value	Fair value	Valuation methodology not explained
Investment Property	Cost	Cost or revaluation model	Level I, Level II, and Level III inputs
Biological Assets	Cost	Cost or fair value less costs to sell	Market price and nature of market explained
Non-current Assets Held for Sale and Discontinued Operations	Fair value less costs to sell		Level I, Level II, and Level III inputs
Held for Trading Financial Liabilities	Fair value	Fair value	Level I, Level II, and Level III inputs
Other Financial Liabilities	Fair value	Amortised cost	Amortised cost computation has been illustrated

Note : Fair value at the initial measurement has been adequately clarified in the respective IFRS/IAS

adopted for valuation of currency option (Garman Kohlhagen model), interest rate swap, cap, floor, FRA, etc.

Cost approach : The cost approach is based on the current replacement of the asset. It reflects the amount that would currently be required to replace the service capacity of an asset. From the perspective of a market participant (seller), the price that would be received for the asset is based on the cost to a market participant (buyer) to acquire or construct a substitute asset of comparable utility, adjusted for obsolescence. Obsolescence encompasses physical deterioration, functional (technological) obsolescence and economic (external) obsolescence. It is broader than depreciation for financial reporting purposes which is just an allocation of historical cost. The current replacement cost approach is generally appropriate for measuring the fair value of tangible assets using an in-use valuation premise because a market participant would not pay more for an asset than the amount for which

it could replace the service capacity of that asset. One variant of replacement cost approach is *optimised current replacement cost method* [Ghosh 2010] that takes into account the principle of exit price, and optimized the current replacement cost taking into account capacity difference and other factors.

Inputs to the valuation techniques – Inputs refer broadly to the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk, eg the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model) or the risk inherent in the inputs to the valuation technique.

Inputs may be observable or unobservable :

(a) **Observable inputs** are inputs that are developed on the basis of available market data and reflect the assumptions that market participants would use when pricing the asset or liability.

(b) **Unobservable inputs** are inputs for which market data are not

available and that are developed on the basis of the best information available about the assumptions that market participants would use when pricing the asset or liability. **Fair value hierarchy –** The proposed standard has also set out three levels of fair hierarchy :

Level 1 Inputs : They are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.

Level 2 Inputs : They are quoted prices of similar assets –

- i. quoted prices for similar assets or liabilities in active markets;
- ii. quoted prices for identical or similar assets or liabilities in markets that are not active;
- iii. inputs other than quoted prices that are observable for the asset or liability (eg interest rates and yield curves observable at commonly quoted intervals, volatilities, prepayment speeds, loss severities, credit risks and default rates);

- iv. inputs that are derived principally from or corroborated by observable market data by

correlation or other means (market-corroborated inputs).

Level 3 Inputs : They are inputs for the asset or liability that are not based on observable market data (unobservable inputs). Unobservable inputs are used to measure fair value to the extent that relevant observable inputs are not available, e.g. when market activity for the asset or liability at the measurement date is little or nil.

The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1 inputs) and the lowest priority to unobservable inputs (Level 3 inputs). In some cases, the inputs used to measure the fair value of an asset or a liability might be categorised in different levels of the fair value hierarchy. The fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

International Valuation Standards add further to these valuation principles.

The missing link is the practical application manual for various methods guiding data collection, model building, filtering the output and selection of the appropriate output from the range of outcomes. For example, application of depreciated replacement cost method or an optimised version [Ghosh 2010] would essentially require critical and subjective estimations leading to audit controversies.

Accounting literature has already captured the gap and IFRS valuation guidance books attempted to fill the missing links [like Catty, James P 2010].

In this context , a management

accounting standard (or best practices) may guide :

- Selection of methodologies for valuation of various kinds of assets and liabilities including specific guidance to specialised industries;
- Selection of input;
- Discounting, choice of discount rates and sourcing discount rates;
- Filtering range of outcomes;
- Supportive of MAS for maintaining audit trails; and
- Linking the fair value to management decision making.

It is possible to have a separate classified standards for specialised intangible assets like brand, customer lists, artistic based intangible assets, and derivative instruments like swaps, options, forwards, etc.

Cost Plus Pricing and Target Return

Cost plus pricing is a popular pricing methodology in the regulatory pricing of goods or services like fertiliser pricing or pricing of electricity generation, transmission and distribution. This is also a popular pricing method in free market pricing and widely used in tendering for job contracts.

Pre-IFRS historical costs of materials, labour and overhead are affected by fair value measurement principles and other IFRS requirements on many counts :

- Componentisation of property, plant and equipment alters concept of revenue and capital expenditure;
- Change in the IFRS based depreciation and asset maintenance costs;
- Fair value of employee costs covering concessional loans and similar other financial benefits;

- Amortised cost based borrowing costs;
- Effect of cash flow hedge reserve on non-financial assets.

On the other hand, the target return on the enhanced asset base valued at replacement cost would essentially be higher. Eventually the fair value based cost plus pricing will set a new pricing dimension. Perhaps an older asset base would lean back to a legitimate fair value basis to claim a comparative return.

However, the recent development shows that the Canadian energy regulator has already settled down to historical cost depreciation in cost plus energy pricing mechanism rather than fair value depreciation.

Fair value measurement would require compensating risk premium by way of return on assets such that impairment is prevented in the regulatory pricing mechanism. Impairment analysis under IAS 36 and fair value basis will be major decision making factors in regulatory pricing in the context of public-private partnership. The forthcoming standard on rate regulated activities adds further concern about the expanded asset base. Return on asset should compensate adequately such that deferred expenses which are to be recovered through rates (and classified as rate regulated asset) are justified and are not impaired. Otherwise the very purpose of rate regulated assets will be defeated.

The best practice guidance on appropriate cost plus pricing framework is emergent to protect shareholders' value in the listed public sector companies governed by the regulatory pricing mechanism. Similarly, this will provide a guidance on effective job cost tendering.

Componentisation of Assets

4. Componentisation of assets in accordance with IAS 16 Property, Plant and Equipment is driven by asset management and maintenance requirements. Refer to Fig. 1 for componentisation principle outlined in Asset Accounting Framework published by the Treasury Department of the Government of South Australia. An *asset register* normally reflects how assets are structured from asset category to asset classes to asset components (Refer to Table 2). It facilitates data processing and reporting needs, namely :

- a. to perform valuations of assets (from the component level) as required by fair value assessments;
- b. to provide structural layout of assets and link assets/asset components to their location;
- c. to deliver works orders on an asset or asset component;
- d. to enter condition (and calculate condition rating) at component level and roll this up to an aggregate at the asset level;
- e. to generate inspection (inspection orders) and work activities (works orders) against an assets (at component level);
- f. rollup costs for maintenance and capital works for asset components to account for costs at the asset class or category level.

Generally, the asset management best practices have the following steps :

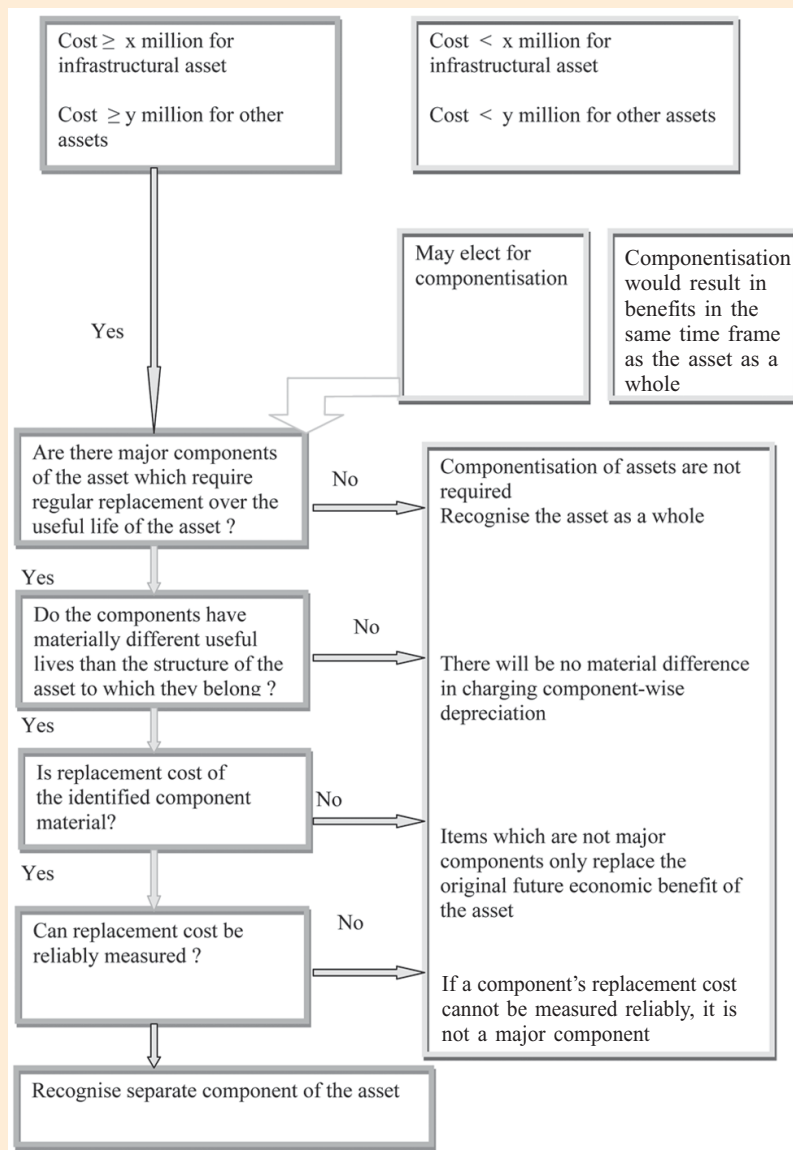
- Step 1 : Use inventory and maintenance practice to determine components and groupings;
- Step 2 : Decide whether they have finite or indefinite lives and whether indefinite life assets need capital treatments to keep them in use.
- Step 3 : For each asset/component/group, develop a life cycle plan which includes:

- the expected life (finite life assets) or the expected treatment cycle (for indefinite life assets that need treatment)
- timing, nature and cost of all capital treatments (in-life maintenance and end-life replacement) needed to maintain service potential of the asset over its useful life.

Life cycle plan is designed to optimise value (not just lowest economic cost) over the cycle and

reflects good engineering practice. Plans should include revenue as well as capital costs, though the two should be separately identified. Revenue costs are not used for valuation, but are needed for expenditure planning and whole life cost optimisation.

For example, Major Buildings are componentised into key components like *a. Roof b. External Walls c. Internal walls d. Floors e. Ceilings f. Mechanical Equipment g. Elec-*



trical Equipment *h*. Internal fittings Any lower levels are generally not significant and should be avoided.

Fig. 1 Principles of Componentisation

Table 2 CSS/TAG Classification of Highway Assets

(This is not an exhaustive list of asset types/asset group/asset components)

Level 1 : Asset Type	Level 2 : Asset Group	Level 3 : Components that Level 2 implicitly covers in valuation
Road	Flexible pavements Flexible composite pavements pavements Rigid composite pavements	<ul style="list-style-type: none"> • Pavement layers (formation, road-base, binder course, surface course) • Other surface types e.g. paved • Hard strip/shoulder • Footway/cycleway attached to Rigid concrete road • Central reservation, round-about, lay-by etc. • Markings • Kerbs • Earthworks (embankments & cuttings) • Vegetation • Drainage • Safety fences • Boundary fences and hedges • Verges
Segregated footpaths and cycle routes	Footpath Bridleways Off road cycle routes Pedestrian areas	<ul style="list-style-type: none"> • Binder course and surface course • Formation
Highway lighting and high mast lighting	Lighting columns Lighting unit attached to wall High mast lighting	<ul style="list-style-type: none"> • Column and foundations • Bracket • Luminaire (or other fixtures, e.g. CCTV) • Control gear, switching and interwiring cabling (may depend on ownership)

Three levels discussed in Table 2 are hierarchical :

Level 1 : Asset Types – Broad categories based on the general function of the assets. Similar assets are aggregated into asset types that is suitable for reporting in the financial statements and provide an appropriate basis for high level management information.

Level 2 : Assets Groups – Used to distinguish between assets that have a similar function and form. The asset groups should distinguish between assets that are likely to require different Unit Rates and Gross Replacement Cost models.

Each asset group may need to be further divided into sub-groups if the Unit Rates are likely to vary significantly between assets in a group.

Level 3: Components – Distinguishes between components that are likely to require different depreciation and impairment models, e.g. different service lives and/or rates of deterioration.

CSS/TAG Classification of Highway Assets presented above is a classic example of decomposition of assets into asset-groups and then carrying out com-

ponentisation. There are varied practices and internal guidelines for componentisation of assets.

Asset Revaluation : It is carried applying cost approach like depreciated replacement cost (DRC) approach or another variant optimised depreciated replacement cost (ODRC). This involves calculating the DRC by reducing the gross replacement cost to reflect the current age, condition and performance of assets.

To calculate the initial DRC it is necessary to know the current condition and performance of the assets. The condition and performance data are then used to assess the cost of work required to restore the assets to the full performance or as new condition. Such information is an essential component of asset management; but without asset management to provide consistent data covering all the asset types the calculation cannot be done.

Therefore, componentisation of assets and application of revaluation model in accordance with IAS 16 depends upon appropriate Asset Management System.

IAS 16 Property, Plant and Equipment would require :

- Depreciation charge based on component of assets is expected to be higher than the average depreciation on the asset as whole;
- Capitalisation of decommissioning, site restoration and other liabilities would increase the depreciation charge;
- Replacement cost depreciation is essentially higher than historical cost depreciation;
- Value of major spares and inspection costs are capitalised
- Repairs and maintenance overhead charge are expected to reduce.

Case Example 1. This case example explains that componentisation of assets, capitalisation of major components on replacement, and component-wise depreciation has the effect of smoothing asset utilisation effect over the useful life of the asset.

Table 3 Comparative position of component-wise depreciation and Indian GAAP depreciation

An asset is segregated into components and depreciated applying straight line method whereas traditional system requires depreciation over the useful life of the asset as a whole :

Amount in Rs. Million	Structure	Components			
		1	2	Others	Total
Carrying amount	600	100	100	50	850.0
Useful life (in years)	20	10	5	20	
Residual value	30	5	5	0	40.0
Traditional Depreciation				40.50	
IFRS Depreciation	28.50	9.50	19.00	2.50	59.50

Table 3A Neutralisation of expense shock of component replacement cost

Amount in Rs. Million	Years						
	4	5	6	7	8	9	10
Cost Impact							
Analysis							
Traditional							
Depreciation	40.50	40.50	40.50	40.50	40.50	40.50	40.50
Routine Repairs and maintenance	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Special repairs		100					200
Traditional Cost IFRS	60.50	160.50	60.50	60.50	60.50	60.50	260.50
Depreciation	59.50	59.50	59.50	59.50	59.50	59.50	59.50
Routine Repairs and maintenance	20.00	20.00	20.00	20.00	20.00	20.00	20.00
IFRS Cost	79.50	79.50	79.50	79.50	79.50	79.50	79.50

Traditional accounting would charge repairs and maintenance costs including special repairs to profit or loss unless future economic benefit arising out of repairs has increased from the past level. IAS requires componentisation of asset; and replacement of a component is treated as a capital expenditure.

Performance Measurement – Evaluation of Service Concession Arrangement

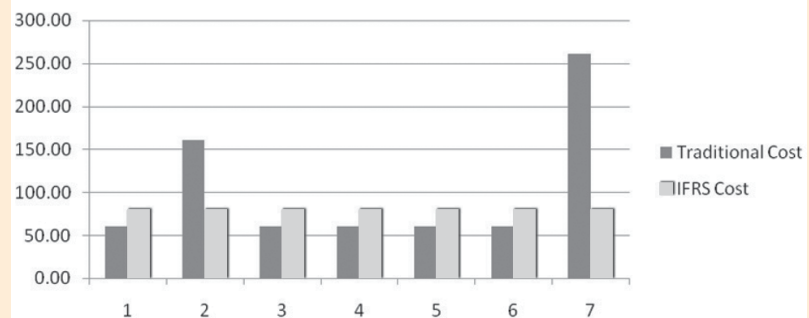
A service concession arrangement contractually obliges the operator to provide the services to the public

on behalf of the public sector entity. Common features of this arrangement are :

- Grantor of the service arrangement is a public sector entity, including a governmental body, or a private sector entity to which the responsibility for the service has been devolved.
- The operator is responsible for at least some of the management of the infrastructure and related services and does not merely act as an agent on behalf of the grantor.
- The contract sets the initial prices to be levied by the operator and regulates price revisions over the period of the service arrangement.
- The operator is obliged to hand over the infrastructure to the grantor in a specified condition at the end of the period of the arrangement. For handing over either little or no incremental consideration is charged irrespective of which party initially financed it.

In 'Built, Operate, Transfer' (BOT) type arrangement, a service provider develops the infrastructural facilities, operates such facilities for the agreed period of time at a price to recover the cost of facilities including profit, and then transfers to the government or governmental agency a private sector entity to which the responsibility for the service has been devolved.

Figure 2 : Cost Smoothing Effect of Componentization of Assets



IFRIC12 *Service Concession Arrangements* offers a fair value based revenue recognition criteria which has been described through Case Example 2.

Case Example 2 An operator was engaged by the Public Works Department to construct a road under 'Build, Operate and Transfer' mechanism. As per terms, the operator has to complete construction within two years, and maintain and operate the road to a specified standard for eight years (i.e. years 3 -10). The terms of the arrangement also require the operator to resurface the road at the end of year 8 – the resurfacing activity is revenue-generating. At the end of year 10, the arrangement will end.

The operator provides the following cost estimates :

Contract Costs (Rs. in million)

Year 1 :	
Construction costs	400
Year 2 :	
Construction costs	200
Years 3-10 :	
Operating service cost @10 million per year	
Year 8 :	
Road resurfacing	150

In year 8 the operator will be reimbursed by the grantor for resurfacing the road.

Assumed that all cash flows take place at the end of the year.

The terms of the arrangement require the grantor to pay the operator Rs. 150 million per year in years 3-10 for making the road available to the public.

Suppose that the following forecast is made for fair value

measurement (which are critical estimation) :

Construction services	+ 10%
Operating services	+ 25%
Resurfacing	+ 10%

Accounting for this service concession arrangement under IFRIC12 applying fair value principle is explained below.

Analysis : As per IFRIC 12 , the operator recognises contract revenue and costs in accordance with IAS 11 *Construction Contracts* and IAS 18 *Revenue*. The costs of each activity – construction, operation and resurfacing – are recognised as expenses by reference to the stage of completion of that activity. Contract revenue as measured by the fair value of the amount due from the grantor for the activity undertaken, and is recognised simultaneously. The obligation to resurface the road is

measured at zero in the statement of financial position and the revenue and expense are not recognised in profit or loss until the resurfacing work is performed.

Year 1 :

Construction costs Rs. 400 million
Construction revenue Rs. 440 million

So construction profit of Rs. 40 million is recognised.

The amounts due from the grantor meet the definition of a receivable in IAS 39 *Financial Instruments: Recognition and Measurement*. The receivable is measured initially at fair value. It is subsequently measured at amortised cost, i.e. the amount initially recognised plus the cumulative interest on that amount calculated using the effective interest method minus repayments.

The effective interest rate is IRR of cash flow as shown in Table 4 below :

Table 4 Computation of Effective Interest Rate in Service Concession Arrangements (Rs. in Million)

Year	Contract Services	Operating Services	Resurfacing Services	Payment by Grantor	Net Cash flow
0					0
1	-440				-440
2	-220				-220
3		-12.5		150	137.5
4		-12.5		150	137.5
5		-12.5		150	137.5
6		-12.5		150	137.5
7		-12.5		150	137.5
8		-12.5	-165	150	-27.5=
9		-12.5		150	137.5
10		-12.5		150	137.5
			IRR	7.69%	

Receivables Accounting including computation of finance income as is explained in Tables below:

Table 4 A Receivables Accounting in Service Concession Arrangements (Rs. in Million)

Year	Opening Balance of Receivables	Interest	Due for Construction Services	Due for Operating Services	Due for Resurfacing Services	Cash Receipt	Closing Balance
1						440.00	
2	440.00	33.82	220	0	0	0	693.82
3	693.82	53.34	0	12.5		-150	609.66
4	609.66	46.87	0	12.5		-150	519.03
5	519.03	39.90	0	12.5		-150	421.43
6	421.43	32.40	0	12.5		-150	316.32
7	316.32	25.32	0	12.5		-150	203.14
8	203.14	15.62	0	12.5	165	-150	246.25
9	246.25	115.93	0	12.5		-150	127.68
10	127.68	9.82	0	12.5		-150	0.00

Table 4 B. Reconciliation of Cash Flow - Profit, Cost and Cash Payments Received (Rs. in Million)

Profit					
Year	Construction Services	Operating Services	Resurfacing	Interest Income	Total
1	40				40.00
2	20			33.82	53.82
3		2.5		53.34	55.84
4		2.5		46.87	49.37
5		2.5		39.90	42.40
6		2.5		32.40	35.90
7		2.5		25.32	26.82
8		2.5	15	15.62	33.12
9		2.5		115.93	21.43
10		2.5		9.82	12.32
	60	20	15	275	370.00
Cost of construction				600.00	
Cost of operations				80.00	
Cost of resurfacing				150.00	
Total Cost (a)				830.00	
Total Receipt (b)				1200.00	
Total Profit (b) - (a)				370.00	

Accordingly, the company will recognise profit and interest income in different years and charge costs.

How would IFRIC 12 affect the MAS of an infra company? It

requires to develop a target profit measurement basis appropriate to the circumstance for measuring the fair value of revenue. The MAS should be able to support not only

fair value measurement of revenue but it has to support the criticalities of estimation of future cash flows and assessment of inherent uncertainties to minimize the variance between expected profit and earned profit. Otherwise fair value based IFRS profit would be essentially a hypothetical profit measurement approach detrimental to the shareholders' value.

IFRS Implementation

IFRS implementation is essentially carried out through four phases as shown in Figure 3.

Impact Analysis

- Evaluation of the definitions of cost, revenue, asset and liabilities as per IFRS and its contradiction with the existing Cost Accounting System (CAS).
- Evaluate managerial requirements of the existing CAS based information and need for generating such information in post-IFRS periods. This can be achieved by mapping information requirements for management accounting purposes.
- Listing non-accounting information requirements to carry out IFRS based measurement and linking them with Management Information System (MIS).
- Assessing the relevance of non-accounting information (eg. fair value information) in the managerial decision making.
- Evaluating whether parallel historical cost records are essential wherever fair value basis are applied.
- Perform a cost benefit analysis to compare the feasibility of maintaining traditional cost records which were used for decision making process in the pre-IFRS era, decision impact on application of IFRS information and need for continuation of old CAS based information (if any) in the post-IFRS era.

Case Example 3 : IAS 16 Property, Plant and Equipment requires componentisation of assets. Currently certain components are recognised as inventories of spares and expensed on consumption. In post-IFRS era those spares shall be classified as assets and to be depreciated. Since uneven nature of the cost as per existing MAS is smoothed under IFRS system (refer to Case Example 1 and Figure 2), it would alter risk and return analysis.

Case Example 4: Concessional loans to employees are measured at fair value at initial recognition applying IAS 39/IFRS 9. There shall be fair value loss at initial recognition as the interest charged to employees is lower than the benchmark yield. This will impact employee costs derived as per existing MAS which does not apply cost to company model. The additional employee cost shall impact the marginal cost, product profitability and even regulatory pricing of goods and services wherever applicable. To avoid the far-reaching consequences, the management/regulator may require to continue with the existing CAS based employee costs. Even the IFRS record keeping would be different from the historical cost based record keeping.

2. Planning

- Identification of changes required in the MIS
- Define changes required to management accounting policies
- Develop plan for integration with the financial reporting system
- Develop a detailed conversion project plan including resource

requirements, key milestones and deliverable due dates.

3. Implementation

- Map the conversion adjustments required; for example, determining what information the IT system would now be required to capture, such as credit risk by customer pool.
- Finalize management accounting policies.
- Staff training.

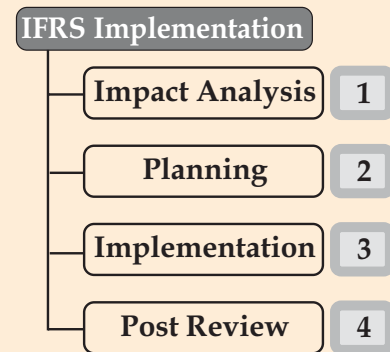
4. Post-Review

- Assess quality of analytical data delivered.
- Determine changes needed to meet best practice requirements.
- Finalize management accounting requirements for information systems.

Increasingly, management team will need policies and practices that support daily decision-making within the IFRS framework based on the principle of fair value.

Case Example 5: Management has taken currency forward for hedging currency risk. Forwards eliminates the upside advantage but cover downside risk. A company having foreign currency revenue or expenses often uses forwards for hedging that caps the upside advantages. They do not use options to avoid upfront payment. IAS 39/IFRS 9 require fair value measurement of derivatives and creation cash flow hedge reserve. A cumulative negative fair value of the currency forwards would reflect the inherent risk in the hedging strategy and influence the management to look for alternative financial products. The management accountants shall have to design the data base for alternative performance evaluation system.

Figure 3 Phases of IFRS Implementation



Concluding Remarks

Fair value based accounting has opened new vistas for managerial decision making resulting in a critical shift in the MAS as well as the role of management accountants. A pre-requisite of IFRS implementation is capturing non-accounting information into financial reporting system. This enhanced data requirement demands and dictates the re-positioning of the management accounting professionals and also pushes them to assume a key role in the financial reporting function. In India, it is the responsibility of the cost and management accounting institute to lead the process of designing IFRS based decision making system.

Management accounting cannot be standardised in the same way as financial accounting. In this context, standards refer to a common approach rather than fixed, mandatory rules. Common best practices need to be shared, and international management accounting standards (IMAS) should represent best-practice standards for managerial decision making. Some select areas for the first instalment should cover :

- Standard 1 Management Accounting System for Fair value Measurement
- Standard 2 Fair Value of Intangible Assets
- Standard 3 Fair Value Measurement of Derivative Financial Instruments
- Standard 4 Cost Plus Pricing Framework
- Standard 5 Asset Management System
- Standard 6 Componentisation of Assets
- Standard 7 Basis of Estimation

Keywords :

Asset Management System, Componentisation of Assets, Fair Value Measurement, Financial Accounting System, International Financial Reporting Standards, Ser-

vice Concession Arrangement, Management Accounting System, Optimised Depreciated Replacement Cost. □

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- set of financial statement under IFRS, it will be cost effective and time saving.
- (5) Cost of raising funds from abroad will be cheaper.

Applicability of IFRS in India

IFRS will be implemented in India in three different phases : Phase I :

Effective from 1st April 2011

- (1) Sensex 30 Companies
- (2) Nifty 50 Companies
- (3) Listed & Non-listed Companies having Net Worth of more than Rs.1000 Crore as on 1st April 2009.

Phase II :

Effective from 1st April 2012

- (1) Listed & Non-listed companies with net worth of more than Rs.500 Crores
- (2) Insurance Companies.

Phase III :

Effective from 1st April 2013

- (1) All listed Companies with Net worth of less than Rs.500 Crore
- (2) Banking Companies.

Non-Applicability of IFRS in India

IFRS standards will not apply

to non-listed companies with a net worth of less than Rs.500 crore & to SMEs, though they can voluntarily prepare their financial statements under IFRSs.

Earlier adoption of IFRS

Earlier adoption of IFRSs in India and preparation of financial statements accordingly is not permitted as it does not have legal backing as of now.

Challenges for India

As the Government of India has set the dateline for adoption of IFRS in India for financial year commencing on or after 1st April 2011, it is imperative to make changes in the following Acts :

- (1) Companies Act
- (2) SEBI Act
- (3) Banking Regulation Act
- (4) Insurance Act
- (5) Income Tax Act.

Fate of Accounting Standards issued by ICAI

As of date, there are about 8,50,000 companies registered in India under the Companies Act, 1956. Out of this, around 6,000

companies are listed in different exchanges in India and few blue chip companies are listed in exchanges outside India i.e in NASDAQ , LSE , Luxemburg etc. A vast majority of the companies in India are not listed and having net worth of less than Rs. 500 crore, are given exemption from adoption of IFRS. These companies are required to prepare their financial statements under Indian GAAP. Therefore, Companies Act need to be amended suitably to accommodate both the Indian GAAP & IFRS.

Conclusion

In the changing economic environment, India cannot afford to isolate itself from global accounting practices. Not shout it. Irrespective of changes required in our legislation and resources needed for convergence to IFRS, sooner the better for economic prosperity. There are huge challenges ahead – yet there are immense opportunities for Indian accounting professionals. □