

“Mark-to-market: Fantasy or reality?”

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Mark-to-Market Topics

- What is most useful: reliable information (historical cost) or relevant information (fair value)?
- History of fair value accounting
- Can we debate this?
- Where is the FASB and IASB headed?
- What areas in accounting does fair value affect?
- Significant challenge accountants, whether as an auditors or preparer, face with fair value

What is “Mark-to-Market”?

.....and why should you care?

Should I loan my
roommate \$20?



How can
I afford a
car?



How About Buying a House?





What Do You Call Loans?

- IOUs?
- Credit card?
- Car Loans?
- Notes?
- Mortgages?



How much did they cost? What is the value?



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A History Lesson.....

Mark-to-market

Fair Value

Allocated Cost

Market Value

Fair Market Value

Historical Cost

Depreciated Cost

Lower of Cost or Market

Major Accounting Standards Requiring or Permitting Fair Value Measurement

- SFAS No. 115 – Accounting for Certain Investments in Debt and Equity Securities
- SFAS No. 133 – Accounting for Derivative Instruments and Hedging Activities
- SFAS No. 140 – Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities
- SFAS No. 155 – Accounting for Certain Hybrid Financial Instruments
- SFAS No. 156 – Accounting for Servicing of Financial Assets
- SFAS No. 159 – Fair Value Option for Financial Assets and Liabilities
- SFAS No.'s 141-(R), 142, 144 – Business Combinations, Relating to Fair Value of Intangible Assets, Goodwill and Impairments
- SFAS No. 164 - Not-for-Profit Entities: Mergers and Acquisitions – (effective for mergers occurring on or after December 15, 2009, and acquisitions for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2009)

Recent Interpretation Literature Impacting Fair Value

- FSP FAS 115-2 and FAS 124-2 – Recognition and Presentation of OTTI
- FSP FAS 107-1 and APB 28-1 – Disclosures about Fair Value
- FSP FAS 141-(R)-1 – Accounting for Assets and Liabilities Arising from Contingencies
- FSP FAS 142-3 – Determination of the Useful Life of Intangible Assets
- EITF 07-5 – Equity Linked Financial Instruments
- EITF 08-5 – Fair Value of Liabilities with 3rd Party Credit Enhancement
- EITF 08-7 – Defensive Intangible Assets

Standards on Measuring Fair Value

- FAS 157 – Fair Value Measurement
- FSP FAS 157-4 – Fair Value Measurement in Inactive Markets (superseded FSP FAS 157-3)
- ASU 2009-12 – Fair Value Measurement of Investments in Certain Entities That Calculate Net Asset Value per Share
- ASU 2009-5 – Fair Value of Liabilities

Standards on Auditing Fair Value

- AU 328 – Auditing Fair Value Measurements and Disclosures (interpretations at AU 9328)
- AU 332 – Auditing Derivative Instruments, Hedging Activities and Investments in Securities (interpretations at AU 9332)
- AU 336 – Using the Work of a Specialist
- PCAOB Staff Audit Practice Alert No. 2 – Matters Related to Auditing Fair Value Measurements

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How About a Debate?

FASB Chair Bob Herz.....

“The role of accounting and reporting standards is to help provide investors and the capital markets with sound, unbiased financial information on the activities, results, and financial condition of reporting enterprises. So, while financial institution regulators may base computations of regulatory capital on GAAP numbers, their decisions on capital adequacy and responses to capital impairments cannot and should not be driven solely or mechanically by balance sheet results.”

American Bankers Association letter.....

“The American Bankers Association is deeply concerned about the direction being taken on the FASB and IASB “joint project” relating to recognition and measurement of financial instruments.”

~from letter dated August 4, 2009 to FASB and IASB

American Bankers Association letter.....(more)

“During the current economic crisis, preparers of financial statements, external auditors, regulators and others have agreed that “mark to market” accounting (MTM) estimates have lacked a sufficient level of reliability. With this experience, it is surprising that the IASB and FASB would both establish new accounting models that expand the use and prominence of MTM rather than either reduce it or at least maintain the current level.”

Where is the FASB and IASB Headed?

July 15, 2009 - FASB Proposes More Financial Instruments be Presented at Fair Value

- FASB proposed that more financial instruments - including loans held by banks and held-to-maturity securities - be recognized at fair value on the balance sheet (exposure draft expected for public comment by the fourth quarter of 2009).
- Proposal represents a significant change to the current fair value accounting model.
- Substantial debate is expected, including how the FASB's proposal will align with the IASB's exposure draft on financial instrument classification and measurement.
- In the future, FASB will address related issues including:
 - measurement of demand deposits,
 - a credit impairment model based on expected losses, and
 - whether to allow non-public entities to measure certain financial instruments at amortized cost.

Breaking News!

July 15, 2009 - FASB Proposes More Financial Instruments be Presented at Fair Value - continued

- Changes in fair value would be recognized either in net income for trading instruments or in other comprehensive income (OCI) for non-trading instruments.
- Fair value changes on derivatives, equity securities, and hybrid instruments containing embedded derivatives requiring bifurcation under FAS 133 (i.e., those not clearly and closely related to the host contract) will be recognized in net income.
- Credit impairments and realized gains and losses arising from sales or settlement of financial instruments will be recognized in net income.
- The classification of financial instruments will be determined at initial recognition with no subsequent reclassification allowed.
- One statement of financial performance will be required, with subtotals presented for net income and OCI. However, only earnings per share for net income will be required.

Breaking News!

Recently completed projects (updated July 2009)

- [Amendments to IFRS 5 Non-current Assets Held for Sale and Discontinued Operations Annual Improvements](#)
- [Common Control Transactions](#)
- [Conceptual Framework Consolidation](#)
- [Credit Risk in Liability Measurement](#)
- [Derecognition](#)
- [Earnings per Share](#)
- [Emissions Trading Schemes](#)
- [Extractive Activities](#)
- [Embedded Derivatives \(amendments to IFRIC 9 and IAS 39\)](#)
- [Fair Value Measurement](#)
- [Financial Instruments](#)
- [Financial Instruments: Replacement of IAS 39](#)
- [Financial Instruments: Impairment of Financial Assets](#)
- [Financial Statement Presentation](#)

IASB Work Plan - projected timetable as at 1 August 2009

The timetable (also available to [download in PDF](#)) shows the current best estimate of document publication dates. The effective date of amendments and new standards is usually 6-18 months after publication date, although in setting an effective date the Board considers all relevant factors. In appropriate circumstances, early adoption of new standards will be allowed.

The work plan anticipates the completion of several projects in 2010 and 2011. The Board will consider staggering effective dates of standards to help entities that apply IFRSs undertake an orderly transition to any new requirements.

The Board undertakes this work using its established due process, including consultation with interested parties. The timetable for completion is subject to change depending on input received throughout a project's development.

To see recently completed projects, [click here](#) (updated July 2009).

Financial Crisis related projects

	<i>Estimated publication date</i>							MoU [Note 1]	Joint [Note 2]
	2009 Q3	2009 Q4	2010 Q1	2010 Q2	2010 H2	2011 H1	2011 H2 +		
Classification of rights issues	ED	IFRS							

									MOU [Note 1]	Joint [Note 2]
Financial Instruments: Impairment of Financial Assets										
Financial Statement Presentation										
Government Grants										
Income Taxes										
Insurance Contracts										
Intangible Assets										
Joint Ventures										
Leases										
Management Commentary										
Liabilities										
Post-employment Benefits (including Pensions)										
Rate-regulated activities										
Related Party Disclosures (IAS 24)										
Revenue Recognition										
Classification of rights issues		ED	IFRS							
Consolidation			IFRS						✓	✓
Credit risk in liability measurement [DP, comments due by 1 September 2009]										
Derecognition						IFRS			✓	✓
Fair value measurement guidance [ED, comments due by 28 September 2009]			RT		IFRS				✓	
Financial instruments (IAS 39 replacement)										
Classification and measurement [ED, comments due by 14 September 2009]			IFRS						✓	✓
Impairment			ED		IFRS				✓	✓
Hedging			ED		IFRS				✓	✓

What Areas in Accounting Does Fair Value Affect?

Significant Challenge Accountants, Whether as an Auditors or Preparer, Face with Fair Value



How Do Know the Value?

- Yahoo?
- Wall Street Journal?
- Realtor.com?
- Carsoup.com?
- A model?



Simple discounting of 10 years of cash flows at 3% growth rate and 10% discount rate:

Growth rate	3.00%	
Discount rate	10.00%	
Year	Annual CF	PV of Cash Flow
1	\$1,000,000	\$1,000,000
2	1,030,000	936,364
3	1,060,900	876,777
4	1,092,727	820,982
5	1,125,509	768,738
6	1,159,274	719,818
7	1,194,052	674,011
8	1,229,874	631,120
9	1,266,770	590,958
10	1,304,773	553,351
Total PV of 10 Years Cash Flows	\$7,572,118	

Vary the assumptions a little.....

Growth rate	Discount rate	Value
3%	10%	\$7,572,000
5%	10%	8,184,000
15%	10%	12,315,000
3%	12%	7,060,000
3%	7%	8,475,000
10%	12%	9,233,000

What happens to the value?

Credit Default Swaps



Definition:

- This is a contract that provides insurance against the risk of a default by particular company.

Pricing Theory:

- While several valuation theories exist, the most intuitive is that the value of the CDS is the present value of the cost that a buyer of the CDS incurs so as to protect themselves against a default event occurring on the underlying.
 - Key variables: (1) forward price of the bond (i.e., what are the expected cash flows of the underlying bond between the valuation date of the CDS and the expiry of the swap); (2) probability of no credit event during the life of the CDS; (3) probability of default; (4) recovery rate if the bond defaults; (5) zero rate curve for discounting – generally swap rate or UST rate.

Inputs to Credit Default Swaps pricing model

Let us define the following:

T : Maturity of the credit default swap;

$q(t)$: Risk neutral default probability density at time t ;

R^* : Expected recovery rate on the reference obligation in a risk-neutral world;

$u(t)$: Present value of payments at the rate of \$1 per year on payment dates between time zero and time t ;

$e(t)$: Present value of accrual payment at time t equal to $t - t^*$ where t^* is the payment date immediately preceding time t ;

$v(t)$: Present value of \$1 received at time t with certainty;

ω : Total payments per year made by credit default swap buyer;

s : Value of ω that causes the credit default swap to have a value of zero;

Inputs to Credit Default Swaps pricing model

- π** : The risk neutral probability of no credit event during the life of the swap;
- $A(t)$** : Accrued interest on the reference obligation at time t as a percent of face value.
- B_j** : Price of j th bond today;
- G_j** : Price of the j th bond today if there were no probability of default;
- $F_j(t)$** : Forward price of the j th for a forward contract maturing at time t assuming that the bond is default-free ($t < t_j$);
- $C_j(t)$** : Claim made by holders of the j th bond if there is default at time t ($t < t_j$);
- $R_j(t)$** : Recovery rate for holders of the j th bond in the event of a default at time t ($t < t_j$);
- α_{ij}** : Present value of the loss, relative to the value the bond would have if there were no possibility of default on the j th bond at time t_i ;
- p_i** : The risk-neutral probability of default at time t_i .

Valuation Model for Credit Default Swaps

$$V_{CDS-spread} = \frac{\int_0^T [1 - R^* - A(t)R^*]q(t)v(t)dt}{\int_0^T q(t)[u(t) + e(t)]dt + \pi u(T)}$$

Valuation Model for Credit Default Swaps

where,

$$q(t) = h(t)e^{-\int_0^t h(\tau) d\tau}$$

$$\pi = 1 - \int_0^T q(t) dt$$

$$\alpha_{ij} = v(t_i) [F_j(t_i) - R_j(t_i) C_j(t_i)]$$

$$p_j = \frac{G_j - B_j - \sum_{i=1}^j p_i \alpha_{ij}}{\alpha_{jj}}$$

MARK TO MARKET.....FANTASY OR REALITY?