



Accounting Red Flags and the Financial Headlines

**CGA-Caribbean
Barbados**

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Important Note

- This seminar and materials are provided for informational purposes. The subject matter is complex and must be tailored to individual situations. Though the seminar and materials have been prepared with care, errors or mistakes may have inadvertently occurred. If expert assistance is required, the services of a competent professional should be sought.
- Examples and illustrations used in this seminar are randomly selected for interest. The inclusion of information does not suggest the existence of management impropriety or fraud.



Why Red Flags?

Global climate

- move towards “fair value” approach
- increasing “mark-to-market”
- post-scandal harsher regulatory environment

Not a level playing field

- management can misreport more easily than you can detect it
- affects all stakeholders: shareholders, governments, employees, public, etc.



Why Red Flags?

- The “information problem”
 - what’s really going on in the business?
 - owners/lenders removed from operations
- Purpose of reporting
 - adequate information for shareholders and lenders
 - meet regulatory or statutory requirements



Challenges

- Our focus is on item, **not** its accounting treatment
 - accounting depends on regulatory/reporting rules
- Not all red flags are “black and white”
 - some are shades of grey – depends on intent
- *“Before people break the rules, they bend the rules”*
 - David Trainer, New Constructs (independent research and analytical firm)



Accounting and Reporting

- Motivation for manipulation
 - manage financial results
 - increase revenues, profits, assets
 - reduce losses, expenses, or liabilities
 - shift profits/losses into/out of current period
 - obtain financing/credit/issue securities
 - meet market/analyst expectations
 - maintain reputation/brand



Accounting and Reporting

- Management motivation
 - maintain job, expectations
 - compensation, perks, or performance bonus
 - may include gains from stock options
 - management has significant discretion



Accounting and Reporting

- Broad types of issues
 - fictitious transactions
 - manipulating timing, amounts, estimates
 - hiding transactions
 - complex transactions



Accounting and Reporting

- Financial shenanigans*
 - recording revenue too soon or of questionable quality
 - recording bogus revenue
 - boosting income with one-time gains
 - shifting current period expenses to a later period
 - failing to record or improperly reducing liabilities
 - shifting current revenue to a later period
 - shift future expenses to current period as special charge
- *Howard Schilit, Center for Financial Research and Analysis, Financial Shenanigans



Revenues

- Recognition before shipment/delivery
 - license fees (e.g., software), subscriptions
 - leases
 - membership dues
- despite customer's right to return/cancel
- without a signed sales contract
- before all services have been provided
- from customers who cannot/will not pay
 - credit extended but buyer not creditworthy



Revenues

- Recognizing revenues inappropriately
 - intercompany transactions - no economic benefit
 - recording loans as sales
 - extending credit terms (e.g., past 1 year)
 - rebates or supplier returns booked as revenues
 - holding back revenues pre-merger, releasing post-merger



Revenues

- *“massive, systematic, accounting irregularities that permeated the company”**
 - real estate development rights “sold” for \$7.4 million (related party transaction)
...but buyer had right to cancel it (put option)
 - auditor (Deloitte) insisted could not be booked as revenue – allegedly fraudulent letter then produced “canceling” put option
 - company bankrupt a year later



Revenues

- Recognizing other gains as operating revenues
 - sale of assets with low book value
 - sale to subsidiary - no economic change
 - sale-and-leaseback transaction
 - sale of assets previously written off
 - reclassifying investments
 - recording investment gains as revenue



Revenues

- Reported revenues
 - real profits should eventually show up in cash
 - compare change in sales revenues to change in accounts receivable
 - accounts receivable should eventually become cash (or write-offs)



Management Estimates

- Manipulating estimates to shift expenses
 - discretion over useful life for depreciation, amortization, depletion
 - definition of impaired asset
 - compare with industry peers or previous estimates



Expenses

- Inappropriate capitalization of expenses
 - capitalization used for expenses with enduring benefit (e.g., longer than one year)
 - expense ends up on balance sheet as asset
 - lower expenses => higher earnings per share
 - higher assets => lower return on assets

Liabilities

- Liability issues
 - assumptions may change amount
 - calculations associated with pension liabilities
 - volatility estimates in pricing derivatives
 - contingent liabilities hidden in footnotes
 - difficulty estimating amounts
 - may not be substantially certain

10. OTHER LONG-TERM LIABILITIES

	2006	2005
Aeroplan miles obligations (a)	\$ 105	\$ 80
Unfavourable contract liability on aircraft leases (b)	77	107
Aircraft rent in excess of lease payments (c)	121	126
Long-term employee liabilities (d)	54	86
Workplace safety and insurance board liability	45	53
Other	70	44
	\$ 472	\$ 496

(a) Air Canada has a liability related to Aeroplan Miles which were issued by Air Canada prior to January 1, 2002. Refer to Note 20 for a description of the Special charge for Aeroplan Miles which adjusted the original estimate of Aeroplan Miles. As of December 31, 2006 a liability for approximately 15 billion Miles, or \$163, remains in Air Canada, of which \$58 is included in current liabilities (total liability of 14 billion Miles, or \$169, as at December 31, 2005). The amount of the additional liability was determined by valuing the incremental Miles at the current fair value.

Source: Air Canada annual report 2006



Reserves

Reserves

- unearned revenues - liability associated with revenues
- e.g., reserve for doubtful accounts or loan losses
 - expected to increase with accounts receivable
 - declining reserves while receivables increasing warning sign
 - no reserves could also signal problem
- can be used for income smoothing
 - add to reserves when profits good, reduce reserves when things go badly
 - inflate profit/reduce losses



Write-Downs

- Writedown/writeoff of inventory/assets
 - aggressive write-down of inventory increases future profits (little or no cost of future sales)
 - write-down in a profitable year
 - shift profits to a future period



Special Charges

- New CEO, new management team
 - average tenure US approximately 5 years*
 - need to “clean up mess” left by predecessor
- Move future expenses into current period
 - take along with “big bath”
 - future periods look more profitable
 - new CEO and management team “perform”
- *Burson-Marsteller (see www.CEOgo.com)



Liquidity

- Liquidity provides the means to:
 - meet short-term liabilities
 - take advantage of asset sales or opportunities
 - provide an essential margin of safety
 - want to avoid renegotiating credit at worst possible time
- Red flags?
 - rapid decline in liquidity
 - violation of debt covenants/minimum lender ratios
 - unexpectedly renegotiation credit agreements
 - downgrade in credit quality
 - inability to roll over commercial paper



Liquidity

- Receivables growth – potential worsening of market environment
 - creditors slowing payments – may be industry-wide or company-specific
 - compare changes in cash flow to changes in accounts receivable
 - compare changes in accounts receivable to changes in sales



Eye on the Cash

- Keep an eye on the cash
 - statement of cash flows
 - particularly cash flows from operations
 - profits should eventually show up in cash



Eye on the Cash

- Example: Kidder Peabody
 - government bond trader Joe Jett
 - earned \$350 million in trading profits
 - received huge personal compensation
 - records manipulated to show profits
 - showed fictitious profits
 - profits never showed up in cash
 - firm eventually sold at bargain price



Share Repurchases

- Why do companies repurchase shares?
 - improve EPS (39%)
 - distribute cash to shareholders (28%)
 - reduce cost and dilutive results of stock options (21%)
 - adjust capital structure (12%)
- Prices rise on earnings – at P/E ratio 10:1...
 - investors will pay \$10 for stock earning \$1
 - but...will pay \$20 for stock earning \$2

Source: CFA Institute, presentation by Jay Taparia, CFA



Share Repurchases

How to increase earnings per share:

1. Increase company earnings
2. Reducing number of shares outstanding
 - share repurchases are handy – *and* company may not need to pay out dividends

Q: Which one is easier for management?



Share Repurchases

"If Fred Futile, CEO of Stagnant Inc., receives a bundle of these (options) -- let's say enough to give him an option on 1 percent of the company -- his self-interest is clear: He should skip dividends entirely and instead use all of the company's earnings to repurchase stock."

"Imagine that Stagnant has 100 million shares outstanding, trading at \$100 each, or \$10 billion in all. Stagnant earns \$1 billion a year for 10 years. Instead of paying dividends, Fred uses all the earnings to repurchase shares. The repurchases would reduce the shares outstanding to 38.7 million. Even though the annual earnings stayed flat at \$1 billion a year, earnings per share would rise from \$10 to \$25.80 because of the buyback. If the shares continue trading at 10 times earnings, the share price would rise to \$258 from \$100.

Simply by withholding earnings from owners, Fred gets very rich, making a cool \$158 million, despite the business itself improving not at all."

Warren Buffett, chairman Berkshire Hathaway (annual letter to shareholders)



Complex Transactions

- Business combinations
- Derivatives
- Off-balance sheet structures
- Must understand transactions to interpret reporting
 - there is an increase in complex transactions
 - intent - hedging versus non-hedging
 - highly customized derivatives



Complex Transactions

- Technology firm
 - put options sold to shareholders in exchange for option premium
 - company obligated to buy shares at strike price \$62 (stock \$70 and rising)
 - by 2002, shares were trading under \$20
 - cost shareholders \$225 million
 - share price subsequently collapsed to \$10 (and shareholders hit again)



Complex Transactions

- Enron Corp.
 - Powers Report (Special Investigative Committee of Board) identified:
 - investment partnerships
 - economic (real) versus accounting hedges
 - non-consolidated special purpose entities
 - lack of disclosure
 - apparent fraudulent payments



Complex Transactions

- October 16, 2001 announced \$544 million after-tax charge against earnings
 - transactions with LJM2 Co-Investment L.P.
- Restated 1997-2001 earnings
 - accounting errors related to other partnerships boosted earnings by up to \$1 billion 2000-2001
 - restatement earnings down, huge loss of shareholders' equity, massive increases in debt
 - revelation that CFO received partnership payouts
 - Enron filed for bankruptcy about one month later

Powers Report: Report of the Special Investigation Committee on Enron

Insider Trades

- Why is management selling their shares?
 - high-flying technology company, flamboyant CEO
 - sold 2,431,200 shares (\$8.10-9.00) for \$20 million
 - weeks later Q3 earnings warning, \$32 million loss
 - stock fell to \$7.05 and eventually even lower
 - regulators claimed insider knowledge of pending loss
 - 2003 CEO paid \$575,000 to settle insider trading charges*
- Watch for insider trades
 - System for Electronic Disclosure by Insiders (SEDI)
 - EDGAR

*Source: Corel Corporation, CBC News, various reports

Insider Trades

Insider's Relationship to Issuer: 4 - Director of Issuer

Security designation: Common Shares

979053	2007-06-31	2007-06-05	Direct Ownership:	11 - Acquisition or disposition carried out privately	+300	0.3650	356,800
994814	2007-06-20	2007-06-27	Direct Ownership:	10 - Acquisition or disposition in the public market	+2,500	0.3600	359,300
1026063	2007-08-16	2007-08-17	Direct Ownership:	51 - Exercise of options	+450,000	0.1000	809,300
1026067	2007-08-16	2007-08-17	Direct Ownership:	11 - Acquisition or disposition carried out privately	+200,000	0.1000	1,009,300

Security designation: Options (Common Shares)

Source: Greenfield Financial Group, Management Information Circular, April 26, 2007, on SEDAR.com



Shareholder Equality

- Dual/multiple share structures
 - prevalent in some countries
 - hierarchical classes - shareholders not treated equally
 - reduced or no voting rights under normal circumstances
 - effectively prevents large numbers of shareholders from voting on key matters
- *ABC company Class B shares have the right to vote, with one vote for every 30 shares.*



Shareholder Equality

- Impact of shareholder structure
 - watch for subordinated or non-voting shares
 - vote proxies, not necessarily with management
 - understand control pyramids function
 - *445327 Ontario Ltd. (Stronach family trust):
 - Control = 56.35% of Magna Inc.
 - Ownership = 0.98% of Magna Inc.
- Don't support unfair share structures
- *Balance of Power, by Najah Attig (2005 Barclays Award Winner), published 2005



Related Party Transactions

- Company sells shares; 1 warrant with share
 - right to buy at current market price for 2 years – warrant market value \$2 to \$4 (at-the-money)
 - direct private placement – no other participants
 - biggest buyer is CEO (\$50 million)
 - at-the-money warrants given away
- Read the footnotes
 - direct sale to management/board
 - purchases of goods/services from companies owned by management
 - transactions with company directors or related companies



Compensation

- 1990s trend to “pay for performance”
 - trend away from earnings to stock price focus
 - compensation often heavily equity-based
 - inherent conflict between shareholders and management

Compensation

- Management compensation typically includes:
 - salary and benefits/management perks
 - stock options
 - bonuses
- Compensation for average (US) CEO to average worker (ratio)
 - 41:1 in 1980
 - 411:1 in 2001 (e.g., Steve Jobs, Apple US\$646.60 million)*
- Greater SEC disclosure regulations for executive and director compensation

*Special Report CEO Compensation, May 2007, Forbes

Compensation

Name and Principal Position	Annual Compensation				Long-Term Compensation			All Other Compensation (\$)
	Year	Salary (\$)	Bonus (\$)	Other Annual Compensation (\$)	Awards		Payouts	
					Securities Under Options/SARs Granted (#)	Restricted Shares or Restricted Share Units (\$)	LTIP Payouts (\$)	
W. Robert Blades President, Chief Executive Officer ⁽¹⁾	2006	\$200,000	\$50,000	Nil	100,000	Nil	Nil	Nil
	2005	\$150,000	\$50,000	Nil	50,000	Nil	Nil	Nil
Gerald V. Greve ⁽²⁾ Chief Financial Officer	2006	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2005	Nil	Nil	Nil	100,000	Nil	Nil	Nil
H. Brock Bundy ⁽³⁾ Chief Executive Officer (former)	2006	\$187,500	Nil	Nil	Nil	Nil	Nil	Nil
	2005	\$163,333	Nil	Nil	100,000	Nil	Nil	Nil

Source: Greenfield Financial Group, Management Information Circular, April 26, 2007, on SEDAR.com



Compensation

- Repricing of stock options to management
- *Management recommends that shareholders vote with management on proposed share option plan to “reprice share options”*
- Implications
 - management’s interest no longer aligned with shareholders
 - management gets another run at it
 - unlucky shareholders don’t get another run at it



Compensation

- No performance? No problem.
 - enter the “evergreen” plan
- Example: Company in oil and gas sector
 - 2005 stock price fell 54%, 2006 down 20%
 - CEO pay package \$4.5 million + stock options (\$20 million in past three years)



Compensation

So, company proposed new stock option plan...

- double stock options to 22 million (from 10 million)

...with “evergreen” plan

- as company issues more shares, options automatically increase
- most retail investors won’t bother to vote, let alone protest
- dilution of existing shareholders’ wealth assured

Pay for performance - who is getting performance?



Compensation

- Large corporate donations in personal name
 - Tyco donated \$5 million for business school (Kozlowski Hall)
- “Hacienda watch”
 - US (Florida, Texas, and others) provide some protection against bankruptcy - rules are changing
 - watch for management major purchases in esoteric locations, registrations
- Major personal perks
 - homes/personal expenditures (spouse’s birthday party)
 - company aircraft to shuttle family on vacation?



Compensation

- Executive use of company-owned aircraft
 - GE vice-chair Robert C. Wright uses one for travelling to Palm Beach vacation home
 - BofA chair emeritus Charles Gifford travels between homes in Boston, Nantucket, Key Largo
 - IBM's Louis Gerstner Jr. has use of company jet for 10 years after stepping down in 2002
- *"You can fool around with my stock options, but don't fool around with my airplane."*



Compensation

- *"Personal use of corporate aircraft is almost always inappropriate. We pay them enough so that if they need to use private aircraft, let them charter it."*
- *Charles M. Elson, Director, Weinberg Center for Corporate Governance, University of Delaware*



Compensation

- Louis Gerstner Jr., former CEO of IBM
 - earned \$127 million 2001 (options \$115 million)
 - CEO for 9 years, stepped down 2002
 - 2003 “golden handshake” (10 years):
 - \$2 million/year (\$7692/day) salary, plus...
 - use of company aircraft, cars, office, apartment
 - financial planning, home security services, club expenses

“Ex-IBM chief gets hefty pay”, Poughkeepsie Journal (Gannett News Service), March 12, 2002



Other Red Flags

- People, people, people!
 - who is involved in organization?
 - convictions within management/board
 - previous accounting/financial “irregularities”
 - CFO/auditor fired/resigns from account
 - company suing a whistleblower
 - rumors within industry/declining reputation



Other Red Flags

- Formal or informal investigation
 - regulators/authorities making “informal inquiries”
 - investigation of accounting practices
 - SEC involvement
- Others
 - unusual death or disappearance (Bre-X)
 - rating agency refuses to rate issues
 - buying sports teams/arena naming rights
 - what else are they spending money on?



Useful Tools

- Credit rating agencies
 - Standard & Poors (standardandpoors.com)
 - Moody’s (moodys.com)
 - Fitch Ratings (fitchratings.com)
 - Dominion Bond Rating Service (dbrs.com)
- Rate corporate, government, sovereign issuers
 - paid by issuers



Useful Tools

- Alfred Rappaport's red flags*:
 - Ambitious business models
 - Opaque financial reports
 - Earnings expectation games
 - Price wars
 - Value-destroying mergers and acquisitions
 - Uneconomic share buybacks
 - Shareholder-unfriendly executive compensation practices
- **"To Avoid a Tumble, Look for These Red Flags", by Alfred Rappaport, Wall Street Journal, February 25, 2002.




Summary

- So...who is looking out for you?
 - company management?
 - investment dealer analysts?
 - company auditors?
 - market regulators?
 - exchange on which the stock trades, if any?
 - financial media?



Summary

- Numbers important, but only part of picture
 - people, structure, strategy also important
 - healthy skepticism
 - keep your eye on big picture
 - read the fine print!

- 
- *“In the long run, of course, trouble awaits managements that paper-over operating problems with accounting maneuvers.*
 - *Eventually, managements of this kind achieve the same result as the seriously-ill patient who tells his doctor: “I can’t afford the operation, but would you accept a small payment to touch up the X-rays?”*

- Warren Buffett, letter to shareholders 1992



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Question

Which (if any) of the following is true?

1. *We know which way a currency is going from derivatives (futures) prices*
2. *Oil has moved too far, too fast, mainly due to governments buying oil companies.*
3. *There is a credit crisis going on, and that's why everyone is using credit derivatives*
4. *Even with your funny accent, we know these are all made up.*



“We are in the midst of the most pervasive financial crisis in a generation, which has destroyed untold sums of wealth in housing and financial assets and has driven the U.S. economy into recession... The Fed is in Emergency Mode.”

Red Alert, March 17 2008, by Dr. Sherry Cooper, EVP, Chief Economist, BMO Capital Markets



- 2006-2007 US housing market worsens
 - prices falling, mortgage defaults rising
 - “subprime” Alt A (no documented income), 125% LTV ratios, adjustable rate mortgages (ARMs), etc.
- Summer 2007
 - BNP Paribas halts withdrawals in 3 funds
 - Bear Stearns shuts down 2 hedge funds

Credit Crisis

“Suddenly, one August day last year shook the world, turning an Edwardian summer of prosperity into a grim financial crisis.”

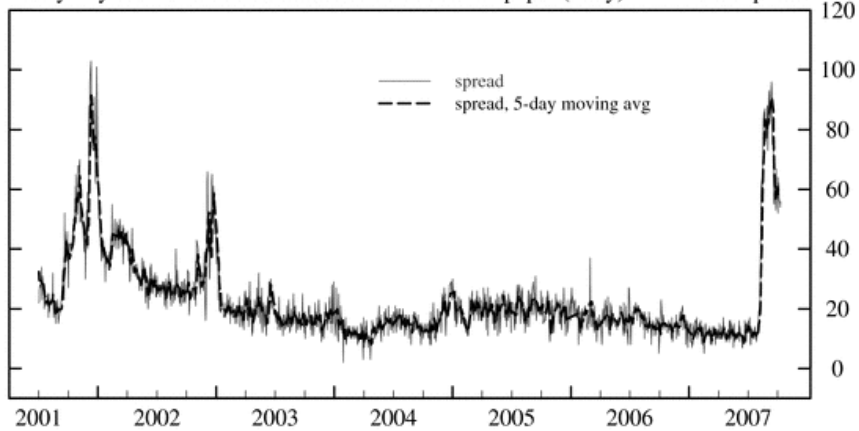
[Aug 9, ECB and US Fed inject \$90 billion into jittery markets]

Source: Credit Crisis - How it all Began, The Guardian, Tuesday August 5 2008

Sep 2007 - run on Northern Rock

Credit Crisis

Thirty-day A2/P2 less AA nonfinancial commercial paper (daily) Basis points

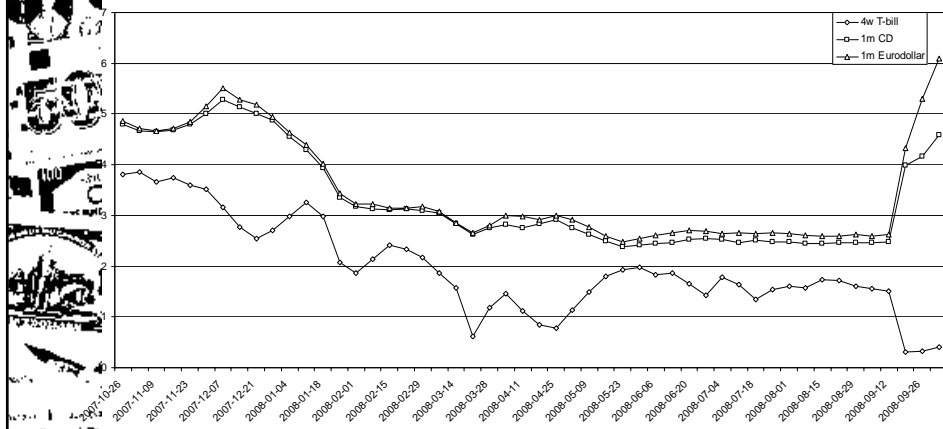


Source: Federal Reserve, October 2007

Credit Crisis

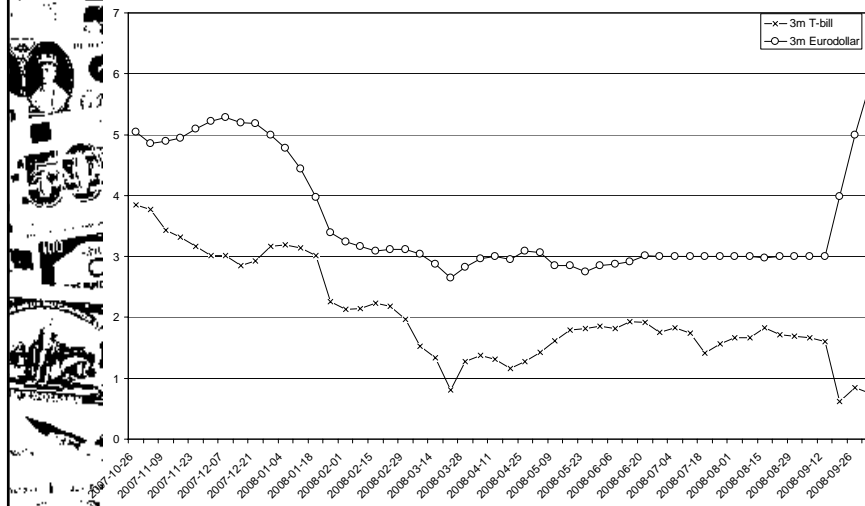
- 2008 conditions weaken dramatically
 - bank-to-bank trading not functioning properly
 - credit markets seize up
 - financial institution failures/nationalization
- Worries over systemic risk
 - credit spreads widen dramatically
 - central banks add liquidity
 - governments announce rescue packages
 - worries leak into global money markets

Money Markets



1m T-bill v CD v Eurodollars Source: Federal Reserve, Oct 10 2008

Money Markets

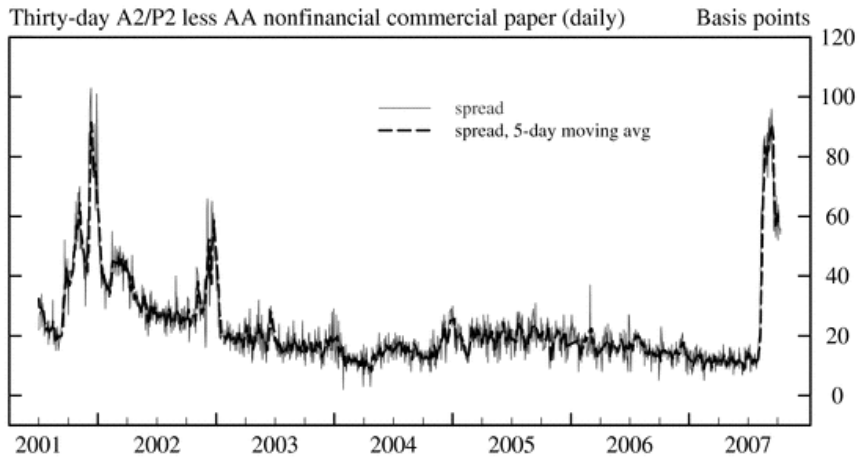


T-bill versus Eurodollars 3m (TED). Source: Federal Reserve, Oct 10 2008

Money Markets

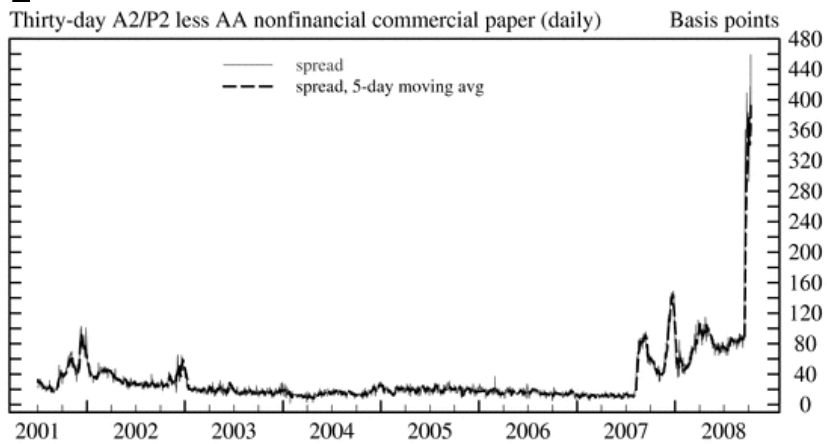
- Commercial paper
 - common financing tool for large companies
 - typically yields higher than bank yields
 - credit crisis has widened credit spreads dramatically
 - high quality (AA) versus low quality (A2/P2)
 - spread reflects liquidity and market's assessment of default

Money Markets



Source: Federal Reserve, October 2007

Money Markets

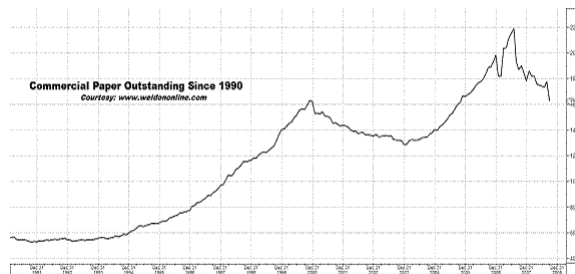


Source: Federal Reserve, Oct 10 2008



Money Markets

- CP market under serious strain
 - affects credit availability across economy
 - issuers rolling daily, if at all



Money Markets

- Oct 7 US Federal Reserve announces special-purpose CP facility
 - to prevent “substantial disruptions”
 - Treasury will deposit funds at New York Fed to support facility
 - purchase of 3-month unsecured and asset-backed CP directly from eligible issuers



Money Markets

- London Interbank Offered Rate
 - Eurodollar cash rate
 - widely referenced benchmark
 - 11am UK time, 10 currencies, several maturities, contributed by banks
 - calculation by Reuters for BBA, overseen by independent Foreign Exchange and Money Market Committee



Money Markets

- Liquidity/credit premiums up significantly since August 2007
 - funding liquidity risk
 - lender unable to raise funds as needed
 - counterparty risk
 - borrower not able to repay as agreed
 - credit previously priced cheaply
 - dramatic increases in overnight LIBOR



Money Markets

- Supply/demand imbalance in FX swap/cash markets environment
 - no cost-free arbitrage between FX swap (forward) and cash transactions
 - interbank access USD limited
 - reluctance to lend term USD
 - even less likely to swap USD for arbitrage



Money Markets

- Not only a New York/London problem... Iceland
 - all three major banks in receivership
 - significant debt loads
 - run on deposits by European, UK holders
 - deposit insurance may not be adequate
 - country dramatically impacted by crisis
 - foreign currency limited to essentials (food, medicines, oil)
 - pensions may have to be restructured



Hedge Funds

- What are hedge funds?
 - privately managed pools of capital
 - opportunistic pursuit of profits
 - name represents structure, not strategy!

 - institutional and HNW private investors
 - estimated 10,000 funds, US\$1.75 trillion under management
 - top 100 funds manage US\$1 trillion



Hedge Funds

- Strategies vary widely
 - debt, equity, commodities, currencies
 - derivatives
 - short and/or long
 - leverage
- Variety of embedded risks
 - differs from “long-only” portfolio
 - should not be confused with “hedged”

Hedge Funds

“Experienced investors know, or should know, that in any given year some hedge funds lose money for their investors and some funds go out of business. Those occurrences are only normal and to be expected in a competitive market economy.”

Ben Bernanke, Federal Reserve Bank of Atlanta’s Financial Markets Conference, May 16, 2006

Hedge Funds



- Bear Stearns Asset Management
 - High Grade Structured Credit Strategies Fund
 - 2004 - 41 months positive returns 1-1.5%/month
 - possible pressure for higher returns
 - High Grade Structured Credit Strategies Enhanced Leverage Fund
 - Aug 2006 (\$600 million, mostly high net worth clients, and \$6 billion+ borrowed)
 - Bear Stearns and executives invested \$40 million (both funds)

Hedge Funds

- Bear Stearns
 - Jun 2007 injects \$3.2 billion into 2 funds
 - bought out several US bank lenders
 - share price closed down \$2.06 (to \$143.75)
 - July funds permanently closed with massive losses (see letter to investors)

Dear Client of Bear, Stearns & Co. Inc.

Let me take this opportunity to provide you with an update on the status of the High-Grade Structured Credit Strategies and High-Grade Structured Credit Strategies Enhanced Leveraged Funds managed by Bear Stearns Asset Management. A team at BSAM has been working diligently to calculate the 2007 month-end performance for both May and June for the Funds. This process has been much more time-consuming than in prior months due to increasingly difficult market conditions.

As you know, in early June, the Funds were faced with investor redemption requests and margin calls that they were unable to meet. The Funds sold assets in an attempt to raise liquidity, but were unable to generate sufficient cash to meet the outstanding margin obligations. As a result, counterparties moved to seize collateral or otherwise terminate financing arrangements they had with the Funds. During June, the Funds experienced significant declines in the value of their assets resulting in losses of net asset value. The Funds' reported performance, in part, reflects the unprecedented declines in the valuations of a number of highly-rated (AA and AAA) securities.

Fund managers and account executives have been informing the Funds' investors of the significant deterioration in performance for May and June. The preliminary estimates show there is effectively no value left for the investors in the Enhanced Leverage Fund and very little value left for the investors in the High-Grade Fund as of June 30, 2007. In light of these returns, we will seek an orderly wind-down of the Funds over time. This is a difficult development for investors in these Funds and it is certainly uncharacteristic of BSAM's overall strong record of performance.



Hedge Funds

- Sep 2007
 - private investor acquires 7% for \$860 million (around \$107/share)
- Mar 2008
 - rumours about liquidity at Bear Stearns
 - JP Morgan Chase provides funding backed by US Federal Reserve
 - buys entire firm \$2/ share (\$236 million)



Hedge Funds

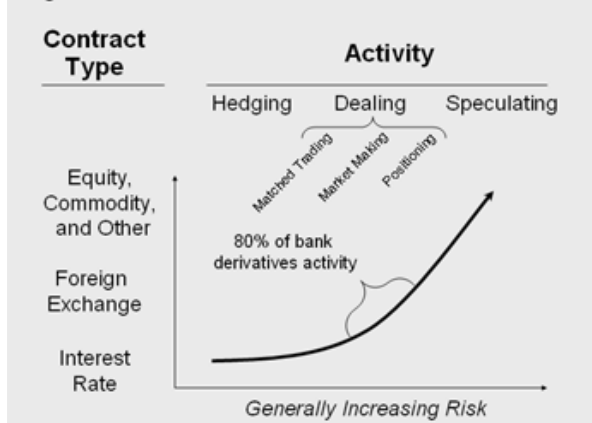
- Bear Stearns
 - two former fund managers charged with fraud by SEC Jun 2008
 - charged with misleading investors about financial state of two hedge funds and exposure to subprime mortgage-backed securities
 - US Attorney (NY) indictment on conspiracy and fraud Jun 2008

Derivatives

- “The derivatives genie is now well out of the bottle, and these instruments will almost certainly multiply in variety and number until some event makes their toxicity clear.”
- Warren Buffett, in 2002 letter to Berkshire Hathaway shareholders.

Derivatives

Diagram 1: Derivatives Risk Matrix



Source: Derivatives Risk in Commercial Banking, Federal Deposit Insurance Corporation (US)

Derivatives

- OTC derivatives outstanding (Dec 2007)
\$596,004 billion
- Exchange-traded futures (\$28,632) and
options (\$55,655), total \$84,287 billion

\$680,291,000,000,000

Risk Category / Instrument	Dec 2005	Jun 2006	Dec 2006	Jun 2007	Dec 2007	Dec 2007
Total contracts	297,666	370,178	414,845	516,407	596,004	14,522
Foreign exchange contracts	31,360	38,127	40,271	48,645	56,238	Gross market value differs from notional value
Forwards and forex swaps	15,873	19,407	19,882	24,530	29,144	
Currency swaps	8,504	9,696	10,792	12,312	14,347	
Options	6,984	9,024	9,597	11,804	12,748	
Interest rate contracts	211,970	262,526	291,582	347,312	393,138	
Forward rate agreements	14,269	18,117	18,668	22,809	26,599	
Interest rate swaps	169,106	207,588	229,693	272,216	309,588	
Options	28,596	36,821	43,221	52,288	56,951	
Equity-linked contracts	5,793	6,782	7,488	8,590	8,509	
Forwards and swaps	1,177	1,430	1,767	2,470	2,233	
Options	4,617	5,351	5,720	6,119	6,276	
Commodity contracts	5,434	6,394	7,115	7,567	9,000	
Gold	334	456	640	426	595	
Other commodities	5,100	5,938	6,475	7,141	8,405	
Forwards and swaps	1,909	2,188	2,813	3,447	5,629	
Options	3,191	3,750	3,663	3,694	2,776	
Credit default swaps	13,908	20,352	28,650	42,580	57,894	
Single-name instruments	10,432	13,873	17,879	24,239	32,246	
Multi-name instruments	3,476	6,479	10,771	18,341	25,648	
Unallocated	29,199	35,997	39,740	61,713	71,225	

OTC derivatives, source: BIS Quarterly Review, table 19, Sep 2008



Credit Derivatives

- Allow institutions to exchange their credit risks
- Essential tools for management of credit risk
- high-quality data source for measurement of credit risk, heretofore not available

Good and Bad Credit Contagion: Evidence from Credit Default Swaps, Philippe Jorion and Gaiyan Zhang, Journal of Financial Economics, June 2006

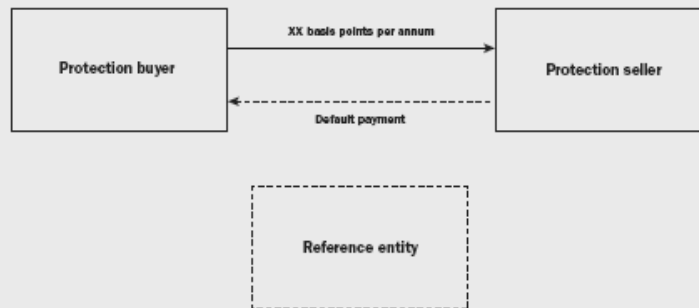


Credit Derivatives

- Credit default swaps
 - 99% of credit derivatives are CDS (OCC)
 - USD 55 trillion outstanding mid-2008 (ISDA)
 - up from USD 632 billion in mid-2001
 - down from 62 trillion end of 2007
- Others
 - credit spread swaps
 - total return swaps
 - credit-linked notes

Credit Derivatives

Credit Default Swap

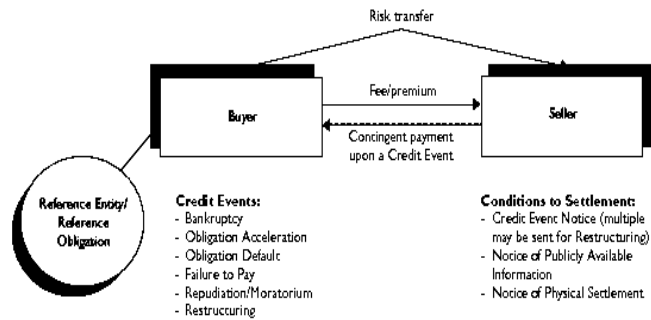


Source: Credit Derivatives: An Overview, published by Federal Reserve Bank of Atlanta 2007

Credit Derivatives

- Challenges in credit default swaps
 - prices opaque
 - market highly concentrated
 - market technicalities
 - based on recovery rates
 - complex settlement (ISDA)
 - correlation between seller and reference credit (e.g., Japan-on-Japan risk)

Credit Derivatives



Source: CIBC World Markets Corp.

Source: Euromoney Derivatives & Risk Management Handbook 2005/06

Credit Derivatives

- ISDA auctions of credit default swaps
 - cash settlement
 - volumes far greater than outstanding debt
 - “batching”
 - "risk reduction trading session" Sep 14

Credit Derivatives

- Uses for structured finance transactions
 - private-equity takeovers
 - leveraged buyouts
 - corporate stock buybacks...
- brings back around to accounting red flags





Equity Derivatives

January 1, 2008

Equity Derivatives House of the Year

With one of the largest exotic derivatives books on the Street, one would imagine this firm would be coping with losses.

"There was some impact, but the losses have been relatively minor and entirely manageable..."

Q: Who are these people talking about?



Equity Derivatives

- Société Générale loses US\$7.2 billion, January 24, 2008
 - 31-year-old Jérôme Kerviel
 - unauthorized futures positions US\$70 billion
 - world equities markets fell dramatically as bank unwound positions
 - SocGen shares temporarily suspended to prevent panic
 - largest fraud ever by single trader



Why were fraudulent activities not detected?

1. Weak supervision by direct manager
2. Lack of support for inexperienced trading manager
3. Tolerance of intraday directional positions
4. Lack of attention to numerous alerts
 - hierarchy lost sight of scale of orders
 - lacked knowledge of details of traders' activities
5. Rapid growth in division
 - middle office doubled volume in 12 months but understaffed
 - front office grew from 4 to 23 employees in 2 years
 - many new products

Source: Societe Generale, Mission Green Summary Report, 2008



Equity Derivatives

- *“By losing \$7.2 billion, Jérôme Kerviel shattered all records, but simple precautions in widespread use at other firms easily could have prevented Kerviel’s rogue trading.”*
- CFA Magazine, Trading Tactics, May-Jun 2008



Summary

“if the Wall Street crisis should remind us of anything, it is that we can’t be complacent.”

Address by Mr Ewart S Williams, Governor of the Central Bank of Trinidad and Tobago, 26 September 2008.



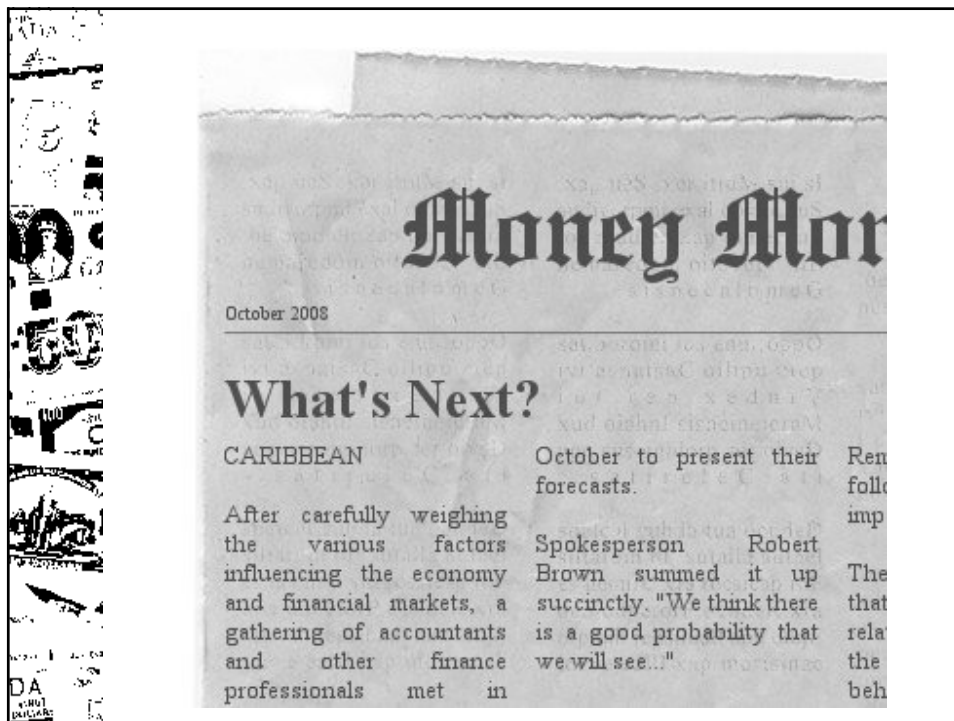
Summary

- Implications?
 - Crises unpredictable...may be early signals from disparate sources
 - ordinary relationships break down
 - systemic implications
 - Proper preparation is key
 - Don’t neglect risk management in your own organization

Summary

"I haven't the faintest idea as to whether stocks will be higher or lower a month — or a year — from now. What is likely, however, is that the market will move higher, perhaps substantially so, well before either sentiment or the economy turns up. So if you wait for the robins, spring will be over."

Warren Buffett, Op-Ed Contributor, writing in the New York Times, Oct 17, 2008





Fun with Flags - Exercise

Match each note to the red flag it describes (next slide).

1. "We give credit to anyone, even customers that are not likely to pay us, and we just book it as revenue."
2. *"The firm has had challenges accessing short-term credit from its usual lenders."*
3. The new CEO has announced a "bath" that does not involve any bubbles.
4. *"These partnerships - - were used by Management to enter into transactions that it could not, or would not, do with unrelated commercial entities."*
5. How to increase earnings per share (EPS)



Fun with Flags - Exercise

- a) Write-downs
- b) Share repurchases
- c) Related party transactions (Enron)
- d) Inappropriate recognition of revenues
- e) Potential difficulties accessing liquidity



Facilitator

Karen Horcher provides management consulting and training in treasury and risk management to corporations and financial institutions.

With a background in trading, Karen's recent projects include mitigating portfolio risk, streamlining financial processes, and supporting management and directors. She has also provided expert testimony in cases involving derivatives losses. Karen is a CGA and holds a CFA designation, and she is a frequent speaker on related financial topics.

Karen is the author of several finance books including *Essentials of Financial Risk Management* and *Essentials of Managing Treasury*, both published by Wiley, as well as numerous articles.

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Resources

www.investorside.org
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www.standardandpoors.com
www.moodys.com
www.fitchratings.com
www.dbrs.com
www.riskmetrics.com
www.expectationsinvesting.com
www.occ.treas.gov
www.isda.org
www.federalreserve.gov

Books

Financial Shenanigans, Howard Schilit, 2002
Predators and Profits, Martin Howell, 2003
Business Fairy Tales, Cecil Jackson, 2006
Demon of Our Own Design, Bookstaber; Wiley 2007
Essentials of Financial Risk Management, Horcher, Wiley 2005
Inventing Money, Nicholas Dunbar; Wiley 2000
Fooled by Randomness, Nassim Taleb; Wiley 2005
Enterprise Risk Management: From Incentives to Controls, Lam, Wiley 2003

(Article) *Credit Risk Management: New Techniques* (CGA-PD.net)