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Valuation of Hard-to-Value Securities & Portfolios

PRESENTATION BY:

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Fair Value: Guideline or Way to Think?

- Definition
  - "Fair value is the price that would be received to sell an asset or transfer a liability in an orderly transaction between market participants at the measurement date."
- Issues to note
  - As Anne Coady of Castle Hill noted yesterday, you will never really know the value until you actually sell
    - Unfortunately, we can't wait; we need to report a value NOW
  - <u>Exit</u> price and entry price may differ (purchase price may differ from "fair value" under FAS 157)
  - Relevant benchmark is the "market participant," which may differ from the actual buyer
  - "Orderly transaction" differs from "fire sale"
    - May be relevant today for many debt and equity securities (i.e., not just ARS, MBS)
    - "Intrinsic" value versus market value in times of stress/flux
  - Measurement date is the time driver

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Valuation Approaches

- Three general approaches – market, income and cost
- If data is reliable, market approach best indication of value
- However, often reliable guideline prices are unavailable, in which case the income approach is quite useful
  - – Projections must be assessed for reasonableness
  - – Projections should not include any entity-specific synergies or other assumptions not applicable to a market participant
  - –Typically benchmarking analyses are performed to test reasonableness of projected profit margins, revenue growth, working capital and capital expenditure assumptions, etc.
  - –Adjustments can either be made to projections or discount rate to reflect risk inherent in the projections
  - –Extreme caution needs to be applied in either case. For example, discount rate adjustments can be quite arbitrary, and publicly available data might not necessarily apply in a particular case if companies are not similar enough
- Generally the cost approach is not appropriate for the valuation of equity, debt, or derivative securities

Worldwide Bailouts & Ramifications

- The Winners: “the strong, the big, the established, the domestic and the safe – the folks who, relatively speaking, don’t need the money.”
- The Losers: “ the new, the small, the foreign and the risky – emerging markets, entrepreneurs and small businesses not politically connected.” [David Smick, Thomas Friedman]
- See opportunity for private investors to pick up companies at attractive prices in new markets
- For Private Equity investors: you get measured on IRR, which is highly sensitive to the time that you hold an investment; so every extra year means the investee must drive EBITDA forward
  - –This is especially important when the “exit door” is barred

Post-Money Value versus Fair Value

Value is $13.9mm, not $23.8mm (i.e., $355/CSE x 67,000 shares)

CORPORATE SECURITY VALUATION MODEL
LIQUIDATION/ACQUISITION/SALE/MERGER SCENARIO
BASED ON DISCOUNTED CASHFLOW VALUE
AS OF MARCH 31, 2008

SUMMARY OF VALUES

Security	Value ($MM) Liquidation Preference	Value ($MM) Conversion Feature	Value ($MM) Total	Shares Outstanding (MM)	Fair Market Value Per Share Liquidation Preference	Fair Market Value Per Share Conversion Feature	Fair Market Value Per Share **Total**
Series C-1	$5.74	$2.18	**$7.9253**	0.0223	$257.17	$97.89	**$355.06**
Series C-1 Warrants	$0.15	$0.11	**$0.2626**	0.0012	$128.45	$97.89	**$226.34**
Series B	$1.23	$1.55	**$2.7768**	0.0158	$77.54	$97.89	**$175.42**
Series B Warrants	$0.04	$0.09	**$0.1329**	0.0009	$47.17	$97.89	**$145.06**
Series A	$0.32	$0.81	**$1.1355**	0.0083	$38.59	$97.89	**$136.48**
Common Options ($0.01)	$0.00	$0.21	**$0.2139**	0.0022	$0.00	$97.89	**$97.89**
Common Options ($150)	$0.00	$0.36	**$0.3578**	0.0052	$0.00	$68.94	**$68.94**
Common Options ($500)	$0.00	$0.01	**$0.0149**	0.0004	$0.00	$36.36	**$36.36**
Common Stock	$0.00	$1.04	**$1.0406**	0.0106	$0.00	$97.89	**$97.89**
Total Firm Value	**$7.48**	**$6.38**	**$13.8603**	**0.0670**			

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Check Your Ego at the Door

- Two of three new restaurants in the US close within three years of opening
- Two of three small businesses in the US fail

"Two outta three ain't good…"

- McKinsey & Co.: 70% of acquisitions fail to earn their hurdle rate (cost of capital)
- Cambridge Associates (1981-1998): 45-50% of early stage VC investments and 35-40% of late stage VC investments return less than 1.0 times capital

GVM's for First Round Investments

- See returns for first round investments (1989 - 2006)
  - –IPO & ACQ represent returns on "successful" exits
  - –ALL represents returns on all investments (many do not successfully exit)
- Source: Andrew Metrick, Sand Hill Econometrics

Five years after initial VC round,
• 13.2% IPO
• 19.8% acquired
• 6.3% defunct
• 60.7% still private

Ten years after initial VC round,
• 23.2% IPO
• 38.0% acquired
• 14.3% defunct
• 24.6% still private

Note: :acquired" does not guarantee successful exit; "still private" after 10 years is likely problematic

Value Multiple	IPO	ACQ	ALL
< .25	1.1%	16.4%	51.9%
.25 - .5	1.3%	8.9%	6.8%
.5 - 1	3.1%	12.8%	8.0%
1 - 2	10.6%	16.0%	5.4%
2 - 3	9.9%	9.7%	4.1%
3 - 5	12.9%	9.5%	4.7%
5 - 10	25.8%	14.3%	8.6%
10 - 20	16.2%	7.3%	5.1%
20 - 50	13.9%	3.4%	3.8%
50 - 100	3.6%	1.3%	1.1%
> 100	1.7%	0.4%	0.5%
Total	100.1%	100.0%	100.0%

Drill Down to Market Data by Industry, Round

Pre-Financing Valuation is defined as the valuation of the company before the investment represented in the "Amount Invested" was made.

Financing Amounts Shown in $Millions

Round Class	Business Status	Year Closed	Quarter Closed	Premoney Valuation	Amount Invested
Early Round*	Product Development	1996	2	$1.0	$0.5
Early Round	Product Development	1997	2	$9.0	$4.0
Early Round*	Product Development	1999	1	$10.0	$7.0
Early Round	Product Development	2000	2	$11.2	$11.0
Early Round	Product in Beta Test	2000	3	$72.0	$28.0
Early Round	Product Development	2002	2	$6.5	$15.5
Early Round	Product Development	2002	3	$3.8	$5.8
Early Round	Product Development	2003	4	$6.0	$8.0
Early Round*	Product Development	2003	1	$1.5	$1.5
Early Round	Product in Beta Test	2004	3	$2.8	$2.2

Early round financings include a company's first round of financing, or its first round following a seed round of financing.

	Premoney	Amt Invested
Median	$6.3	$6.4
Mean	$12.4	$8.4

***Seed Round**

Round Class	Business Status	Year Closed	Quarter Closed	Premoney Valuation	Amount Invested
Second Round	Product Development	1998	2	$26.0	$8.0
Second Round	Shipping Stage	1999	1	$8.3	$4.5
Second Round	Product Development	2001	1	$106.4	$30.0
Second Round	Product in Beta Test	2001	3	$40.0	$45.0
Second Round	Product Development	2003	1	$47.3	$20.0
Second Round	Product Development	2003	3	$13.1	$7.1
Second Round	Shipping Stage	2005	2	$7.5	$6.0
Second Round	Profitable	2007	3	$15.0	$25.0

	Premoney	Amt Invested
Median	$20.5	$14.0
Mean	$32.9	$18.2

Industry: Telecom (specific)
Source: Dow Jones / Venture One

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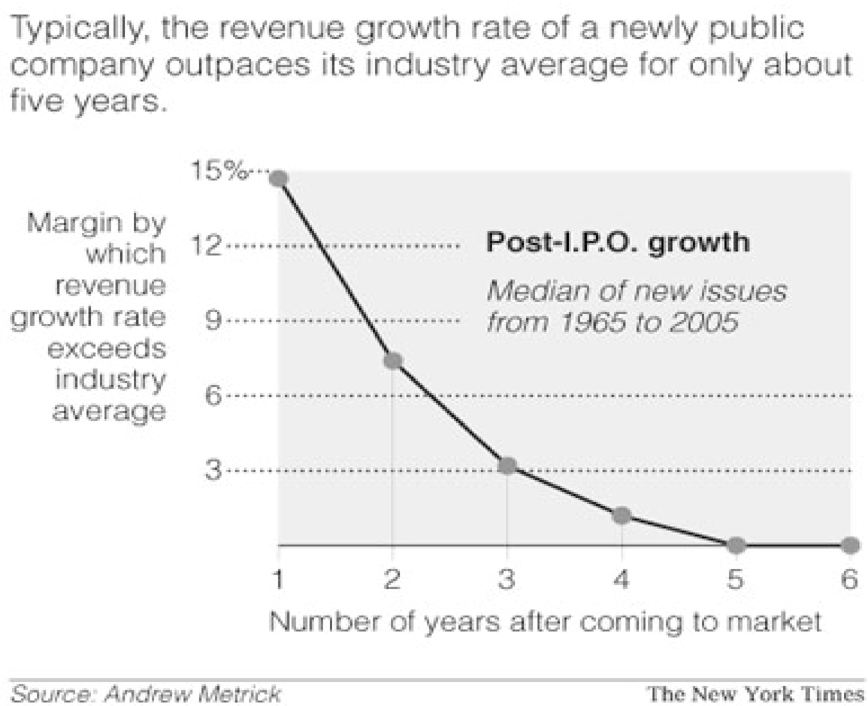
Value Changes Quickly

"My grandfather's work was doo-doo!"
- Gene Wilder, *Young Frankenstein*

Valuation & Growth

While analysts routinely assume a very long high-growth period (with substantial excess returns during this period), the evidence suggests that they are much too optimistic. A study of revenue growth at firms that exit via IPO indicates the following growth trajectory in the years after the IPO,



Technology Release Schedule (Milestones)

Release Schedule as of: 20 January 2001														
Products	**v#**	**Release Notes**	**Oct-00**	**Nov-00**	**Dec-00**	**Jan-01**	**Feb-01**	**Mar-01**	**Apr-01**	**May-01**	**Jun-01**	**Jul-01**	**Aug-01**	**Sep-01**
SupplyChain Solution Suite														
Core - Supply management base system														
	v6.0	Web-enabled version of SupplyChain Manager		Beta	GA 12/15							Retire 7/15		
	v7.0a	Web-Native version. Shipment processing, selection services, basic alerting and tracking. Not for a GA				Build	CC 2/15	Beta						
	v7.0b	Web-Native version. Deeper functionality added to v7.0a release. - validation, audit trail, auto actions, etc. Not for a GA					Build	CC 3/30	Beta					
	v7.1	Web-Native version. Complete order and shipment services, tie to SCM, visibility, reporting, alerting.							Build		Beta	GA 7/15		
	v7.2	Web-Native version. Add depth of functionality for shipment and order processing, visibility, etc.										Build		Beta
	v7.3	Web-Native version. Add in international and multiple mode capability												
Consolidator - load consolidation														
	v1.0	Consolidator Standalone version	Retired											
	v1.0	Consolidator Integrated (into Core 6.0)	GA					Retired						
	v2.0	Old Consolidator. Standalone - Inbound and Outbound modules - many to one or one to many, with DC bypass.	Beta at TCAM											
	v2.1	Old Consolidator. Integrated to Core 6.0 - IB and OB modules and build screens for standalone. Bug fixes of existing TCAM code.			Build			Beta	GA				Retired	
	v3.0	Phase 1 - Productize ASP deliverable load consolidation, combine the three consolidation products, streamline the process, tie to Consolidator v1				Prototype		Build			Beta		GA	
Optimized execution of the routing guide														
	v?	Existing SCM - only sold in conjunction with Core 6.0. No standalones	GA									Retire 7/15		
	v?+1	Revised solution, considers capacity constraints and dynamic performance factors.							Build		Beta	GA 7/15		
Consolidator II - Exceptions management for surge/distressed routing														
	Beta	Surge 1.5 - Specific 'distressed routing' tendering and selection.		Beta 10/9										
	v1.0	Productize and combine with tendering built on the Core architecture, uses architecture of Core 7.0. Integrate to Core 6.0. TL & IM ONLY.	Build CC 12/15			Beta 1/15	GA 2/15							

Empire Corporate Overview

- One of the largest independent valuation consulting firms in the U.S.
- Valuation professionals all MBAs; many have other designations (e.g., CFA, ASA, CPA, etc.)
- Extensive financial reporting valuation background and strong experience with private equity and hedge funds
- Empire has provided valuation services on behalf of all of the Big Four accounting firms, as well as many regional and local firms worldwide
- Valuation services
  - Financial reporting: Fair value vs. Carry value (FAS 157, 159)
  - Purchase Price Allocations (FAS 141, IFRS 3)
  - Fairness opinions
  - Grants of Carried & LP interests for estate planning purposes
  - ESOP's
  - Option grants
- Standard timing typically within four weeks for hedge fund / private equity work; however tighter deadlines can be accommodated

Empire Corporate Overview

- **Sample Fund Clients**:

  DB Zwirn & Co., LP

  Baupost Group

  JP Morgan Exchange Funds and Option Fund

  Lazard Freres

  Reservoir Capital

  Roswell Capital

  Wells Fargo / Foothill Capital

  Stairway Capital

  Granite Capital

  Family Offices with public & private holdings in the US, Israel & Europe

Empire Corporate Overview

- Empire has strong experience in a wide variety of industries, including:
  - –Software (300+ valuations)
  - –Life sciences and medical devices (100+ valuations)
  - –Telecommunications & Internet (300+ valuations)
  - –Manufacturing (500+ valuations)
  - –Retail (300+ valuations)
  - –Food & Beverage (500+ valuations)
  - –Print & Publishing (600+ valuations)
  - –Engineering, environmental consulting and clean-tech companies (200+ valuations)
- In February 2008, Empire co-chaired the first annual Fair Value Summit in NYC (www.fairvaluesummit.com), with participants from the Big Four, FASB and the SEC.

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Fair Value Appendix: Levels of Inputs

- Definition
  - "Fair value is the price that would be received to sell an asset or transfer a liability in an orderly transaction between market participants at the measurement date."
- Priorities: Level 1 > Level 2 > Level 3
  - Level One
    - Perfect comparable
    - Quoted price for identical security (asset/liability) in an **active** market
  - Level Two
    - Imperfect market data
    - Quoted prices for "similar" securities, or quoted prices for identical security in an inactive market
  - Level Three
    - Unobservable data
    - Reflects the reporting entity's own assumptions about the assumptions that market participants would use
    - Adjustable if better data available [without undue cost and effort]

Active Market

- Definition: "Market in which transactions occur with sufficient frequency and volume to provide pricing information on an ongoing basis."
- Can consider the following in determining if market is active
  - Trading Activity (Frequency, Volume, How Recent, etc.)
  - Market Exchange (e.g., NYSE vs. Pink Sheets)
  - Spread between bid and ask (narrower spread more likely to be active)
  - Frequently traded security on major exchange most likely to be active

Active Market (cont.)

- One way to think about also is to review the definition of inactive markets:

  "Markets in which there are <u>few transactions</u> for the asset or liability, the <u>prices are not current</u>, or price <u>quotations vary substantially</u> either over time or among market makers (for example, some brokered markets), or in which <u>little information is released publicly</u> (for example, a principal-to-principal market)"

  Source: SFAS 157, paragraph 28, subsection b.

Pricing Services/Broker Quotes

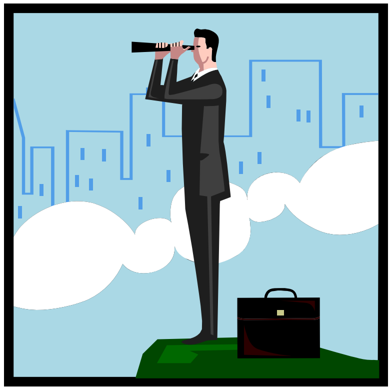
- Broker quotes can be a useful source of information
- However, management has a responsibility to understand the source and nature of the quotes and assess the reasonableness of those quotes
- Can consider corroboration through inputs/prices of similar securities, income approach analysis, etc.
- Unless price based on actual transactions with significant trading volume, would not be Level 1 estimates.

Mid-market Estimates

- May be considered per SFAS 157
- Most likely to be applicable for Level 1 valuations
- Alternatively could use bid price for long positions (assets) and ask price for short positions (liabilities)
- <u>Key is to have consistent policy and sound reasoning if policy is changed</u>

Subsequent Events

- Events that occur after a principal market closes should be considered if on or before the measurement date
  - – Any adjustments made, though, may lower the Level of the valuation
  - – A subsequent event after the measurement date must be known or reasonably anticipated at valuation date
- Typically events unforeseeable at the measurement date are not to be considered



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Difficult to Value Instruments (not Traded)

- For non-exchange traded securities, can look for pricing/inputs for similar securities (market approach) and consider an income approach
- An income approach could involve assessing the credit quality/nonperformance risk of the company/security and using a discounted cash flow analysis…
- …or estimating interest rate volatility and performing a binomial/lattice model analysis
- Credit quality assessment can be “top level” or involve a more detailed analysis of key metrics
- Streamlined models can be created to do this work

Restrictions – Hedge/Private Equity Funds

- If the comparable investments are used as a benchmark, it could be reasonable to assume that no additional discounts for restrictions would be applied
  - –The reason for this is that the previous investors would have considered such restrictions when making their investments
  - –However, the transactions have to fit the market participant/exit price concept (can not be related party or forced/distressed sales)
  - –Also need to consider how recent the transactions were in assessing if appropriate
- SFAS 157 allows for the consideration of restrictions and, therefore, to apply discounts to NAV, but the following might be reasons <u>not</u> to discount:
  - –Previous transactions have <u>not</u> been at a discount to NAV
  - –A put or withdrawal option at NAV exists
  - –The restriction is related to the security holder, not the security itself

Secondary Markets – Private Equity

- Secondary markets for similar interests could classify as a Level 2 input/adjustment (if observable) and should be considered in determining if a discount to NAV is appropriate
- However, factors on the previous page need to be considered as to whether a discount is applicable on a case-by-case basis