

Value and Valuation: Making Sense of Long-Term Incentive Data

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Presentation Outline

- This is Important if...
- Statement of the Problem
- History of LTI Valuation
- Accounting Fair Value
- Survey Values
- Proxy Statement Values
- Proxy Advisory Firm Values
- Re-Emerging Methodologies
- Emerging Effects on Value
- Your Next Steps



This is Important if...

- You reference survey data and/or proxy data in your compensation analyses, **and**
- Your compensation market data includes LTI data, **and**
- Your company grants LTI to the positions you are analyzing, **or**
- Your company does not grant LTI to the positions you are analyzing, **or**
- A proxy adviser or institutional shareholder has questioned your executive or equity compensation program (in the say-on-pay process), **or**
- Your CEO is the subject of unfavorable headlines for being “overpaid”



Statement of the Problem

- Long-term incentive compensation represents a small to significant portion of total compensation depending on
 - Position
 - Industry
 - Location
 - Form of organization
 - Company pay philosophy
- Unlike cash compensation, LTI values are subject to a wide variety of conflicting methodologies



Statement of the Problem

- Accountants and the SEC have a unified approach to LTI valuation
 - These are increasingly being challenged as “pay value”
- Corporate compensation practitioners use LTI market data represented in a wide range of value
 - Data is often combined/averaged like base salary and total cash compensation data
 - Various forms of LTI are, in turn, combined into dollar-denominated values
- Corporate governance advocates assess LTI value as an element of their analyses
 - Each has its their valuation method



Survey Valuation Methodologies

Survey Firm	Method of Calculating Pay Value of Equity Compensation			
	Stock Options	Restricted Stock/Units	Performance Shares	Cash LTI
Firm A	Black-Scholes value Proprietary calculation	100% of FMV	Fair value	Excluded
Firm B	Black-Scholes value individual company value	100% of FMV	100% of FMV at target	Excluded
Firm C	1-Black-scholes 2-Binomial 3-NPV *Growth = 10% *Discount rate = 4.5% *Period = 5	100% of FMV	100% of FMV at target	Excluded
Firm D	NPV=45% of FMV *Growth = 10% *Discount rate = 6% *Period = 5	NPV=75% of FMV *Growth = 0% Discount rate = 6% Period = 5	Target less a discount: 2-year period = 85% 3-year period = 80% 4-year period = 75% 5-year period = 70%	Target less a discount: 2-year period = 85% 3-year period = 80% 4-year period = 75% 5-year period = 70%
Firm E	Risk-Adjusted PV *Growth = 12% *Discount rate = 12% *Period = 5	100% of FMV plus option value	1-Target value 2-Fair value	Included
Firm F	Risk-Adjusted PV *Growth = 12% *Discount rate = Rf *Period = 3	PV of RAPV plus option value *Growth = 12% *Discount rate = Rf *Period = 3	1-Target value	1-Target value



A Brief History of Valuation

- 1980s
 - Grant Value
 - Grant Value Multiple
- Allowed LTI-to-LTI comparisons (if all options)
- Allowed crude pay mix comparisons
- No “total compensation” calculation possible
 - Note: At that time, SEC disclosure rules did not require a total compensation figure



Grant Value

		Stock Options	Restricted Stock	Performance Shares
(a) Base Salary		\$250,000		
(b) FMV on Grant Date		\$15.00		
(c) Number of shares		12,000	12,000	
(c1) - Minimum				6,000
(c2) - Target				12,000
(c3) - Maximum				18,000
(d) Strike price		\$15.00	n/a	n/a
(e) Grant Value	(c) * (d)	\$180,000		
	(c) * (b)		\$180,000	
	(c2) * (b)			\$180,000
(f) Grant Value Multiple	(e) / (a)	0.72		



A Brief History of Valuation (continued)

■ 1990s

■ Gain Value

- Allows for comparison and addition to cash compensation
- Driven by 3 controversial assumptions
 - Growth rate
 - Discount rate
 - Time period

■ Proxy statement table

- 5% and 10% growth rate



Gain Value

	Grant Price	FMV	End Price	Value
Stock Option	\$15.00	\$15.00	\$30.17	\$11.89
Restricted Stock		\$15.00	\$30.17	\$23.64
Performance Shares		\$15.00	\$30.17	\$23.64
Assumptions				
Growth Rate	15%			
Discount Rate	5%			
Years	5			
Performance vs. Target	100%			

	Grant Price	FMV	End Price	Value
Stock Option	\$0.00	\$15.00	\$30.17	\$7.54
Restricted Stock		\$15.00	\$30.17	\$15.00
Performance Shares		\$15.00	\$30.17	\$15.00
Assumptions				
Growth Rate	15%			
Discount Rate	15%			
Years	5			
Performance vs. Target	100%			



A Brief History of Valuation (continued)

■ 1990s

- FAS123: Optional accounting fair value (footnote required) endorsing (without naming) Black-Scholes and driven by:
 - Volatility
 - Expected Life (not full term)
 - Risk-free Interest Rate
 - Dividend Yield
 - Any discount/premium from fair market value for strike price



Black-Scholes Value

$$C = Se^{-\delta t}N(d_1) - Ee^{-rt}N(d_2)$$

$$d_1 = \left[\ln(S/E) + (r - \delta + \sigma^2/2)t \right] / \sigma\sqrt{t}$$

$$d_2 = d_1 - \sigma\sqrt{t}$$



MARKET PRICE AT DATE OF GRANT
FUTURE DIVIDEND YIELD (3% = 0.03)
STRIKE PRICE
VOLATILITY
RISK-FREE RATE (8% = 0.08)
TERM (IN YEARS)

\$40.00
2.20%
\$40.00
0.450
1.75%
4.5



\$13.03

VALUE OF OPTION

\$13.03



A Brief History of Valuation (continued)

- Proxy Statement – Summary Compensation Table
 - Pre-1993: Total cash compensation, number of stock options
 - 1993: \$ value of RS and PS but # of options
 - 2004: \$ values of all forms of LTI (except cash)
 - 2007: Grant date fair value and “total comp” plus cash LTI in NEIP
 - Fair value accrued in that year for all years’ grants
 - 2010: Back to grant date fair value



A Brief History of Valuation (continued)

■ The Past Decade

■ ISS Burn Rate table

■ 1995: FAS123

- Option pricing model endorsed by FASB

■ 1997: Share Value Transfer method released

■ 2004: FAS123R

- Binomial model endorsed as preferred method

■ 2005: SAB107 adds some shortcuts

- Expected Life = $(T + V)/2$



Topic 718 Requirements

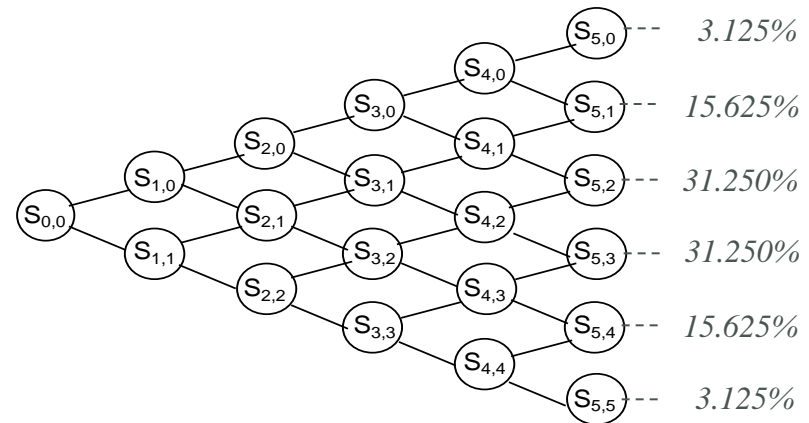
Valuation – Traditional Models

- Illustration comparing closed-form Black-Scholes model with a traditional binomial model (present value of future cash flows)

Black-Scholes

$$d_1 = \frac{\left[\ln(S / X) + \left(r - \delta + \frac{\sigma^2}{2} \right) t \right]}{\sigma \sqrt{t}} \approx$$

Traditional Binomial Model

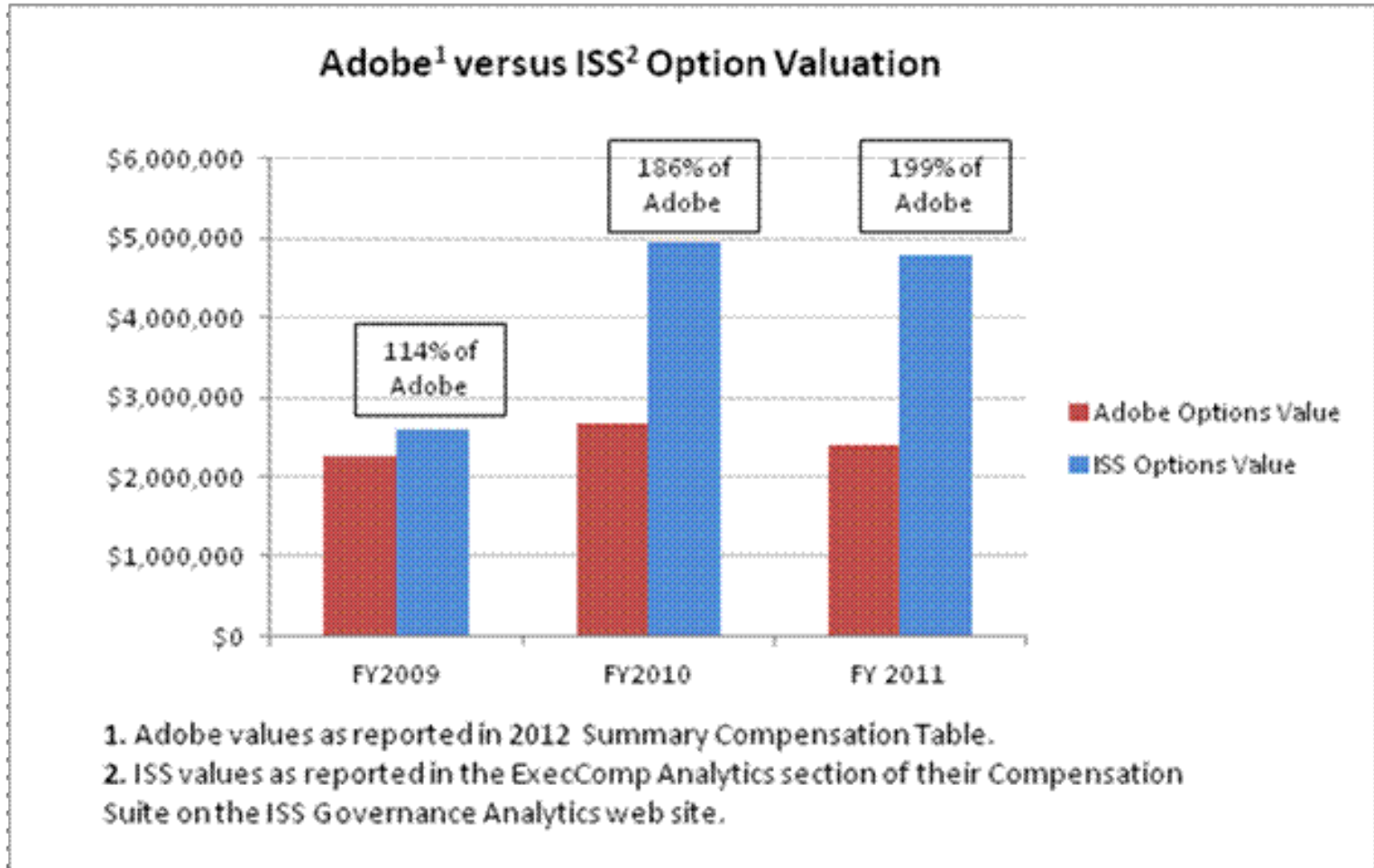


* Simplification such that there is an equal probability of downward and upward movements. This is generally not the case as the probability of upward and downward movements are governed by the volatility, the dividend yield, and the discount rate.



ISS Valuation vs. Accounting

Adobe Systems DEF14A 3/1/2012



WorldatWork's Model

- Initiated comment in 2009 with goal of a standardized valuation method to be used by all
- Cover story in April 2011 *Workspan* - great deal of interest by practitioners and several large survey firms
- At the end of 2011, several firms were attempting to implement the WorldatWork/GEO standard LTI model in their data collection systems for 2012, but they failed to meet their own deadlines
- WorldatWork anticipates that at least one or two firms will again attempt to include a standard LTI model for 2013
- Association is actively encouraging further discussion, toward a standard LTI valuation model that be in addition to (not replace) other models



Re-emerging Methodologies

- Intrinsic value
 - What the award is actually worth...but when?
- Realized value
 - What the award was worth when exercised (options), vested (RS and PS), or paid (cash LTI)
- Realizable value
 - What the award would be worth (right now) if fully paid out
 - Captures intrinsic value
 - Eliminates bias of unexercised options



Intrinsic Value: Proxy Statement Table

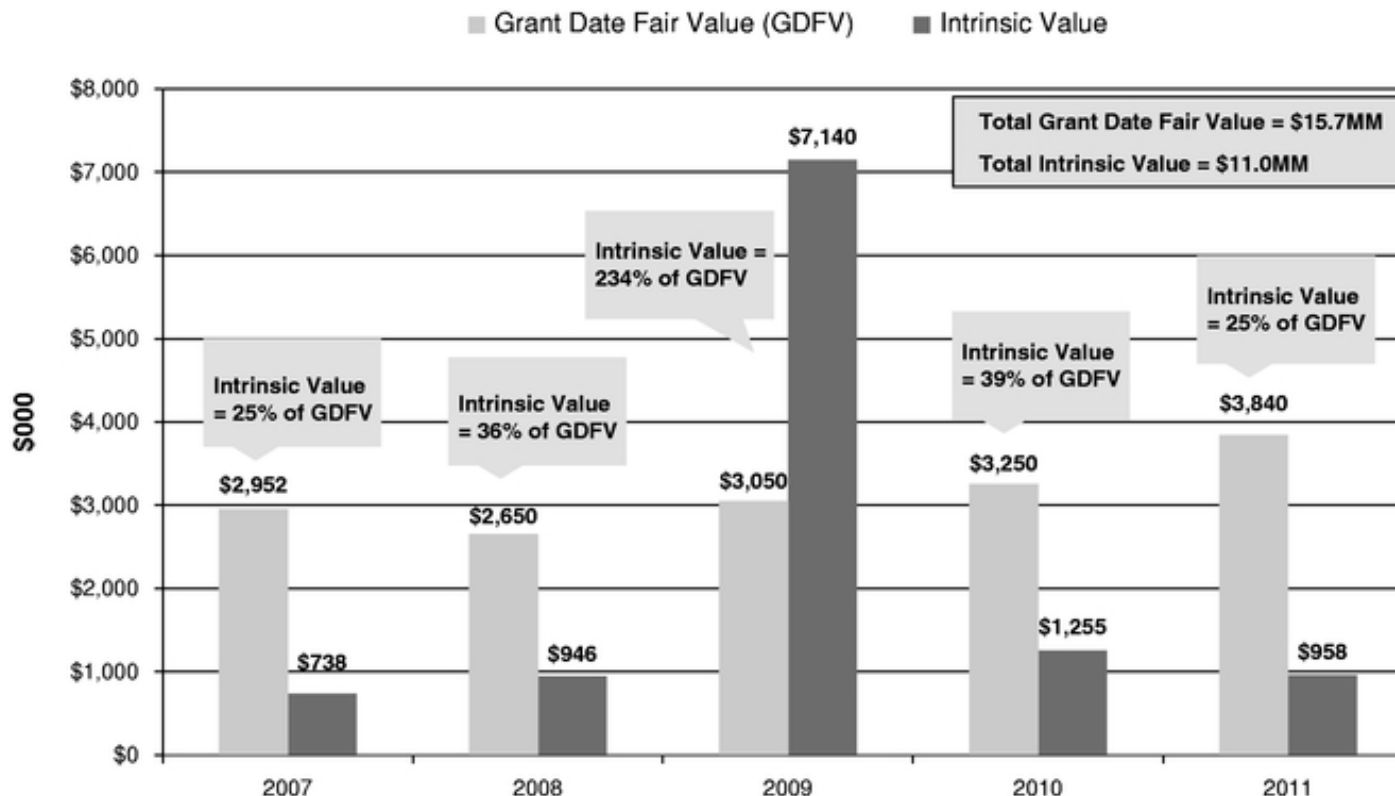
Citigroup DEF14A 3/8/2012

Equity Value Table

Name	Year	Value of Stock Awards Shown in Summary Compensation Table	Value of Option Awards Shown in Summary Compensation Table	Combined Equity Award Value at December 30, 2011	Difference between Combined Equity Value and Stock and Option Award Values in Summary Compensation Table
Vikram Pandit	2011	\$ 0	\$ 7,839,581	\$ 0	\$ (7,839,581)
	2010	\$ 0	\$ 0	\$ 0	\$ 0
	2009	\$ 0	\$ 0	\$ 0	\$ 0
John Gerspach	2011	\$ 2,333,333	\$ 2,039,836	\$ 1,278,958	\$ (3,094,211)
	2010	\$ 4,166,667	\$ 0	\$ 2,736,678	\$ (1,429,989)
	2009	\$ 4,583,333	\$ 0	\$ 3,187,875	\$ (1,395,458)
John Havens	2011	\$ 4,750,000	\$ 2,719,781	\$ 2,603,594	\$ (4,866,187)
	2010	\$ 9,000,000	\$ 0	\$ 5,911,225	\$ (3,088,775)
	2009	\$ 10,327,374	\$ 434,380	\$ 7,432,805	\$ (3,328,949)
Brian Leach	2011	\$ 5,400,000	\$ 2,039,836	\$ 2,830,159	\$ (4,609,677)
Manuel Medina- Mora	2011	\$ 3,998,939	\$ 2,719,781	\$ 2,191,918	\$ (4,526,802)
	2010	\$ 7,450,911	\$ 0	\$ 4,893,779	\$ (2,557,132)
	2009	\$ 9,328,010	\$ 361,984	\$ 6,911,154	\$ (2,778,840)

Intrinsic Value: Proxy Statement Chart

CEO Equity Grants
Grant Date Fair Value vs. Intrinsic Value as of 12/31/2011

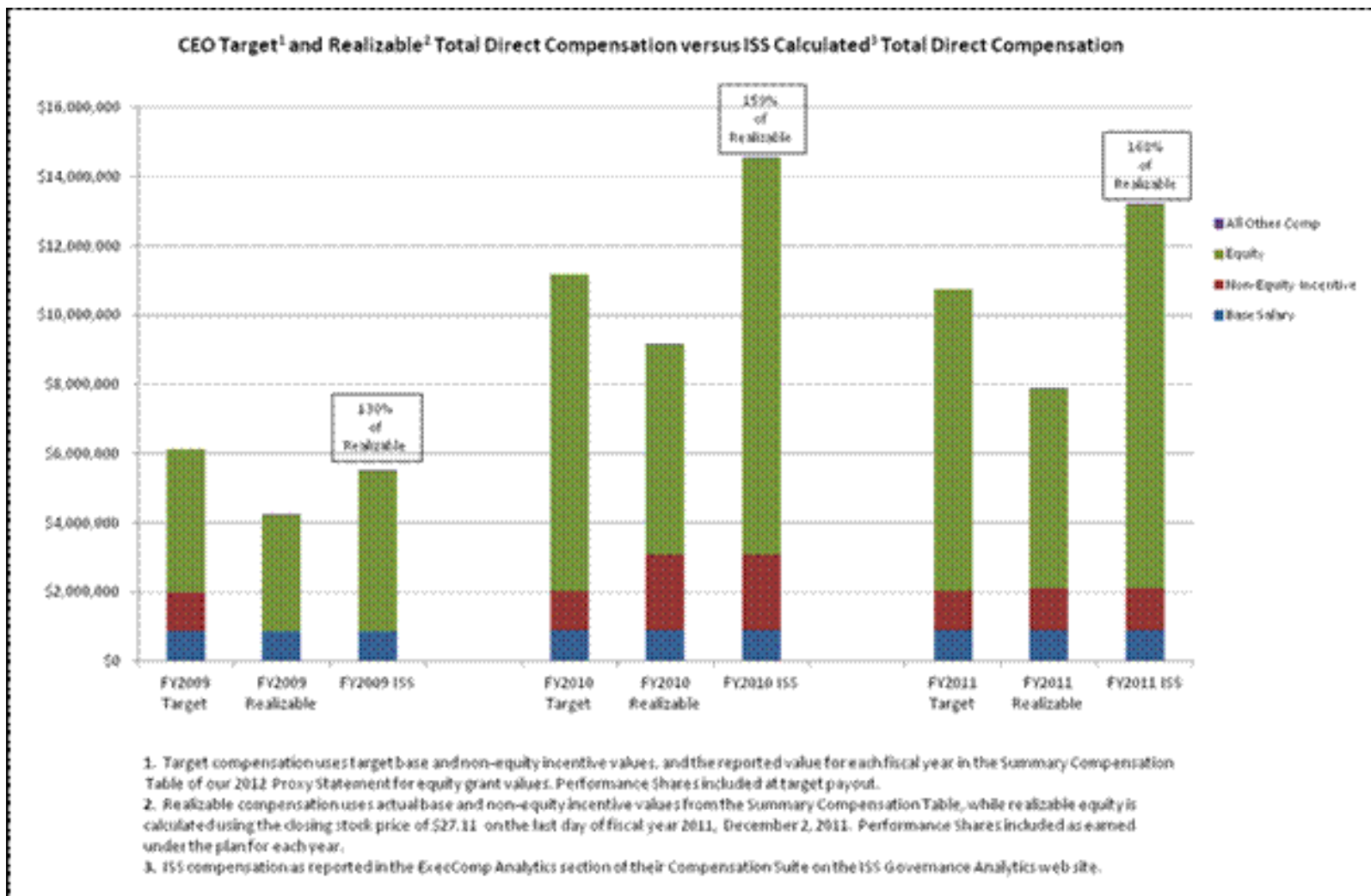


Grant Price:

Annual Award	\$74.79	\$54.88	\$23.68	\$50.17	\$60.89
Performance Options	\$72.51	\$50.39	\$34.11	\$50.88	\$53.68



Realizable Pay: Supplemental Filing



Emerging Effects on Value

- Performance features
 - Introduced in reaction to RSUs = PSUs
 - Extended to stock options
- Stock ownership guidelines
 - Introduced in early 1990s
 - Embedded in proxy advisory voting guidelines
- Clawbacks
 - Introduced in Sarbanes-Oxley
 - Enhanced in TARP
 - Extended in Dodd-Frank – awaiting SEC rules



How Do These Affect Value?

- Performance features
 - Typically viewed as a discount by participants
 - Reported at target in GPBA (with a footnote for max)
 - Often create an accounting expense greater than target
- Stock ownership guidelines
 - Typically viewed as a discount by participants
 - No models consider in LTI value
 - Often moot due to one-time RSU grants accompanying new guidelines
 - Which are often excluded from proxy and survey values!
- Clawbacks
 - Typically viewed as a discount by participants
 - Unquantifiable due to uncertain circumstances and timing



Emerging Effects – Relative TSR

- Sample fair value result based on the following:
 - 3-year performance period
 - Assumes \$20 current price, 3% risk-free rate, and no dividend yield
 - Payout based on percentile rank
- Summary of simulation results

Percentile	Frequency	Vesting Percent	Stock Price	Present Value Factor	Fair Value
Maximum	25%	150%	\$51.33	0.9151	\$17.28
Above Target	17%	124%	\$22.10	0.9151	\$4.30
Below Target	20%	73%	\$14.30	0.9151	\$1.91
Below Threshold	39%	0%	\$7.09	0.9151	\$0.00
Simulated Fair Value					\$23.49

- Note that this result is 115% of face!



Emerging Effects – Absolute TSR

- 3-year performance period; RSU vests if the stock price exceeds the Stock Price Hurdle
- Assumes \$20 current price, 3% risk-free rate, and no dividend yield

		Stock Price Hurdle			
		\$20	\$30	\$40	\$50
Volatility	30%	\$13.35 (-33%)	\$7.28 (-64%)	\$3.68 (-82%)	\$1.83 (-91%)
	40%	\$13.66 (-32%)	\$9.13 (-54%)	\$6.00 (-70%)	\$3.97 (-80%)
	50%	\$14.09 (-30%)	\$10.55 (-47%)	\$7.92 (-60%)	\$6.02 (-70%)
	60%	\$14.56 (-27%)	\$11.71 (-41%)	\$9.52 (-52%)	\$7.83 (-61%)

- But what about Market Stock Units? Those are Absolute Performance Shares
- Expect Market Stock Units to be approximately 120% of face, depending on terms



Emerging Effects – Truncated Terms and Caps

- Shorter Contractual Terms of 7 Years or less became popular in 2006

Volatility	10 Years	7 Years / Reduction
30%	33.0%	-14.0%
40%	41.4%	-13.1%
50%	49.2%	-12.4%
60%	56.5%	-11.7%
70%	63.2%	-11.0%
80%	69.2%	-10.2%

- Look for Capped Options to come next ...

Discount Achieved at Various Cap Levels				
Volatility	500%	400%	300%	200%
30%	-0.42%	-0.45%	-2.88%	-11.32%
40%	-2.01%	-3.93%	-7.44%	-21.01%
50%	-6.71%	-7.36%	-13.85%	-30.36%
60%	-10.41%	-13.20%	-21.36%	-39.41%
70%	-13.61%	-19.05%	-27.99%	-47.01%
80%	-20.34%	-25.71%	-35.51%	-53.66%



Emerging Effects - Clawbacks

- ASC Topic 718 does not allow for a reduction for claw-backs
- IFRS 2 requires a reduction in the valuation of Claw-backs
 - Companies are only going to reduce the fair value of equity for the probability of violating non-compete or non-solicit provisions, not for misconduct
- Simplistic Example: Requires assumptions about termination, the probability of competition, and the length of the non-compete provision. The example below reflects a 1-year non-compete

		Probability of Competing			
		25.00%	50.00%	75.00%	100.00%
Termination Rate	5.00%	-1.3%	-2.5%	-3.8%	-5.0%
	10.00%	-2.5%	-5.0%	-7.5%	-10.0%
	15.00%	-3.8%	-7.5%	-11.3%	-15.0%
	20.00%	-5.0%	-10.0%	-15.0%	-20.0%

- $\text{Discount} = 1 - (\text{Termination Rate}) * (\text{Probability of Competing})$
- Longer non-competes would get greater reductions in fair value



What To Do?

- Confirm your current internal methodologies
 - Stock options and SARs
 - Time-vested stock grants (e.g., RSUs)
 - Performance-vested stock grants (e.g., PSUs)
 - Multi-year Non-equity Incentive awards (e.g., Cash LTI)
- Confirm your survey and consultant methodologies
- Reverse engineer and normalize values
- Note how vastly different this new analysis is from anything you've done before!
 - Compared to proxy tables
 - Compared to consultant's analyses



Then...

- Determine your Compensation Committee consultant's methodologies
- Research your Compensation Committee members' other Board memberships, and repeat
- Educate your CEO/CFO/GC/VPHR
- Provide empirical and analytical support for your executives' trip to the Compensation Committee
- Develop a position on LTI competitiveness, and the impact on total compensation
- Manage those numbers behind-the-scenes to be instantly prepared for a say-on-pay challenge, lawsuit, stock price crash, employee whining, etc.



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