“Excessive” risk and executive incentives

Wayne Guay

Wharton
University of Pennsylvania

Columbia Business School

May 28, 2010

Is executive pay an explanation for the credit crisis?

- Sec. Geithner:
  - "This financial crisis had many significant causes, but executive compensation practices were a contributing factor."
- Alan Blinder:
  - Poor incentives are "one of [the] most fundamental causes" of the credit crisis.

- Michael Jensen:
  - "Kevin [Murphy] and I cannot find the seeds of the financial crisis in [commercial and investment bank] compensation plans."
- David Yermack:
  - "The recent scrutiny of executive pay seems to stem from an odd mix of envy and vengeance, unsupported by facts or theories."

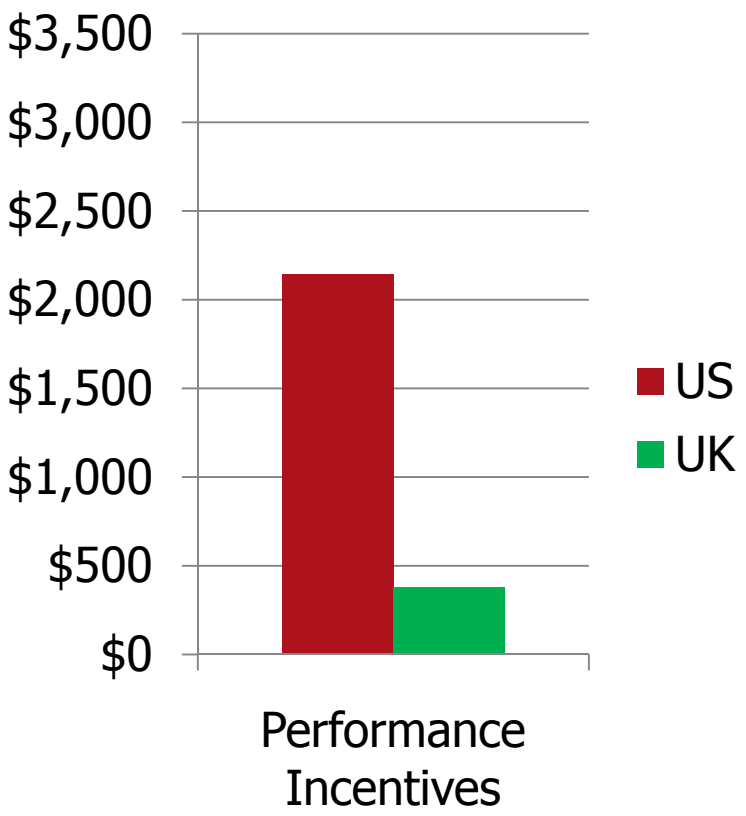
Commonly heard incentive explanations for “excessive” risk-taking

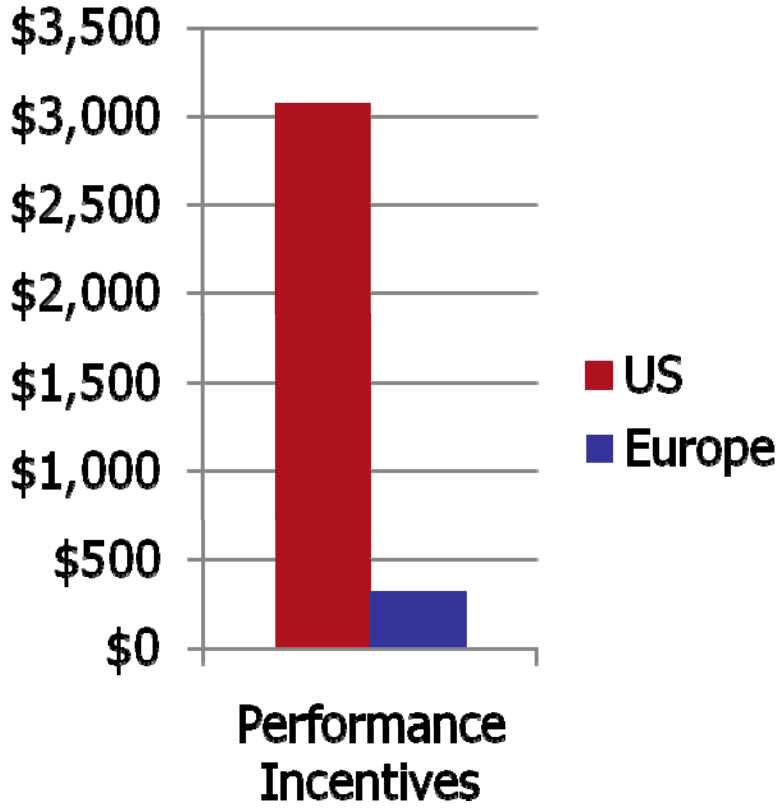
- Too little focus on shareholder performance
- Too much focus on short run rather than long run performance
- Stock options
- High leverage of banks and public “safety net”

Too little focus on shareholder performance?

- US CEOs have several times more performance incentives than CEOs in other countries
- Bank CEOs have more performance incentives than matched non-bank CEOs
- Side note: Feinberg proposals would have minimal effect on performance incentives

US vs. UK and Europe: CEO Performance Incentives

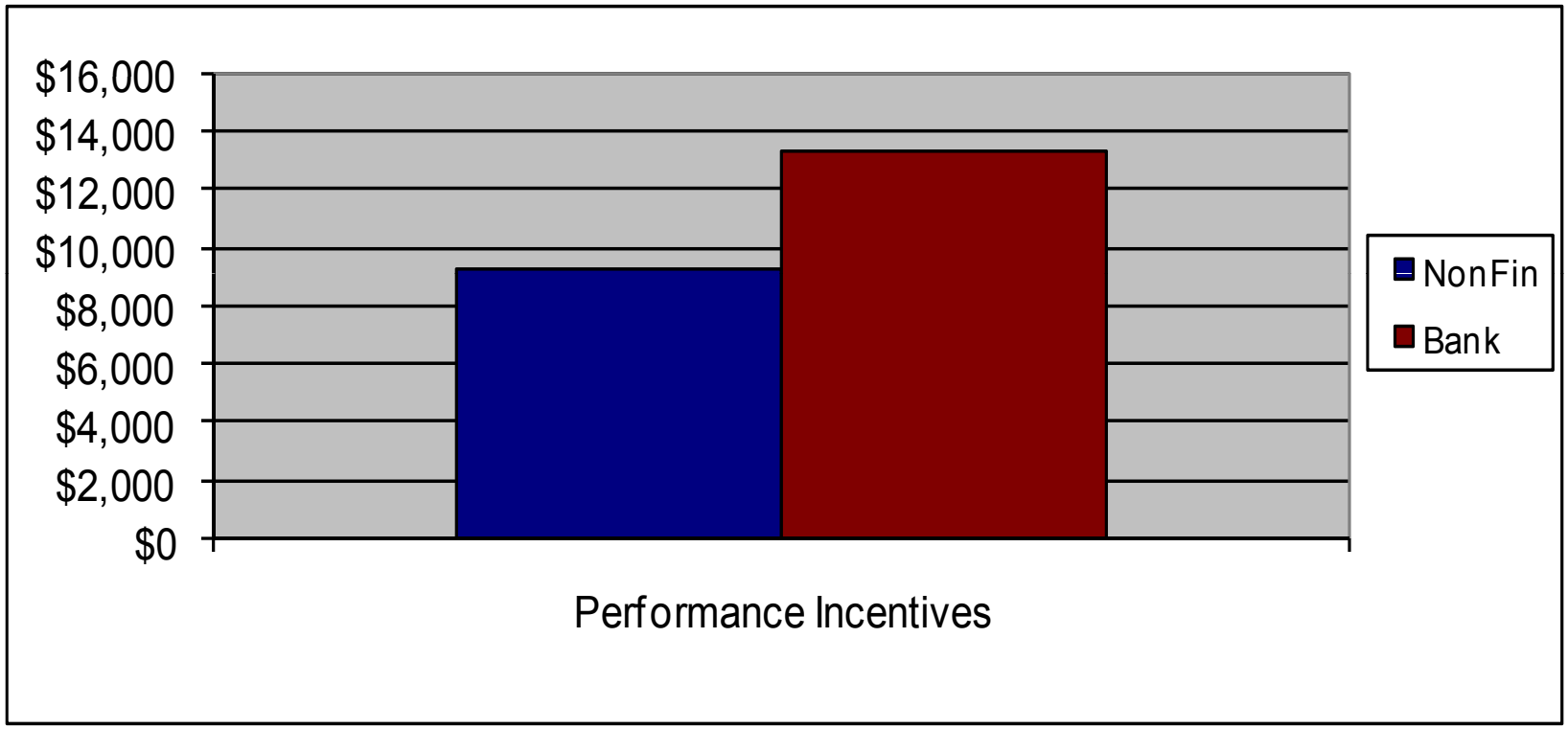




Conyon, Core and Guay (2010): 2003 data; Propensity-score matched samples

Perf. Incentives = $ change in value (stock + options) for 10% price change

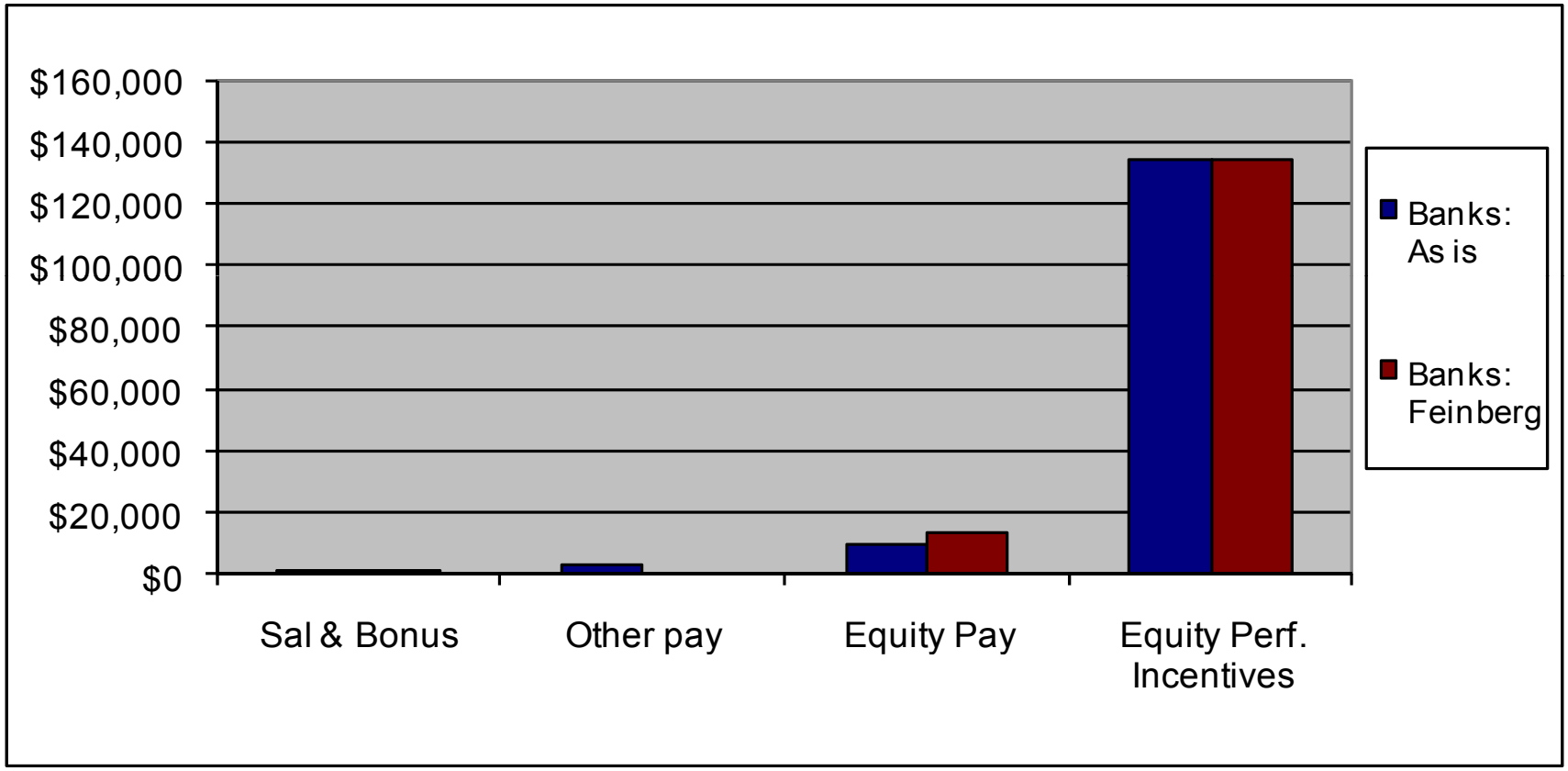
Large Banks vs. Non-Financials (2006)



Core and Guay (2010): Propensity-score matched samples

Performance Incentives = $ change in value (stock + options) for 10% price change

Feinberg adjustments would have minimal effect on CEO incentives



Pay = Salary + Bonus + Other + Equity

Incentives = $ change in value(stock + options) for 100% price change

Incentives to focus on short run?

- Allegation that CEOs have strong, but liquid, equity incentives
  - "Pump up" stock price, "dump" equity…but don't get caught
- If true, implies unresolved agency conflicts between executives and shareholders
- But, has little to do with risk-taking incentives
  - More likely would lead to earnings management, distorted disclosure, etc.
  - Recent empirical studies refute this as a pervasive phenomenon (e.g., Armstrong et al. 2009)

Further, CEO incentives increase with tenure and limited selling

Tenure in years (t) Rank	Beginning-of-Year Incentives (millions)	Grants of Incentives (millions)	Sales of Incentives (millions)	Sales of Incentives as a % of beginning incentives
All	$68.3	$6.4	($1.1)	-1.9%
1 ≤ t < 2	$39.1	$6.4	($0.4)	-1.0%
2 ≤ t < 3	$46.7	$7.7	($1.0)	-3.7%
3 ≤ t < 4	$48.6	$7.5	($0.4)	-1.0%
4 ≤ t < 5	$59.3	$6.0	($0.0)	0.0%
5 ≤ t < 6	$66.0	$7.7	($1.3)	-3.2%
6 ≤ t < 7	$74.7	$6.1	($0.8)	-2.2%
7 ≤ t < 8	$85.5	$5.9	($0.8)	-1.0%
8 ≤ t < 9	$87.9	$5.0	($1.6)	-3.8%
9 ≤ t < 10	$85.0	$7.7	($2.4)	-2.0%
10 ≤ t	$127.3	$5.0	($2.6)	-2.1%

Data: Financial services firms: 1993-2008 Adapted from Core and Guay (2010)

Risk-taking incentives from stock options?

- Fahlenbrach and Stulz (mean values)

Annual pay	Total value of equity holdings	Increase in value from 10% increase in stock price	Increase in value from increase in stock volatility of 10%
$7.8 million	$87.5 million	$11.2 million	$1.9 million

- Benefit to CEO's option holdings from increasing volatility is small relative to pay and wealth
  - Note: increase in volatility of 10% is **very large** given banks' typical annualized equity volatility ≈ 20%

Risk-taking incentives from common equity (as an option on levered firm)?

- Common equity: option on firm value with exercise price equal to face value of debt
  - Function of "moneyness", asset volatility, and maturity of debt
  - Stock risk-taking incentives typically small for all but distressed firms
- But, banks are highly levered: Doesn't this imply greater CEO risk-taking incentives? Not necessarily…
  - Majority of CEO wealth (and human capital) tied to single risky asset
  - To increase option value of common equity CEO **must** substantially increase stock volatility and greatly jeopardize survival of an otherwise healthy firm
  - To be convincing, need measures of **how much** option value can be added to common equity through risk-taking
- If financial services CEOs act on "excessive" risk-taking incentives, might expect to observe:
  - higher stock volatility than other firms (and high asset volatility)
  - Greater incidence of financial distress than other firms
  - Are these empirical descriptive?

But, in weak financial health…

- Now risk-taking becomes potentially dangerous
  - Moneyness drops, effective leverage increases, and option value of common equity increases
  - Incentives to shift wealth from creditors
  - Externalities (FDIC, taxpayers, financial system stability)
- Extra credit-rating notches for "implied gov't safety net" on debt for banks "too big to fail"

	B of A	Citigroup	Wells Fargo	Morgan Stanley	Goldman Sachs	JP Morgan
Moody's	√√√√√	√√√√	√√√√	√√	√	√√
S&P	√√√	√√√		√√√	√√	

Wall Street Journal: 5/24/10

Regulatory focus

- Transparency in CEO incentives, as well as firm leverage and financial health
- Ensure bank executives consider public interests: depositors, taxpayers, FDIC, etc.
  - Important primarily as health deteriorates
  - Shift equity incentives to a basket of securities such as debt, preferred equity, and derivatives **as bank's health deteriorates** (tied to credit ratings or spreads)
    - Variant on Bebchuk and Spamann (2010) and Bolton et al. (2010) arguments
  - Deferred compensation forfeited if bankruptcy or receives extraordinary government assistance
    - E.g., Squam Lake Working Group (2010)
    - Maybe adapt SERPs to incorporate these features

Conclusion: Where to focus?

- Executive focus on short run rather than long run drove "excessive" risk-taking
  - Does not appear empirically descriptive of CEO incentives or behavior
- Stock options drove "excessive" risk-taking
  - Does not appear to be large enough to jeopardize survival of entity
- High bank leverage and gov't safety net induced "excessive" risk-taking incentives
  - Not high leverage, per se, but possibly high leverage in conjunction with financial distress