“Excessive” risk and executive incentives

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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
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.

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

Data: Financial services firms: 1993-2008 Adapted from Core and Guay (2010)
Risk-taking incentives from stock options?

- Fahlenbrach and Stulz (mean values)

<table>
<thead>
<tr>
<th>Annual pay</th>
<th>Total value of equity holdings</th>
<th>Increase in value from 10% increase in stock price</th>
<th>Increase in value from increase in stock volatility of 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$7.8 million</td>
<td>$87.5 million</td>
<td>$11.2 million</td>
<td>$1.9 million</td>
</tr>
</tbody>
</table>

- 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 $\approx$ 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”

<table>
<thead>
<tr>
<th></th>
<th>B of A</th>
<th>Citigroup</th>
<th>Wells Fargo</th>
<th>Morgan Stanley</th>
<th>Goldman Sachs</th>
<th>J P Morgan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moody’s</td>
<td>✓✓✓✓</td>
<td>✓✓✓✓</td>
<td>✓✓✓✓</td>
<td>✓✓</td>
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<tr>
<td>S&amp;P</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
<td>✓✓✓</td>
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<td>✓✓</td>
<td>✓</td>
</tr>
</tbody>
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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