A Defense of Shareholder Favoritism

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Basic Enterprise(s)

• To question the underlying case for prohibiting and/or restricting non-pro rata patronage to block shareholders
  – E.g., discriminatory dividends; greenmail

• Basic Structure of Argument:
  – Pragmatic Component (Choi/Talley (2002)):
    • Assuming that shareholder favoritism is undesirable, is prohibition practically feasible?
  – Conceptual/Theoretical Component (Choi/Talley (this paper)):
    • Assuming that prohibiting favoritism is practically feasible, is doing so desirable from an economic perspective?
Practical Component of Argument
See Choi & Talley (2002)

- Distributions of Cash / Property
- Loans and Capital Contributions
- Interested Transactions with block SH
- Allocation of Corporate Opportunities
- Allocation of Business Activities
- Disclosure of Non-Public Information
- Deadweight Loss from Patronage
- Danger of Overinclusive Regulation
Theoretical Part of Argument: 3 Observations

1. Takeovers are relatively expensive to engineer
   - Require one to engineer a control block of shares

2. Even for smaller blocks, the cost of amassing increases (both in aggregate and on margin) in the size of block

3. The ex ante choices available to outside investors depend on whether patronage is prohibited vs permitted:
   - When prohibited, must engineer outright takeover;
   - When permitted, could still attempt takeover, but now has an alternative (and even better) strategy:
     • Build “credible” block of shares and extract patronage.
When favoritism allowed, mgr must choose b/t

(a) Accommodation

(b) Deterrence

Beëlzebub:

… Here at least
We shall be free; the Almighty hath not built
Here for his envy, will not drive us hence:
Here we may reign secure, and in my choice
To reign is worth ambition; though in Hell:
Better to reign in Hell than serve in Heaven.

2 Important Caveats to Argument

• We don’t intend our arguments to be a sweeping critique of pro rata rules
  – Rather: A critique of a sweeping pro rata rule
• Our focus is on takeover market (and regulation thereof) to provide managerial incentives. We have suppressed other mechanisms for controlling managerial misconduct:
  • Executive compensation (carrots)
  • Legal Liability for Managerial Disloyalty
  • Labor Market Relational/Reputational Concerns
  • Constraints in the Initial Charter
Intuition Behind Conceptual Thesis

Side Payments Prohibited

Block SH deterred
Block SH
Purchases control

Block SH deterred
Block SH
Purchases Toehold;
Extracts Payment

Side Payments Allowed
The Cast

M = Incumbent Manager ("she")
– Risk Neutral
– Owns Negligible Shares

B = Potential Block Shareholder ("he")
– Risk Neutral
– Initially owns no shares
– Well-capitalized

\( \tau \in [0,1] \): Continuum of shareholders, each holding infinitesimal share \( d\tau \) of the firm

(We assume \( \tau \) also denotes each SH’s marginal tax rate – will generate heterogeneity: upward-sloping supply curve)
The Sequence of Decisions

- Two Periods (more detail below)
  - Period 1:
    - M commits to a maximal level of value diversion (to herself, and from the firm), denoted as $x$
    - $B$ can make open market purchases, and perhaps wrest control from M. Any bargaining between M and B also occurs here.
  - Period 2:
    - Whoever manages firm chooses level of appropriation (subject to any constraints established in Period 1), which affects firm’s expected realized value

Assumed to be non-contractible (complexity; prohibitive cost; value of flexibility)
Some (more) Notation

Must be less than $\frac{1}{2}$ if managerial value appropriation is organizationally inefficient

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>$V$</td>
<td>Maximal value of corporation (absent any self-dealing)</td>
</tr>
<tr>
<td>$\bar{V}$</td>
<td>Realized value of corporation (more below...)</td>
</tr>
<tr>
<td>$x_i$</td>
<td>Fraction of firm value actually converted; $i \in {M, B}$</td>
</tr>
<tr>
<td>$\bar{x}$</td>
<td>Maximal expropriation level (chosen by $M$); $x_i \in [0, 1]$</td>
</tr>
<tr>
<td>$\mu$</td>
<td>$M$’s marginal benefit for each unit of $V$ converted ($\mu \leq \frac{1}{2}$)</td>
</tr>
<tr>
<td>$k$</td>
<td>$B$’s marginal benefit for each unit of $V$ converted ($k \sim U[0, 1]$)</td>
</tr>
<tr>
<td>$\delta$</td>
<td>$B$’s initial block of shares</td>
</tr>
<tr>
<td>$\gamma$</td>
<td>$B$’s final block of shares</td>
</tr>
<tr>
<td>$c$</td>
<td>Minimum fraction of outstanding shares required for control</td>
</tr>
<tr>
<td>$r$</td>
<td>Discount rate for future payoffs</td>
</tr>
<tr>
<td>$\tau$</td>
<td>Shareholder’s “type” (denoting marginal tax rate)</td>
</tr>
<tr>
<td>$d\tau$</td>
<td>Initial infinitesimal ownership share of each shareholder</td>
</tr>
</tbody>
</table>

Table I: Summary of Notation
The Cost to B of buying shares:
Existing SHs will sell shares only if price offered exceeds benefits from tax deferral

Example:
\[ r = 20\% \]
\[ E(V) = 0.3 \]

Note:
\[ \frac{E(V)}{1+r} = 0.25 \]
Side Payments Prohibited:
Extensive Form

1. (Commitment Stage) Player $M$ commits to a maximal value of expropriation $\bar{x} \leq 1$. We assume that $\bar{x}$ represents the maximal value of expropriation whether $M$ or $B$ controls the firm.

2. (Takeover Stage) Player $B$ decides how much of an ownership stake in the firm to purchase denoted by $\gamma \geq 0$. If $\gamma \geq c$, player $B$ assumes control, but otherwise player $M$ remains as manager.  

3. (Expropriation Stage) Should $M$ retain control, she selects a value of $x_M \in [0, \bar{x}]$. Should $B$ obtain control, however, he observes the realized value of $k$, and then selects his own value of $x_B \in [0, \bar{x}]$.

4. (Realization Stage) The firm realizes a value equal in expectation to $(1 - x_i) \cdot \bar{V}$, which is liquidated and distributed to existing shareholders on a pro rata basis.
Equilibrium under Prohibition:  
Always Choose Deterrence

**Proposition 1:** The unique subgame-perfect equilibrium strategies and payoffs for the game in which side payments between M and B are prohibited are as follows:

- **Commitment Stage:** Player M commits to an upper bound on expropriation at \( \pi = x_{nb} = \frac{2rc^2}{(1-c)^2(1+r-rc)+2c(1+r)} \), which is strictly increasing both in the required control threshold \( c \) and in the rate of discounting \( r \).

- **Takeover Stage:** Player B purchases no shares (i.e., \( \gamma = 0 \)), and thus M retains control.

- **Expropriation Stage:** Player M expropriates the maximal amount private benefits, setting \( x_M = x_{nb} \).

- **Realization Stage:** The total realized value of the firm is equal to \( \bar{V} \cdot (1 - x_{nb}) \).

- The expected payoffs of the parties are:

<table>
<thead>
<tr>
<th>Initial SHs</th>
<th>( \int_0^1 \bar{V} \cdot (1-x_{nb}) \cdot (1-r) \cdot \frac{1}{1+r} )</th>
<th>( \bar{V} \cdot (1-x_{nb}) \cdot (1-r) \cdot \frac{1}{1+r} )</th>
<th>( \bar{V} \cdot (1-x_{nb}) \cdot (1-r) \cdot \frac{1}{1+r} )</th>
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<tr>
<td>Player M</td>
<td>( \frac{\mu \bar{V}}{(1+r)} \cdot x_{nb} )</td>
<td>( \mu \bar{V} \cdot x_{nb} )</td>
<td>( \mu \bar{V} \cdot x_{nb} )</td>
</tr>
<tr>
<td>Player B</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Aggregate Surplus</td>
<td>( \frac{\bar{V}}{(1+r)} \cdot \left( \frac{1}{2} - x_{nb} \cdot \left( \frac{1}{2} - \mu \right) \right) )</td>
<td>( \bar{V} \cdot \left( \frac{1}{2} - x_{nb} \cdot \left( \frac{1}{2} - \mu \right) \right) )</td>
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Intuition

Key observation: M sets $x_{nb}$ such that B cannot profit from taking over the firm.

M will therefore set $x_{nb}$ so that B’s expected costs from purchasing a control block are just equal to B’s benefit from obtaining control.
$x_{nb}$ for varying values of $r$ and $c$
1. (Commitment Stage) Player $M$ decides whether to commit to a maximal $\bar{x}$, and if she so chooses, she selects some value from $[0, 1]$. We again assume that $\bar{x}$ represents the maximal value of expropriation whether $M$ or $B$ controls the firm.

2. (Toehold Stage) Player $B$ decides whether to amass a toehold in the firm, denoted by $\delta$. If $\delta \geq c$, player $B$ exercises control, and the game skips to step (5) below.

3. (Bargaining Stage) Players $M$ and $B$ bargain over a possible side payment to $B$, which would allow $M$ to retain control. We suppose that the players bargain over the available surplus according to the Nash (1950) program with respective bargaining powers $\theta$ for $M$ and $(1 - \theta)$ for $B$, where $\theta \in [0, 1]$.

4. (Takeover Stage) Should no bargain be struck in (3), player $B$ decides whether to increase his holdings in the firm to $\gamma \geq \delta$. If $\gamma \geq c$, player $B$ assumes control, and otherwise player $M$ remains as manager.

5. (Expropriation Stage) Should $M$ retain control, she selects a value of $x_M \in [0, \bar{x}]$, and pays $B$ the amount (if any) contracted for earlier. Should $B$ obtain control, however, he observes the realized value of $k$, and then selects his own value of $x_B \in [0, \bar{x}]$.

6. (Realization Stage) One period passes, and the firm realizes an expected value of $(1 - \bar{x}) \cdot \bar{V}$, which is subsequently liquidated and distributed to existing shareholders on a pro rata basis.
Equilibrium w/ Permissive Regime:

\[
x_b = \frac{2c^2r}{\left(1 + r - rc + 3rc^2 + c^2 - c^3r\right) - \mu (1 - \theta) (1 + r - rc) \left(\sqrt{\frac{2(1+c^2)(1+r)}{\mu(1-\theta)(1+r-rc)} - 1}\right)}{(1 + r - rc + 3rc^2 + c^2 - c^3r)^2 - 2\mu (1 - \theta) rc (1 + r - rc) (1 - c)^2}
\]

- Commitment Stage: If \( \theta \leq \frac{x_b}{x_{nb}} \), then Player M sets \( \bar{x} = x_b \). If \( \theta > \frac{x_b}{x_{nb}} \), then M sets \( \bar{x} = x_{nb} \).
- Toehold Stage: If \( \theta \leq \frac{x_b}{x_{nb}} \), Player M has a controlling share (i.e., \( \gamma = \delta(1-\theta) \)) and M enters the “Chicken Soup” result.
- Bargaining Stage: If \( \theta \leq \frac{x_b}{x_{nb}} \), no bargains. If \( \theta > \frac{x_b}{x_{nb}} \), M and B then reach a standard agreement under which B receives a payment of \((1-\theta) \cdot \left(\frac{\mu\bar{x}}{1+r}\right)\) to refrain from additional acquisitions.
- Takeover Stage: Player B gains 3% additional shares, and thus M retains control.
- Expropriation Stage: Player M expropriates the maximal amount private benefits, setting \( x_M = x_b \) if \( \theta \leq \frac{x_b}{x_{nb}} \) and \( x_M = x_{nb} \) if \( \theta > \frac{x_b}{x_{nb}} \).
- Realization Stage: The total realized value of the firm is equal to \( \bar{V} \cdot (1 - x_b) \) if \( \theta \leq \frac{x_b}{x_{nb}} \) and \( \bar{V} \cdot (1 - x_{nb}) \) if \( \theta > \frac{x_b}{x_{nb}} \).
$x_b$ vs. $x_{nb}$ as functions of $r$ and $c$
(a.k.a., “the bird”)
The Basic Punchline: Comparing Welfare

Favoritism Prohibited

<table>
<thead>
<tr>
<th>Initial SHs</th>
<th>$\int_0^1 \frac{V \cdot (1-x_{nb}) \cdot (1-r)}{1+r} d\tau = \frac{V}{(1+r)} \cdot (\frac{1}{2} - \frac{x_{nb}}{2})$</th>
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<td>$\frac{V}{(1+r)} \left( \frac{1}{2} - x_{nb} \left( \frac{1}{2} - \mu \right) \right)$</td>
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Favoritism Permitted

<table>
<thead>
<tr>
<th>Initial SHs</th>
<th>$\theta &lt; \frac{x_b}{x_{nb}}$</th>
<th>$\theta &gt; \frac{x_b}{x_{nb}}$</th>
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<tr>
<td>Player M</td>
<td>$\frac{V}{(1+r)} \cdot \left( \frac{1}{2} - \frac{x_b}{2} \right)$</td>
<td>$\theta \cdot \left( \frac{\mu \cdot V}{(1+r)} \right) x_{nb}$</td>
</tr>
<tr>
<td>Player B</td>
<td>0</td>
<td>$(1 - \theta) \cdot \left( \frac{\mu \cdot V}{(1+r)} \right) x_{nb}$</td>
</tr>
<tr>
<td>Aggregate Surplus</td>
<td>$\frac{V}{(1+r)} \left( \frac{1}{2} - x_b \left( \frac{1}{2} - \mu \right) \right)$</td>
<td>$\frac{V}{(1+r)} \left( \frac{1}{2} - x_{nb} \left( \frac{1}{2} - \mu \right) \right)$</td>
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“Critical” assumptions of the theoretical model:

1. The manager’s relative bargaining power against a block shareholder is not “too large”
   - (Critical for “strict” form of our thesis)

2. The marginal cost of assembling a block of shares are increasing in size of block
   - (At least not decreasing in block size).

3. Firm’s shares begin widely dispersed
   - (Deterrence argument nonsensical when firm already has significant block shareholder)

4. Managers have the capability of committing to a maximal level of appropriation
Mechanisms of Commitment

• Opting out of anti-takeover statutes:
  – E.g., Del. § 203

• Avoiding incorporation in states that give managers significant discretion.
  – Pennsylvania’s “constituency” statute
  – NY/NJ Derivative suit requirements

• Debt financing and other long-term contracts
  – Bank loans
  – Minimum working capital requirements
  – Call provisions
Thoughts for Korea

• Substitution Problem of Blocking Favoritism Across Group Companies
  – Blocking Transfers is Difficult and Costly
  – Unclear what alternative is though

• What is Optimal Today May Not Be Optimal in the Future
  – Shareholder favoritism becomes more beneficial as companies become “contestable” in market for corporate control

• Need to Ensure a Process of Future Modification