'Barbarians in Chains' -

Takeover Regulation and

Minority Shareholder Wealth

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‘Barbarians in Chains’ - Takeover Regulation and Minority Shareholder Wealth

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1 Introduction

- debate on the welfare implications of takeover regulation largely disregarded wealth effects for minority shareholders of 'barbarians'
  - **theoretical:** Bebchuk [1994]; Burkart et al. [1998]; Yarrow [1985]; Bergström et al. [1995]
  - **empirical:** Karpoff and Malatesta [1989]; Holderness and Sheehan [1988]
- unresolved welfare issues: Is it in the interest of minority shareholders to confine the company's acquisition activity, i.e., to '*lay the barbarian in chains*', e.g. through the mandatory bid rule (MBR)?
- MBR: a party that purchases more than $x\%$ of another listed company's voting equity is obliged to make an offer to the remaining target shareholders

2 Objectives

- study wealth effects of MBR for minority shareholders of acquirers from both a theoretical and empirical perspective
  - model wealth effects for minority shareholders of corporate bidders under MBR and market rule
  - analyse stock price reactions of companies after acceptance of German Takeover Code introduced in 1995.
- take account of institutional characteristics of Continental European corporate governance: individual 'barbarians'

3 Model

3.1 Assumptions

- two publicly traded companies, R and T, both controlled by an existing blockholder.
- companies have n_T and n_R shares outstanding, of which k_T and k_R shares are owned by the incumbent blockholders
- remaining $n_T - k_T$ and $n_R - k_R$ shares are dispersed among public investors
- under control of its existing owner t, value of firm T consists of its discounted future cash-flow stream, Y_t, and private benefits of control, B_t,

  $$V_t = n_T Y_t + n_T B_t$$

  of which $(n_T - k_T)Y_t$ accrue to the small shareholders and $k_T Y_t + n_T B_t$ to the controlling blockholder
- under control of new blockholder, r, firm value of T corresponds to $V_r = n_T Y_r + n_T B_r$
- bargaining game: r will make take-it-or-leave-it offer to t with probability θ, and t will make take-it-or-leave-it offer to r with probability $(1 - \theta)$

3.2 Aggregate Comparison of Wealth Effects

- divide the possible states of nature into three subsets
- transfers under MBR are a subset of circumstances in which transfers occur under MR

TABLE I

CONDITIONS FOR TRANSFERS OF CONTROL

	MBR	MR	Parameter conditions	ΔW
1	no	no	$Y_r + \frac{n_R}{k_R}\frac{n_T}{k_T}B_r < Y_t + \frac{n_T}{k_T}B_t$	0
2	no	yes	$Y_r + \frac{n_R}{k_R}B_r < Y_t + \frac{n_T}{k_T}B_t < Y_r + \frac{n_R}{k_R}\frac{n_T}{k_T}B_r$	ΔW_{TN}
3	yes	yes	$Y_r + \frac{n_R}{k_R}B_r > Y_t + \frac{n_T}{k_T}B_t$	ΔW_{TT}

Lemma 1. *If conditions are such that transfers occur both under the MBR and MR (Case 3), the differential welfare effect for minority R shareholders between MR and MBR corresponds to*

$$\Delta W_{TT} = -\theta \left[\frac{n_R - k_R}{n_R}(n_T - k_T) \left(Y_r - \max\{Y_r, Y_t + \frac{n_T}{k_T} B_t\} \right) \right].$$

Small shareholders of the bidding company are likely to incur an expected differential welfare loss under the regime of the MBR, i.e., $E(\Delta W_{TT} \mid .) \geq 0$.

- obligatory tender offer confers a call option to small shareholders of target
- wealth loss to bidder
- always more profitable for R to only acquire the block

Lemma 2. *If conditions are such that transfers occur under the MR, but not under the MBR (Case 2), the differential welfare effect between MR and MBR for the minority R shareholders corresponds to*

$$\Delta W_{TN} = \frac{n_R - k_R}{n_R} \left(\theta [k_T (Y_r - Y_t) - n_T B_t] - (1 - \theta) n_T \frac{n_R}{k_R} B_r \right).$$

Small shareholders of the bidding company will always incur an expected differential welfare loss under the regime of the MR, i.e., $E(\Delta W_{TN} \mid .) < 0$.

- small R shareholders have to finance part of r's private benefits, $n_T B_t$
- t 'exploits' the fact that r can 'exploit' minority R shareholders in financing his private benefits of control.

Proposition 1. *If B_r and B_t are distributed on $[0; \alpha_r]$ and $[0; \alpha_t]$ respectively, and if $Y_r - Y_t$ is uniformly distributed on $[-\omega_0, \omega_1]$ with ω_0 and ω_1 sufficiently large, the MBR constitutes ex ante a welfare-increasing regime for small shareholders of R.*

Proposition 2. *The controlling blockholder of a corporate acquirer suffers a welfare loss under the MBR .*

3.3 Model conclusions and hypotheses

- large blockholder of bidder has two potential sources of preserving a takeover gain

  - bidder can bargain with blockholder of target over surplus resulting from control transfer
  - costs of acquisition are partly passed on to small shareholders

  Hypothesis 1: *A controlling blockholder is reluctant to adhere to the mandatory bid rule. He is less inclined the larger his future acquisition agenda.*

- introduction of the MBR has two opposite effects on the welfare of small shareholders of the *bidder*

  - tender option can lead to welfare loss for bidder: value of the call option embedded in obligatory tender offer.
  - amount of wealth-decreasing transfers is reduced since relative importance of future cash-flows increases in overall takeover benefit ('one share-one vote' Grossman and Hart [1988])

- **under reasonable distributional assumptions about the size of control and security benefits minority shareholders profit from the MBR**

  Hypothesis 2: *Minority shareholders of potential acquirers experience a wealth increase upon the adoption of mandatory bid rule. The wealth increase is higher the more likely the company undertakes acquisitions in the future.*

4 Empirical anal sis of wealth effects

4.1 The Takeover Code in Germany

- voluntary Takeover Code came into effect in October 1995 and relies on self-regulation
  - threshold for mandatory tender offer: 50% (revised in 1997 to 30%)
  - abstain from defensive measures if subject to a public tender offer
- benefits of acceptance or, alternatively, sanction mechanisms for non-acceptance?
  - moral suasion
  - non-admission of companies to the stock market indices DAX and MDAX.
- approval of Code is subject to company's management board
- acceptance published in 'Börsenzeitung'; special symbol, $\boxed{\text{Ü}}$, next to the company's name and stock code

4.2 Estimation

The empirical study is based on a three-equation system:

1. **'Once a barbarian - always a barbarian': Characteristics of corporate acquirers**

- BID_i: continuous acquisition programs: number of acquisitions during 1985-1990
- NCR_i, CGR_i, AC_i : existing and future financing sources for acquisitions: net current assets, authorized capital, capital gearing ratio

1. **'To sign or not to sign': Determinants of compliance**

- OC_i: presence of ultimate controlling blockholder *(Hypothesis 1)*
- $X_1^{95}\beta_1{\cdot}\mathrm{OC}_i$: interaction variable of predicted acquisition activity and owner-control *(Hypothesis 1)*
- MDAX_i: membership in DAX or MDAX
- $\mathrm{BS}_{i:}$ bank representation on the supervisory board
- PAI_i : percentage of *other* companies in the industry that accepted the Code

1. **Wealth effects: Excess returns and cross-sectional return regression**

- OC_i: presence of blockholder *(Hypothesis 2)*
- $X_1^{95}\beta_1$: prospective acquisition activity *(Hypothesis 2)*
- MDAX_i, PAI_i

5 Empirical specification

$$\begin{aligned} y_1^* &= X_1^{90}\beta_1 + \varepsilon_1 \\ y_2^* &= X_2^{95}\beta_2 + \beta_3(X_1^{95}\beta_1)OC^{95} + \varepsilon_2 \\ CAR10 &= X_3^{95}\beta_4 + \beta_5(X_1^{95}\beta_1) + \varepsilon_3 \quad \text{observed only if } y_{2i} = 1 \end{aligned}$$

where

$$\begin{bmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_3 \end{bmatrix} \sim N\left(\begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}, \begin{bmatrix} 1 & \rho_{12} & 0 \\ \rho_{12} & 1 & \rho_{23}\sigma_3 \\ 0 & \rho_{23}\sigma_3 & \sigma_3^2 \end{bmatrix}\right).$$

$$\begin{aligned} y_{i,\Delta t2} &= 0 \quad \text{if } y_{i,\Delta t2}^* \leqslant 0 \\ y_{i,\Delta t2} &= 1 \quad \text{if } 0 < y_{i,\Delta t2}^* \leqslant \theta_1 \\ &\vdots \\ y_{i,\Delta t2} &= N \quad \text{if } \theta_N \leqslant y_{i,\Delta t2}^*. \end{aligned}$$

$$y_2 = 1 \text{ if } y_{2i}^* > 0 \text{ and } 0 \text{ otherwise}$$

$$\begin{aligned} X_1^{90} &= [\mathrm{BID}^{90},\ \mathrm{AC}^{90},\ \mathrm{CGR}^{90},\ \mathrm{NCR}^{90}] \\ X_1^{95} &= [\mathrm{BID}^{95},\ \mathrm{AC}^{95},\ \mathrm{CGR}^{95},\ \mathrm{NCR}^{95}]. \\ X_2^{95} &= [1,\ \mathrm{MDAX}^{95},\ \mathrm{PAI},\ \mathrm{OC}^{95},\ \mathrm{BS}^{95}], \end{aligned}$$

$$X_3^{95} = [1,\ \mathrm{PAI},\ \mathrm{MDAX}^{95},\ \mathrm{OC}^{95}]$$

6 Findings

- firms pursue continual acquisition programs
- access to present and future means of financing has significant impact on bidding activity

- owner-controlled companies are reluctant to adhere to Code
- high future takeover activity reduces likelihood of Code acceptance under owner-control
- membership in index has positive impact on acceptance
- costs of compliance lower if other firms in industry adhere to Code

- valuable inside information about net benefits of compliance
- excess returns higher
  - for owner-controlled firms and
  - for companies with high predicted takeover activity.
- percentage of Code acceptance by other firms in industry has positive effect on excess returns
- membership in indices with no significant impact on abnormal returns

7 Conclusions

- owner-controlled companies with a large number of predicted takeovers are more hesitant to accept the Code
- positive wealth effects for companies under owner-control and companies with a high predicted acquisition activity

- importance of inter-shareholder conflicts in publicly traded corporations
- stockholders in manager-controlled firms profit less from restraint in acquisition activity than stockholders in blockholder-controlled firms
- controlling blockholders are more 'barbaric' in their control pursuits than managers in companies under dispersed ownership

8 Further research

- theoretical: aggregate wealth implications of the MBR for both small shareholders of target and bidding companies
- empirical: study intra-industry effects of a firm's acceptance decision