

# **Relational Banking in post Bubble Japan: Co-existence of soft-and hard budget constraint**

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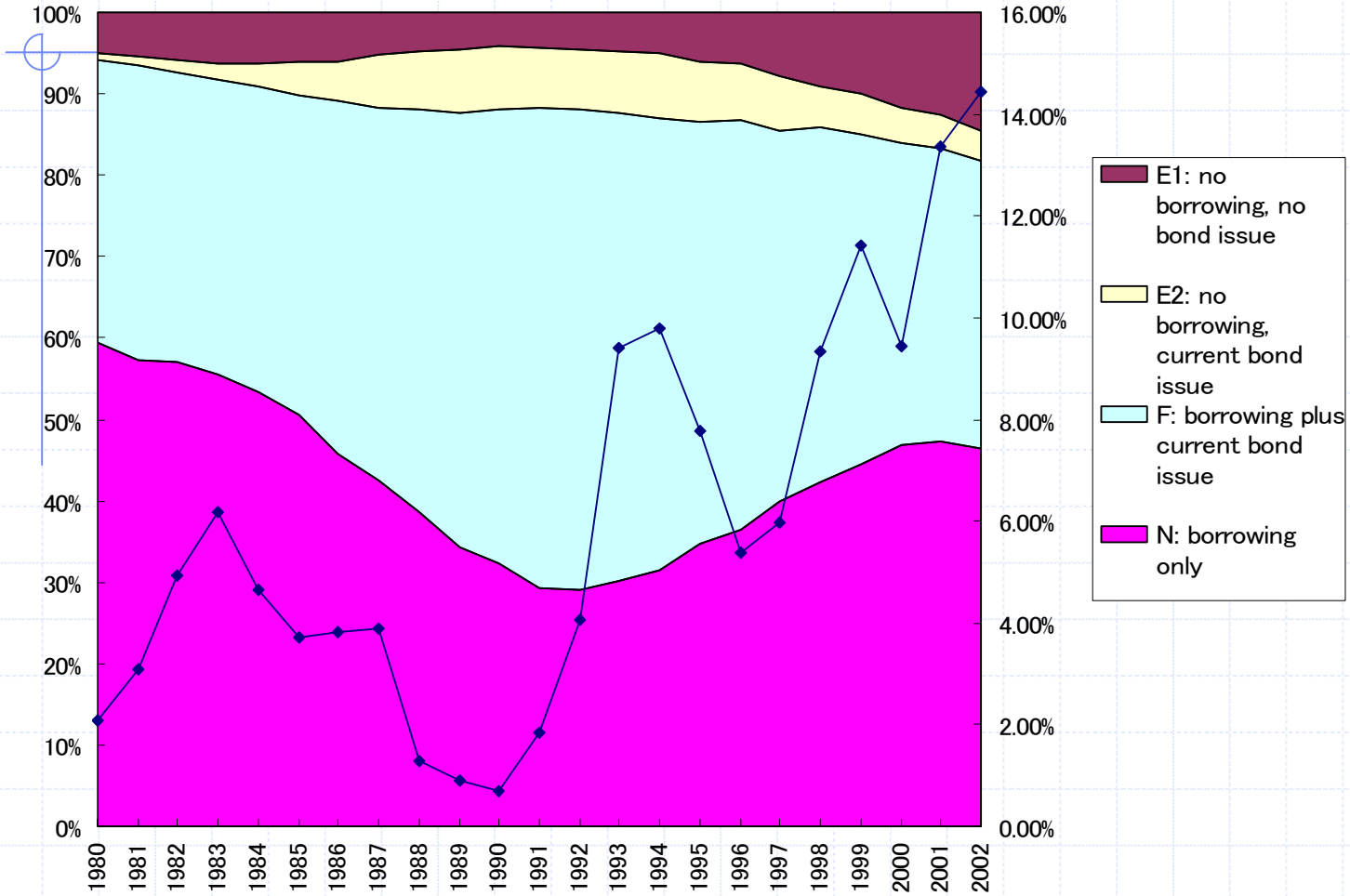
# Research Questions and Main Results

- ◆ Corporate finance in the 1990s
  - 1) Increasing bank dependence (monitored debt)
  - 2) Concentrated main bank loans
    - ⇒ Among the firms with poor performance
- ◆ The impact of banking crisis on stock price
  - ⇒ The creative destruction
- ◆ Credit crunch happened ?
  - ⇒ Locally if main bank loan concentration ratio is very high
- ◆ The role of bank borrowing and main bank relationship on corporate restructuring
  - ⇒ Evergreen policy

**Table 1 Capital Composition of the 1990s.**

Year	DAR: (Bond +Borrowing)/Asset		Bank Borrowings		Bonds		LDR: Bank loan /Debt	
	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
	1986	0.310	0.195	0.239	0.205	0.071	0.083	0.695
1987	0.303	0.187	0.219	0.200	0.084	0.089	0.637	0.361
1988	0.293	0.177	0.199	0.191	0.094	0.092	0.601	0.368
1989	0.276	0.168	0.172	0.175	0.104	0.098	0.551	0.370
1990	0.275	0.172	0.169	0.172	0.106	0.097	0.545	0.363
1991	0.291	0.174	0.173	0.172	0.118	0.103	0.541	0.360
1992	0.301	0.182	0.184	0.179	0.117	0.105	0.554	0.355
1993	0.305	0.185	0.192	0.184	0.113	0.105	0.570	0.358
1994	0.299	0.186	0.190	0.187	0.109	0.106	0.571	0.365
1995	0.288	0.194	0.191	0.193	0.097	0.103	0.598	0.368
1996	0.281	0.191	0.187	0.187	0.094	0.103	0.611	0.370
1997	0.275	0.197	0.190	0.192	0.085	0.098	0.635	0.368
1998	0.288	0.208	0.207	0.202	0.081	0.099	0.666	0.354
1999	0.276	0.259	0.203	0.252	0.073	0.096	0.685	0.350
2000	0.251	0.251	0.188	0.242	0.063	0.090	0.707	0.347

Figure 1 Distribution of firms by capital composition and numbers—net loss



# Corporate Finance in the 1990s

◆ Increasing bank dependence (borrowing /asset)

⇒ What kind of firm increased its dependence on bank borrowing again?

# Debt Choice:theory

What kind of firm needed bank borrowing in the 1990s

◆ Benefit of bank borrowing (Diamond 1991, Thakor and Wilson (1995)

\* Efficient monitoring and rescue

◆ Cost of bank borrowing: Sharpe (1990) and Rajan(1992)

\* Hold up problem

# Debt Choice by Japanese listed firms

- ◆ Bond issuing: firms with higher  $Q$
  - ◆ Bank borrowings: firms with lower  $Q$
- ⇒ consistent to the theoretical explanation
- ◆  $Q^2$  positive ⇒ Firms with high  $q$  beyond certain threshold depend bank borrowings.

# Concentrated main bank loans

- ◆ MBR (main bank loan / total asset)  
MBL (main bank loan / borrowing)  
⇒ *increased*
- ◆ MB equity holding is almost constant
- ◆ Outside directors from MB decreased



# Concentrated main bank loans

- ◆ No obvious changes in firms with close MB ties until 1997.
  - ◆ In 1998 and 1999:
    - 42 cases of main bank changes  
(14 delisted, 26 due to bank failures)
- ⇒ **Beginning of the dissolution of the stable main relationship**

# The Effect of Banking Crisis

- ◆ Bank rather than borrower are now in troubles
  - ◆ Miyajima and Yafeh(2004):  
**Abnormal returns** around dates in which some events happened in the banking system
- ⇒ **Market response to banking crisis**

# The effect of bank crisis on client firm's stock price

◆ Downgrading of MB is **bad news** for firms with:

- 1) leveraged, high main bank dependence
- 2) low bond rating in low-tech industries

⇒ **Banking crisis is harmful for low tech, less profitable firms**

⇒ **Creative destruction !!:**

# Two questions

- ◆ Firms with high growth opportunity is *really* free from credit crunch?
- ◆ High commitment of main bank *really* push the restructuring of firms with poor performance?

# Growth opportunity and MB relationship

											(%)
Year		N	Manufacturing		Firms in manufacturing sector with MBD1=1						
			<i>MBD1=1</i>	<i>MBD2=1</i>	DAR		LDR		MBR		
					Mean	Std.Dev	Mean	Std.Dev	Mean	Std.Dev	
1993	HQ	195	65.6	21.5	24.6	14.6	70.3	34.3	4.1	4.4	
	LQ	242	76.9	27.3	25.1	10.8	62.4	27.8	3.2	2.5	
1996	HQ	200	72.0	25.0	23.7	15.2	68.5	36.4	4.2	5.6	
	LQ	253	78.7	28.9	23.0	11.5	65.4	29.3	3.3	2.7	
1999	HQ	204	68.6	31.9	28.9	26.2	72.5	32.7	6.7	11.1	
	LQ	242	76.4	40.5	24.6	13.4	74.7	26.7	4.5	4.2	

# Capital Structure and Investment: credit crunch

$$I=f(Q, CF, DAR, LDR, MBR, YD)$$

Q: Tobin q

CF: Cash Flow

DAR: the ratio of debt over total asset

LDR: the ratio of bank borrowing to debt

MBR: the ratio of loans from main bank to total assets

# Capital Structure and Investment: credit crunch

- ◆ Hypothesis 1: If firms with higher growth opportunity face a credit crunch  
⇒ Investment is constrained by CF or DAR
- ◆ Hypothesis 2: If bank crisis negatively affects firms with higher growth opportunity by reducing lending to client firms  
⇒ Investment is constrained by LDR

# Capital Structure and Investment: credit crunch

## ◆ Hypothesis 3:

If main banks impose a hard budget constraint on their client firms

⇒ investment is constrained by MBR.



# Key Results

- ◆ high main bank dependence reduce the investment in HQ firms.
- ◆ high main bank dependence raises investment in LQ firms

⇒ **Locally**, Credit crunch happened

*Only if main bank loan concentration is very high.*

# Corporate Restructuring and Bank-Firm Relationship

- ◆ Whether high bank dependence and high main bank commitment to borrowers drive corporate restructuring
- ◆ Evergreen Policy on firms with poor performance

# Corporate Restructuring and Bank-Firm Relationship

Two faces of main bank relationship

◆ **Bright side** = contingent governance (Aoki 1994)

raising effort level, and keeping firm specific skills, and avoid inefficiencies associated with the threat of early liquidation

◆ **Dark side:** If threat of termination were not credible, vicious circle with soft budgeting and evergreen policy( Bergrof and Roland (1997), Sekine et al (2003), Peek and Rosengren(2003))

# Corporate Restructuring and Bank-Firm Relationship

$$\diamond \Delta L = F(\Delta L_{t-1}, \Delta S, DAR, LDR, MBR, Ind, YD)$$

$\Delta L$ : percentage change of employment

$\Delta S$ : change of real sales growth rate

DAR: the ratio of debt over total asset

LDR: the ratio of bank borrowing to debt

MBR: the ratio of loans from main bank to total assets

*NMBR*: non-MB loan to total borrowing

# Corporate Restructuring and Bank-Firm Relationship

- ◆ NAD = 1 if the three-year average of operational profit from 1993-95 of sample firms is 50% lower than those of 1988-90
- ⇒ *NAD firm needs restructuring*
- ⇒ Whether the (main) bank urges *NAD* firms to take the necessary restructuring measures

# Key Results

- ◆ the coefficient of interaction term between *LDR* and *NAD* is negative
  - ⇒ high bank dependence is associated with rapid employment adjustment
- ◆ the coefficient of interaction term between of *MBR* and *NAD* is positive
  - ⇒ high concentration of main bank borrowing is associated with slow employment adjustment for *NAD* firm

# Key Results

- ◆ Main bank
  1. urges the firm with relatively better performance to reduce employment more ⇒ **hard budgeting**
  2. allows firms with larger performance declines to delay the necessary restructuring ⇒ **evergreen policy**

# Conclusion

- ◆ Bank firm relationship among Japanese listed firms : *no more homogeneous*
- ◆ Firms with HQ and low risk depends on capital market, *not attacked by banking crisis.*



# Conclusion

- ◆ Credit crunch happened locally!  
*Only if main bank loan concentration is high.*
- ◆ Main bank allows firms with larger performance declines to delay the necessary restructuring  
*Evergreen policy*

# Conclusion

- ◆ **Potential role of bank is important ⇒**
  - 1) loan concentration may help to coordination
  - 2) **Once bank healthiness were recovered, the threat of termination would be credible.**
- ◆ **Restructuring of banking sector urgent to *improve profitability***