What Happened to Corporate Financing in Asia before the Sub-Prime Shock? A Case Study of Institutional Change in Indonesia

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1. Introduction

- Stable economic growth requires a sound and efficient institutional structure. However, in developing countries where formal economic institutions are not sufficiently developed, informal institutions and codes of economic behaviors play important roles that compliment the formal institution (North, 1990). While these functions of informal institutions have an economic rationality to a certain extent, they are criticized as the major cause of the collusion between banks and companies as well as political influence on economic activities.

1. Introduction

- Governments have often conducted major economic reforms after an economic crisis. However, the effects of reform may be limited since the social code of behaviors and the informal institutional framework are not addressed by the reform and survive long after the change of formal institutions (North, 1990). In the case of Indonesia, Sato (2003) clarified that their ownership structures did not change substantially. Walter (2008) pointed out that the proponents of the international standards project underestimated the difficulty of promoting compliance in emerging market countries.

1. Introduction

- This study examine whether Indonesian corporate financing activities changed after the reform policies were implemented in the post Asian financial crisis era.

- This study focuses on three questions.

  1) Did the financing behavior of listed companies change after the Asian financial crisis?

  2) If so, what were the major differences in corporate financing pre- and post-crisis?

  3) How did the post-crisis reforms modernize the financial behavior of listed companies?

2. Analytical Scope of Indonesian Listed Companies

2.1 Adjusted Modigliani-Miller Theory and Agency cost

Modigliani-Miller Theory:
   If there is no bankruptcy risk and tax, and information is symmetric, corporate value does not depend on the capital structure.

The trade-off approach:
   Companies choose the optimal capital structure that minimizes the cost of capital so as to maximize the value of the company, in consideration of **a risk of bankruptcy** and the impact of **corporate tax**.

2. Analytical Scope of Indonesian Listed Companies

2.1 Adjusted Modigliani-Miller Theory and Agency cost

The agency cost approach:
Determinants of corporate value (which are the determinants of optimal corporate capital structure) are also affected by agency cost, taking into account **asymmetric information**

The agency cost is the additional cost due to the conflicts of interest between different interest groups in a company. The agency cost could be minimized by choosing appropriately how to raise the funds.

2. Analytical Scope of Indonesian Listed Companies

2.1 Adjusted Modigliani-Miller Theory and Agency cost

Listed companies in Indonesian is their highly concentrated ownership structure. Shareholders have ultimate control over management, so the conflicts of interest between management executives and major shareholders are limited (Sato, 2003).

Information disclosed by companies listed in Indonesia is relatively low (Mitton, 2002). Therefore, a serious agency cost problem related to fund-raising is likely between **outside creditors** and management executives (=major shareholders), or between **small shareholders** and management executives (=major shareholders).

2.2 Informal Codes of Business Behaviors and Networks

2.2.1 Bus. Conglomerates and Foreign Companies

Since financial and legal systems are underdeveloped in developing countries, agency cost is considerable constraint on financial activities.

Consequently, a tendency has arisen to expand activities by borrowing funds externally through the development of "quasi markets" where information sharing is easy and the agency cost problem is considerably negligible.

Companies within a business group and **foreign companies** may take different financing routes compare to others.

2.2 Informal Codes of Business Behaviors and Networks

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2.2 Informal Codes of Business Behaviors and Networks

2.2.2 Networks Based on Socio-Political Factors

The agency cost of external borrowings may be affected by political and social factors, such as the ethnic connections or family relationships of management executives (major shareholders) as well as a "revolving door" or other relationships with the government.

One example of these factors at play is the difference between **ethnic Chinese companies** and non-ethnic Chinese local companies. The agency cost arising in regard to creditors also depends on whether the company is **government-linked**.

2.2 Capital Structure of Indonesian Listed Companies

Economic factors

Trade off theory
  Corporate tax
  Bankruptcy risk

Agency costs
  Collaterals
  Market recognition
  Retained earnings

Institutional and social factors

Companies' attributes dummy
  Business group
  Social factors
  Connection to Govn't
  Restructuring

2.3 The Effects of Reform Policies after the Asian Financial Crisis

After the Asian financial crisis, a wide range of financial and corporate reform policies were implemented (World Bank, 2000). The restructuring of capital structures and reform of the financial systems instituted new management disciplines to prevent collusion between banks and private companies, and thereby exercised considerable influence over corporate financing.

(1) The special ownership structure between banks and business conglomerates was dismantled.
(2) The stringent prudential regulations were introduced.
(3) The corporate governance regulations for listed companies were tightened.

2.3 The Effects of Reform Policies after the Asian Financial Crisis

Hypotheses

If these measures successfully modernized Indonesian corporate financing, our analysis would show

(1) that **the influences of economic factors** on the fund-raising of listed companies would fit better to the expectations of corporate financing theory.
(2) and **that the influences of social and political factors** on the fund-raising of listed companies would be weaker after the Asian financial crisis.

4. Methodology

We used the following method to analyze the hypotheses described in Section 2.

The first step (economic rationality)

First, we estimated the capital structure of the listed companies in Indonesia by using a fixed-effect unbalanced panel model. The objectives were to the estimate effects of **the economic variables**, corporate tax and business-risk, (the trade off approach); and the creditworthiness and ability to provide collateral (the agency costs theory). The characteristics of each company are contained by the fixed effects in the estimation.

4. Methodology

The second step (institutional or social factors)

Second, we regressed the fixed effects (obtained by the first estimation) to the dummy variable estimators representing of the Indonesian companies' attributes. This enables us to observe how **institutional or social factors** of each company affect its capital structure.

We also analyzed **the pre-crisis and post-crisis differences** at both of the first-step and the second-step regression.

4.1. Empirical Model for Debt-Ratios and Economic Variables

The first step (economic rationality)

Fixed Effects

After crisis dummy

Boom dummy

Year dummies

$$DA_{kit} = \alpha_i + \sum_{j=1}^{m} \beta_j X_{ijt} + AF * \sum_{j=1}^{m} \beta_{AFj} X_{ijt} + MB * \sum_{j=1}^{m} \beta_{MBj} X_{ijt} + \sum_{j=1}^{n} \beta_j YD_j + \varepsilon_{it}$$

Economic Variables

（Total debt ratio）
（Short-term debt ratio）
（Long-term debt ratio）

4.1. Empirical Model for Debt-Ratios and Economic Variables

Economic variables :

The rate of retained earnings (The proxy of the free cash flow) (--)

= (retained earnings) / (total assets) .

The rate of corporate tax (The proxy of the effect of corporate tax) (+)

= (profits before tax – profits after tax) / (total assets) .

The rate of fixed assets (The proxy of the ability to provide collateral) (+)

= (Tangible fixed assets) /(total assets).

The firm's size (The proxy of market recognition.) (+)

= the natural logarithmic value of total assets.

The business risk (--)

= the deviation of absolute values of the operating losses divided by total assets from 1994 to 1997 and from 2000 to 2006.

4.1. Empirical Model for Debt-Ratios and Economic Variables

Dummy variables (continued) :

$YD1996 \sim YD2003$ = Year dummy variable;

     Macroeconomic Environments

AF = The crisis dummy variable;

     0 if the year is 1998 or earlier, and 1 otherwise.

MB = The mini-boom dummy variable;

     0 if the year is 2004 or later, and 1 otherwise.

4.2 Empirical Model for Fixed Effects and Corporate Attributes

The second step (institutional or social factors)

After crisis dummy

Boom dummy

Industry dummies

$$\hat{\alpha}_i + \varepsilon_{it} = C + \sum_{j=1}^{m} \gamma_j A_{ij} + AF * \sum_{j=1}^{m} \gamma_{AFj} A_{ij} + MB * \sum_{j=1}^{m} \gamma_{MBj} A_{ij} + \sum_{j=1}^{n} \gamma_j ID_j + \mu_i$$

Corporate Attributes

Fixed Effects and Error terms

4.2 Empirical Model for Fixed Effects and Corporate Attributes

The dummies for corporate attributes:

The ownership

    the ethnic Chinese, foreigner, government, , and ethnic Indian

The core companies of business groups

    the directors are the family members owning the BG,

    the scale is large in the group,

    the industry is a core business in the group.

Restructured companies

    The belonging group have changed after the Asian crisis.

4.2 Empirical Model for Fixed Effects and Corporate Attributes

The financial data

- The financial data covers the 1994 – 2005 period.

- The data from 1998 and 1999 was precluded because of the financial crisis.

- Samples whose retained earnings were negative were cluded.

- The financial statement data are compiled from the *Indonesia Financial Market Directory* (1996, 1997, 2003, 2004, and 2005 editions), published by the ECFIN.

The corporate attributes

- The data of corporate attributes was created the *Indonesia Financial Market Directory* .

5. Estimated Results
5.1 Estimated Results of Debt Ratios

	Total debt-ratio (TDR)			Long-term debt ratio (LDR)			Short-term debt-ratio (SDR)		
	coefficent	t-value	P-value	coefficent	t-value	P-value	coefficent	t-value	P-value
RISK	0.001	0.024	0.981	-0.098	-2.296	0.022 **	0.103	2.023	0.043 **
TAX $_{t-1}$	-0.468	-4.334	0.000 ***	-0.153	-1.773	0.077 *	-0.285	-2.779	0.006 ***
RE $_{t-1}$	-0.077	-2.207	0.028 **	-0.078	-1.976	0.049 **	0.022	0.466	0.641
FIX $_{t-1}$	-0.054	-1.487	0.137	0.020	0.585	0.559	-0.097	-2.446	0.015 **
SIZE $_{t-1}$	0.036	1.619	0.106	0.085	4.643	0.000 ***	-0.064	-2.930	0.003 ***
AF*RISK	0.115	0.920	0.358	-0.107	-1.082	0.280	0.214	1.809	0.071 *
AF*TAX $_{t-1}$	0.486	4.324	0.000 ***	0.182	2.027	0.043 **	0.266	2.493	0.013 **
AF*RE $_{t-1}$	-0.112	-2.112	0.035 **	-0.007	-0.145	0.885	-0.121	-2.058	0.040 **
AF*FIX $_{t-1}$	0.124	2.298	0.022 **	0.077	1.663	0.097 *	0.056	1.008	0.314
AF*SIZE $_{t-1}$	0.034	1.706	0.088 *	-0.026	-1.601	0.110	0.074	3.788	0.000 ***
MB*RISK	-0.003	-0.011	0.991	-0.170	-0.751	0.453	0.146	0.541	0.588
MB*TAX $_{t-1}$	0.468	4.333	0.000 ***	0.153	1.771	0.077 *	0.285	2.780	0.006 ***
MB*RE $_{t-1}$	-0.123	-2.017	0.044 **	-0.041	-0.746	0.456	-0.104	-1.605	0.109
MB*FIX $_{t-1}$	0.016	0.259	0.796	0.030	0.580	0.562	-0.012	-0.187	0.852
MB*SIZE $_{t-1}$	-0.018	-0.853	0.394	-0.045	-2.677	0.008 ***	0.043	2.127	0.034 **
YD1996	0.009	0.631	0.528	0.022	1.795	0.073 *	-0.005	-0.327	0.744
YD1997	0.164	10.538	0.000 ***	0.058	4.558	0.000 ***	0.112	7.442	0.000 ***
YD2001	-0.224	-2.038	0.042 **	0.152	1.667	0.096 *	-0.454	-4.177	0.000 ***
YD2002	-0.246	-2.222	0.027 **	0.139	1.514	0.131	-0.464	-4.240	0.000 ***
YD2003	-0.223	-2.007	0.045 **	0.149	1.613	0.107	-0.452	-4.119	0.000 ***
YD2004	0.126	1.124	0.262	0.298	3.247	0.001 ***	-0.254	-2.324	0.020 **
YD2005	0.135	1.208	0.227	0.303	3.312	0.001 ***	-0.251	-2.296	0.022 **
The number of observations	1137			1100			1100		
The number of individuals	235			233			233		
Adjusted R-square	0.662732			0.623827			0.561545		
F-statistics (A,B=Ai,B)	5.8182 ***			4.3464 ***			4.8027 ***		
Hausman test	64.062*** (Fixed)			95.839*** (Fixed)			54.956*** (Fixed)		

note) *, **, and *** singnificant at 10, 5, and 1percent level, respectively.

5. Estimated Results
5.1 Estimated Results of Debt Ratios

(B) After the crisis, the signs of TAX and FIX satisfy the theoretically expected ones.

	Total debt-ratio (TDR)				Long-term debt ratio (LDR)				Short-term debt-ratio (SDR)			
	coefficent	t-value	P-value		coefficent	t-value	P-value		coefficent	t-value	P-value	
RISK	0.001	0.024	0.981		-0.098	-2.296	0.022	**	0.103	2.023	0.043	**
TAX $_{t-1}$	-0.468	-4.334	0.000	***	-0.153	-1.773	0.077	*	-0.285	-2.779	0.006	***
RE $_{t-1}$	-0.077	-2.207	0.028	**	-0.078	-1.976	0.049	**	0.022	0.466	0.641	
FIX $_{t-1}$	-0.054	-1.487	0.137		0.020	0.585	0.559		-0.097	-2.446	0.015	**
SIZE $_{t-1}$	0.036	1.619	0.106		0.085	4.643	0.000	***	-0.064	-2.930	0.003	***
AF*RISK	0.115	0.920	0.358		-0.107	-1.082	0.280		0.214	1.809	0.071	*
AF*TAX $_{t-1}$	0.486	4.324	0.000	***	0.182	2.027	0.043	**	0.266	2.493	0.013	**
AF*RE $_{t-1}$	-0.112	-2.112	0.035	**	-0.007	-0.145	0.885		-0.121	-2.058	0.040	**
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MB*FIX $_{t-1}$	0.016	0.259	0.796		0.030	0.580	0.562		-0.012	-0.187	0.852	
MB*SIZE $_{t-1}$	-0.018	-0.853	0.394		-0.045	-2.677	0.008	***	0.043	2.127	0.034	**
YD1996	0.009	0.631	0.528		0.022	1.795	0.073	*	-0.005	-0.327	0.744	
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YD2005	0.135	1.208	0.227		0.303	3.312	0.001	***	-0.251	-2.296	0.022	**
The number of observations	1137				1100				1100			
The number of individuals	235				233				233			
Adjusted R-square	0.662732				0.623827				0.561545			
F-statistics (A,B=Ai,B)	5.8182 ***				4.3464 ***				4.8027 ***			
Hausman test	64.062*** (Fixed)				95.839*** (Fixed)				54.956*** (Fixed)			

note) *, **, and *** singnificant at 10, 5, and 1percent level, respectively.

(C) Before the crisis, the Ethnic-Chinese, the government-owned, foreign, the Ethnic-Indian companies were more dependent on debt financing than the Pribumi companies.

5.1 Estimated Results of Debt Ratios

		Total debt-ratio (*TDR*)				Long-term debt ratio (*LDR*)				Short-term debt-ratio (*SDR*)		
		coefficent	t-value	P-value		coefficent	t-value	P-value		coefficent	t-value	P-value
C		0.217	9.418	0.000 ***		-0.319	-18.796	0.000 ***		0.632	32.953	0.000 ***
Ethnic Chinese		0.061	2.915	0.004 ***		0.039	2.490	0.013 **		0.018	1.014	0.311
Government		0.046	1.311	0.190		0.054	2.131	0.033 **		-0.011	-0.368	0.713
Foreign		0.107	4.794	0.000 ***		0.017	1.004	0.315		0.099	5.215	0.000 ***
Ethnic Indian		0.100	1.881	0.060 *		0.172	4.476	0.000 ***		-0.070	-1.620	0.105
Core		0.038	4.732	0.000 ***		0.020	3.408	0.001 ***		0.017	2.582	0.010 ***
AF*Ethnic Chinese		-0.028	-1.268	0.205		-0.041	-2.517	0.012 **		0.015	0.813	0.417
AF*Government		-0.005	-0.107	0.915		-0.099	-2.854	0.004 ***		0.094	2.382	0.017 **
AF*Foreign		-0.022	-1.048	0.295		-0.019	-1.202	0.230		-0.009	-0.500	0.617
AF*Ethnic Indian		-0.075	-0.876	0.381		-0.122	-1.972	0.049 **		0.048	0.685	0.493
AF*Core		-0.054	-2.709	0.007 ***		-0.012	-0.805	0.421		-0.048	-2.937	0.003 ***
AF*Restructured		-0.022	-1.838	0.066 *		-0.013	-1.525	0.128		-0.009	-0.910	0.363
MB*Ethnic Chinese		-0.050	-1.907	0.057 *		-0.053	-2.735	0.006 ***		0.004	0.175	0.861
MB*Government		-0.065	-1.168	0.243		-0.111	-2.789	0.005 ***		0.050	1.104	0.270
MB*Foreign		-0.033	-1.274	0.203		-0.032	-1.689	0.092 *		-0.012	-0.541	0.589
MB*Ethnic Indian		-0.030	-0.248	0.804		-0.113	-1.317	0.188		0.088	0.905	0.366
MB*Core		0.026	1.013	0.311		0.036	1.966	0.050 **		-0.008	-0.406	0.685
MB*Restructured		-0.006	-0.432	0.666		0.000	0.048	0.962		-0.007	-0.640	0.522
Industory	Construction	-0.056	-1.156	0.248		-0.067	-1.740	0.082 *		0.041	0.945	0.345
	n	-0.026	-0.606	0.544		0.004	0.143	0.886		-0.028	-0.804	0.421
	Hotel/Travel	0.010	0.316	0.752		0.052	2.163	0.031 **		-0.034	-1.238	0.216
	Manufacturing	0.017	0.943	0.346		-0.028	-2.194	0.028 **		0.041	2.836	0.005 ***
	Mining	-0.054	-1.777	0.076 *		0.000	-0.010	0.992		-0.054	-2.206	0.028 **
	Transportation	-0.002	-0.087	0.931		0.061	2.965	0.003 ***		-0.041	-1.765	0.078 *
	Retail	0.050	1.939	0.053 *		-0.114	-6.134	0.000 ***		0.160	7.606	0.000 ***
	Real Estate	0.007	0.337	0.737		-0.035	-2.115	0.035 **		0.051	2.752	0.006 ***
The number of observations		1137				1100				1100		
Adjusted R square		0.079466				0.150402				0.134875		
F-statistics		4.92263 ***				8.78213 ***				7.85346 ***		

note) *, **, and *** singnificant at 10, 5, and 1percent level, respectively.

5.2 Estimation Results of Companies' Fixed Effects

		Total debt-ratio（*TDR*）				Long-term debt ratio（*LDR*）				Short-term debt-ratio（*SDR*）		
		coefficent	t-value	P-value		coefficent	t-value	P-value		coefficent	t-value	P-value
C		0.217	9.418	0.000 ***		-0.319	-18.796	0.000 ***		0.632	32.953	0.000 ***
Ethnic Chinese		0.061	2.915	0.004 ***		0.039	2.490	0.013 **		0.018	1.014	0.311
Government		0.046	1.311	0.190		0.054	2.131	0.033 **		-0.011	-0.368	0.713
Foreign		0.107	4.794	0.000 ***		0.017	1.004	0.315		0.099	5.215	0.000 ***
Ethnic Indian		0.100	1.881	0.060 *		0.172	4.476	0.000 ***		-0.070	-1.620	0.105
Core		0.038	4.732	0.000 ***		0.020	3.408	0.001 ***		0.017	2.582	0.010 ***
*AF*Ethnic Chinese*		-0.028	-1.268	0.205		-0.041	-2.517	0.012 **		0.015	0.813	0.417
*AF*Government*		-0.005	-0.107	0.915		-0.099	-2.854	0.004 ***		0.094	2.382	0.017 **
*AF*Foreign*		-0.022	-1.048	0.295		-0.019	-1.202	0.230		-0.009	-0.500	0.617
*AF*Ethnic Indian*		-0.075	-0.876	0.381		-0.122	-1.972	0.049 **		0.048	0.685	0.493
*AF*Core*		-0.054	-2.709	0.007 ***		-0.012	-0.805	0.421		-0.048	-2.937	0.003 ***
*AF*Restructured*		-0.022	-1.838	0.066 *		-0.013	-1.525	0.128		-0.009	-0.910	0.363
*MB*Ethnic Chinese*		-0.050	-1.907	0.057 *		-0.053	-2.735	0.006 ***		0.004	0.175	0.861
*MB*Government*		-0.065	-1.168	0.243		-0.111	-2.789	0.005 ***		0.050	1.104	0.270
*MB*Foreign*		-0.033	-1.274	0.203		-0.032	-1.689	0.092 *		-0.012	-0.541	0.589
*MB*Ethnic Indian*		-0.030	-0.248	0.804		-0.113	-1.317	0.188		0.088	0.905	0.366
*MB*Core*		0.026	1.013	0.311		0.036	1.966	0.050 **		-0.008	-0.406	0.685
*MB*Restructured*		-0.006	-0.432	0.666		0.000	0.048	0.962		-0.007	-0.640	0.522
Industory	*Construction*	-0.056	-1.156	0.248		-0.067	-1.740	0.082 *		0.041	0.945	0.345
	n	-0.026	-0.606	0.544		0.004	0.143	0.886		-0.028	-0.804	0.421
	Hotel/Travel	0.010	0.316	0.752		0.052	2.163	0.031 **		-0.034	-1.238	0.216
	Manufacturing	0.017	0.943	0.346		-0.028	-2.194	0.028 **		0.041	2.836	0.005 ***
	Mining	-0.054	-1.777	0.076 *		0.000	-0.010	0.992		-0.054	-2.206	0.028 **
	Transportation	-0.002	-0.087	0.931		0.061	2.965	0.003 ***		-0.041	-1.765	0.078 *
	Retail	0.050	1.939	0.053 *		-0.114	-6.134	0.000 ***		0.160	7.606	0.000 ***
	Real Estate	0.007	0.337	0.737		-0.035	-2.115	0.035 **		0.051	2.752	0.006 ***
The number of observations		1137				1100				1100		
Adjusted R square		0.079466				0.150402				0.134875		
F-statistics		4.92263 ***				8.78213 ***				7.85346 ***		

note) *, **, and *** singnificant at 10, 5, and 1percent level, respectively.

(E) Before the crisis, the core companies in the BGs more depended on debt rather than other companies.

5.2 Estimation Results of Companies' Fixed Effects

	Total debt-ratio (TDR)			Long-term debt ratio (LDR)			Short-term debt-ratio (SDR)		
	coefficent	t-value	P-value	coefficent	t-value	P-value	coefficent	t-value	P-value
C	0.217	9.418	0.000 ***	-0.319	-18.796	0.000 ***	0.632	32.953	0.000 ***
Ethnic Chinese	0.061	2.915	0.004 ***	0.039	2.490	0.013 **	0.018	1.014	0.311
Government	0.046	1.311	0.190	0.054	2.131	0.033 **	-0.011	-0.368	0.713
Foreign	0.107	4.794	0.000 ***	0.017	1.004	0.315	0.099	5.215	0.000 ***
Ethnic Indian	0.100	1.881	0.060 *	0.172	4.476	0.000 ***	-0.070	-1.620	0.105
Core	0.038	4.732	0.000 ***	0.020	3.408	0.001 ***	0.017	2.582	0.010 ***
AF*Ethnic Chinese	-0.028	-1.268	0.205	-0.041	-2.517	0.012 **	0.015	0.813	0.417
AF*Government	-0.005	-0.107	0.915	-0.099	-2.854	0.004 ***	0.094	2.382	0.017 **
AF*Foreign	-0.022	-1.048	0.295	-0.019	-1.202	0.230	-0.009	-0.500	0.617
AF*Ethnic Indian	-0.075	-0.876	0.381	-0.122	-1.972	0.049 **	0.048	0.685	0.493
AF*Core	-0.054	-2.709	0.007 ***	-0.012	-0.805	0.421	-0.048	-2.937	0.003 ***
AF*Restructured	-0.022	-1.838	0.066 *	-0.013	-1.525	0.128	-0.009	-0.910	0.363
MB*Ethnic Chinese	-0.050	-1.907	0.057 *	-0.053	-2.735	0.006 ***	0.004	0.175	0.861
MB*Government	-0.065	-1.168	0.243	-0.111	-2.789	0.005 ***	0.050	1.104	0.270
MB*Foreign	-0.033	-1.274	0.203	-0.032	-1.689	0.092 *	-0.012	-0.541	0.589
MB*Ethnic Indian	-0.030	-0.248	0.804	-0.113	-1.317	0.188	0.088	0.905	0.366
MB*Core	0.026	1.013	0.311	0.036	1.966	0.050 **	-0.008	-0.406	0.685
MB*Restructured	-0.006	-0.432	0.666	0.000	0.048	0.962	-0.007	-0.640	0.522
	0.056	1.156	0.248	-0.067	-1.740	0.082 *	0.041	0.945	0.345
			0.544	0.004	0.143	0.886	-0.028	-0.804	0.421
			0.752	0.052	2.163	0.031 **	-0.034	-1.238	0.216
			0.346	-0.028	-2.194	0.028 **	0.041	2.836	0.005 ***
			0.076 *	0.000	-0.010	0.992	-0.054	-2.206	0.028 **
			0.931	0.061	2.965	0.003 ***	-0.041	-1.765	0.078 *
			0.053 *	-0.114	-6.134	0.000 ***	0.160	7.606	0.000 ***
			0.737	-0.035	-2.115	0.035 **	0.051	2.752	0.006 ***
					1100			1100	
Adjusted R square		0.079466			0.150402			0.134875	
F-statistics		4.92263 ***			8.78213 ***			7.85346 ***	

note) *, **, and *** singnificant at 10, 5, and 1percent level, respectively.

(F) After the crisis, they relied more on long-term debt but less on short-term debt than other companies.

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6. Concluding Remarks
(1) The Merits of Reforms

- The capital structure of Indonesian companies had not been explained sufficiently by the standardized theory of corporate financing, which had not considered the effects of the specific social and political elements as well as business conglomerates, before the Asian financial crisis.

- However, the capital structure of Indonesian companies became fitted more to the corporate financing theory, after the influence of social and political factors of corporate attributes weakened substantially following the post-crisis reform policies. This significant change is considered to result from institutional change caused by the financial and corporate reforms in the post-financial crisis era.

6. Concluding Remarks
(2) The Limitations of Reforms

- The estimation results demonstrate that only companies with a high collateral providing capability are able to borrow long-term external funds.

- This observation suggests that the agency cost incurred by information asymmetry was a critical determinant in corporate financing in Indonesia even after the Asian financial crisis and collateral providing capacity has still the most significant impact on determinants of long-term debt ratio.
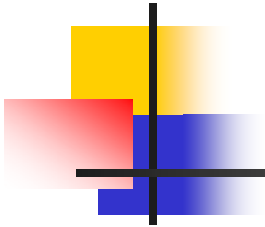
6. Concluding Remarks
(3) Policy implications

- To solve the remaining problems, it is necessary to promote corporate information disclosure for the benefit of external investors and creditors.

- Furthermore, it is essential to build a legal framework for smooth liquidation of collateral and speedy reconstruction of failed companies.

- In addition, the development of capital markets such as stock and debenture markets is required to meet the demand of large-scale long-term debts.

Thank you for your attention.