Bankruptcy Policy Reform and the Total Factor Productivity Dynamics in Korea

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Lecture Note for East Asian Economic Growth :

10. Bankruptcy Policy Reform in Korea

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Questions

- What was the problem with the old bankruptcy policies before the reform ?

- What was the impact of bankruptcy policy reform in Korea ?

- Why is it important to have an efficient bankruptcy policies ?

Table 9.1	Bankruptcy Filings before and after the Crisis (unit: number of cases, %)							
Bankruptcy Procedure	1995	1996	1997	1998	1999	2000	2001	2002
Reorganization	79	52	132	148	37	32	31	19
	(76.0)	(65.8)	(26.8)	(14.9)	(9.1)	(13.2)	(12.3)	(15.3)
Composition	13	9	322	728	140	78	51	23
	(12.5)	(11.4)	(65.5)	(73.3)	(34.4)	(32.2)	(20.2)	(18.6)
Liquidation	12	18	38	117	230	132	170	82
	(11.5)	(22.8)	(7.7)	(11.8)	(56.5)	(54.6)	(67.5)	(66.1)
Total	104	79	492	993	407	242	252	124
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Supreme Court of Korea (various issues).

Notes: The year 2002 covers January to October. Numbers in parentheses denote the percentage.

Table 9.2 Insolvent Firms' Procedure by the *Chaebol* Category (unit: trillion won, %)

	1997			1998				1999			
	No Procedure	Composition	Corporate Reorganization	No Procedure	Composition	Corporate Reorganization	Workout	No Procedure	Composition	Corporate Reorganization	Workout
1–30 largest *chaebols*	0.35 (3.38)	0.61 (5.80)	9.48 (90.82)	0.09983 (1.73)	0 (0.00)	0 (0.00)	5.669 (98.27)	0 (0.00)	0 (0.00)	0 (0.00)	3.455 (100)
31–60 largest *chaebols*	0 (0.00)	0 (0.00)	0.19 (100)	0 (0.00)	0 (0.00)	0 (0.00)	5.713 (100)	0 (0.00)	0 (0.00)	0 (0.00)	0.5862 (100)
61–300 largest *chaebols*	3.18 (13.51)	7.69 (32.66)	12.67 (53.84)	0.7850 (3.54)	1.560 (7.03)	6.795 (30.62)	13.05 (58.81)	0 (0.00)	1.081 (6.73)	0.2857 (1.78)	14.71 (91.50)
Small *chaebols* and independent firms	3.95 (29.16)	1.32 (9.73)	8.27 (61.11)	2.090 (24.44)	1.638 (19.16)	1.469 (17.18)	3.354 (39.22)	0.4627 (1.69)	0.9036 (3.29)	0.4040 (1.47)	25.68 (93.55)

Source: Lim (2003).

Notes: The frequencies are weighted by the asset size. Author's calculation for all the firms in the National Information and Credit Evaluation (NICE) data. Numbers in parentheses denote the percentage.

Table 9.3 Productivity Dynamics of Bankruptcy Cohorts before and after Bankruptcy Policy Reform (firms undergoing corporate reorganization or composition)

	Dependent Variable: Productivity				
Independent Variable	For the 1996 Cohort (1)	For the 1997 Cohort (2)	For the 1998 Cohort (3)	For the 1999 Cohort (4)	For the 2000 Cohort (5)
1993	−0.0687115 (0.1739958)	−0.0820866 (0.0596231)	−0.0069199 (0.035766)	0.0251072 (0.0527104)	0.0092007 (0.0795996)
1994	−0.0629782 (0.1739847)	−0.0815479 (0.0602887)	−0.0366698 (0.0347451)	−0.0219148 (0.0500552)	−0.0277665 (0.0750421)
1995	−0.0588727 (0.1739736)	−0.1367584** (0.0588782)	−0.0390412 (0.0339194)	0.0127083 (0.0474052)	−0.0821738 (0.0711893)
1996	−0.3647536 (0.02245488)	−0.1347013** (0.0595412)	0.0070321 (0.0334223)	0.0317036 (0.0470457)	−0.0124563 (0.0700231)
1997	−0.2869542 (0.2245442)	−0.2780865** (0.063298)	−0.0574577 (0.0356012)	−0.0368554 (0.0460487)	0.0304901 (0.0689116)
1998	−0.1409918 (0.1739603)	−0.2565868** (0.0650112)	−0.3211885** (0.0447192)	−0.1993039** (0.0648769)	−0.003248 (0.0711459)
1999	−0.1321559 (0.2245506)	−0.1544865** (0.0700572)	−0.1599611** (0.0466198)	−0.1475066** (0.0722738)	−0.2036022** (0.091783)
2000	−0.1572699 (0.2245766)	−0.1793303** (0.0765336)	−0.1627449** (0.0488477)	−0.2222749** (0.0778949)	−0.3875751** (0.1376069)
Year dummies included	Yes	Yes	Yes	Yes	Yes
Industry dummies included	Yes	Yes	Yes	Yes	Yes
No. of observations	40,205	40,476	41,025	40,588	40,373

Notes: Numbers in parentheses are standard errors. Independent variable = dummy variable denoting a specific cohort interacted with year and industry dummy.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Table 9.4 **Profitability Performance of the Bankruptcy Cohorts before and after Bankruptcy Policy Reform (firms undergoing corporate reorganization or composition)**

	Dependent Variable: Profitability				
Independent Variable	For the 1996 Cohort (1)	For the 1997 Cohort (2)	For the 1998 Cohort (3)	For the 1999 Cohort (4)	For the 2000 Cohort (5)
1993	−5.53285	−1.053267	1.02541	−2.983965	−4.046776
	(102.5908)	(35.0131)	(20.11472)	(28.94122)	(42.627)
1994	−5.593412	−2.923504	−0.1474853	−2.976718	−1.751188
	(102.5857)	(34.5993)	(19.65527)	(27.26436)	(39.96213)
1995	−3.757859	−4.626083	−0.618984	−2.501499	−7.389917
	(102.5831)	(34.20874)	(19.36783)	(26.70296)	(38.80357)
1996	−55.05091	−5.89941	−0.7878422	−2.480486	−2.169504
	(132.4078)	(34.98389)	(19.43056)	(26.52319)	(39.95305)
1997	−109.6434	−19.09772	−3.990996	−5.698947	−1.671837
	(102.5782)	(34.97537)	(20.27411)	(26.16555)	(38.25027)
1998	−3.665419	−29.41768	−32.68748	−31.58403	−13.42344
	(102.5801)	(37.19917)	(24.80246)	(36.19649)	(41.20706)
1999	−0.8003833	−12.61717	−5.174351	−15.59426	−19.05743
	(132.4098)	(36.73676)	(22.27227)	(31.50063)	(50.03865)
2000	−10.02233	−1.937577	−0.7337271	1.431097	−4.809503
	(132.4134)	(41.18623)	(24.02397)	(35.79111)	(59.18531)
2001	36.11783	9.827578	0.1038245	9.514607	−99.89773
	(132.4123)	(41.85452)	(25.12973)	(37.65765)	(61.25584)
Year dummies included	Yes	Yes	Yes	Yes	Yes
Industry dummies included	Yes	Yes	Yes	Yes	Yes
No. of observations	52,026	52,345	53,031	52,520	52,236

Notes: Numbers in parentheses are standard errors. Independent variable = dummy variable denoting a specific cohort interacted with year and industry dummy.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 9.5   **Contribution of Plant Births (unit: %)**

| | Under 5 Years | | | | | | Over 5 Years | |
| | 1-3 | | 4-5 | | Total | | | |
Year	Number of Plants	Current Output	Number of Plants	Current Output	Number of Plants	Current Output	Number of Plants	Current Output
1995	53.32	17.13	14.22	9.09	67.54	26.22	32.46	73.78
1996	47.60	15.36	18.68	11.11	66.29	26.46	33.71	73.54
1997	45.40	14.77	18.67	10.63	64.08	25.40	35.92	74.60
1998	39.45	12.77	18.63	8.68	58.08	21.45	41.92	78.55

Source: Hahn (2000).

Table 9.6   **Contribution of Plant Deaths (unit: %)**

| Year | Within 5 Years | | | | | | Survive More Than 5 Years | |
| | 1–3 | | 4–5 | | Total | | | |
	Number of Plants	Current Output	Number of Plants	Current Output	Number of Plants	Current Output	Number of Plants	Current Output
1990	36.85	13.36	15.71	6.48	52.57	19.85	47.43	80.15
1991	37.41	14.52	17.11	7.62	54.52	22.14	45.48	77.86
1992	39.28	15.08	16.72	7.77	56.00	22.85	44.00	77.15
1993	43.71	14.92	20.23	9.13	63.93	24.05	36.07	75.95

Source: Hahn (2000).

Table 9.7   **Average Productivity of Plant Groups, 1990–98**

Year	Continuing	Entry		Exit		Total
		Birth	Switch-In	Death	Switch-Out	
1990	−0.005			−0.044	−0.026	−0.016
1991	0.046	−0.031	0.041	−0.003	0.050	0.026
1992	0.061	−0.005	0.061	0.018	0.068	0.046
1993	0.087	0.030	0.096	0.051	0.101	0.072
1994	0.132	0.056	0.141	0.101	0.144	0.118
1995	0.190	0.132	0.199	0.150	0.202	0.174
1996	0.197	0.143	0.208	0.160	0.214	0.185
1997	0.239	0.177	0.252	0.182	0.245	0.218
1998	0.256	0.200	0.267			0.249

Source: Hahn (2000).
Note: Unweighted averages.

Table 9.8   **Market Selection among Birth Cohorts**

	Births 1991	Births 1993	Births 1995
Deaths 1992	−0.065		
	(0.005)		
Deaths 1993	−0.044		
	(0.004)		
Deaths 1994	−0.036	−0.042	
	(0.004)	(0.003)	
Deaths 1995	−0.032	−0.032	
	(0.004)	(0.003)	
Deaths 1996	−0.048	−0.030	−0.053
	(0.004)	(0.003)	(0.003)
Deaths 1997	−0.038	−0.044	−0.039
	(0.003)	(0.002)	(0.002)

Source: Hahn (2000).

Note: Numbers in parentheses are standard errors.
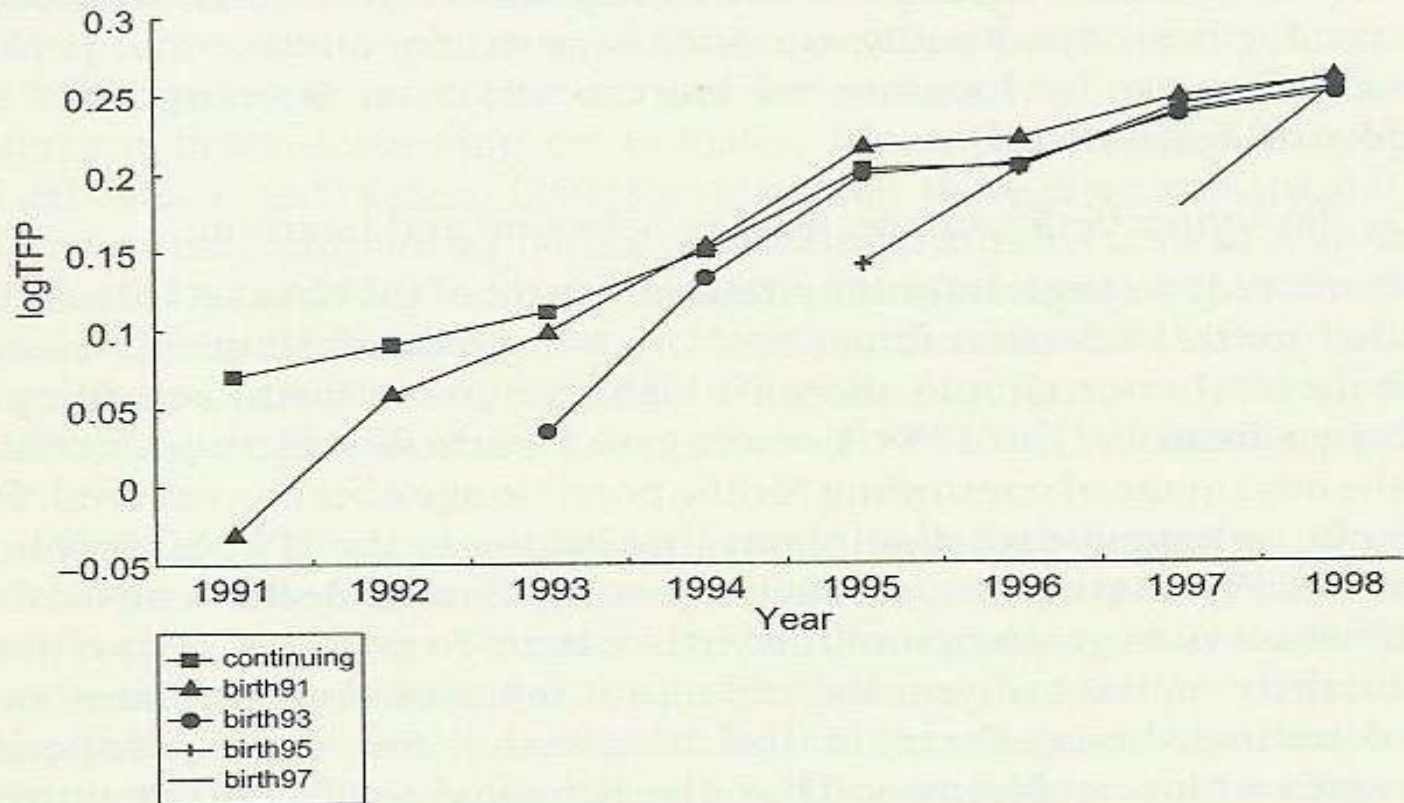
Fig. 9.1 Postentry productivity performance of surviving births: Learning
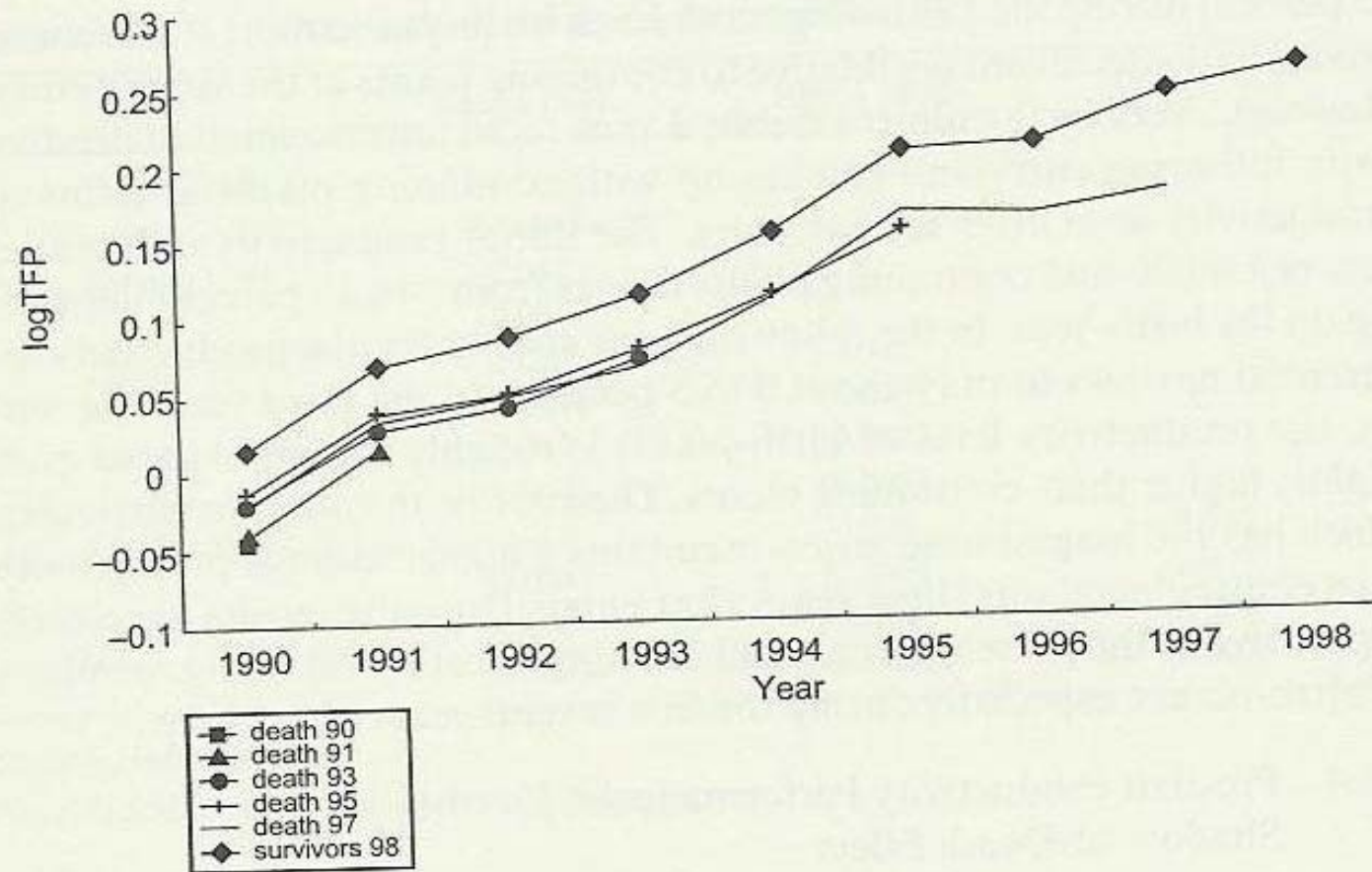*Source:* Hahn (2000).

Fig. 9.2   Pre-exit productivity performance of deaths: Shadow of death
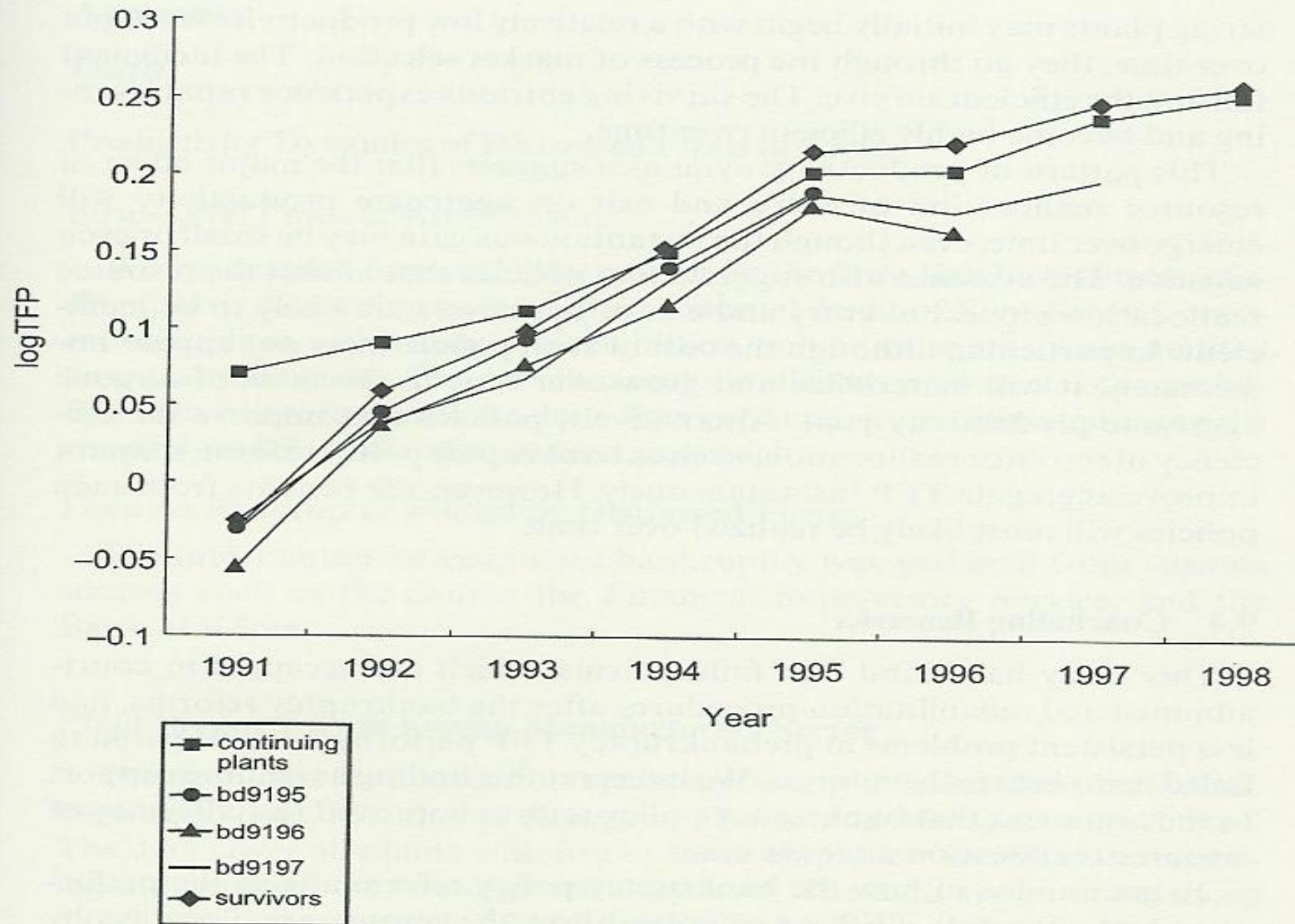
Source: Hahn (2000).

Fig. 9.3   Pre-exit productivity performance of deaths among 1991 births