

기본연구
03-34

Higher Education Reform
for the Knowledge-Based Economy

지식기반사회의 고급인력 양성을 위한 고등교육 개혁방안

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공동연구자 : 이 주 호

이 영 준

백 성 준

21

가

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1995

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1995

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가

2003 12

한국직업능력개발원
院長 金 章 鎬

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	3 :	

2	1
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.	가 12
1.	12
2.	14
III.	20
IV.	22
1.	22
2. M&A	23
3.	29
4.	34
.	38
.	39
2	43
.	43
.	46

1.	46
2.	49
.	58
1.	58
2.	60
.	75
1.	75
2.	.....	79
.	.....	83
1.	.....	83
2.	.....	85
3.	.....	85
.	.....	86
.	.....	89
1.	.....	89
2.	.....	93
3.	.....	93
4.	97
5.	97
.	98
.	100
3	103
.	103
.	106
1.	105
2.	110
3.	119

- . :120
- 1.120
- 2. :122
-127
- 1.127
- 2. •128
- 3.128
-129
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- 2. •131
- 3.136
-137
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- 2.146
- 3.148
- 4. 가153
- III.160
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2.182

3.182

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3.197

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1. :199

2. :200

3. :201

4. :203

.205

1. :205

2.208

3.210

4.212

.214

.214

1.214

- 2.215
- 3.216
-217
-219

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- 1.223
- 2.226
-229
- 1.229
- 2. :231
- 3. : ,233
-234
- 1.234
- 2.237
- 3.241
- 4.245
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-249
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- I.255
- II.256

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[6-4]			237
[6-5]			242
[6-6]			244
[6-7]			244

/ /

2

(KDI)

가 가

1995

가 ,

. IMD 2002

가 3.52 41 (47)

가

가

가

가

가 .

OECD, World Bank, UNESCO

가 .

, , , .
1995

가 , 가 . 1995

1995 가 .
. 1995 “ 1 ” 가 가

가 .
가

가

가 .

(inbreeding)

가

가

2

3

가

()

가

가

가

(OECD, 2003).

()가

1995

1

“ 2

” 가 , 2

4

. 1

가

2

(< 0-1>).

< 0-1>

	1	2
	1995~2003	2004~2010
		<ul style="list-style-type: none"> · · · M&A ·
가		<ul style="list-style-type: none"> · · ·
		<ul style="list-style-type: none"> · · ·
		<ul style="list-style-type: none"> · · · , , · , · 가 ·

가

가

1

1

가

가

2

M&A

M&A

가

(mutual

development),

M&A

3

4

가

가

6

2

1

5 GDP 10.7 1% 가 가

2

)” . “ (가 , ,

3

가 ; , , ,

4

- 가 (4 5)

5

, 가 , (university-based enterprise) 가 가

8

2
가 , CEO
가 ,
가 가 가

3
· ·

4 ·

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5 ,

5

1
가 , 1/3
1/5 , 1/2
가 ,
“ ”

2

9

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3

가

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1

가

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가 , , ,

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10

7

1

(decentralization)

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가

(

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3

(full-time position)

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가

1

1

(KDI)
(University of Wisconsin-Milwaukee)
(KDI)

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가 . 가
(Knowledge based economy)

가 . 가

가 .

가 .

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가 . 1995
가 , 가 ,

가
 가
 2
 3
 4
 M&A
 5

가
 가
 가
 가

1.

가

2.

(government-driven)

가

가

가가

(rent-seeking activities)¹⁾

가 가

가

가

가

가

[1-1]

[1-2]

2)

1)

가

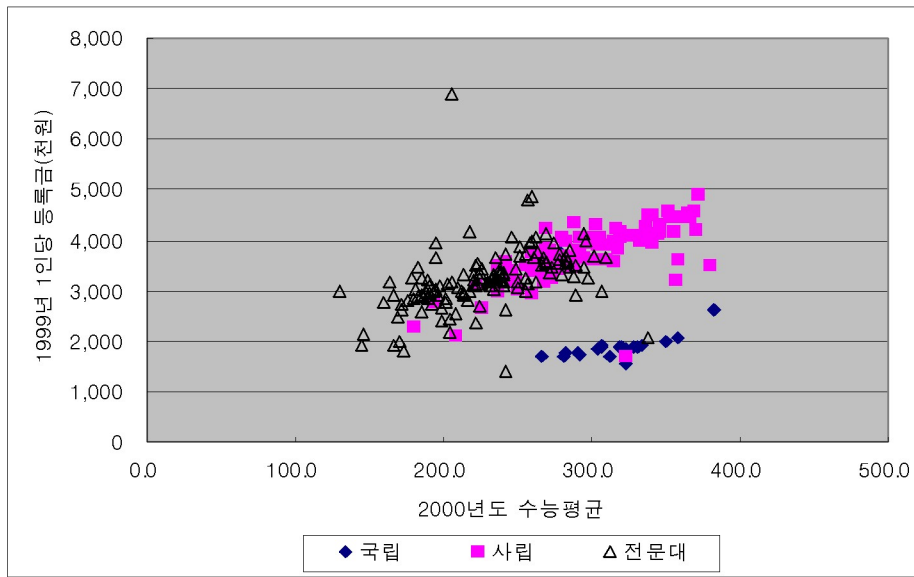
가

2) [1-2]

1,000

3,000

, M&A
가



: 0.3088

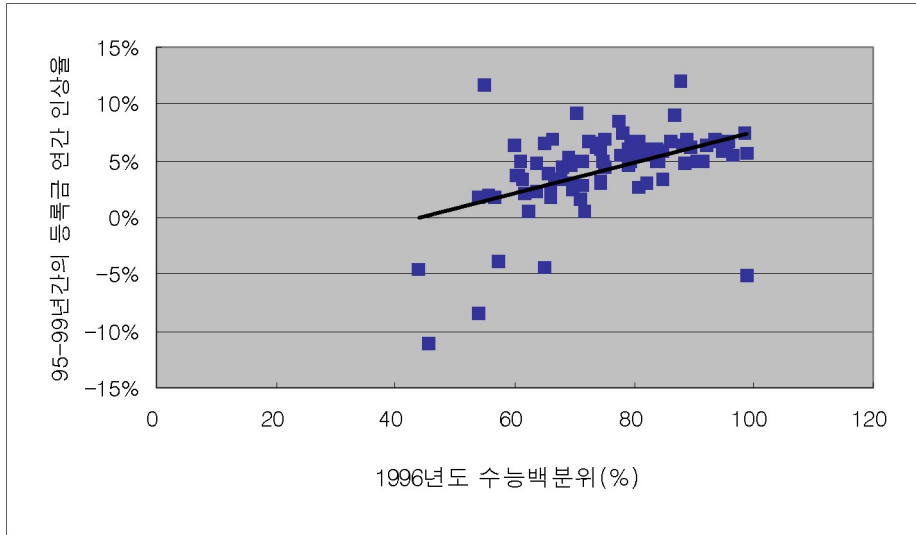
[1-1] (2000)

: 240 (21 , 87 , 132)

: 2000

1 : 1999 ÷

:



: 0.4819

[1-2] 4 (1996)
(1995-1999)

: 4 91

:

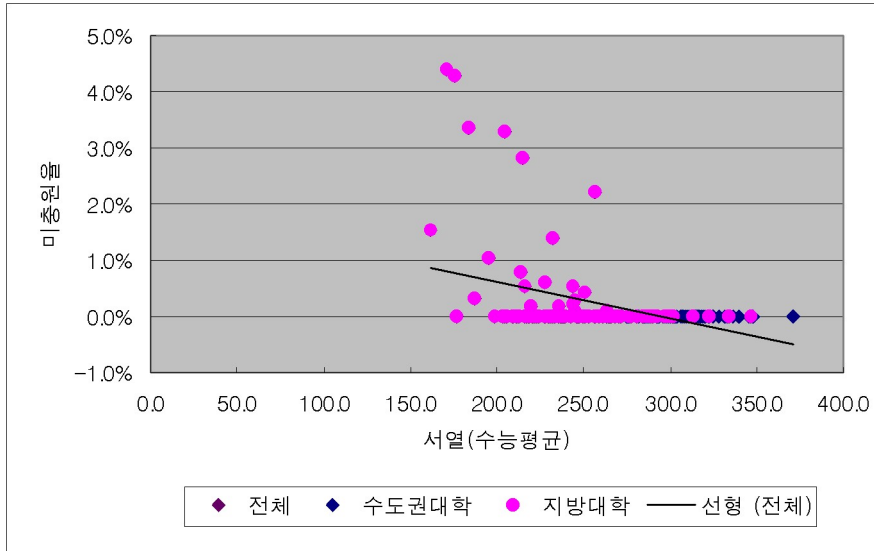
$$: \sqrt[4]{\frac{99}{95} \frac{1}{1}} - 1$$

:

,

[1-3]

(2003)



: -0.4037

[1-3] 2001

:
 : (150) ÷
 : + +
 : +
 : (+) ×
 : (-) ×
 * 1
 :

[1-4]

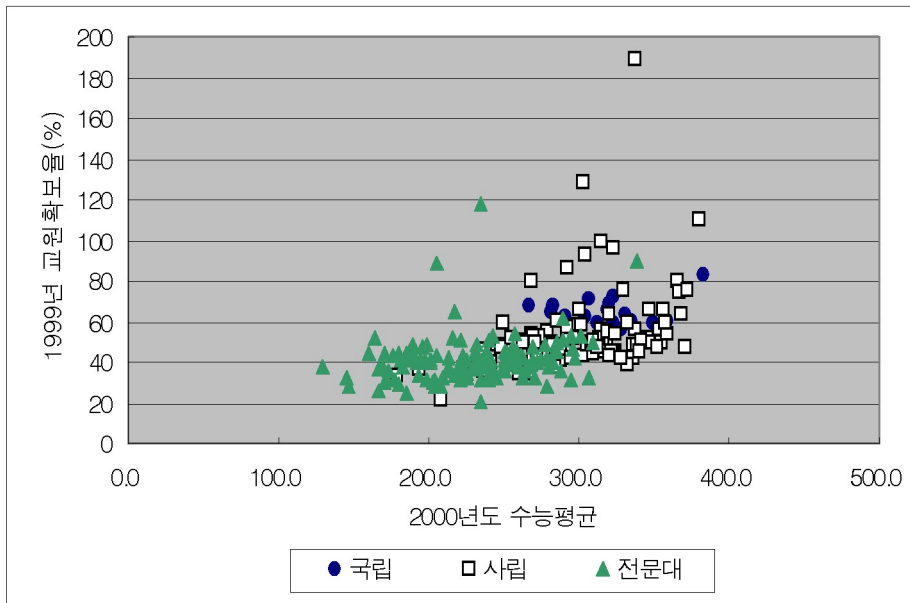
< 1-1>

, ,
 1 20
 , (25 ,

8 , 20)

(Competition to the Bottom)

가



: 0.4904

[1-4]

: 253 (20 , 101 , 132)

: (/) × 100,

20 , 20 , 20 , 가 25 , 8 ,

:

가 . ,

(private interests)

M&A ,

가 가

가

< 1-1>

1

(:)

4	29.0	28.2	28.9	28.1	28.6	27.9	27.5	26.8	18.8	18.3
	35.2	35.0	34.6	34.4	34.6	34.4	33.2	33.1	18.0	17.9
	36.3	33.2	33.7	30.9	33.1	30.3	32.3	29.6	20.7	18.9
	34.4	32.0	32.5	30.2	32.1	29.8	31.2	29.0	20.2	18.8
	49.3	46.8	45.4	43.1	45.1	42.8	44.6	42.2	21.7	20.6
	69.5	49.6	49.9	35.6	49.5	35.4	49.5	35.3	30.4	21.7
	59.2	48.2	47.9	39.0	47.5	38.7	47.3	38.5	26.0	21.1
	35.8	32.8	33.5	30.8	33.0	30.3	32.1	29.5	20.6	18.9

:

가 , , 가 .

가 , M&A , 가 , 1995 .

M&A .

가 가 .

3)

IV.

1.

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1995

, · , · 가

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가

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(entrance barrier)

가

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가

가

가

2010

가

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가 가

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가

가

가

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가

M&A

가

가

2. M&A

M&A

M&A가

M&A 4 . 4
 4) .
 4 M&A가 가 가 .
 M&A 가 . M&A ,
 M&A가 가 .
 M&A 가 . (mutual
 development),

가. (mutual development)

M&A
 (Martin & Samels, 1994).
 M&A , ,
 , , M&A
 가 .
 M&A
 (mutual growth) M&A

4) M&A (2000) (2000) .

가

가

M&A

M&A

“(mutual development)”

M&A가

M&A

win-win

가

M&A

가

가

가

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가

M&A

가

(mutual development)

M&A

가

M&A

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가

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M&A가

가

가 M&A
 가 . M&A
 가 , ,

M&A가 M&A

1)

M&A
 가 M&A
 . M&A
 M&A
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가

2)

가 , M&A

1

27

M&A

M&A

3)

M&A

M&A

4)

M&A

가

M&A

가

가

M&A

, 가

M&A

1)

M&A

2)

market share)" M&A " (student

가

가 M&A

M&A

, 4-5

M&A

3)

M&A

(economies of scale)가

100

300

1

3

가

M&A

가

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가

. M&A

(synergy)

M&A

가

4) (alumni)

M&A

가

M&A

가

가

, M&A

가

가

3.

. 2002

15

12

1997

가 5) 가

,

가

15

가

가 WCU(World Class University)

10

10

MIT,

University of Chicago, INSEAD

가

MIT, Harvard

가

가

가

5) 가

, 가 , , ,

가

,6)

가

가?

가

11.8%

15

가

가

가

가 . 가

가

가

가

6)

(2003)

가

가

가 가
가

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가 2002 4

(graduates' survey)

DB

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DB 가
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가 . ,

DB

가
가

가 , 가
가

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가

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가

가

community college

가

community college

community college

35%

(Kane and Rouse,

1999).

2

가

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가

. 95%

가

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가
 가
 (output)
 가

가
 (, 2003).

가
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1997

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가

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가

가

가 가

가 (가 가) “ ” 가

2

가

, 『 02- -07, 『 , 2002.』 , 『 , 2003.』 , 『 , 』 , 『 , 1998.』 , 『 , 』 , 『 , 1999.』 , 『 , 』 , 『 , 』 , 『 , 2001.』 , 『 , 』 , 『 , 2000.』

James Martin, James E. Samuels & Associates, *Merging Colleges for Mutual Growth: A New Strategy for Academic Mergers*, The Johns Hopkins University Press, 1994.

1

2

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()

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2003 8

()가

11

가 (6T)

2006 'Post-BK 21' , 2004

가 (RIS)

'7) 2008 3 1 5

7) , , 가 NGO

가

, 13

가 가 , BK21 ,

가
 2003 3 (WTO)
 ,
 2003 199 4 35,681 (
 94%) , 2002 5.6% 가
 , 가
 , , , ,
 가 , , , ,
 R&D ,
 M&A (, 2003)
 ,
 (fundamental)

 , RRC , TIC

가 가 ,

가 가

가
가 .

가
가
(, 2003).

, 가
가, 가
가 .

가

,
가

1.

< 2-1>

1977 2000

OECD

2-2>

[2-1]

OECD 가

가

2003

OECD

(Education at a Glance)

GDP

가 7.1%

(7.0%),

(5.3%),

(4.6%)

가

18% OECD

7%

76% OECD

20% 3 가

7 15 (GDP 1.5 3%)

가

GDP

GDP

4%

OECD 가

1% 가

0.3%,

0.6% 가

가

가 , GDP 1970 가 4% 2000 가 7% , 가 , 90 가 .

< 2-1> (1977 2000)

(: GDP %)

										(.)
'77 KEDI	4.60	2.44	2.16	0.00	0.00	2.22	1.60	0.22	0.56	0.7
'82	6.44	3.49	2.95	0.02	0.03	2.71	1.67	0.76	1.25	0.4
'85	5.73	3.13	2.60	0.02	0.05	2.59	1.39	0.52	1.16	0.9
'90	4.86	2.97	1.89	0.02	0.07	2.47	0.97	0.48	0.85	1.2
'94	5.14	3.29	1.85	0.03	0.09	2.73	0.74	0.53	1.02	1.8
'98	6.841)	4.32	2.52	0.05	0.10	3.37	0.84	0.90	1.58	2.9
'98 OECD	7.031)	4.07	2.96	0.102)		3.15	0.80	0.44	2.07	
'99	6.8	4.1	2.7	0.42)		3.2	0.80	0.5	1.9	
'00	7.1	4.3	2.8	0.52)		3.3	0.70	0.6	1.9	
OECD '98 OECD	5.66	5.00	0.66	0.402)		3.47	0.35	1.06	0.29	
'98 OECD	6.43	4.82	1.61	0.402)		3.40	0.35	1.07	1.22	
'98 OECD	4.92	4.65	0.28			3.40		0.83	0.28	
'98 OECD	4.72	3.55	1.17	0.43	0.32	2.78	0.25	0.43	0.60	

: 1) (KEDI) OECD , OECD가 .
 2) . (2000) . OECD
 OECD(2001), OECD(2002), OECD(2003) .

90 가
 (< 2-1>),
 11-12% (< 2-2> ,
 OECD 가 ([2-1]
).

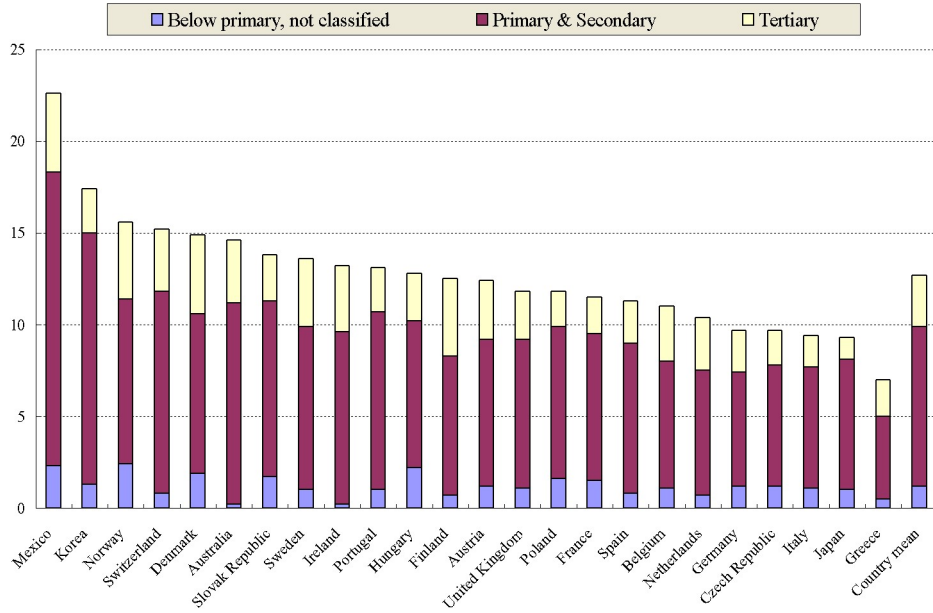
< 2-2> (: , %)

	1995	1996	1997	1998	1999	2000	2001
(GDP ,%)	128,990 (3.4%)	156,528 (3.7%)	181,710 (4.0%)	174,861 (3.9%)	179,029 (3.7%)	197,255 (3.8%)	200,188
(,%)	109,714 (85.1%)	131,976 (84.3%)	154,586 (85.1%)	147,893 (84.6%)	151,740 (84.8%)	169,177 (85.8%)	170,970 (85.4%)
(,%)	-	-	20,743 (11.4%)	19,771 (11.3%)	22,004 (12.3%)	24,097 (12.2%)	25,210 (12.6%)

: 1)

2)

: (2001)



[2-1] , %(1999)

2.

2003 GDP 4.97% , 2000
 가 가 . 2000 3.3
 , 70%
 2.4 , 0.9
 ,
 1.7 ,
 1.6 (< 2-3>).

< 2-3>

(:)

	1998	1999	2000	2001	2002	2003
▪ GDP (A) ¹⁾	4,443,665	4,827,442	5,219,592	5,450,133	5,777,141	6,123,769
▪ (B)	193,965	203,930	228,595	254,726 (270,367)	278,893 (281,391)	304,636
-	174,861	179,030	197,256	200,188 (215,829)	222,784 (225,282)	244,044
-	16,071	13,480	15,569	50,812	52,398	56,546
- ()	-	7,941	11,852	-	-	-
-	3,033	3,479	3,918	3,726	3,711	4,046
▪ GDP (B/ A)	4.36	4.22	4.38	4.67 (4.96) ²⁾	4.83 (4.87) ²⁾	4.97

: 1) '98 '00- , '02- '01 6% 가, 2003

'02 6% 가

2) 가

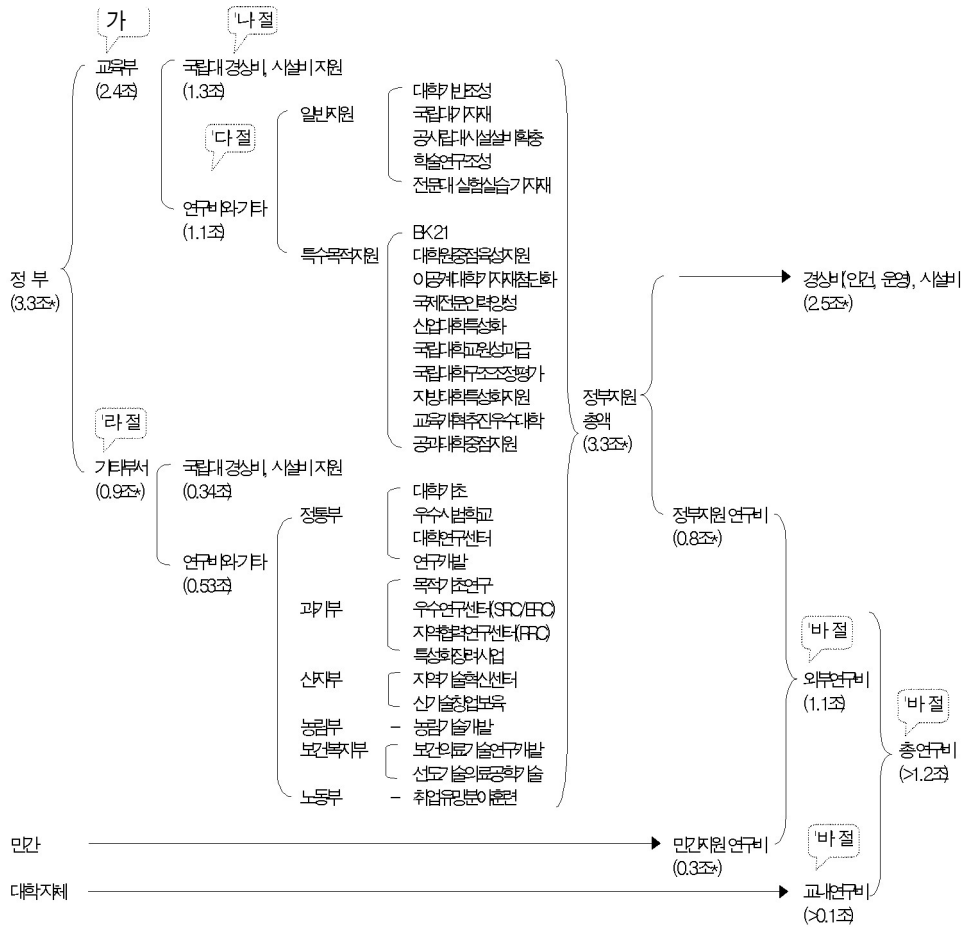
가

가

()

(, 2001; < 2-4>, [2-2]).
 1990 “ 가
 ”

1990 12% 2000
 35% (< 2-4>).



< 2-4>

(:)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
		97	164	167	451	750	965	951	920	850	853	700	720
	160	240	400	400	700	1,050	1,250	1,100	850	800	800	670	-
()	-	-	-	500	450	600	540	450	450	450	450	480	1150
	203	203	270	400	600	900	1,200	1,000	1,008	1,200	1,300	2,300	2,276
		12	35	40	150	450	639	750	721	700	700	650	700
	800	850	1,006	1,037	1,302	1,651	1,696	1,956	2,010	1,170	1,012	1,136	963
	-	-	-	-	-	80	80	58	87	80	50		
	-	-	-	-	-	25	25	-	-	-	-		
		19	19	19	19	19	29	25	-	-	-		
	-	-	-	17	193	195	200	152	237	306	180	150	40
	-	-	-	-	2	2	4	-	-	-	-		
	5	5	5	5	5	5	5	5	4	4			
	-	-	9	9	9	9	15	14	10	10	12		
	125	118	117	91	78	78	75	79	128	451	423	650	742
	5	2	1	1	2	1	1	1	0.2	-	-		
	5	6	4	4	4	4	4	4	-	-	-		
	6	5	5	3	2	2	4	5	3	3	4	4	4
	-	90	120	120	124	138	141	138	62	50	36	22	4
	-	-	-	-	187	273	319	305	506	562	629	712	635
	-	-	-	-	-	10	77	20	12	12	12	100	80
	200	200	200	300	500	700	600	850	500	500	500	559	200
(A)	1,509	1,847	2,355	3,113	4,778	6,942	7,869	7,863	7,508	7,148	6,961	8,133	7,514
	-	-	-	-	200	200	200	170	110	-	-		
	-	-	-	-	-	200	200	160	100	100	-		
()	-	-	-	-	-	150	170	170	119	120	150	150	
	-	-	-	400	400	400	400	400	-	-	-		
	-	-	-	-	-	300	270	200	200	150	145		
	-	-	-	-	-	-	-	-	-	150	250	121	121
	-	-	-	-	-	-	-	200	200	200	200	200	200
	-	-	-	-	-	-	180	150	150	150	150	500	500
	-	-	-	-	-	-	-	20	25	30	30	30	
	-	-	-	-	-	-	259	400	660	800	800	1,656	1,656
	-	-	-	-	-	-	-	-	2,000	2,000	1,700	1,382	1,600
(B) (,B' C)				400 (11%)	600 (11%)	1,250 (15%)	1,679 (18%)	1,670 (18%)	3,564 (32%)	3,700 (34%)	3,425 (33%)	4,039 (33%)	4,077 (35%)
(C)				3,513	5,378	8,192	9,548	9,533	11,072	10,848	10,386	12,172	11,591

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	'97	'98	'99	2000	2001	2002	2003
	532	655	1,651	4,547	4,842	6,580	7,760
	37	45	101	215	221	278	310
	68	78	101	246	413	559	742

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1997	83,876	95,325,011	33,052	31,374,021	2,101	2,172,588	48,723	61,778,402
1998	72,229	81,481,518	30,413	33,178,117	1,909	1,710,811	39,907	46,592,590
1999	206,500	86,386,295	48,956	37,716,267	1,471	1,313,892	156,073	47,356,136
2000	74,643	83,610,690	31,293	36,275,860	1,544	1,795,481	41,806	45,539,349
2001	85,688	99,205,701	43,067	52,006,352	2,613	3,009,383	40,008	44,189,966
2002	84,348	112,644,805	42,473	61,381,224	1,385	1,427,142	40,490	49,836,439

: . Stat-Korea([http:// www.stat.go.kr](http://www.stat.go.kr)).

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		1995	1996	1997	1998	1999	2000	2001	1 2001	2002	2003
		49,636	63,924	80,272	66,967	63,851	69,569	64,129	10.44	72,425	79,671
		32,120	24,474	17,577	15,585	14,945	18,971	23,469	29.10	33,009	29,750
		3,052	3,629	5,250	8,399	12,899	3,000	4,500	1.98	-	-
		3,000	10,000	17,808	6,906	3,464	1,000	1,500	0.71	1,500	1,500
		7,600	3,100	5,000	4,200	13,000	14,900	6,867	7.75	7,148	8,976
		-	-	-	-	73,018	91,734	57,482	6.47	52,868	60,166
				5,110	4,603	4,434	4,085	834	8.80	-	-
							110,000				
		4,000	2,000	6,000	6,795	8,549	6,876	7,604	2.89	6,771	8,143
		-	-	-	3,400	6,000	17,631	19,744	24.49	9,743	7,189
		12,720	9,937	4,078	4,672	5,432	14,878	10,266	20.66		
		11,858	13,871	7,377	5,637	16,173	17,811	19,989	37.50		
				2,103	2,221	2,095	2,236	2,375	5.15	2,519	2,664
				42,965	47,866	33,763	34,177	35,116	3.91	45,960	48,915
						11,006	14,711		31.70	13,340	21,150
						5,401	6,265		1.28	6,800	7,675
				-	1,407	3,765	4,635	4,768	6.20	4,856	4,910
				-	1,298	1,271	1,501	1,906	2.24	1,970	3,112
						2,394	1,994	2,048	2.05	1,700	1,920
						2,842	1,756	1,744	1.69	1,920	3,475
						1,059	1,251	574	1.17	740	579
						1,158	1,290	547	1.32	1,448	649
				-	3,708	1,790	2,276	1,876	2.63	3,270	3,322
	(02)			-	-	4,084	2,335	1,983	5.18		
						292,393	334,882				

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	95	1996	1997	1998	1999	2000	2001	2002	2003
	1,627	354	405	399	500	705	847	984	1,068
	1,058	353	429	416	437	443	599	652	652
	15	52	70	100	165	185	235	255	292
	29	20	36	38	72	80	80	80	-
가	-	-	-	-		732 (170)	1,018 (268)	1,069 (227)	1,070
							(29)		
						(18)	(18)	(21)	
						(15)	(30)		
	3,291	686	801	861	860	860	1,135		
	-	-	-	300	150	150	300	300	300
(TBI)	15	20	25	70	200	240	288	200	200
(TIC)	10	40	50	50	190	200	280	280	280
				59	35	20			
			88	195	200	184	63		
					84	100	130		
	46	46	46	46	59	50	40		
							(489)		
	-	-	-	-	-	150 (30)			
	94 (54)	177 (106)	276 (178)	358 (187)	339 (180)	395 (211)			
	34 (19)	86 (51)	150 (91)	150 (69)	140 (63)				
						(21)	(38)	(48)	
						(267)	(351)	(303)	
	770	385	510	385 (165)	330 (215)	315 (285)	382	412	421
						(10)			
				89	600	495	292		
	-	-	-	-	-	2	11	5	-
	-	-	-	-		15	30	16	30
. .	110	70	81	101	130	225	350	411	341
	7,044	2,183	2,810	3,145	4,140	5,212	6,080	-	-

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() , 1	TT/ PF	14.98	26.19	0	264.17
	Gv/ Pf	14.08	17.25	1.08	123.39
	Ed/ Pf	10.99	14.84	0.58	119.45
	EdG/ Pf	7.65	10.32	0.58	95.53
	EdS/ Pf	3.34	7.36	0	65.99
	OT/ Pf	3.09	4.49	0	34.56
	State	0.2	0.4	0	1
	Met	0.41	0.49	0	1
	StEnr	10,175	7,816	122	33,472
	Pf	362	281	15	1482
	Year	29	18	4	99
1 SCI , 1997	SCI	0.12	0.21	0	1.97
1 NCR , 2001	NCR01				
1 NCR , 2002	NCR02				

< 2-10> (2000 , OLS)

	(1)	(2)	(3)	(4)	(5)	(6)
	ln(TT/Pf)	ln(Gv/Pf)	ln(Ed/Pf)	ln(EdG/Pf)	ln(EdS/Pf)	ln(OT/Pf)
	0.51 (0.167)**	1.059 (0.115)**	1.117 (0.112)**	0.962 (0.102)**	1.182 (0.157)**	0.529 (0.131)**
	0.076 (0.139)	0.003 (0.096)	-0.021 (0.094)	0.063 (0.085)	-0.190 (0.131)	0.045 (0.109)
	-0.005 (0.005)	-0.001 (0.003)	0.000 (0.003)	0.000 (0.003)	0.001 (0.004)	0.000 (0.004)
log ()	0.655 (0.077)**	0.195 (0.053)**	0.088 (0.052)+	0.046 (0.047)	0.199 (0.072)**	0.377 (0.060)**
1 SCI	2.349 (0.306)**	1.524 (0.209)**	1.237 (0.205)**	0.516 (0.186)**	1.877 (0.287)**	1.980 (0.239)**
	-3.898 (0.618)**	0.283 (0.423)	1.012 (0.415)*	1.247 (0.375)**	-1.250 (0.579)*	-2.696 (0.482)**
	128	128	128	128	128	128
Adjusted R-squared	0.648	0.638	0.6	0.487	0.571	0.63

Standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%

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 61 (35%), 154 (90%) ,
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< 2-11> (n=172)

					min	max
1	NCR, 2002	NCR02R	-	0.29	0.70	0 6.72
1	NCR, 1999	NCR99R	-	0.18	0.46	0 4.14
1	NCR, 1995	NCR95R	-	0.08	0.28	0 3.14
1	NCR	NCR0299	-	0.11	0.35	-0.11 4.35
		D_State	35	0.20	0.40	0 1
		D_Met	61	0.35	0.48	0 1
		D_Gen	154	0.90	0.31	0 1
		D_Ind	18	0.10	0.31	0 1
		StEnr	1,406,344	8,176	7,527	28 33,472
1		StuProf		29.59	10.42	1.44 52.15
		NoProf	47,427	275	278	7 1,660
	,	NoProfA	-	13.91	12.74	0 81.82
	,	NoProfB	-	23.11	22.91	0 100
	,	NoProfC	-	43.90	24.52	0 100
	,	NoProfD	-	12.29	16.51	0 100
	,	NoProfE	-	6.78	15.07	0 97.87

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					min	max
, BK21, 2000	Ed30_00	195,186	1,135	7,332	0	94,700
, BK21, 2001	Ed30_01	164,487	956	5,126	0	64,800
, BK21, 2002	Ed30_02	130,312	758	3,300	0	39,500
, BK21, 2000	Ed302_00	11,000	64	269	0	2,040
, BK21, 2000	Ed303_00	86,952	506	3,440	0	42,200
, BK21, 2000	Ed304_00	50,000	291	3,812	0	50,000
, BK21, 2000	Ed305_00	10,000	58	308	0	2,520
, BK21, 2000	Ed306_00	48,234	280	692	0	3,313
, BK21, 2000	Ed301_00	37,954	221	583	0	3,870
, 2000	Ed11_00	110,251	641	1,317	0	8,107
, 2001	Ed11_01	150,878	877	8,575	0	113,000
, 2002	Ed11_02	169,559	986	2,113	0	17,300
, 2002	Ed113_02	25,185	146	290	0	2,271
, 2002	Ed114_02	36,600	213	412	0	2,226
, 2002	Ed115_02	94,834	551	1,248	0	10,800
, 2002	Ed116_02	4,684	27	54	0	442
, 2002	Ed117_02	3,233	19	38	0	277
, 2002	Ed118_02	10,958	64	274	0	2,020
, 2000	Ed12_00	41,449	241	274	0	1,400
, 2000	Ed13_00	72,427	421	486	0	2,000
	Ed14_00	101,706	591	1,667	0	10,900
	Ed22_01	14,850	86	237	0	2,170
	Ed25_00	18,005	105	304	0	2,239
	Ed27_00	14,475	84	211	0	900
	Ed28_00	14,650	85	225	0	780
, 가, 2000	ST17_00	16,760	97	392	0	3,758
, 가, 2001	ST17_01	26,548	154	641	0	6,039
, 가, 2002	ST17_02	22,414	130	576	0	6,446
, 2001	IC15_01	47,951	279	458	0	2,275
, 2000	HM14_00	26,506	154	717	0	7,743
, 2001	HM14_01	35,024	204	938	0	10,800
, 2002	HM14_02	30,173	175	723	0	7,770

: 가 가 .

< 2-12> NCR

			NCR02- NCR98		NCR02		NCR99		NCR95
	1	0	4.35	1	6.72	1	2.37	3	0.09
	1	0	0.84	2	4.05	2	3.21	2	1.66
	1	0	0.71	3	0.71	15	0.00	132	0.00
	1	1	0.58	4	1.99	4	1.40	4	0.79
	1	1	0.51	5	0.66	16	0.14	50	0.04
	1	1	0.44	6	1.00	7	0.56	11	0.21
	1	0	0.39	7	0.80	11	0.41	17	0.22
	1	1	0.38	8	0.99	8	0.61	8	0.28
	1	1	0.37	9	1.02	6	0.65	7	0.14
	1	1	0.37	10	1.17	5	0.80	5	0.29
	1	0	0.31	11	0.42	26	0.11	65	0.05
	1	1	0.30	12	0.85	9	0.55	12	0.31
	1	0	0.29	13	0.73	14	0.44	15	0.26
	1	0	0.28	14	0.55	21	0.27	24	0.15
	1	0	0.25	15	0.47	24	0.22	30	0.08
	1	0	0.25	16	0.41	28	0.16	46	0.09
	1	1	0.24	17	0.57	20	0.33	19	0.16
	1	1	0.23	18	0.32	36	0.09	74	0.06
	1	0	0.22	19	0.73	13	0.51	13	0.15
	1	0	0.22	20	0.41	27	0.19	37	0.02
	0	0	0.21	21	0.25	51	0.05	99	0.01
	1	0	0.20	22	0.20	59	0.00	132	0.01
	1	1	0.20	23	0.48	23	0.28	22	0.17
	1	1	0.19	24	0.78	12	0.59	10	0.19
	1	0	0.19	25	0.44	25	0.26	25	0.17
	1	1	0.19	26	0.28	44	0.10	72	0.05
	1	0	0.18	27	0.62	17	0.44	16	0.21
	1	0	0.17	28	0.39	30	0.22	32	0.06
	1	0	0.16	29	0.54	22	0.38	18	0.16
	1	1	0.16	30	0.28	46	0.12	61	0.11
	1	0	0.16	31	0.39	29	0.23	29	0.13
	1	1	0.15	32	0.29	43	0.14	56	0.06
	1	0	0.15	33	0.36	32	0.21	34	0.12

()			NCR02- NCR98		NCR02		NCR99		NCR95
	1	0	0.15	34	0.21	56	0.06	91	0.02
	1	1	0.15	35	0.81	10	0.66	6	0.19
	1	1	0.14	36	0.32	37	0.18	41	0.09
	1	0	0.14	37	0.29	41	0.15	48	0.09
	1	0	0.13	38	0.58	19	0.45	14	0.21
	1	0	0.13	39	0.32	38	0.19	38	0.05
	1	0	0.12	40	0.27	48	0.14	51	0.05
	1	0	0.12	41	0.17	69	0.05	98	0.03
	1	0	0.12	42	0.29	42	0.17	44	0.07
	1	0	0.12	43	0.19	61	0.07	88	0.04
	1	0	0.12	44	0.34	34	0.22	31	0.12
	1	0	0.11	45	0.25	49	0.14	53	0.05
	0	0	0.11	46	0.16	71	0.05	97	0.00
가	1	0	0.11	47	0.15	77	0.04	105	0.00
가	1	1	0.11	48	0.39	31	0.28	23	0.10
	1	0	0.10	49	0.15	79	0.04	104	0.04
	0	1	0.10	50	0.16	74	0.05	95	0.02
	1	0	0.10	51	0.10	96	0.00	132	0.00
	1	0	0.10	52	0.27	47	0.18	42	0.06
	1	0	0.10	53	0.17	66	0.08	84	0.03
	1	0	0.10	54	0.28	45	0.19	39	0.11
	1	1	0.09	55	0.23	54	0.13	59	0.08
	1	0	0.09	56	0.31	40	0.22	33	0.13
	1	0	0.09	57	0.18	64	0.09	77	0.05
	1	1	0.09	58	0.12	89	0.03	111	0.02
	1	0	0.09	59	0.17	68	0.08	80	0.03
	1	0	0.09	61	0.33	35	0.24	28	0.09
	1	0	0.09	60	0.18	63	0.09	73	0.04
	1	0	0.08	62	0.08	100	0.00	132	0.00
	1	1	0.08	63	0.21	57	0.13	60	0.08
	1	0	0.08	64	0.11	90	0.04	106	0.01
	1	1	0.07	65	0.32	39	0.24	27	0.09
	1	0	0.07	66	0.15	76	0.08	82	0.02
	1	1	0.07	67	0.25	52	0.18	40	0.09
	1	0	0.07	68	0.21	58	0.14	52	0.06

()			NCR02- NCR98		NCR02		NCR99		NCR95
	1	0	0.07	69	0.36	33	0.30	21	0.10
	0	0	0.06	70	0.06	112	0.00	132	0.00
	0	0	0.06	71	0.16	72	0.10	70	0.00
	1	1	0.05	72	0.07	105	0.02	119	0.01
	1	0	0.05	73	0.14	83	0.08	79	0.06
	0	0	0.05	74	0.08	103	0.03	113	0.00
	1	0	0.05	75	0.25	50	0.20	35	0.12
	1	0	0.05	76	0.05	117	0.00	132	0.00
	1	0	0.05	77	0.16	70	0.11	63	0.09
가	1	0	0.05	78	0.07	106	0.02	117	0.00
	1	0	0.05	79	0.09	98	0.04	101	0.02
	1	0	0.05	80	0.08	102	0.04	107	0.02
	1	0	0.05	81	0.15	75	0.10	69	0.08
	1	0	0.05	82	0.10	95	0.05	96	0.05
	1	1	0.05	83	0.12	86	0.08	85	0.02
	1	0	0.05	84	0.07	107	0.03	116	0.00
	1	1	0.04	85	0.20	60	0.16	45	0.08
	1	1	0.04	86	0.19	62	0.15	49	0.05
	1	0	0.04	87	0.13	84	0.09	76	0.04
	1	1	0.04	88	0.10	97	0.06	92	0.00
	1	1	0.04	89	0.11	91	0.07	87	0.03
	1	0	0.04	90	0.17	65	0.14	55	0.00
	1	1	0.04	91	0.14	80	0.11	67	0.13
	0	0	0.04	92	0.04	120	0.01	130	0.00
	1	1	0.03	93	0.07	108	0.03	108	0.03
	1	0	0.03	94	0.05	118	0.01	126	0.00
	0	0	0.03	95	0.03	122	0.00	132	0.00
	1	0	0.03	96	0.12	87	0.09	78	0.03
	1	1	0.03	97	0.11	93	0.08	83	0.02
	1	0	0.03	98	0.14	81	0.11	64	0.03
	1	1	0.03	99	0.03	127	0.00	132	0.01
	1	0	0.03	100	0.05	116	0.03	115	0.01
	1	1	0.03	101	0.16	73	0.13	58	0.05

()			NCR02- NCR98		NCR02		NCR99		NCR95
	0	0	0.03	102	0.03	128	0.00	132	0.00
	1	0	0.02	103	0.14	82	0.12	62	0.04
	0	0	0.02	104	0.02	129	0.00	132	0.00
	1	0	0.02	105	0.06	111	0.04	103	0.04
	1	1	0.02	106	0.03	124	0.01	129	0.00
	1	1	0.02	107	0.08	104	0.06	94	0.02
	1	0	0.02	108	0.17	67	0.16	47	0.02
	1	0	0.02	109	0.09	99	0.08	86	0.03
	1	1	0.01	110	0.12	88	0.10	68	0.00
	1	0	0.01	111	0.02	133	0.01	131	0.00
	1	1	0.01	112	0.01	140	0.00	132	0.00
	1	0	0.01	113	0.02	130	0.01	128	0.00
	0	0	0.01	114	0.05	115	0.04	102	0.00
	1	1	0.01	115	0.01	141	0.00	132	0.00
	0	0	0.01	116	0.01	142	0.00	132	0.00
	1	0	0.01	117	0.03	123	0.02	118	0.01
	1	1	0.00	118	0.08	101	0.08	81	0.03
	0	0	0.00	118	0.01	139	0.01	127	0.00
	1	1	0.00	118	0.07	110	0.07	89	0.03
	1	0	0.00	118	0.06	114	0.06	90	0.00
	0	0	0.00	118	0.05	119	0.05	100	0.00
	1	1	0.00	118	0.03	125	0.03	114	0.01
	1	0	0.00	118	0.02	131	0.02	120	0.00
	1	1	0.00	118	0.01	134	0.01	122	0.00
	1	0	0.00	118	0.01	135	0.01	123	0.00
	1	0	0.00	118	0.01	136	0.01	124	0.03
	1	0	0.00	118	0.01	137	0.01	125	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.04	87	0.13	84	0.09	76	0.04
	1	1	0.04	88	0.10	97	0.06	92	0.00
	1	1	0.04	89	0.11	91	0.07	87	0.03
	1	0	0.04	90	0.17	65	0.14	55	0.00

()			NCR02- NCR98		NCR02		NCR99		NCR95
	1	1	0.04	91	0.14	80	0.11	67	0.13
	0	0	0.04	92	0.04	120	0.01	130	0.00
	1	1	0.03	93	0.07	108	0.03	108	0.03
	1	0	0.03	94	0.05	118	0.01	126	0.00
	0	0	0.03	95	0.03	122	0.00	132	0.00
	1	0	0.03	96	0.12	87	0.09	78	0.03
	1	1	0.03	97	0.11	93	0.08	83	0.02
	1	0	0.03	98	0.14	81	0.11	64	0.03
	1	1	0.03	99	0.03	127	0.00	132	0.01
	1	0	0.03	100	0.05	116	0.03	115	0.01
	1	1	0.03	101	0.16	73	0.13	58	0.05
	0	0	0.03	102	0.03	128	0.00	132	0.00
	1	0	0.02	103	0.14	82	0.12	62	0.04
	0	0	0.02	104	0.02	129	0.00	132	0.00
	1	0	0.02	105	0.06	111	0.04	103	0.04
	1	1	0.02	106	0.03	124	0.01	129	0.00
	1	1	0.02	107	0.08	104	0.06	94	0.02
	1	0	0.02	108	0.17	67	0.16	47	0.02
	1	0	0.02	109	0.09	99	0.08	86	0.03
	1	1	0.01	110	0.12	88	0.10	68	0.00
	1	0	0.01	111	0.02	133	0.01	131	0.00
	1	1	0.01	112	0.01	140	0.00	132	0.00
	1	0	0.01	113	0.02	130	0.01	128	0.00
	0	0	0.01	114	0.05	115	0.04	102	0.00
	1	1	0.01	115	0.01	141	0.00	132	0.00
	0	0	0.01	116	0.01	142	0.00	132	0.00
	1	0	0.01	117	0.03	123	0.02	118	0.01
	1	1	0.00	118	0.08	101	0.08	81	0.03
	0	0	0.00	118	0.01	139	0.01	127	0.00
	1	1	0.00	118	0.07	110	0.07	89	0.03
	1	0	0.00	118	0.06	114	0.06	90	0.00
	0	0	0.00	118	0.05	119	0.05	100	0.00
	1	1	0.00	118	0.03	125	0.03	114	0.01
	1	0	0.00	118	0.02	131	0.02	120	0.00
	1	1	0.00	118	0.01	134	0.01	122	0.00

()			NCR02- NCR98		NCR02		NCR99		NCR95
	1	0	0.00	118	0.01	135	0.01	123	0.00
	1	0	0.00	118	0.01	136	0.01	124	0.03
	1	0	0.00	118	0.01	137	0.01	125	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
가	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
가	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	1	0.00	118	0.00	143	0.00	132	0.00
가	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	1	0.00	118	0.00	143	0.00	132	0.00
	1	1	0.00	118	0.00	143	0.00	132	0.00
가	1	1	0.00	118	0.00	143	0.00	132	0.00
()	1	1	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
가	1	1	0.00	118	0.00	143	0.00	132	0.00
	1	1	0.00	118	0.00	143	0.00	132	0.00
가	1	1	0.00	118	0.00	143	0.00	132	0.00
	1	1	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	1	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	1	0.00	118	0.00	143	0.00	132	0.00
	1	1	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.00	143	0.00	132	0.00
	1	0	0.00	118	0.11	92	0.11	66	0.05
	0	0	-0.01	158	0.03	126	0.03	109	0.02

< 2-13> 1 NCR ,
 (1 NCR + 1)

	(1)	(2)	(3)	(4)	(5)
	NCR2002- NCR1999	NCR 2002	NCR 1999	NCR 1995	NCR2002- NCR1995
	0.033 (0.019)+	0.088 (0.048)+	0.055 (0.040)	0.026 (0.029)	0.062 (0.035)+
	0.027 (0.015)+	0.083 (0.037)*	0.056 (0.031)+	0.023 (0.022)	0.060 (0.027)*
	0.054 (0.025)*	0.127 (0.062)*	0.073 (0.052)	0.039 (0.038)	0.088 (0.046)+
	0.005 (0.008)	0.076 (0.020)**	0.072 (0.017)**	0.049 (0.012)**	0.027 (0.015)+
1	-0.002 (0.001)+	-0.012 (0.003)**	-0.010 (0.002)**	-0.007 (0.002)**	-0.006 (0.002)**
	0.000 (0.001)	0.000 (0.002)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
	-0.002 (0.001)**	-0.004 (0.002)**	-0.003 (0.001)*	-0.001 (0.001)	-0.003 (0.001)**
	-0.002 (0.001)*	-0.005 (0.002)**	-0.004 (0.001)*	-0.002 (0.001)+	-0.003 (0.001)**
	0.000 (0.001)	-0.003 (0.002)	-0.003 (0.002)	-0.002 (0.001)*	-0.001 (0.001)
	0.111 (0.082)	0.045 (0.206)	-0.065 (0.172)	-0.092 (0.124)	0.137 (0.151)
	172	172	172	172	172
Adjusted R-squared	0.277	0.432	0.359	0.229	0.351

Standard errors in parentheses. + significant at 10%; * significant at 5%; ** significant at 1%

	(1)	(2)	(3)	(4)
	'02NCR -'99NCR	'02 NCR	'99 NCR	'02NCR -'95NCR
BK21 , 2000	0.009 (0.002)**	0.034 (0.006)**	0.025 (0.005)**	0.020 (0.004)**
BK21 , 2001	0.011 (0.002)**	0.038 (0.006)**	0.027 (0.005)**	0.023 (0.004)**
BK21 , 2002	0.011 (0.002)**	0.038 (0.006)**	0.027 (0.005)**	0.023 (0.004)**
BK21 , 2000	0.013 (0.003)**	0.073 (0.006)**	0.059 (0.005)**	0.039 (0.005)**
BK21 , 2000	0.008 (0.004)+	0.029 (0.010)**	0.021 (0.009)*	0.017 (0.008)*
BK21 , 2000	0.002 (0.003)	-0.018 (0.007)*	-0.020 (0.006)**	-0.007 (0.005)
BK21 , 2000	0.007 (0.003)*	0.036 (0.007)**	0.029 (0.006)**	0.014 (0.005)**
BK21 , 2000	0.005 (0.004)	0.009 (0.010)	0.004 (0.008)	0.007 (0.007)
- + , 2000	0.008 (0.003)**	0.023 (0.008)**	0.014 (0.007)*	0.016 (0.006)**
- + , 2001	0.008 (0.003)*	0.015 (0.009)+	0.007 (0.007)	0.013 (0.006)*
- + , 2002	0.007 (0.003)*	0.023 (0.008)**	0.016 (0.006)*	0.017 (0.006)**
, 2002	0.013 (0.003)**	0.028 (0.008)**	0.016 (0.007)*	0.023 (0.006)**
, 2002	0.012 (0.003)**	0.026 (0.007)**	0.013 (0.006)*	0.021 (0.005)**
, 2002	0.004 (0.003)	0.024 (0.007)**	0.021 (0.006)**	0.015 (0.005)**
, 2002	0.003 (0.003)	0.009 (0.008)	0.007 (0.007)	0.005 (0.006)
, 2002	-0.004 (0.004)	-0.035 (0.009)**	-0.030 (0.008)**	-0.016 (0.007)*
, 2002	0.005 (0.004)	0.008 (0.010)	0.003 (0.008)	0.007 (0.007)

	(1)	(2)	(3)	(4)
	'02NCR -'99NCR	'02 NCR	'99 NCR	'02NCR -'95NCR
- - -, 2000	-0.008 (0.005)	-0.066 (0.012)**	-0.059 (0.010)**	-0.036 (0.009)**
- - -, 2000	-0.007 (0.004)	0.003 (0.010)	0.009 (0.009)	0.000 (0.008)
- - -, 2000	-0.011 (0.005)*	-0.070 (0.012)**	-0.059 (0.010)**	-0.039 (0.009)**
- - , 2001	0.004 (0.003)	0.016 (0.007)*	0.012 (0.006)*	0.008 (0.005)+
- - -, 2000	-0.013 (0.006)*	-0.086 (0.015)**	-0.073 (0.012)**	-0.047 (0.011)**
- - -, 2000	-0.002 (0.003)	-0.010 (0.007)	-0.008 (0.006)	-0.004 (0.005)
- - -, 2000	0.002 (0.003)	0.016 (0.007)*	0.013 (0.006)*	0.007 (0.005)
- 가 , 2000	0.007 (0.003)*	0.031 (0.008)**	0.024 (0.007)**	0.016 (0.006)**
- 가 , 2001	0.009 (0.003)**	0.035 (0.008)**	0.026 (0.007)**	0.020 (0.006)**
- 가 , 2002	0.006 (0.003)+	0.030 (0.008)**	0.024 (0.007)**	0.016 (0.006)**
- , 2001	0.004 (0.002)+	0.005 (0.005)	0.001 (0.004)	0.004 (0.004)
- , 2000	0.012 (0.004)**	0.036 (0.009)**	0.024 (0.008)**	0.022 (0.007)**
- , 2001	0.010 (0.004)**	0.033 (0.009)**	0.023 (0.007)**	0.019 (0.007)**
- , 2002	0.009 (0.003)**	0.019 (0.008)*	0.010 (0.006)	0.012 (0.006)*

8)

.

外(2001)

外(1997)

1.

가

가

8) (2001) 가 .

(degree-granting institutions) 60% ,
가 1,450

(, , 가
)가 . 1998
1,450 3/4 1,120 .
. 4
, 4 900
65% 590
가 , 4
613 1,730

(degree-granting institutions)
가 1995 가 1,980
, . 1,240 745
(Digest of Education Statistics 2000). 1
, 11,000 , 22,000

(appropriation) 가
.9)

2-14> , <
(22%), (19%),

9) 1999 (in-state) 4
\$3,400, 2 \$1,300
4 10 가 \$14,700 .

(4%)
 (33%) (10%)
 16%
 (14%)
 (43%), (21%), (9%), (5%)
 가
 가
 . 2000 ,
 가 가 144 .

(100) ,
 NIH(National Institute of Health) .
 40 , NSF(National Science Foundation) 29 ,
 NASA가 22 , 19 , 11

NIH NSF

< 2-14>

(: %)

	1980 '81	1990 '91	1994 '95	1995 '96
	100.0	100.0	100.0	100.0
	12.9	16.1	18.4	18.8
	12.8	10.3	11.1	11.1
	2.6	1.7	1.5	1.5
	10.2	8.6	9.6	9.6
	45.6	40.3	35.9	35.8
	44	37.8	33	32.5
	1.5	2.5	2.9	3.3
	3.8	3.7	4	4.1
	3.4	3.3	3.6	3.6
	0.3	0.4	0.5	0.5
	2.5	3.8	4	4.1
	0.5	0.5	0.6	0.6
	19.6	22.7	23.1	22.2
	2.2	2.8	3	2.9
	10.7	9.5	9.5	9.4
	6.7	10.3	10.5	9.9
	2.4	2.6	3.1	3.3
	100.0	100.0	100.0	100.0
	36.6	40.4	42.4	43
	18.8	15.4	14.4	13.8
	1	0.4	0.3	0.3
	17.9	15.1	14.0	13.5
	1.9	2.3	2.1	1.9
	1.2	0.6	0.3	0.3
	0.8	1.6	1.8	1.6
	0.7	0.7	0.6	0.7
	*	*	*	*
	0.7	0.7	0.6	0.8
	9.3	8.6	8.8	9.1
	5.1	5.2	4.7	5.2
	23.3	22.9	22.2	21
	2.1	2.5	2.8	2.7
	11.9	10.7	10	9.8
	9.3	9.8	9.4	8.5
	4.2	4.5	4.7	5.3

: * 0.05%

: National Center for Education Statistics, Digest of Education Statistics(2000).

< 2-15> 2000 ()
(: \$, %)

	40,903	100%	19,886	100%	21,017	100%
	16,524	40%	15,833	80%	691	3%
	9,363	23%	9,363	38%	-	-
가	4,031	10%	4,031	16%	-	-
	10,210	25%	966	5%	9,244	44%
	3,945	10%	-	-	3,945	19%
NSF	2,896	7%	378	2%	2,518	12%
	2,615	6%	1,001	5%	1,614	8%
NASA	2,163	5%	-	-	2,163	10%
	1,143	3%	1,143	6%	-	-
	505	1%	31	0%	474	2%
	902	2%	534	3%	368	2%

: Federal Support for Education Fiscal Years 1980 To 2000, US Dept. of Education

2.

가

.10)

50%

가 (, 1997; , 2001).

가 (Higher Education

Funding Council)

10)
(2001)

外

1919 (UGC: University Grants
 Committee) 1989 (UFC: Universities Funding
 Council) , 1992 (Further and Higher
 Education Act 1992) (HEFC: Higher
 Education Funding Council)

가

가

가

가

가 (RAE,

Research Assessment Exercise)

< 2-16>

53%

, 4/ 5가

5% ,

7%

가

12%

20%(=

8%+

12%) ,

18%

가

,
가 . 가
,
가 .

< 2-16 >

(:)

		(%)
	12,780	100
	6,818	53.3
1)	1,067	8.3
	5,147	40.2
	604	4.7
	5,962	46.7
	884	6.9
	485	3.8
2)	896	7.0
	1,525	11.9
	2,172	17.0

: 1)

2)

: HEFCE, Higher Education in the United Kingdom(2000), p.5.

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,

,

가

가 ,
 가 ,
 가 ,
 가

< 2-17>

(: %)

	(1999)		(1995)		(1999)
	57.5	4.8	51.0	16.4	53.3
			37.6	0.6	48.5
			13.4	15.9	4.7
	42.5	66.8	18.8	43.0	11.9
		9.0	4.1	9.1	10.7
		11.2	0.6	5.2	
		2.1	22.2	21.0	17.0
		6.1	3.3	5.3	7.0

: 外 (2001); (2000); HEFCE, Higher Education in the United Kingdom(2000); National Center for Education Statistics, Digest of Education Statistics(2000).

가 , 가 , 가
 (, 2001;
 2001; . , 2001).

1.

가 1
 . < 2-18> , 1
 1999 \$5,356 (\$2,838), (\$3,419)
 . OECD 가 1
 OECD 가 67%, 66% ,
 47% . 가
 , 가
 . < 2-18> , 1
 OECD 가 67%, 66% ,
 47% .

< 2-18> 1 (1999) (: U.S\$, PPP)

가			
	4858	6850	11725
	4139	7152	7867
	3818	6603	10393
	5240	6039	10278
	2838 (67%)	3419 (66%)	5356 (47%)
	5736	5911	14222
	6663	9756	17997
	3627	5608	9554
	6582	8157	19220
OECD	4229	5174	11422

: OECD, Education at a Glance, 2002.

1

가 1970
 (< 2-19>). 1990 37.7%
 2002 87.0%

< 2-19> (: , m²)

	1970	1975	1980	1985	1990	1995	2000	2001	2002
1	18.8	20.7	27.9	35.8	31.2	26.3	39.7	39.9	40.1
1	177.1	101.0	91.1	58.1	60.1	60.9	48.4	48.4	47.9

: , 2002 , 2002.

GDP 3.15%
 OECD 가 3.28%

GDP 0.45% OECD 가 0.93%

가

2.

([2-5]).
가

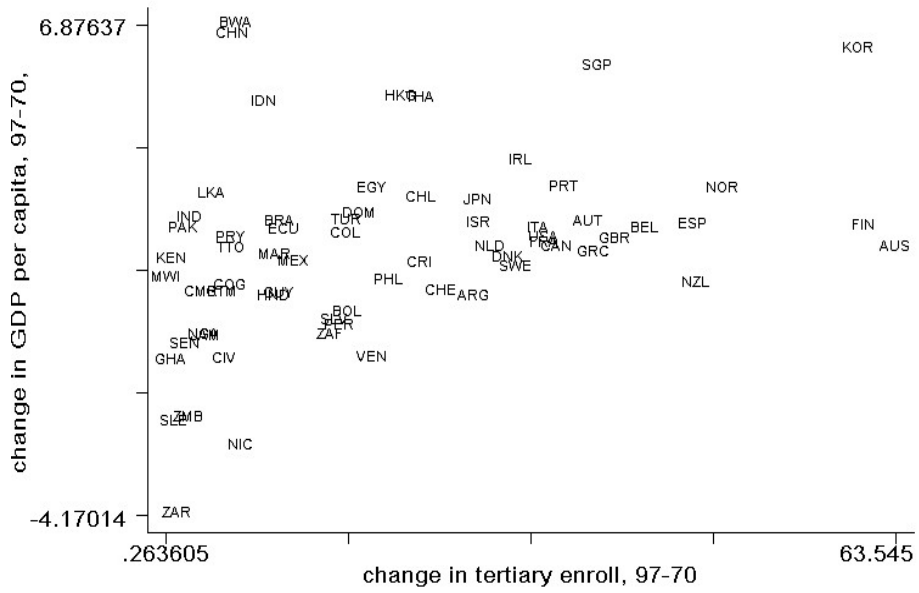
가

3.

가 .
가

가

가 가 .



[2-5]

(66)

가

OECD 가

가 .

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가

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가

가

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가

가

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가

가

가

가

(,

2001).

가 가

가

가

1.

GNP

6% 가

OECD 가

11) .
 GDP 1% 5
 10.7 가 . 가
 가 .
 가.

, 가 ,

11) '2000 (U2000) 91~99 400 (8
 4000) , 1999 '(U3M Universit
 du 3 Millnaire) U2000
 460 (9 6600) , 2000~2006 1 ,

< 2-20> GDP 1%

(:)

	2003	2004	2005	2006	2007	2008
GDP	6,123,769	6,429,957	6,751,455	7,089,028	7,443,479	7,815,653
	867,679	919,740	974,924	1,033,420	1,095,425	1,161,150
	304,636	334,358	364,579	396,986	431,722	468,939
GDP (%)	(4.97)	(5.20)	(5.40)	(5.60)	(5.80)	(6.00)
(GDP :%) (A)	30,246 (0.5)	38,580 (0.6)	47,260 (0.7)	56,712 (0.8)	66,991 (0.9)	78,157 (1.0) (5 28.8)
(GDP :%) (B)	30,246 (0.49)	32,061 (0.50)	33,984 (0.51)	36,023 (0.52)	38,185 (0.53)	40,476 (0.54) (5 18.1)
가 (A-B)	-	6,519	13,276	20,689	28,806	37,681 (5 10.7)

: 1) GDP 5% 가 가 .
 2) 가 GDP 가 가 GDP
 가
 : (2003). “ ”,

「 가)

가

가

2.

. “ (가)”
,

가 .
가 .
가 .

3.

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가 ,
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가 . 가
. 가 가
, 가
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가
, 가 ,
, , ,

가 .

가.

,
가 .

2
가 .
(fundamental)

(13%)

,
가 .
,

,

.

2002

309

()

가 가

가

(financial aid)

가

가

가

< 2-21 >

2002

43,858

628

278,000

6,580

가

322

7,208

26.4%

3.2%

가

(559)

0.5%

).

< 2-21> , 2003
 5%, 1 10% 가 ,
 2004 5%, 1
 10% 가 , 6
 1 2270 .

< 2-21> (financial aid)

	()	()	1 ()	()	()	()	1 ()	1 ()
1997	35,153	33,546,609	954	37,000	532	68	1,438	184
1998	32,322	34,888,928	1,079	45,000	655	78	1,456	173
1999	50,427	39,030,159	774	101,000	1,651	101	1,635	100
2000	32,837	38,071,341	1,159	215,000	4,547	246	2,115	114
2001	45,680	55,015,735	1,204	221,000	4,842	413	2,191	187
2002	43,858	62,808,366	1,432	278,000	6,580	559	2,367	201
2003	46,051	73,530,325	1,575	310,000	7,760	742	2,503	239
2004	48,354	83,797,482	1,733	325,500	8,961	856	2,753	263
2005	50,772	96,771,432	1,906	341,775	10,348	988	3,028	289
2006	53,311	111,793,167	2,097	358,864	11,954	1,141	3,331	318
2007	55,977	129,138,939	2,307	376,807	13,806	1,319	3,664	350
2008	58,776	149,173,488	2,538	395,647	15,945	1,523	4,030	385
6	313,241	644,204,833	2,026 ()	1,798,593	61,014	5,827	3,361 ()	321 ()

: 1)

2) (2003) 9.5%(4.25%, 5.25%)
 (4.25%)

3) 2003 2004
 5%, 1 10% 가 , 10% 가
 5%, 1

4) 5
 : . Stat-Korea(<http://www.stat.go.kr>); , (2003 1
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(4 5)

(가)'

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5.

가

(university-based enterprise)
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 of scale)

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3% 2003 2 4
 4 352 65.1%(229)가
 294 64%
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가

R&D

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R&D

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가

가

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(2003). " ". 『 』 (9/10).

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, 97-7-154 , 1998.

(2002). 『 』 . 2002

(IMD)(2001). 2001

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122 , 2001.

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2001. , 2000.

(2001).

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 , 2002- -10.
 가 , 2000.
 (2002a).
 2002- -11.
 (2002b). 가 .
 02-3.

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 Evaluation Activities and Main Evaluation Findings, European
 Commission

European Commission, Evaluating EU Expenditure Programmes: A Guide,
 First Edition, January 1997.

US Department of Education. FY2002 Performance and Accountability
 Report. January 2003.

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가 가 가
 . 가 가 ,
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(GRDP) 47%(2001)
) , 1990 가
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가 ,

가

가 2002

가 100 5,638, 6

가 198

가 12.9%

가

(win-win) 가

가

가

가

가

가

(regional innovation system)

가

(hard infra)

infra) 가 , . (soft

(innovators) .

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가 , , 가 가 .

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가 .

13)

1.

가.

가 . 1999 ,
 32.5% ,
 5% 62.5% . 2003
 4% 41.7%가 , 18.9%
 14).

가 가
 . 2002 1 ~2003 1
 가 41.7% .15)

13) (2003). 「
 ; (2002). 「

14) . .

15) . .

가

가

가

. 3 4
 < 3-1> . 2002
 1.5%(1.2%, 2.2%, 2.3%) ,
 7.5% . (20.1%),
 (15.6%), (14.0%), (10.5%)
 .
 2003 4 < 3-2>
 1.2% 12.9% 가
 . 25.7% 4
 .

< 3-1> 4

(: , %)

	2000	2001	2002	2000	2001	2002	2000	2001	2002
	18,495	19,507	19,526	641	572	1,408	3.5	2.9	7.2
	37,668	37,268	35,816	870	924	784	2.3	2.5	2.2
	19,695	19,797	17,496	1,883	1,971	963	9.7	10.0	5.5
	33,873	33,670	32,895	2,076	1,656	3,462	6.1	4.9	10.5
	17,495	17,378	17,192	637	591	1,718	3.6	3.4	10.0
	10,735	10,558	8,859	150	115	231	1.4	1.1	2.6
	20,013	22,548	19,325	641	772	803	3.2	3.4	4.2
	34,098	34,652	33,801	765	981	921	2.2	2.8	2.7
	83,752	80,793	82,358	943	657	961	1.1	0.8	1.2
	3,211	3,108	3,019	98	20	56	3.1	0.6	1.9
	6,773	6,754	6,470	182	154	150	2.7	2.3	2.3
	15,269	15,338	13,509	3,927	1,641	2,722	25.7	10.7	20.1
	24,008	23,600	22,585	1,356	1,109	3,156	5.6	4.7	14.0
	3,684	3,488	3,291	343	242	448	9.3	6.9	15.6
	32,314	32,338	31,968	1,324	861	1,289	4.1	2.7	4.4
	17,749	17,509	17,470	417	631	899	2.3	3.6	5.1
	378,832	378,306	365,580	16,253	12,897	19,971	4.3	3.4	5.5

: . .

< 3-2> 2003

	1.2%	1.4%	1.3%
	12.9%	25.7%	18.3%
	9.3%	17.6%	12.8%

: . .

2004 18 가 630
 655 , 2012
 2030 476 75.4%

16).

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가
 가 .

(4) 1990 (1995~1996) 57.0%
 70.9% . 2000
 (2000~2002) 56.0% 60.8%

가

17).

, 가

. 2001 2003
 100 4.7% 5.0% 9.9%
 13.5% . 100

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7.9 , 10.5 ,
 8.5 , 12 18).

16) DB

17) (2003).'

2003.4.16).

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2.

가.

, 2000
 45,985,289 21.4% 9,853,972 ,
 46.2% 21,258,062
 . 1km² 17,131 473 36.2
 (, 2001).
 2000 .
 < 3-3> 47.2% ,
 21.7% .
 1985 42.0% 2000 47.2% 가 , 15
 () 가
 .
 2001 28.4%가
 , 23%가
 ([http:// www.stat.go.kr](http://www.stat.go.kr)). ,

18) (2003). ' (: , : 2003.4.18).

< 3-3>

(1985~2000)

(: , =100)

	1985		1990		1995		2000	
	19,713,859	100	44,852,806	100	84,598,728	100	108,523,811	100
	6,527,044	33	13,845,901	31	24,134,923	29	30,292,127	28
	3,044,058	15	7,165,958	16	13,917,759	16	17,120,350	16
	3,498,293	18	8,772,604	20	18,007,029	21	22,282,531	21
	-	-	4,162,324	9	8,522,225	10	11,250,327	10
	-	-	4,077,922	9	7,934,873	9	11,524,522	11
	-	-	-	-	-	-	25,337,612	23
	10,553,952	54	28,161,138	63	60,835,097	72	106,902,659	99
	3,086,285	16	5,316,632	12	9,766,748	12	12,965,595	12
	2,748,993	14	5,261,034	12	11,846,345	14	18,390,351	17
	5,171,915	26	6,326,966	14	14,774,106	17	23,899,799	22
	3,323,390	17	6,158,652	14	12,971,746	15	16,989,030	16
	6,585,490	33	9,196,064	21	18,907,378	22	25,479,894	23
	6,027,977	31	12,346,292	28	24,003,127	28	33,557,742	31
	9,357,091	47	19,681,985	44	43,760,510	52	34,147,860	31
	772,980	4	1,788,062	4	3,741,867	4	4,787,660	4

: () . 「 」

가 ,

, < 3-4>

가

10%

20%

. , , , , .

50%
 65%
 30%
 2001 , 28.8%, 22.7%,
 17.8% 13.8%
 1000 < 3-5>
 10 , 12
 가

< 3-4> (1999) (: %)

	0.4	10.1	89.5
	2.5	18.4	79.1
	1.3	24	74.7
	1.6	45.8	52.6
	2.3	29.1	68.6
	0.7	24.6	74.7
	0.8	76.5	22.7
	2.8	58.1	39.1
	11.3	20	68.7
	10.2	49.7	40.1
	17	37.6	45.4
	17.8	29.1	53.1
	18.6	33.6	47.8
	12.1	47.7	40.2
	10.9	47.1	42
	31.4	3.9	64.7

: (2000). 「 , 「 」.

< 3-5>

(: , %; =100)

					/ /
		100	100	14	28.8
	/	120	114	6	21.7
		220	214	10	25.0
		50	46	17	13.6
		132	126	11	14.3
		49	51	12	12.9
		12	14	15	11.5
		4	6	7	12.9
		248	243	12	13.7
		468	456	11	19.0

: (2003). ' ' .

」 , p.65 .

가, .

. < 3-6>

< 3-6>

(2000)

(:)

	BK21	IT				
	6,820	1,241	291	700	250	0
	3,796	1,868	398	450	750	270
	3,560	1,758	208	700	850	0
	3,066	869	169	700	0	0
	3,020	15	15	0	0	0
	2,620	590	90	500	0	0
	2,575	167	167	0	0	0
	2,395	1,306	96	600	610	0
	2,017	1,767	277	700	790	0
	877	19	19	0	0	0
	873	1,201	101	450	450	200
	790	46	46	0	0	0
	778	866	16	450	400	0
	757	57	57	0	0	0
	731	300	0	0	300	0
	723	17	17	0	0	0
	690	60	60	0	0	0
	529	20	20	0	0	0

: (2001). 「

」 . p.126

가

가

< 3-7>

'(43.9%)

'(22.7%), '

'(13.6%), '

'(10.6%), '

'(9.1%)

(32.5%), '

'(29.3%)

가

< 3-7>

	10.3	10.3	12.9	9.1
	29.3	11.3	12.9	10.6
	32.5	15.5	19.4	13.6
	17.2	40.2	32.3	43.9
	10.7	22.7	22.6	22.7
	100.0	100.0	100.0	100.0

: (2003). ' ' , p.82.

가 ,
 ,
 가
 가
 , 1999 GDP OECD 1.06%
 0.49%
 () 31.5%가
 , R&D 8.4%
 19). < 3-8> 2001 4

19) 2001 가 R&D 4 5,283 (4.3%)
 18.6% 8,443 , 8.4% 3,807 ()
).

1 4,781.2 63% 9,324.8 20
 , 3,856.2 .

< 3-8> 20 (2001)

	()		()		()		()
1	1,264.2	6	578.6	11	336.4	16	219.6
2	1,123.8	7	550.7	12	330.9	17	218.5
3	855.5	8	390.6	13	248.7	18	194.4
4	809.8	9	368.4	14	246.6	19	190.3
5	650.6	10	338.4	15	227.5	20	181.4

: (2003). ' , 「 , 가?」

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 1 가 가 , 4

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가

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 1 2000

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(, 2000; 2000).

< 3-9> 1 (:)

	4		4	
1995	24.9	51.6	27.5	56.7
2000	38.0	79.1	40.9	77.4
2003	38.0	81.3	41.3	75.1

: . (). 「 」.

가 . 1981 , 1994
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1.

(Cluster) 1990 (M. Porter)

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23).

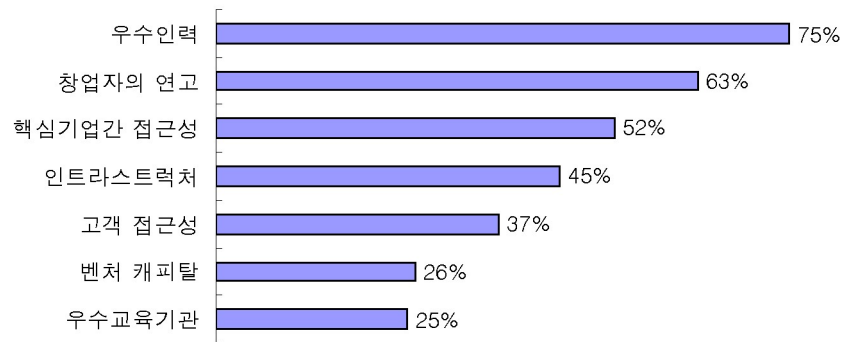
'24)

23) (2000). 「 」 . pp.102- 116.

24) (2000). 「 」 . p.104.

가 가 . [3-1]

가



[3-1]

: Joint Venture(1999. 8).

(Sophia Antipolis)

(Sophia Antipolis)

가

25),
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 (Pierre Laffitte)
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 .26) 1972 가
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 400 , 9,500

25) (2000). ' , ' . p.169.

26) 가 가
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 1/3 , 가
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가 1980
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27) (2000). ' . p.187 .

가
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40%가
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가

. 72,623

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28)

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(2000). 「

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. pp.233- 234.

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(regional innovation system) •

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30) , , , , , • 5 2001
5 2006

(<http://www.tknu.ac.kr> / gongdong.htm). (2002 8 3)

31) 「 」 1) (University of California System), (California State University System), (University of Illinois System), (University of Wisconsin System) (University Board)

() 2) 5 (, ,) () (2000.4). ' ()

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 (Edu-Net, HRD-Net, Work-Net, NHRD-Net,
 Career-Net)
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1) ' , ' . ' ' .
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 R&D .
 R&D .
 가 (sector skills council), (sector council)
 가 (national skill standards) Voluntary Partnership ,
 가 . 32),
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 가 ' ' ,
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32) Sector Skills Councils Sector Councils

가 R&D 가 33).

가 R&D

2) 가 34).

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33) (2003). ' (: : 2003.4.16).

34) 가 ((2003). ' 가



(2000). 「 」.

(2002). ‘

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(2001). 「 」.

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(2001). 「 」.

(2001). ‘ ’.

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(: , : 2003.6.10).

(2003). ‘ ’. 「

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2003.4.18).

(2003). ‘...’ 「...」 (: ... : 2003.4.16).

(2003). 「...」 「...」 .

(2002). 「...」 「...」 .

(2003). 「...」 - 「...」 .

(2000). ‘...’ , 「...」

(2002). ‘...’ 「...」 「...」 18
3 .

(2001). 「...」 「...」 .

(2003). 「...」 「...」 .

(2002). 「...」 「...」 「...」 .

(2001). ‘...’ 「...」 「...」 .

(2001). 「...」 「...」 「...」 .

(2003). ‘...’ 「...」 「...」 :
가? - 「...」 「...」 .

(: ... , : 2003.5.23).

(2003). ‘...’ 「...」 「...」 ,
가?」 (: ... , : 2003.5.2).

(2000). 「 』 .

(2003). ‘ ’. 「
」 (:
, : 2003.4.16).

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Yarnit, M. Towns(2000). Cities and regions in the learning age: a survey of learning communities. London: LGA Publications for the DFEE, NCA

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(KDI)
(KDI)

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가 가

가 . 2003

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< 4-1> 2003 4 ()
) 199 45 ()
 8 11) , 2,023,546
 504,099 25% .
 4 48,667 13,976 29%

< 4-1> .

(: , %)

		.			.			.	
()	169	26	143	1,808,539 (100%)	393,170 (22%)	1,415,369 (78%)	45,272 (100%)	11,924 (26%)	33,348 (74%)
	19	8	11	191,455 (100%)	87,377 (43%)	104,078 (54%)	2,655 (100%)	1,312 (50%)	1,343 (50%)
	11	11	0	23,552 (100%)	23,552 (100%)	0	740 (100%)	740 (100%)	0
	199	45	154	2,023,546 (100%)	504,099 (25%)	1,519,447 (75%)	48,667 (100%)	13,976 (29%)	34,691 (71%)

: . (2003) , .

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 Henry Rosovsky Blue Ribbon

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1. OECD 가

가.

OECD 가
OECD(2003)

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< 4-2>

OECD 가

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< 4-3> OECD 가

OECD 가

가

OECD 가

< 4-2> OECD 가

가 ¹⁾	(1)	(2)	(3)	(4)	(5) ²⁾	(6) ²⁾	(7) ³⁾	(8)
		●	●	●		●	●	●
	●	●	●	●	●		●	
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			●		●	●		
			●	●	●		●	
			●	●	●	●		
()								●
()								

● : 1) 2003 가 OECD (IMHE) 가 , IMHE 가 가 가 가 가 가

2)

3)

: Survey of university governance among member institutions of the OECD's Institutional Management in Higher Education(IMHE) programme, conducted by IMHE in 2003.

< 4-3> OECD 가

(Australia)	<p>(2) (State Government)가</p> <p>(6)1994 ,</p> <p>(7) ,</p> <p>(8) 가가 가</p>
(Austria)	<p>(1) Federal Real Estate Association(Bundes-Immobilien-Gesellschaft: BIG)</p> <p>(2) 2004 2002 (University Act)</p> <p>가</p> <p>(5)2002 ,</p> <p>(6)2002 ,</p> <p>(“Australian Universities Association”)</p>
(Denmark)	<p>(1) , 2003 7</p> <p>(4) (Ministry) ,</p> <p>(6) , 10%</p> <p>(8)</p>
(Finland)	<p>(4) ,</p> <p>(7) 가 ,</p>
(Poland)	<p>(6) 가</p> <p>(8)</p>
(Ireland)	<p>(2) funding agency가 Higher Education Authority</p> <p>(self-funding basis :)</p> <p>() 10</p> <p>(total core teaching income , ,)</p> <p>4% 가 ,</p> <p>(6)</p> <p>(8) , 가</p> <p>가</p>

(/) (Japan)	(4) (5) 가 ,
(/) (Korea)	(4) (5) (7) 가 ,
(Mexico)	(2) (Board of Trustees)가 (6) ,
(Netherlands)	(4) , AO(Netherlands Accreditation Organization) , (6) (8)1996 (Universities of Professional Education HMOs)
(Norway)	(1) , (6) 가 가
(Sweden)	(1) Academiska Hus, AB (2) (Swedish National Debt Office) (7) 가 ,
(Turkey)	(4) (Higher Education Council) , (5) , (7)
(United Kingdom)	(2) (Funding Council)가 (7) (8)

: 가 < 4-2> 가

: Survey of university governance among member institutions of the OECD's Institutional Management in Higher Education (IMHE) programme, conducted by IMHE in 2003.

OECD(2003)

가

가

가

< 4-4> < 4-5>

가

OECD 가
가 가

가

가
OECD(2003)

가

(managerialism)

가

.

가

.

< 4-4> OECD 가

가			
(United Kingdom)	1988	<ul style="list-style-type: none"> ■ “ ” () (Board of Governors): 25 가 - (Academic Board): (academic staff) ■ “ ” - Council : 25~60 가 - Senate : (academic staff) 	<ul style="list-style-type: none"> - (Executive Board) : 가 - (Chief Executive) - (Chief Executive) - “ ” 1988 , 1997 (National Committee of Enquiry into Higher Education)
(Netherlands)	1997	<ul style="list-style-type: none"> ■ (Supervisory Board) : 5 () ■ (Executive Board) : 3 ■ (University Council) : , , , 	<ul style="list-style-type: none"> - (Administrative Board) (Academic Council) - : (Executive Board) - (Executive) (University and Faculty Councils) - (Dean) - 가 (Disciplinary Research Groups)
(Austria)	2002	<ul style="list-style-type: none"> ■ (University Council) : (University Senate) 5 9 ■ (Rectorate) : 4 ■ (Senate) : , , 	<ul style="list-style-type: none"> - : , , - , -
(Japan)	2004	<ul style="list-style-type: none"> ■ (Administrative Council) : ■ (Academic Council) : , , 	<ul style="list-style-type: none"> - (Academic Staff) - (Executive Board) : -

: IMHE and HEFCE (forthcoming); Austria (2002).

< 4-5> OECD 가

가)	
(Netherlands)	<ul style="list-style-type: none"> ◦ (University Council) : (Ministry and the University Senate) 5-9 ◦ (Rectorate): 4 ◦ (Senate): , , 	<p>- () :</p> <p>- /</p> <p>- ,</p> <p>- : 가 (Executive Positions)가</p> <p>- . 1997 (Disciplinary Research Groups DRGs) [1997 (The University Modernization Act in 1997)]</p>
(Austria)	<p>[]</p> <ul style="list-style-type: none"> ◦ (Senate): (, 20 , 10 , 10 , 2) ◦ (Advisory Board): 가 15 Graz [] (University Council): (Ministry and the University Senate) 5-9 ◦ (Rectorate): 4 ◦ (Senate): , , 	<p>- , , ,</p> <p>- 가</p> <p>- , ,</p> <p>- .</p> <p>[2002 7 가 2002 2003 10 .]</p>
(Denmark)	<ul style="list-style-type: none"> ◦ (Konisistorium): 15 5-6 , 2-3 , 2 , 3 , 2 . 	<p>-2</p> <p>2</p> <p>[1993 (Consolidation Act on Universities in 1993)]</p> <p>- 가</p> <p>- ,</p>

가()		
(Norway)	<ul style="list-style-type: none"> ◦ (Executive Board): 11 2 , 1 , 2 , 1 , 4 . * 	<ul style="list-style-type: none"> - (4)가 (1) (2) 가 (3) 가 가 20% 2 가 (Learning Environment Committee) [, 2003 1 1 (The law of Universities and Colleges, revised January 1st, 2003)]
(Sweden)	<ul style="list-style-type: none"> ◦ (University Board): 15 (Vice-Chancellor), 3 , 3 7 8 () 가 	<ul style="list-style-type: none"> -1997 가 [SFS 1997: 797 (1992 Amendment to the Higher Education Act 1992)] 가
(The UK)	<ul style="list-style-type: none"> ◦ (Council): . 25-60 (Senate): " " : 12-24 (Academic Board): 	<ul style="list-style-type: none"> - (Chief Executive) (Academic Board)가 (Chief Executive) [The Further and Higher Education Act (1992)]

가()		
(Finland)	◦ (University Senate): 가 . 17-18 , 50%	, [(Decree on the Government Development Plan for Education and University Research 165/ 199 1)]
(France)		- 가 가 (Comite d'Oreentation) (가) [1988 (Contractual Policy in 1988); 1998 2000 (University 2000 Plan in 1989)]
(Japan)	◦ (Council): , , 가	- (Administrative Council) , , , , / - (Academic Council) , , - , [2002 (National University Incorporation Plan in 2002)]
(Ireland)	20 40 (Chief Officer), (Chairperson), , 1 2 , (5 11 , 1 3 , 3 4 , 4 , , 1 4)	- 10 , , , , , 가 , , , , - ,)가 . (가 가

가()	1	
(Australia)	◦ (Council) · (Senate): 15 35 (21) . (Chancellor), 1 2 , , , , , (Academic Board): ,	가 [1995 Hoare Review]

: 1)

: (1)Source: Unpublished IMHE survey conducted with the IMHE member institutions in February 2003; (2) OECD(IMHE)/ HEFCE Joint Project: Higher Education Financial Management Project, forthcoming

< 4-6>

, , .

(vested interests)

가

OECD(2003)

가

< 4-6> OECD 가

	가		()	가
			X	5 O
	(Board)	(Council)	X	5 X
	()		O	4 Δ ¹⁾
	()		O	4 Δ ¹⁾
			O	5 O
			O	4 O
		,	X	5 7 O
		, 50%	X	10 X
	5	(Supervisory Board),	X	4 O
		) 가 (	O	6 O, 3 2
			X	7 O
	()	Search Committee 가 (Coordinating Boards)	X	
2003		- , (Senate) (25%), (25%), (25%), (25%))	X	4 O
		- 2003 3 (University Council,)		
		- 2003 7 (50%), (25%), (25%)	X	4 O
		- 2003 7 , 가		
		- (Executive Board, 가)가 가	X	3-4 O

: 1) 가

: Unpublished IMHE survey conducted with the IMHE member institutions in February 2003; OECD(IMHE)/HEFCE Joint Project: Higher Education Financial Management Project, forthcoming

2)

KAIST 가

3)

(4 , 가) . KAIST

가).

(4 ,
2 , KAIST

1 ,
1

1 ,
3

4)

9

7

10

. KAIST

< 4-7> , KAIST,

		(KAIST)	
	(9) , 7	,	,
	,		
	, 가	,	, 가 ,
	,	.	,
	,	,	,
	,	.	,
VS.	()	,	,

4

175

5)

9

9

10

10

11

. KAIST
가 .

. 1999

가

가

.41)

41)

가

1)

1988 6
 2000
 98 26.7% 0.03%
 2002 60.4%, (3.24%)
 → → → 4
 가 8 , 가 6 5
 5 가 1 . < 4-8>

< 4-8>

	KT	()	
	()	,	,
vs.		,	가

가
 , 가
 , 가
 . 가 가

43) 가

, 가 가

, POSCO

가

가

가

. KAIST

가

가

가

가

43) (),

가

가

가

가

가

가

가

가

가

가

가

가

· :
 , 3) 1) , 2)
 가 , 4) · ·
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 가

1.

가 가
 (mission),
 가 가
 ()
 ()
 가 가
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가 .

4. .

가 .

가

5 가 .

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1)

, 2) 가

가

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3)

.

OECD 가

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,

가

(stake-holder)가

가

(

)

가

가 .

2003 11 가

가

가

- . . . , { },
, 1995.
- , 2002, mimeo
- , { }. . . 2002.
pp.115-140.
- . . . , 1999
- , 2003. 12.
- , , 15 2
- , 2001
- , 2003. 12.
- , 2000
- . . . , 34
4 , 2001
- , 2000
- , 39 , 2003. 9
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OECD, Government of the Future, 2000

_____, Education at a Glance, 2001

_____, International Workshop on University and Government - Changing Patterns of Relation, 13-15 March 2000, Tokyo

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2

5

*

(KD I)
()
(KDI)

가 가

가

가

가

가

가

*

2000

(2000)

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 가
 가
 가
 . 2
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 , 4 , 가
 , 5
 , 6 .
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1. ()

.
 가 , , ,

(stakeholder)

< 5-1> 1997 2000 104
42.3%
가

가
. 2003

3

가 (2003/ 9/ 6).

< 5-1> 1997 2000

			(%)
	51	23	45.1
	53	21	39.6
	104	44	42.3

: KINDS() 10

(16).

()

, (15)

가

가

가

가

3

2

(2003/ 9/ 6),

가

가

, 2003 10

가

18

(

가)

(, , 2003).

” (17), “

” “ ”(19)

가

가 가

가

가

1/3

'가

가

가

”

44)

가

1/3

가 가

가

가

가

가

가

가 가

가

가

가

가

45)

44)

45) 20 2

가

가

가

(private interests)

가

가

83

(, 2003/ 9/ 26)

()

가

가 23

3

18 가

2.

가

(, ,)

, , ,)

, ,

가 .

가

70%

가

가

가

가

가

,

가

.

< 5-2>

(: , %)

	(A)	(B)	(C)	B/A	C/A
1996	46,665	69,165	3,374	67.6	7.2
2000	31,526	47,840	3,690	69.2	5.3

: , , ,

가 ,

< 5-3>

, ,

가

< 5-3>

(2000 2001)

(: , %)

	26	25	96.2	16	61.5
	136	60	44.1	71	52.2
	162	85	52.5	87	53.7

: , ,
: (, 2001)

가 ,

, .

가

가

가

가

가 가

가

< 5-4>

		1)	2)		
	40	1	-	-	41
	7	8	41	97	153
	47	9	41	97	194

: 1)

2)

(,

:)
2003 10 31

3.

가 .

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가

가

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가

가

2000

가

가

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가

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가 .

가

가

46), 1998 1 ' ' .

가

.47)

가 2000

. < 5-5>

93% 99%가

가

14

가

, 가

46) Information Act) , 1966 1976

(Sunshine Act) (Freedom of

(Open Meeting System)

47) 「 5

2

< 5-5> (2003 6)

(: , %)

	150	140	93.3	150	148	98.7	84	51	60.7	31	24	77.4
	150	103	68.7	150	110	73.3	84	49	58.3	31	22	71.0
	150	102	68.0	150	110	73.3	84	48	57.1	31	21	67.7

:

:

. :

1. :

organization) 가 (NPO; non-profit for-profit)

(non-distribution constraint)' (Hansmann, 1980).

가 가 가

가
가? Hansmann(1980)

가

(asymmetric information)

가

2. :

. Hansmann(1980)

(commercial)'

(donative)'

가

(,)

가

.48)

36)

(Winston, 1999).

가 3 ()

3. :

()가 ()

가

가 가

?

가

가

(shareholder)

가

가

가

가

, ,

가

가

가

가

Goldin & Katz(1999)

1900

가

가

, ,

,

가

, ,

4. :

(Entrepreneurial)' 가 (Mutual)' (Hansmann, 1986).

가

가

가

(Ben-Ner and Hoomissen, 1993).

(steakholders)' 가 board of trustees)

(board of directors

가

가

가

(open books policy)'

(profit sharing)'

Ben-Ner & Hoomissen(1993)

(residual governance)'

가

가

가

. Ben-Ner & Hoomissen(1993)
(formal stakeholder)'

(self-selection)

. Ben-Ner & Hoomissen(1993) State Office on Nonprofit Organization
(ONO)

가

(Small Business Administration)

(annual report)

(quarterly newsletter)

(Ben-Ner and

Hoomissen, 1993). , Light(1999)

(watchful eye)가

(American Association of fund-Raising Counsel)

(Donor's Bill of Rights)

가 가

1. :

가 가

가

가?

(, 1999).
가
,

(disguised NPO)

가 , 가
(process) (output) (input)

가
가

, 가
(owner) 가

가 가
가

,
.

가

가

가 가

가

가

가

가

가

가

가

가

2.

?

가

James(1989)

(excess demand)

.49)

가

가

.50)

(James, 1987).

James(1986)

James & Benjamin(1986)

가

37) James(1989)

(differentiated demand)

가

가

38)

가 . 가
 , .
 .
 . (agency)
 , , , ,
 .
 가
 . 가 가
 ?
 .
 ,
 .
 가 가 ,
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 ,
 .
 가 ,

3.

가? 1970 20
 . 17 가 가 336 ,
 2000 10 가 2000
 172 4 158 .
 1990 1990 38%
 1999 78% (,).
 가 .
 SCI 16 가
 3.9%, 15.6% . 1999 IMD
 47 가 (, 2000).

4.

가

, 가

, 가

가 .

.

, 30

,

,

,51) , 가

,

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,

가

,

39) OECD(1999)

(2000), Lee & Lim (1999),

•

70%

가

가

가

가

가

가

()가
가

(private

interests)

.

1.

()가

가 ()가

()가

가

가

가

가

가

1/3

1/5

1/2

가

, , , ,

52)

(35 6)

52)

(, 2003),

가 .

, ,
.

,
가 .53)

()

2.

가 . 가
가 . 가
가 가
가 .

53)

, , , , ,
, , , , ,

(residual claims) 가

가

가 .

가

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가

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가

가

가

2000

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()가

가

3.

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가

3

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가

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(, 2000).

가 ,

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가

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가

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가

2

가

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(2003.11.21)

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가

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()

가

가

(, 2003)

.

가

가

가

가

.

.

가

가

가

1/5

, () 가

(

1/2)

가

가

3

가
가
가

(2000), 「
(2000), 「 21
(1999), 「
(2000). 「
() 「
(2000). 「
(2000). 「
(1994). 「
(1999). 「
(1996).

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 (2000). 「 』 . ,
 34 4 .
 (2003), 「 』 - 』 ,
 39 , 2003. 9
 (1999). 「 』 . :
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 (1996). 「 』 , 14 .
 (1999). 「 』 - . .
 - 』 . .

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Korea: Progress to Date and Reform Agenda Ahead*. Seoul: KDI.

2

6

(
(KDI
)

1.

가
(external governance structure)
가
가

.54)

54)

,
(The second-best theorem).
가 , (optimum)
가

()

가 ,

(2002)

1995

가 ,

가 ,

가

가

가

(co-generation model)

(La Chatelier's Law)

가 . 가

가 , 가

, 1)

2)

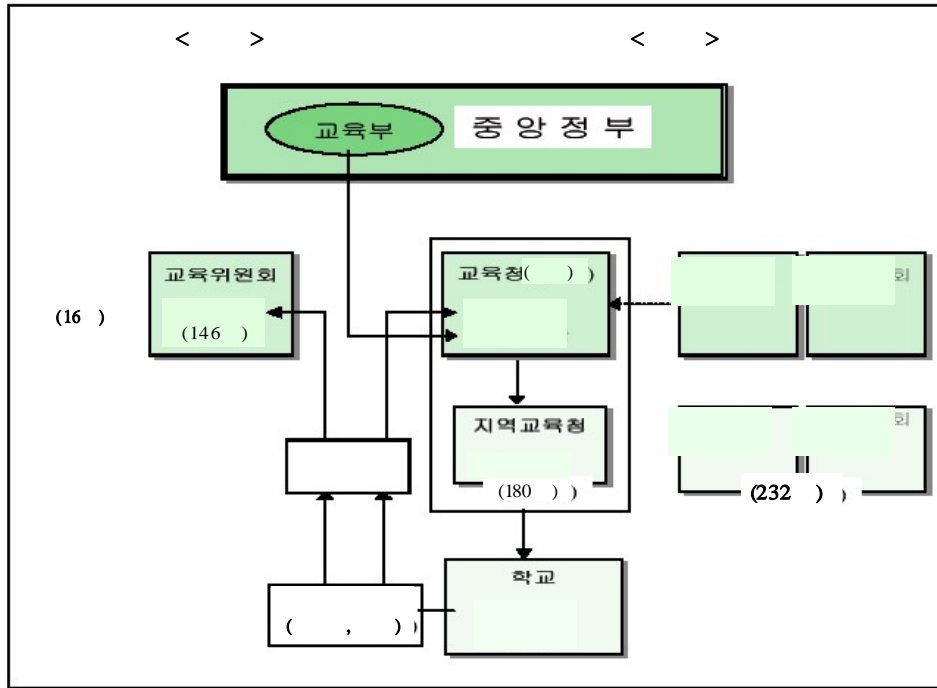
가 , () 가
가 ,

가 , ,

가 .

가 -

가



[6-2]

1.

2003 405 ,
 51 , 11 343 .
 5,558 26%
 935 , 2,623 .
 158 , 11 , 1
 , 19 , 4 ,
 16 , 1 . 4 1,808,539 ,
 925,963 .
 61,012 14,831 , 46,181
 . 4 45,272 ,
 11,974 .

< 6-1> (2003) (: ,)

	405(20)	24,871	3,558,111	1,329,268	61,012
	51(1)	4976	886,079	322,236	13,957
	11	403	48,801	19,536	874
	343(19)	19492	2,623,231	987,496	46,181
	158(1)	5,383	925,963	455,945	11,974
	7	86	14,423	6,409	373
	9	154	24,614	12,065	364
	142(1)	5,143	886,926	437,471	11,237
()	11	12	23,552	5,350	740
()	169(19)	9,542	1,808,539	425,257	45,272
	24(1)	1,960	372,605	85,006	11,414
	2	110	20,565	4,298	510
	143(18)	7,472	1,415,369	335,953	33,348
	1	19	308,290	134,171	118
	19	1,192	191,455	61,719	2,655
	8	551	87,377	24,674	1,312
	11	641	104,078	37,045	1,343
()	1	2	201	49	-
	4	38	1,390	308	36
()	3	28	1,214	255	31
()	1	10	176	53	5
	<1,010> {25}	8,532	272,331	234,358	-
	<158>	2,348	79,832	66,626	-
	<13>	139	3,622	3,173	-
	<839> {25}	6,045	188,877	164,559	-
	16	149	26,323	12,077	216
	1	2	67	34	1?

: 1) ()
 2) : < > {25} . < > {25} .
 -
 : (http:// std.kedi.re.kr)

< 6-2 >

		.	.	R&D .
	21C , ERC/ SRC, RRC			가 ,
	.	.	,	TP, TIC, TBI,
				, BI
		IT .	(IT)	IT
	(), (), ()	BK21()	() , ()	() , ()

: (03) 1,297 ()
: KDI

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3. : ,

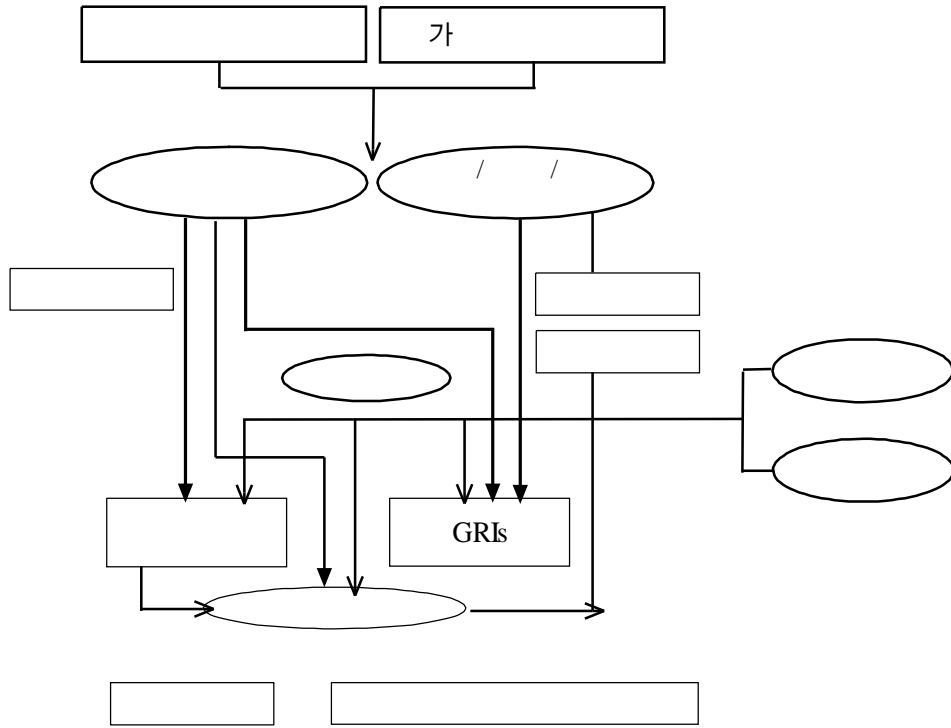
가.

, - , 2000
 ' , ' 가 ' ,
 , ' 가 '가
 .

가 가 , 가
 가 , ' (RHRD)
 가 , ' ,
 , ' ,

.57)

57) ' 가 ' ,



[6-3]

.

1.

가 ,

, 가 .

가

1

.

가
 (Junior College School), 4,000
 Community College), 4
 (College University) 2~3 (Vocational Technical University) 1,400

가

가

(Tennessee Higher Education Commission; THEC)가 1967
 ()
 University of Tennessee Board of Trustees Tennessee Board of Regents가 . University of Tennessee Board of Trustees 5 (senior institutions) , Tennessee Board of Regent 20 4 , 2 26 가 20 50%

. , (teaching)
 1980 (student-driven)
 가 , 가
 (teaching)
 , .
 , (lump sum)
 , .
 1980 1990
 ,
 , 가 .
 , , (contract-activities)
 , (private contributions)
 , , ,
 가 , ,
 75% 가 , 20% , 5%
 가 .

가 , 1990
 가
 (contractualisation policy)
 가
 1982 (decentralisation law)
 가
 가

< 6-3 >

<i>commune</i> ()	
department()	(<i>colléges</i>)
region()	<i>Lycées</i>
<i>académie</i> ()	- 28 가 , (<i>recteur</i>)
	- (<i>recteur</i>) ,
	- <i>recteur</i>

< 6-4>

second degree ('99)	STS, 1190 CPGE, 331	STS, 776 CPGE, 163
University (Institution)	89 ◇ INP(3): ◇ IUT:2 ◇ IUFM: ◇ IUP:	private higher education institutions*
Grandes Écoles	public Grandes Écoles	private Grandes Écoles - - (45) - (5)
teaching center	Grandes Écoles	-school for para-medical(438) -school for social work(130) -industry programs

: private higher education institutions :

(diplomas)

가 57%

< 6-5>

S.AN.RE.MO (input-based) 228

staff

가 가 , 가

가

, R&D

CNRS

가 . 가
 가 . 70%
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	Universities		engineering schools		IUFM	
MENRT teaching	5962	43%	676	36%	600	71%
MENRT research	1110	8%	100	5%	0	-
other ministries	847	6%	80	4%	41	5%
Local authorities	711	5%	87	5%	44	5%
tuition	1374	10%	83	4%	49	6%
taxe d'apprentissage	299	2%	92	5%	0	-
Research Income	764	6%	276	15%	0	-
Recurrent teaching income	1033	7%	88	5%	0	-
other income	1774	13%	385	21%	108	13%

: MENRT, 1997

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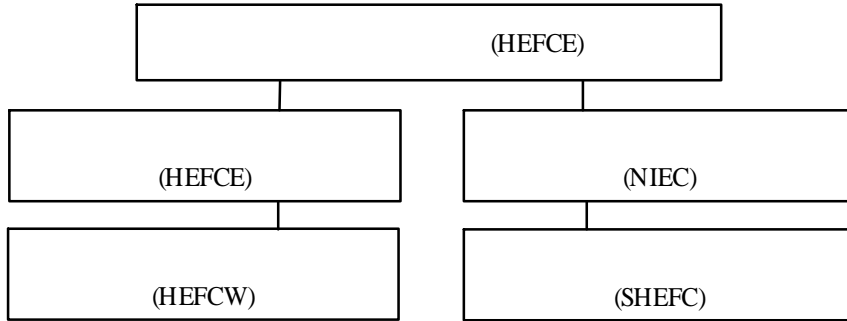
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(2001~2002)

HEFCE	(£ million)	(%)
Teaching	3,162	66.5
Research	888	18.7
Special funding	627	13.2
Rewarding and developing staff in HE	80	1.6
Total	4,757	100.0

(Department of Trade & Industry: DTI) (Office of
 Science and Technology: OST) 7 58)가
 (R&D)

CVCP(Committee of Vice-Chancellors and Principals)

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Ivy-league)가 .59)

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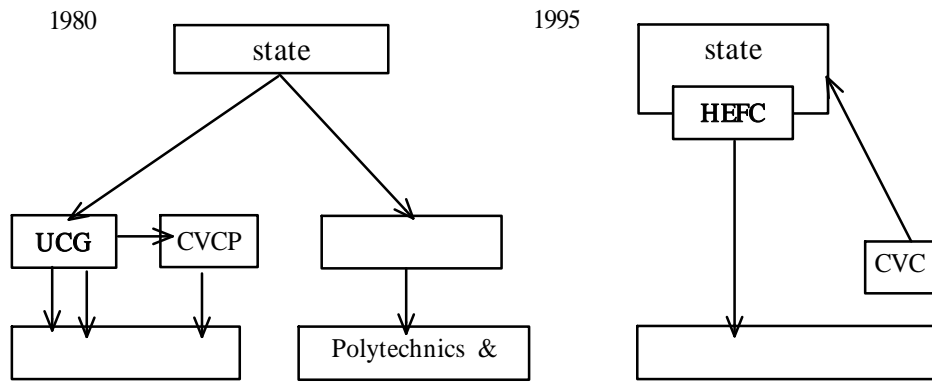
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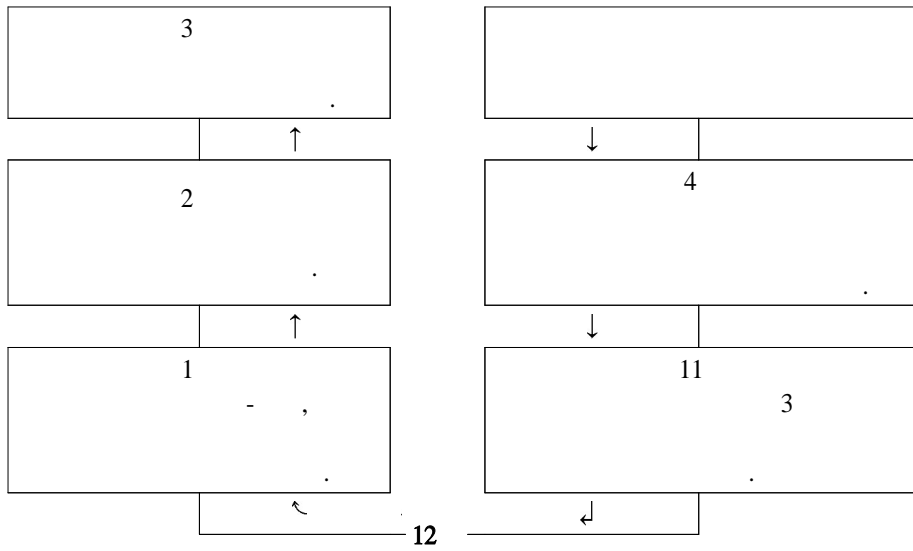
58) (Biotechnology & Biological Science Research
 Council), (Council for the Central Laboratory of the Research
 Councils), (Engineering & Physical Science Research Council),
 (Medical Research Council), (Natural Environment Research
 Council), (Particle Physics & Astronomy Research Council)

59) 1992

CVCP



[6-6]



[6-7]

4.

(Kulturhoheit der Länder)

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(Bundesministerium

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60) (Länder) ' (joint tasks)'

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(BLK- Akkommen)

(Intermediary organizations)

(Wissenschaftsrat)

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 (2001),

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Jeroen Huisman(2003), CHEPS-higher education monitor Country report(GERMANY), CHEPS

Henno Theisens(2003), CHEPS-higher education monitor Country report(UK), CHEPS

Frans Kaiser(2001), CHEPS-higher education monitor Country report(France), CHEPS

Jongbloed, Vossensteyn & Koelman(1999), Public funding of higher education(A comparative of funding mechanisms in ten countries), CHEPS

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Abstract

Higher Education Reform for the Knowledge-Based Economy

Researcher in Charge: Jung-Soo Park

Researchers: Ju-Ho Lee, Young Lee, Sung-Jun Baek

The arrival of a knowledge-based economic society is demanding rapid changes in higher education. Countries around the world are realizing the difficulty in disseminating knowledge and education through the restrictions and organizations of a centralized government. Thus, they are introducing a market-oriented approach toward higher education(OECD, 2003). However, a simultaneous examination of governance structures in Korea show that private universities do not adhere to non-distribution constraints, suggesting that emphasizing market principle alone cannot discipline the personal interests of the founder.

Consequently, the division between success and failure in higher education reform lies in the appropriate combination between the roles of the government and the market. Within such framework, reforms to restructure competition geared toward maximizing competition among universities while minimizing their side effects and reforms to restructure governance aimed at raising autonomy and accountability in universities should henceforth become the two pillars of higher

education reform.

This report is divided into seven parts. In part one, we propose four policy recommendations to promote competition in higher education: 1) gradually expanding autonomy toward university establishment and its personnel, 2) spreading university mergers and acquisitions, 3) liberating active externalization, and 4) disclosing information.

In part two, we suggest four policy recommendations to reform the financial contribution system in universities: 1) amplifying the scope of finances, 2) constructing an efficient and balanced contribution system, 3) providing a systematic mechanism to improve the financial operating system/adjusting the fiscal period and managing flexible finances, and 4) strengthening the contribution of self-induced efforts.

In part three, we have three policy recommendations to strengthen the competitiveness of local universities: 1) leading and supporting voluntary innovation, 2) constructing and managing an innovative and supportive infrastructure for local universities, and 3) strengthening the attraction of outstanding students and distinguished faculty.

In part four, we propose four policy recommendations for governance structure reforms in national universities (introducing a juridical national university system): 1) introducing the board of directors system, 2) improving the nomination system of the president, 3) initiating an accounting system, and 4) expanding the autonomy of its organization and personnel.

In part five, we present four policy recommendations toward reforming the governance structure of private universities: 1) strengthening accountability, 2) enforcing transparency, 3) promoting liberalization, and 4) strengthening autonomy.

In part six, we have two policy recommendations to reform the administrative system in higher education: 1) strengthening the responsibilities and the roles of local governments that pertain to university affairs and 2) strengthening the regulating and the evaluating functions of the central government.

Lastly, in part seven, we give three policy recommendations for an autonomous university management for colleges: College refers to a schools with only one type of major. 1) constructing an autonomous independent-management system, 2) strengthening financial independence, and 3) promoting the specialization of its dean.

Higher education reform began in 1995 as the first phase of reform. As we begin its second phase, the focus now lies in reforming the competition and governance structures of universities. By strengthening the autonomy and accountability through reforms in competition and governance structures, internal reforms will be triggered to increase the effectiveness of the autonomy policy. Therefore, examining issues concerning policies that provide financial contributions relating to autonomy and evaluation of universities that began during the first phase of reform, we must concurrently initiate reform agendas that increase competition and restructure the governance of Korean higher education in its forthcoming second phase.

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