

2005 2 25

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한국은행
THE BANK OF KOREA

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2005.2

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I. 1

II. 2

1. 2

2. 5

III. 7

1. : 7

2. : 10

3. : 11

IV. 13

1. 13

2. • • 14

V. 16

VI. 20

1. 20

2. 21

3. 23

4. : → 24

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()

, IT
38%(2003), 46%(2004.1~11)

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FTA

()



(interdependence)

(circularity)

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— ,

(high-tech equilibrium)

—

(low-tech equilibrium)



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□

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□

1988 29% 2004 46%(1~11

)

IT

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IT (. . , ,)

2000 0.47~0.55 (0.13) 4

0.28 (0.10~0.13) 2~3

□

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—

(1)

(1992~1997)

11.6%

(1997~2002)

5.4%

(15.9% → 12.5%)

—

11.2% 3.3% (

18% → 9.2%),

7.1% 4.1% (6.2% → 6.6%)

□

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99%

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, IT,

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□

1980

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1950

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2001 ‘

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WTO

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(Network Loan)

o

(

'(The Valley of Death))

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I.

1970 ,

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— , , FTA

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II.

1.



(spill-over)

(deep division of labor)

(Rodríguez-Clare 1996)



(interdependence)

(circularity)*

(multiple equilibria)

1996; Rodríguez-Clare 1996; Rodrik 1996)

(Ciccone and Matsuyama

*

()

equilibrium)

(high-tech

—

(low-tech equilibrium),
(underdevelopment trap)

□

,

(coordination)

—

(knowledge), (skill),

o

(non-transferability) (non-tradability)

—

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o



(Okuno-Fujiwara 1987)

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o

(economy of scale)

(economy of scope),

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2.



* 38%(2003),
46%(2003), 46%(2004.1~11)

* 2001 ' .
(' ')
①
, ②
, ③

		2000	2001	2002	2003
()	(A)	214.3	217.7	243.3	257.0
	(B)	564.8	583.8	634.2	676.3
	A/B(%)	37.9	37.3	38.4	38.0
()	(A)	121.3	120.5	122.9	126.0
	(B)	265.3	264.8	269.6	272.1
	A/B(%)	45.7	45.5	45.6	46.3

: , ; ,

	(, %)								
	1988	1993	1995	1997	2000	2001	2002	2003	2004.1~11
(A)	177.6	332.0	591.7	624.1	818.8	634.1	695.5	858.1	1,055.9
(B)	607.0	822.4	1,250.6	1,361.6	1,722.7	1,504.4	1,624.7	1,938.2	2,306.4
(A/B)	29.3	40.4	47.3	45.8	47.5	42.1	42.8	44.3	45.8

: , KITA.NET MTI



— 1 (2003) 2
(2.5)* 80%

o (GDP)
1997 100 32 (76)
(44) (Ark and Timmer 2003)

—
 , IT

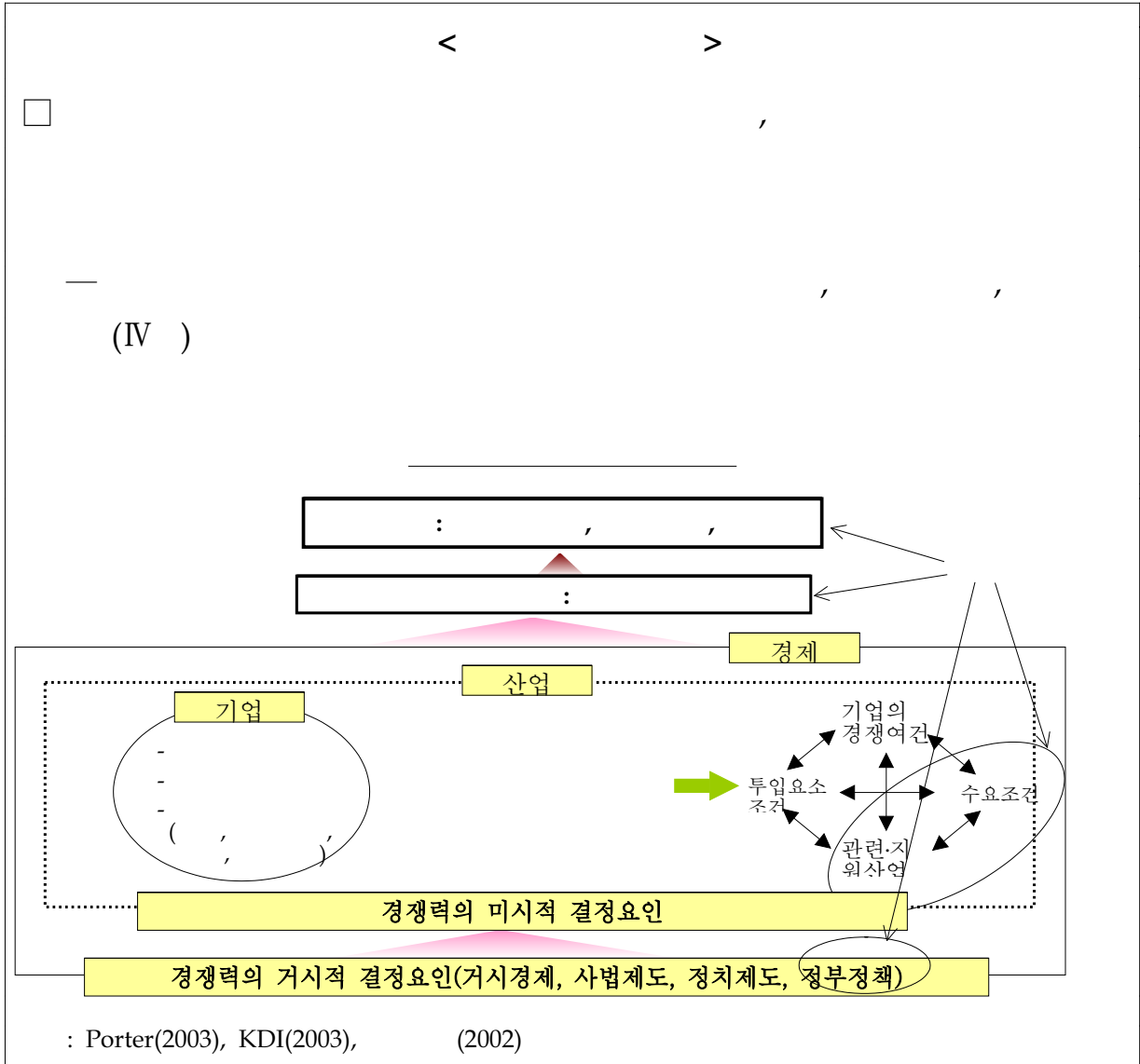
o 10 (HS 4 , 2004)
24% (20%)
, * (0.011) (0.006) 2

* - 10

o 10
(24%) 20%*

* 2004 1~11 229.6 ,
248.6

III.



1. :

□	1988~2003	11%
	1980	20%
	1990	*
	40%	
	40%	
	* 2000~2003	43%(04.1~11 62%)

IT *

* 2003

22%, 50%(1988 10%, 36%)

O

0

* $(x_i - m_i)/(x_i + m_i)$, x_i m_i i

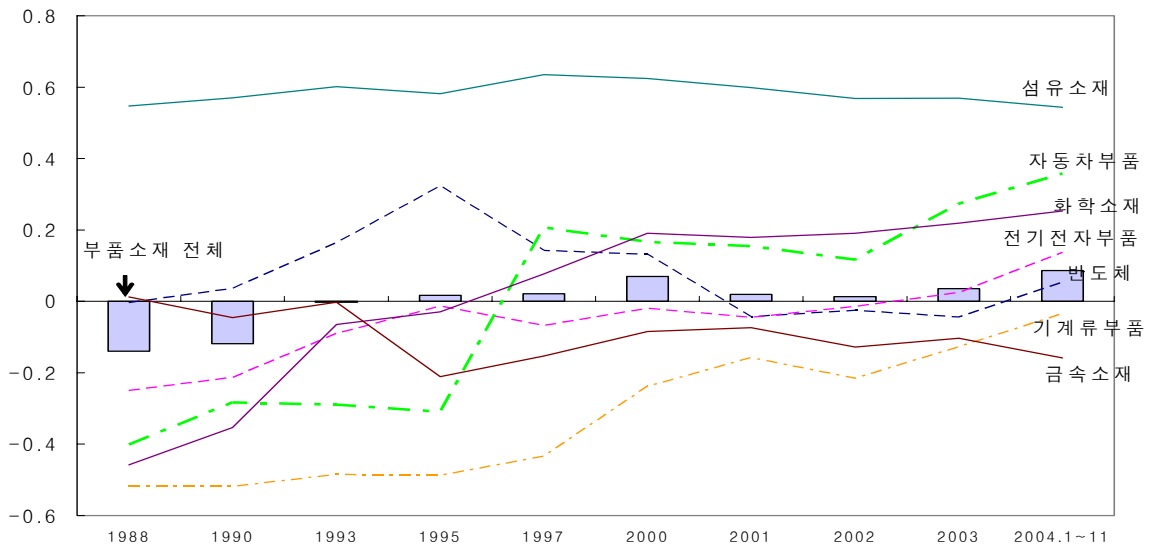
• , LCD

, , LCD

*

* (2004) DVD 70%, 50%,
65%, 82%, 91%, 2

*



: , KITA.NET



*

* : 1990 1.3% → 2003 26%(04.1~11 29.3%)
 : 1990 40% → 2003 30%(04.1~11 29.4%)

—

2000

*

* (,) 1990~2000
 30% 2001~2004 54%

—

, 70~80%
 40%

IT

•

		(, %)				
		1990	1995	2000	2003	2004.1~11
(IT)*	(A)	-69.5	-121.2	-123.8	-148.5	-158.8
	(B)	-29.7	-49.2	-54.4	-64.1	-63.3
	A/B	-59.4	-155.6	-113.6	-190.4	-223.3
	(A)	117	77.9	109.0	78.0	71.1
	(B)	-3.0	12.0	49.8	123.8	178.3
	A/B	-16.8	17.4	56.6	132.0	186.6
		17.9	69.0	88.0	98.8	95.6

: +
 : , KITA.NET

⇒

IT

2. :

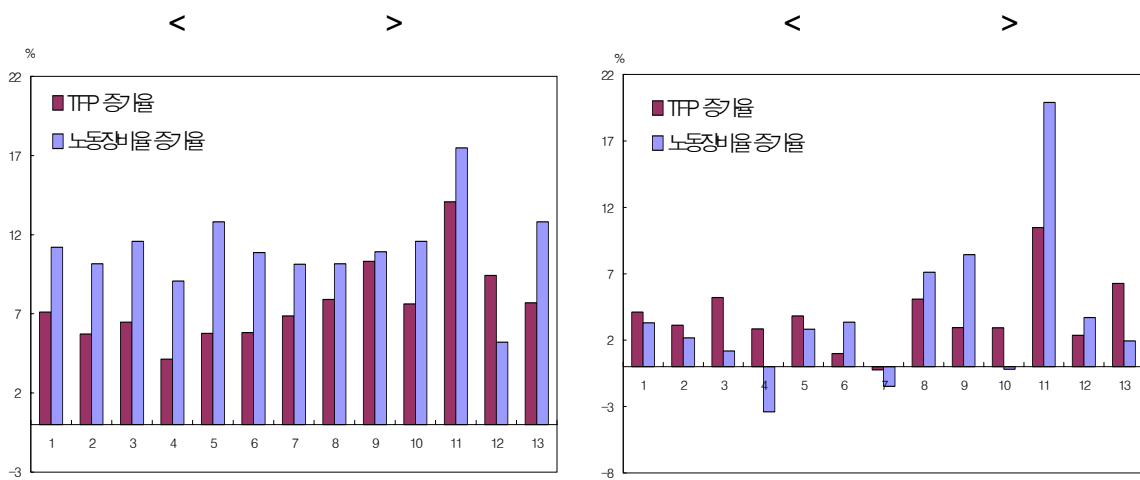
□ * (1
) (1992~1997) 11.6%
 (1997~2002) 5.4% (15.9% → 12.5%)

* 5

— ()

○ 11.2% 3.3% (18% → 9.2%)

○ 7.1%
 4.1% (6.2% → 6.6%)



: 1- , 6- 1 , 2- , 7- , 3- , 12- 8- , 9- 4 , 5- , 10- , 11-

— , , . . IT

⇒ IT

3. :

□ IT

— , , 1990

30% 2000 40%

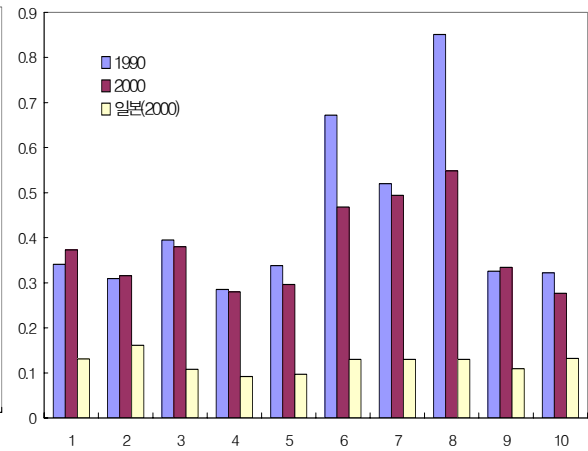
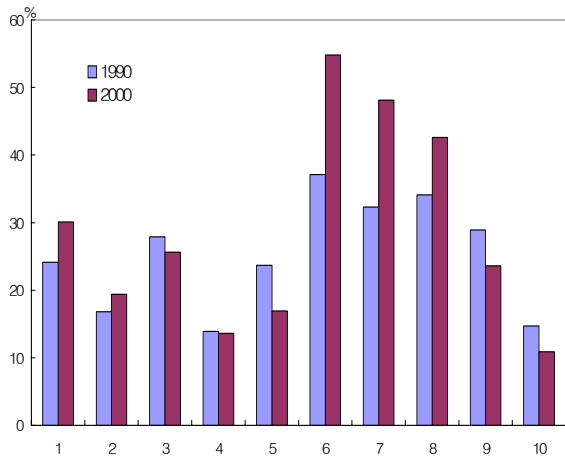
o , LCD, (37.1%→54.8%)

· · (32.3%→48.1%)

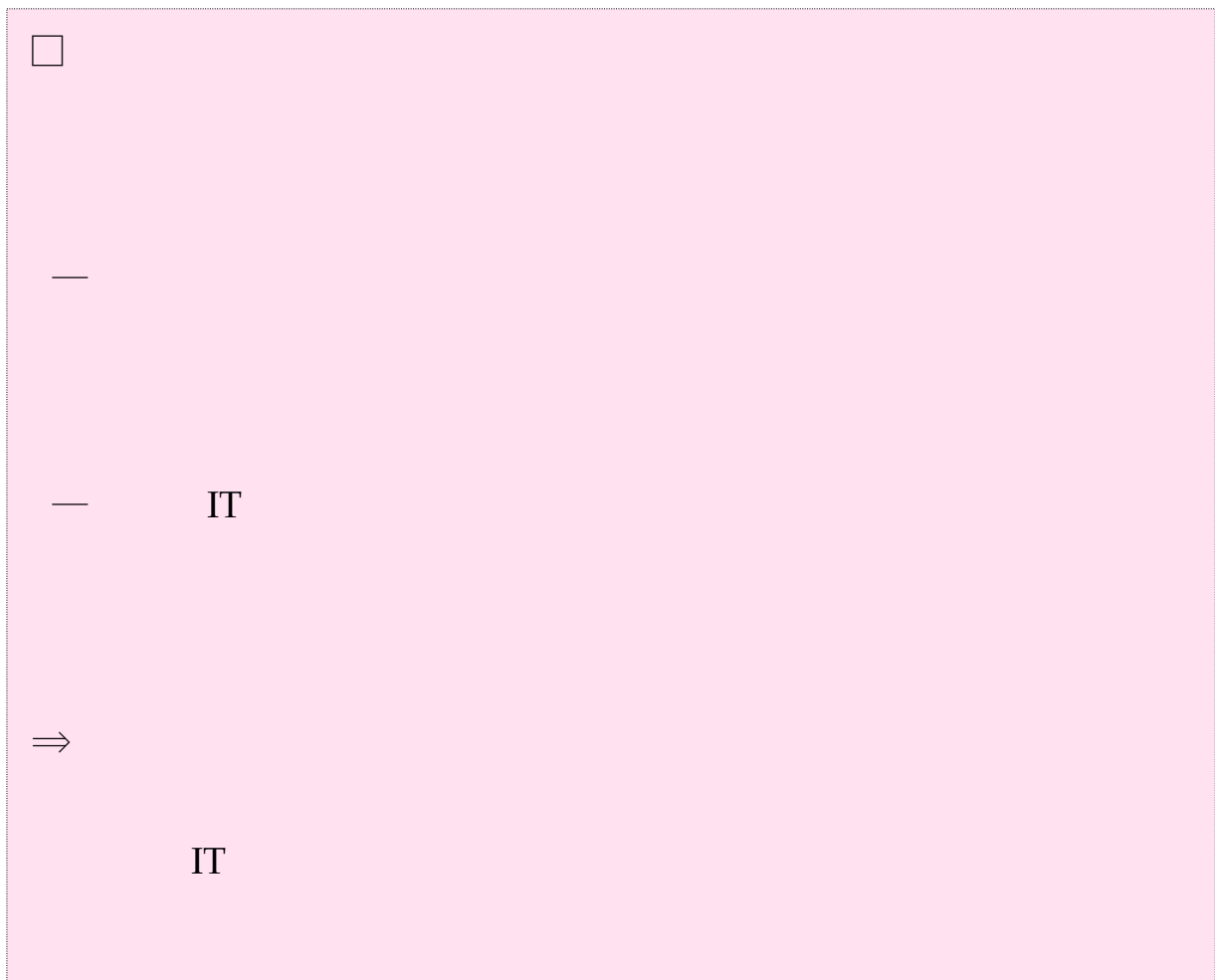
— , IT (· ·) , ,)
(1-) 2000 0.47~0.55 (0.13)

4

0.28 (0.10, 0.13) 2~3



: 1- , 2- , 3- , 4- , 5- , 6- , 7-
 , 8- , 9- , 10-



IV.

1.

— * ,

* (CPU,), (,), (,), (,),

— - .

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,

99% 3 (5)

2. . .

□ 10 . . 3

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(Trade Complementarity Index; TCI)* . .

-

$$C_{k,j} = 100 - \frac{\sum_i (|x_{i,j} - m_{i,k}| \div 2)}{m_{i,k}}$$

o - TCI 1990 44 2003 50 , -
1998 47 2003 54

—

o 60%
1990 36% 2003 53%
o (1990 26% → 2003 49%)
49% 68%

□ . . , .

—

IT (,)
(: 1992 2.6% →
2000 8.2%, : 13.1% → 11.8%)

— ,

(2.9% → 6%)

(1.9% → 2.8%)

□ ,

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— . .

100

76.5, 110.5

3.8

(2004)

99

100

87.6, 65.1, 52.5

2.1

(2004)

⇒

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,

,

V.

1980

1980

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1970 :	— — ,	— : — :
1980~90 :	— (1979~1999) : (93) — (1987 ~95), ~99)	— : 4200 — : 1) (
2000 : (2001)	— —19 —	— : , , — : , , , ,

□ ‘

’(2001)

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o ,

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o

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1970

1

1960

1

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(, 1997)

—

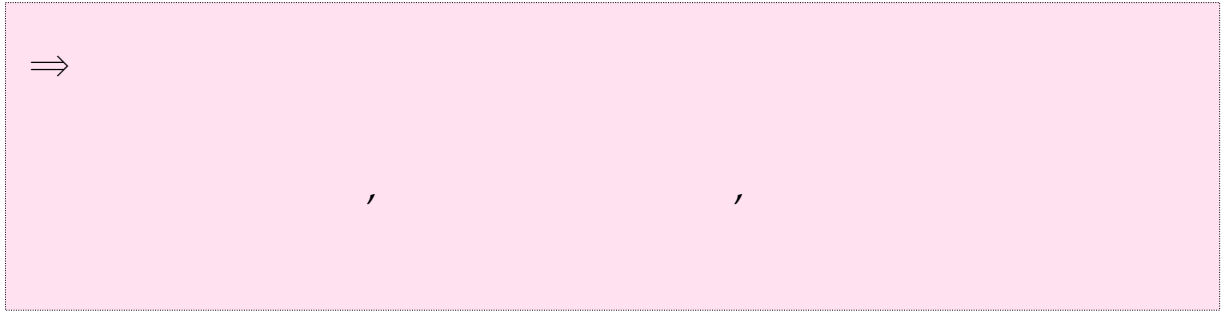
o

,

□ 2001 ' '

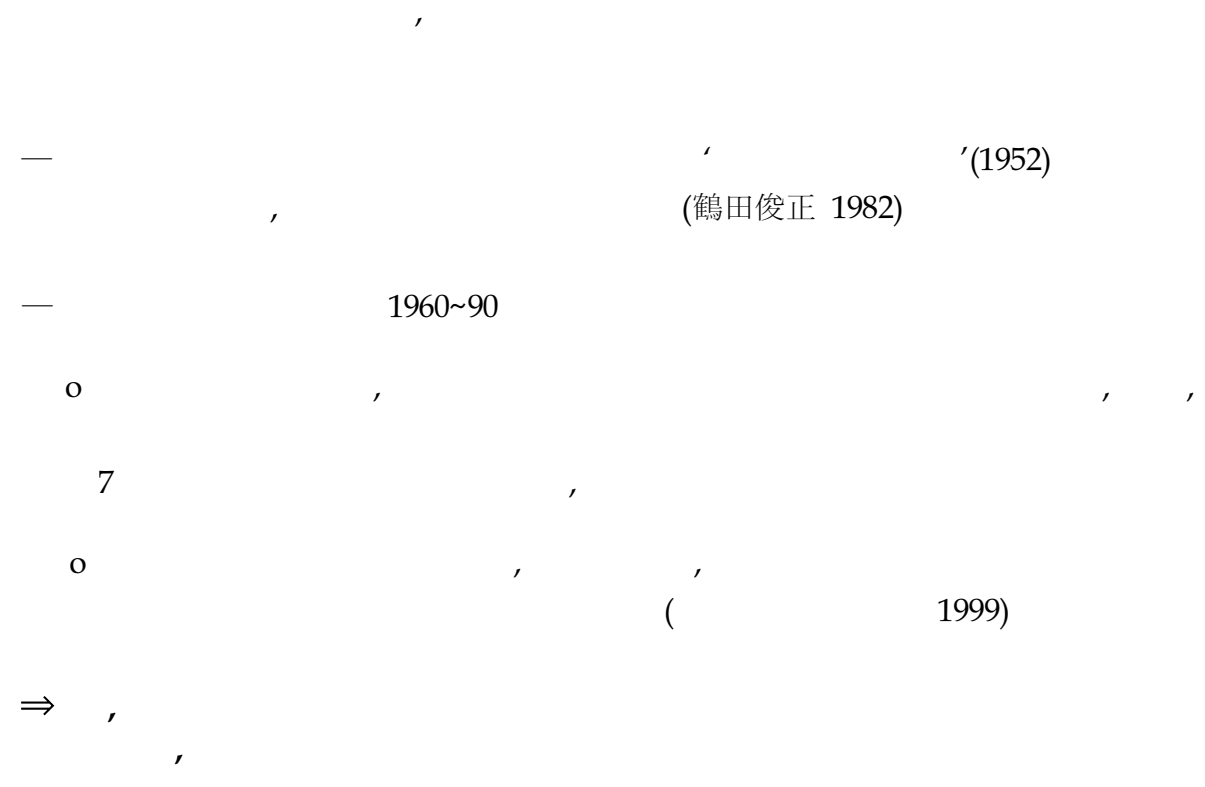
— 1 300 (*) (: '5

* , ' . '(2005.1.17)

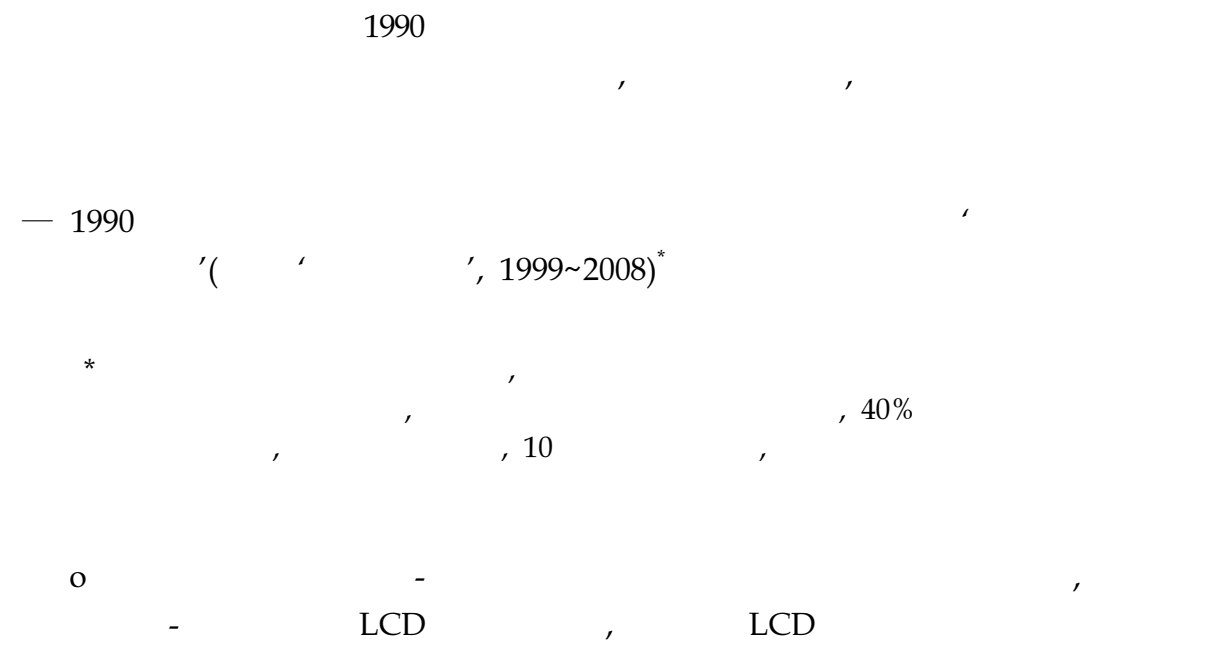


< >

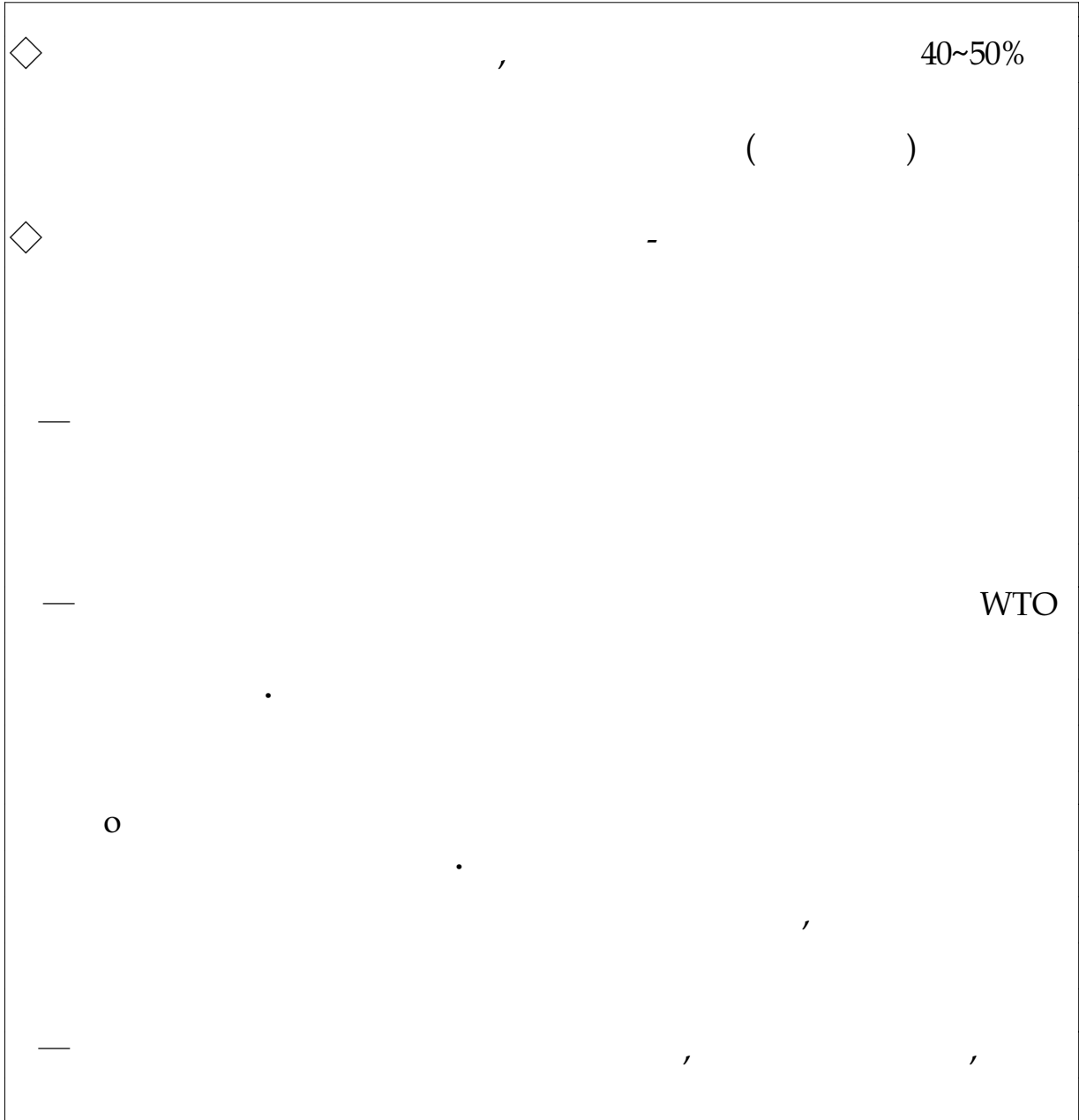
□



□ WTO



VI.



1.



— 2000 ,

o (,)

* , R&D ,

* 2003.8 (TV/ , , /SW , , / 10)

— , R&D ,

o 2001 , ,

2.

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o

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* WTO

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③

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②

50~75%

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30%

5

□

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(Network Loan)

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04.7

'04

1,076

1,335

(

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(

0.3%)

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Loan)

(Network

3.



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WTO

o

19

(, IT, ,)



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(Technology Licensing Office,

TLO)* . .

* 1980

(Bahy-Dole)

. . (2002)

4.

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(' (The Valley of Death)'

— , (risk money)

o ' ' ' ' ,

— , ·

— ()

o ' '(2000)

9