

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



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(interdependence)

(circularity)

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— ,

(high-tech equilibrium)

—

(low-tech equilibrium)



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□

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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)

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(“

’(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)

(Ciccone and Matsuyama

1996; Rodríguez-Clare 1996; Rodrik 1996)

*

()

(high-tech

equilibrium)

—

(low-tech equilibrium),
(underdevelopment trap)'



,

((coordination))

—

(skill),
(knowledge),

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

: ‘ , MTI
: , KITA.NET

□ , ,

— 1 (2003) 2
(2.5)* 80%

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

—

, IT

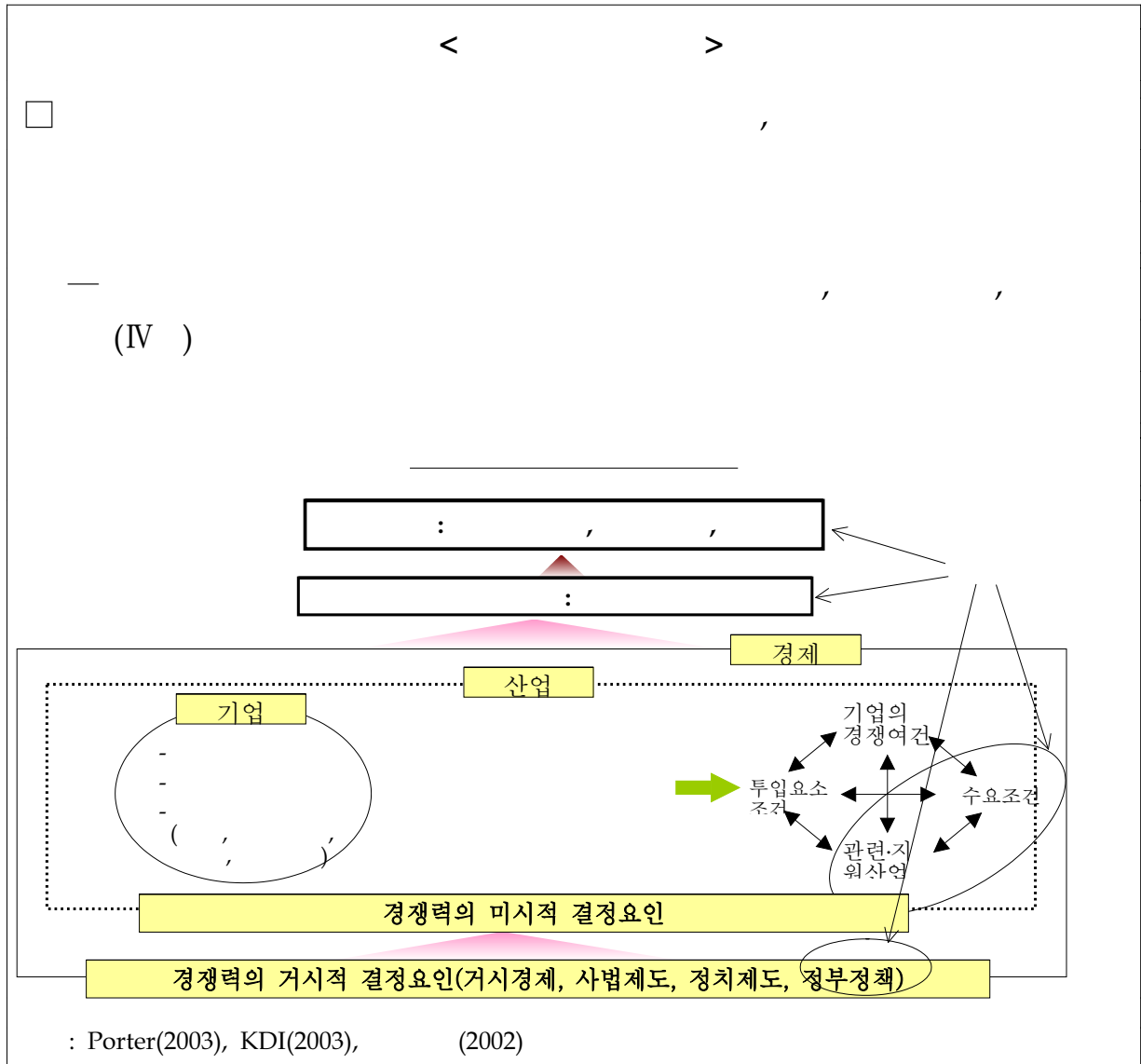
o 10 (HS 4 , 2004)
24% (20%)
, * (0.011) (0.006) 2

* - 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

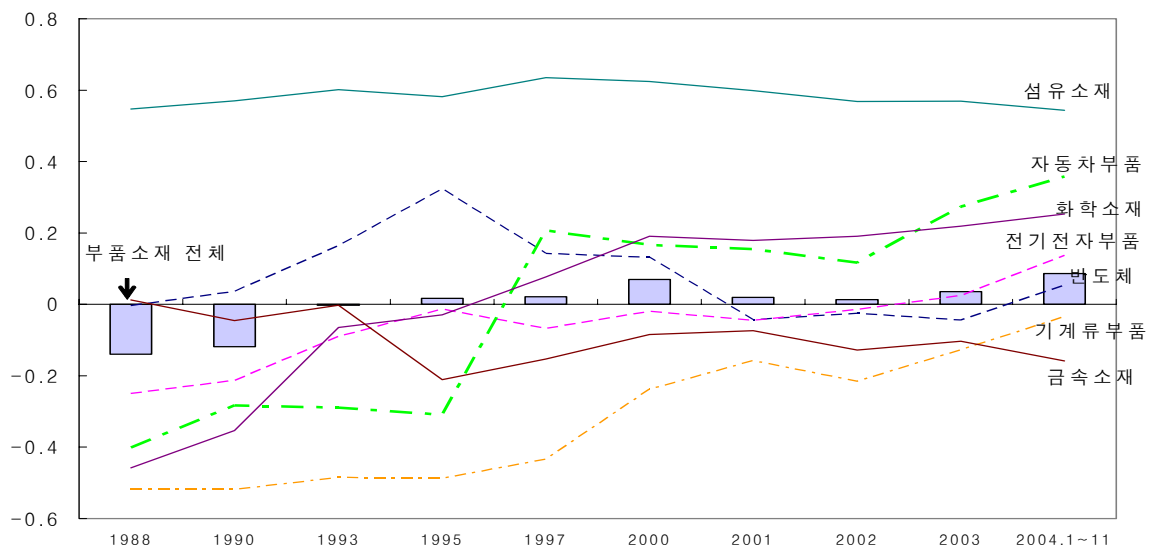
• , LCD

, , LCD

*

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

*



: , 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
	(A)	− 69.5	− 121.2	− 123.8	− 148.5	− 158.8
	(IT) [*]	− 29.7	− 49.2	− 54.4	− 64.1	− 63.3
	(B)	− 59.4	− 155.6	− 113.6	− 190.4	− 223.3
	A/B	117	77.9	109.0	78.0	71.1
	(A)	− 3.0	12.0	49.8	123.8	178.3
	(B)	− 16.8	17.4	56.6	132.0	186.6
	A/B	17.9	69.0	88.0	98.8	95.6

: +
: , KITA.NET

⇒

IT

2. :

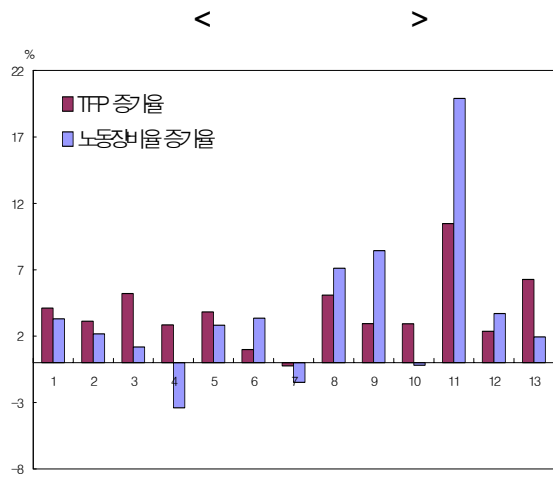
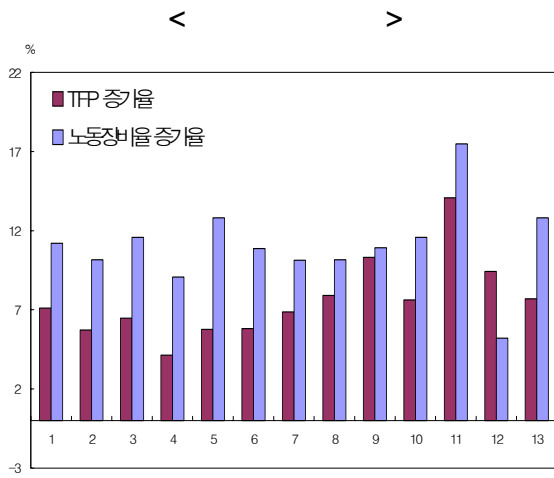
□ * (1
)
(1992~1997) 11.6%
(1997~2002) 5.4% (15.9% → 12.5%)

* 5

— ()

o
11.2% 3.3% (18% → 9.2%)

o 7.1%
4.1% (6.2% → 6.6%)



: 1- , 6- 1 , 2- , 7- , 3- , 12- , 8- , 9- 4 , 13- , 5- , 10- , 11-

— , , . . IT

⇒ IT

3. :

□ IT

— , , 1990

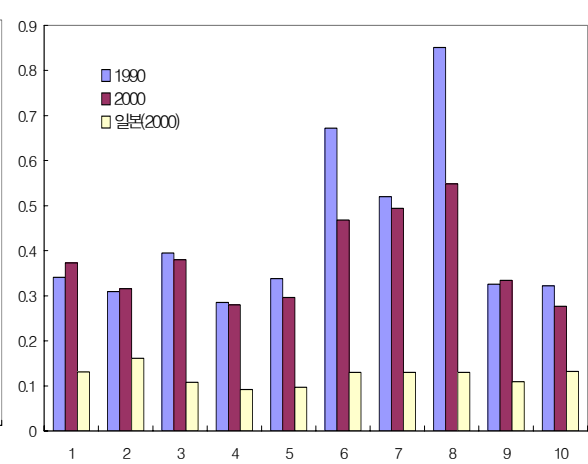
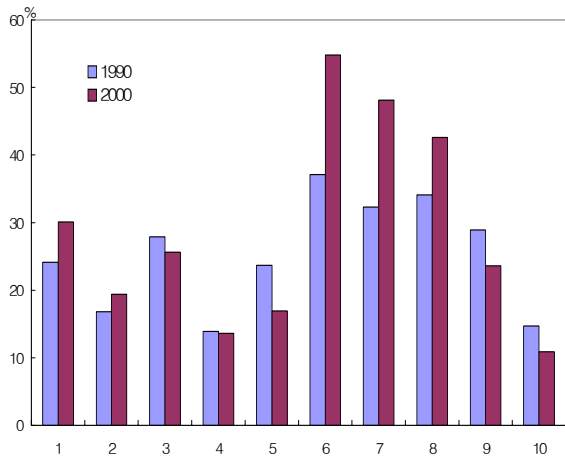
30% 2000 40%

o , LCD, (37.1%→54.8%)
 . . (32.3%→48.1%)

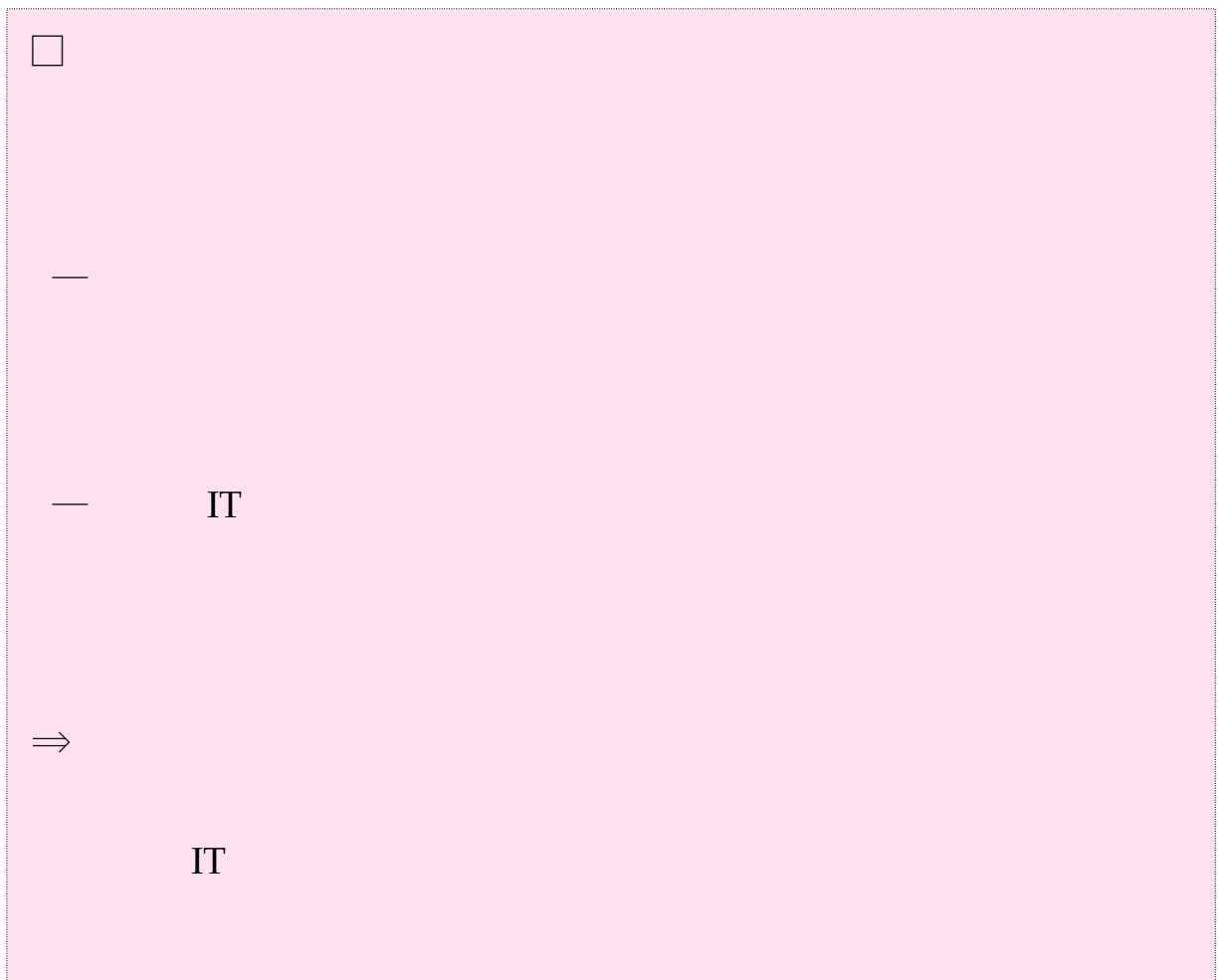
— , IT (. . , ,)
 (1—) 2000 0.47~0.55 (0.13)

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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☐

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☐

3 (5)

99%

2. . .

□ 10 . . 3

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(Trade Complementarity Index; TCI)* . .

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

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

—

o 60%
1990 36% 2003 53%

o (1990 26% → 2003 49%)

49% 68%

□ . . , .

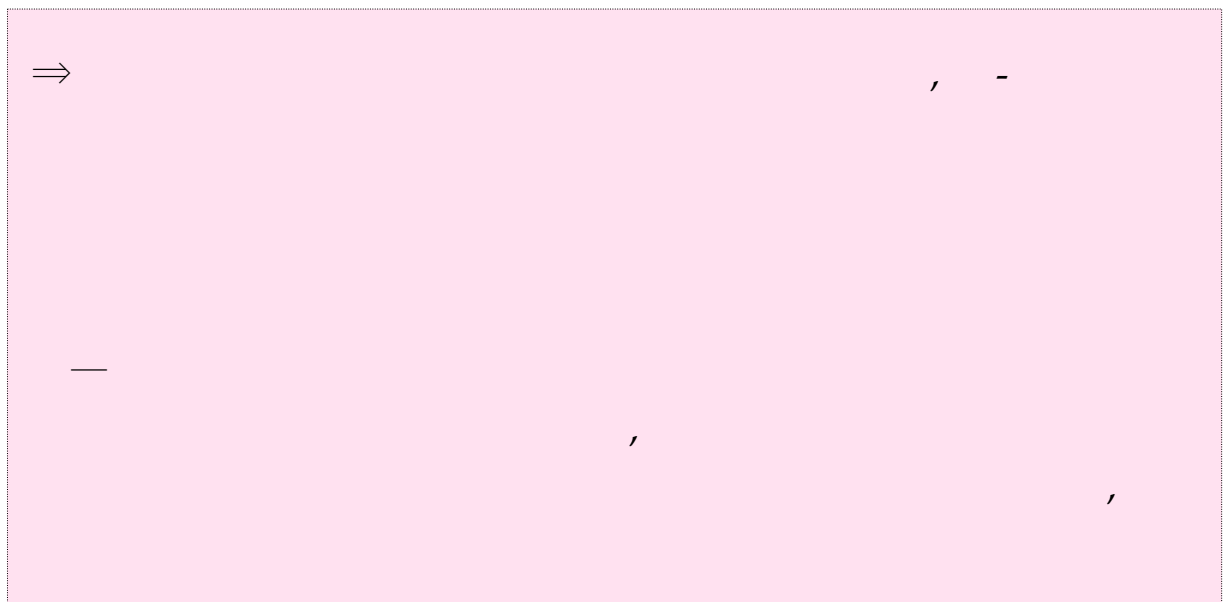
—

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

— , (2.9% → 6%)
(1.9% → 2.8%)

□ , . .

— . . 100
76.5, 110.5 3.8
(2004)
99 100
87.6, 65.1, 52.5
2.1 (2004)



V.

□ 1980

1980

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(< > ' ,

)

1970 :	— — ,	— : — :
1980~90 :	— (1979~1999) : (93) — (1987 ~95), (1995 ~99)	— : 4200 — : 1) (
2000 : (' 2001)	— —19 , , —	— : , , — : , , , , ,

□ ‘

’(2001)

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o ,

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1960

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1970

1

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(, 1997)

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o

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□ 2001 ‘ ’

— (: ‘5
1 300 ‘*)

* , ‘ . ‘(2005.1.17)

⇒

’

’

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□

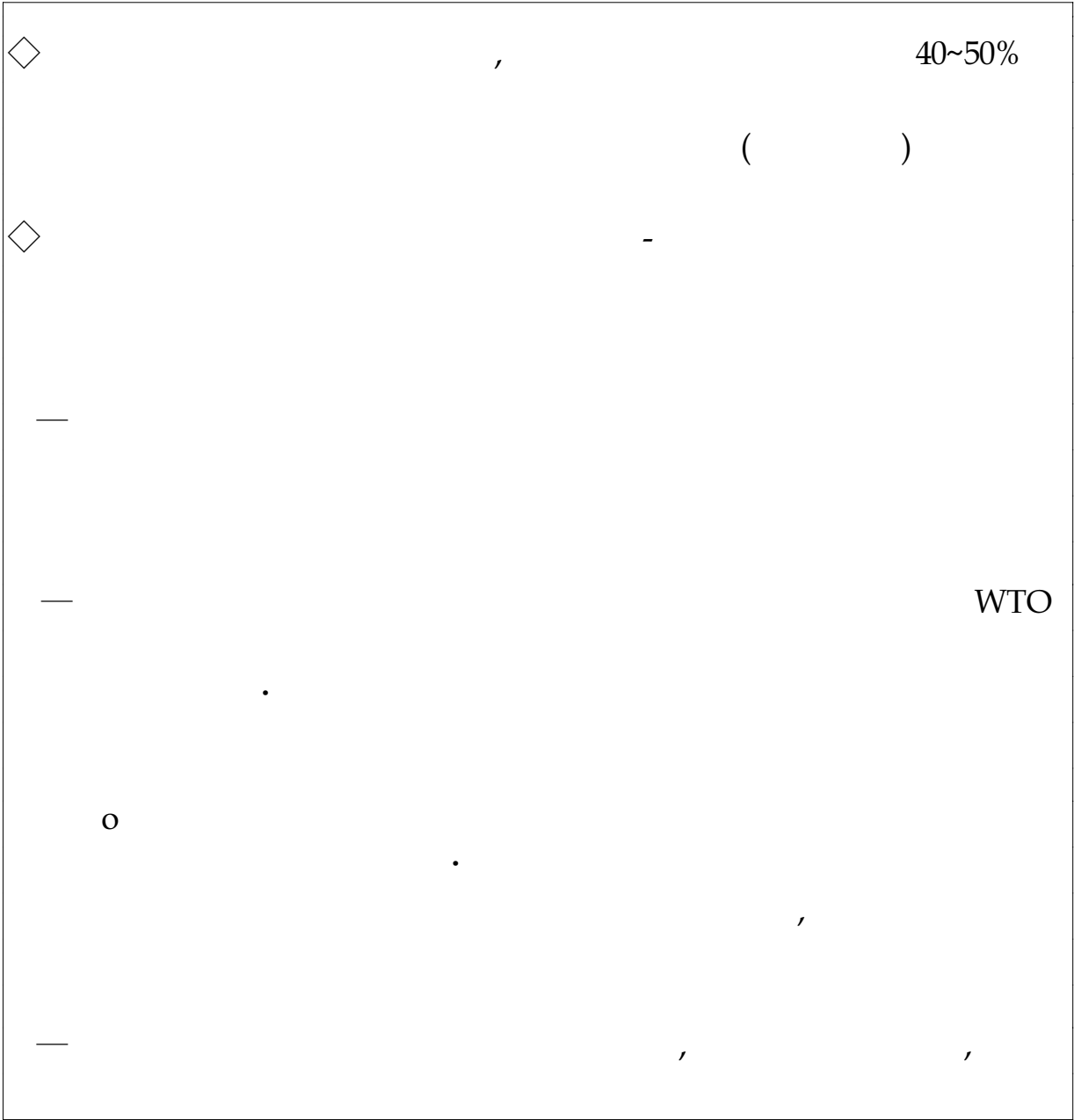
— ' (1952)
(鶴田俊正 1982)
— 1960~90
o , ,
7 ,
o , (1999)

⇒ ,
,

□ WTO

1990
, ,
— 1990
' (, 1999~2008) *
* , , 40%
, 10
o - LCD , LCD

VI.



1.



— 2000 ,

o (,)

☐ . .
* , R&D
/

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

— , .
R&D ,

o 2001 , , , ,

2.

☐

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* WTO

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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%)

—

(Network

Loan)

3.



o (, IT, ,)

— WTO

o (, IT, ,) 19



o (, IT, ,)



o (Technology Licensing Office, TLO)* . .

* 1980

. . (Bahy-Dole) (2002)



4.

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(' (The Valley of Death)'

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, (risk money)

o ' , ' , ,

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(

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o ' '(2000)

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9