

『MRIO시산표 작성-기술계수 추정』에 관한 연구

-최종보고서-

2003. 12

국가균형발전위원회

제 · 출 · 문

국가균형발전위원회 위원장 귀하

본 보고서를
『MRIO시산표 작성-기술계수 추정』에 관한
연구”의 최종보고서로 제출합니다.

2003년 12월

국토연구원 원장 이 규 방

연 구 진

연구책임

부 책 임

연 구 진

연 구 진

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1.		1
2.		1
3.		2
4.		3
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2.		7
3.		15
4.		27
3		
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2.		36
3.		42
4.		51
4		
1.		73
2.		74
5		
1.		87
2.		101

6

1.		103
2. 2000		104

7

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2.		105
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제 1 장 서 론

1.

가 ,
가 ,
가
가

가 2000
가

2.

가
가

가

가가 , ,

가

가

2000

가

3.

2001-2003

KRIHS

가

RAS

2000

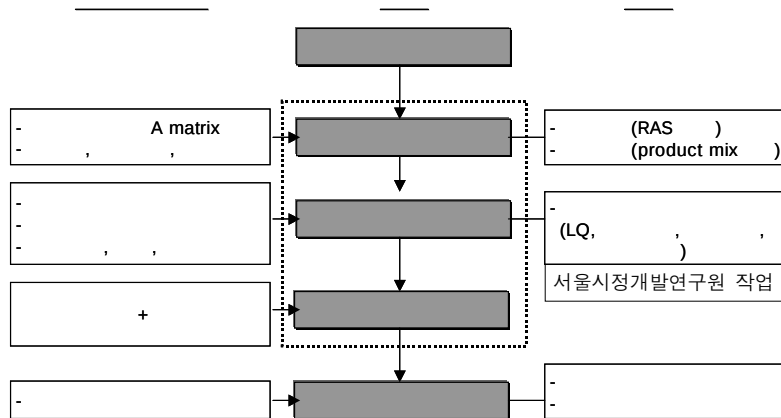
16

가

가

5 , 가
34 . , 가
가

4.



제 2 장

지역산업연관분석 이론 및 작성사례

1. (MRIO)

1)

가 ,
(regional I-O model) (single-region input
output analysis) (inter-regional I-O model)
(multi-regional I-O model)

(non survey technique)

n
n×n 가 가

(Multi-regional I-O Model, MRIO)

$$(A^{LL})$$

$$(A^L)$$

$$A_{ij}^L = \frac{Z_{ij}^L}{X_j^L} \quad (2-1)$$

가 j

i

가

(inter-regional

trade coefficient)가

(C)

$$C_i^{LM} = \frac{Z_i^{LM}}{T_i^M} \quad (2-2)$$

2)

(Multi-regional I-O

Model)

. MRIO

가 가 ,

16

16

가 가

가

가

(IRIO)

(MRIO)

(MRIO) (IRIO)

1

2

가

1

, 2

2.

1)

(non survey technique)

가

5~6가

가

가

, 가 (regional weights approach)

가

가

가

1) 가 2)

$$a_{ij}^R = (P_j^R) a_{ij}^N \quad (2-3)$$

1) Shen(1960). p18., (1998)

2) Shen(1960), Round(1972), (2001)

P_j^R , a_{ij}^N (location quotient approach)

가 (LQ)가 1

$$LQ_i^R = \left[\frac{X_i^R / X^R}{X_i^N / X^N} \right] \quad (2-4)$$

i , R , N

$$a_{ij}^{RR} = \begin{cases} a_{ij}^N (LQ_i^R) & , LQ_i^R < 1 \text{인 경우} \\ a_{ij}^N & , LQ_i^R \geq 1 \text{인 경우} \end{cases} \quad (2-5)$$

가 (simple LQ),

(purchase only LQ), (cross industry LQ),

(expenditure LQ)

(supply demand pool approach)

.3)

$$\bar{X}_i^R = \sum_j a_{ij}^N X_j^R + \sum_f c_{if}^N Y_f \quad (2-6)$$

c_{if}^N 가

3) R. E. Miller & P. Blair, 1985, pp. 300-302.

$$a_{ij}^{RR} = \begin{cases} a_{ij}^N (X_i^R / \bar{X}^R) & , b_i < 0 \text{인 경우} \\ a_{ij}^N & , b_i \geq 0 \text{인 경우} \end{cases}$$

$$b_i = X_i^R - \bar{X}^R$$

, (regional purchase coefficients approach)

.4)

$$RPC_i^R = Z_i^{RR} / (Z_i^{RR} + \bar{Z}_i^{RR}) \quad (2-7)$$

Z_i^{RR} 이 R R 가
 $\bar{Z}_i^{RR}$ R
 , RAS

가

2)

가

4) J. I. Round, (. p20) .

<표 2-1> 비조사법의 비교평가

순 위	검 정				
	Mean Absolute Difference	Correlation Coefficient	Mean Similarity Index	Information Content	Chi-Square
1	RAS	RAS	RAS	RAS	RAS
2	SLQ	SDP	SLQ	SLQ	CMOD
3	POLQ	SLQ	POLQ	POLQ	SLQ
4	RMOD	POLQ	SDP	CMOD	RMOD
5	CMOD	RMOD	RMOD	RMOD	POLQ
6	SDP	CMOD	RND	RND	RND
7	RND	RND	CMOD	CILQ	CILQ
8	CILQ	CILQ	CILQ	SDP	SDP

: CILQ(Cross-Industry Location Quotient)
 CMOD(Modified Cross-Industry Quotient)
 POLQ(Purchase Only Location Quotient)
 RAS(RAS)
 RMOD(Logarithmic Cross-Industry Quotient)
 SDP(Supply-Demand Pool)
 SLQ(Simple Location Quotient)
 RND(Logarithmic Cross Quotient),

가 가 Morrison Smith
 RAS
 가 가 (simple-location
 quotient)
 (< 2-1>). 가
 .5)

(1) RAS기법

RAS 가
 , 가 (non-negativity)

5) (1994)

(2) 입지계수법(Location Quotient Method)
(location quotient method)

,
 . RAS LQ 가 가
 , 가 ,
 .
 가
 . 가
 가
 . 가
 가
 가 RAS LQ
 가 가 가
 , 가 가

(4)생산물혼합기법

(product mix method)

가

가

가

가

가

가

가

가

가

가

< 2-2>

<표 2-2> 조정방법의 장단점 검토

조정방법	장점	단점
RAS방법 (RAS Method)	• non-negativity 가 • 가 • 가	• 가 • 가
입지계수법 (Location Quotient Method)	• 가 , • I-O (1 分) • 가	• 가, • 가 • (가) • LQ • 가
가중치에 의한 조정 (Weighting Method)	• 가 • 가 () • 가	• 가 ()
생산물혼합기법 (Product Mix Method)	• 가 • 가	• 가 가 • 가

3.

1)

(1) 지역간 교역 자료

가 ,

가 ,

.

.

,

,

가

.

, 가

.

가

가

가

.

(2) 지역간 교역의 추계방법

,

,

, LQ

가

.

가

가

,

가

①

□

(W.

Isard)가

가 , , , , Isard
가 1980 . 6)

□

Chenery
Moses가 7) Chenery-Moses
L M
i 가 M i ,
(Regional trade coefficient) . M
M . 8)

$$C_i^{LM} = \frac{Z_i^{LM}}{T_i^M} \quad (2-8)$$

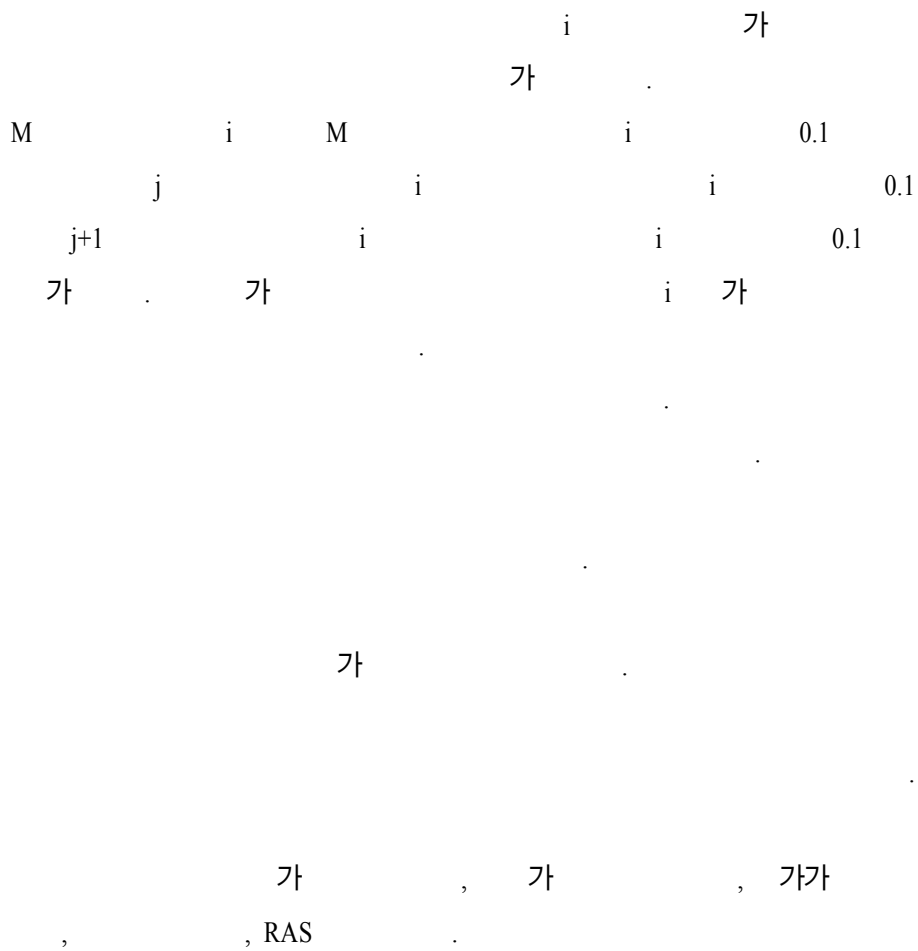
Z_i^{LM} L M i

6) . 1984.

7)

8) Chenery(1953), Moses(1955) .

C_i^{LM} 은 지역교역계수,
 T_i^M 은 $Z_i^{LM} + Z_i^{2M} + \dots + Z_i^{LM} + \dots + Z_i^{pM}$ (각지역에서 M지역
 으로 이입된 i재화의 총량)이다.



②

가

$$x_{ij}^m = K^m X_i^m Y_j^m f^m(d_{ij}^m) \quad (2-9)$$

여기서 $x_{ij}^m : i, j, m$ (:)

$K^m :$

$X_i^m : i$ () (: ,)

$Y_j^m : j$ () (: ,)

$f^m(d_{ij}^m) : i, j$

$m :$

$i :$

$j :$

가

가

가

가

가

가

가

가

③

2

(引力)

(2-10) - (2-11)

$$\sum_j x_{ij}^m = X_i^m \quad (2-10)$$

$$\sum_i x_{ij}^m = Y_j^m \quad (2-11)$$

$$\sum_i \sum_j x_{ij}^m \cdot c_{ij}^m = C^m \quad (2-12)$$

가 가

$$\sum_j x_{ij}^m = X_i^m \quad (2-10)$$

$$\sum_i x_{ij}^m = Y_j^m \quad (2-11)$$

$$\sum_i \sum_j x_{ij}^m \cdot c_{ij}^m = C^m \quad (2-12)$$

x_{ij}^m m i j
 X_i^m i m
 Y_j^m j m
 c_{ij}^m m i j
 C^m m

가 가 m

$$W(\{x_{ij}^m\}) = \frac{T!}{\prod_{ij} T_{ij}!} \{x_{ij}^m\}.$$

$\{x_{ij}^m\}$ Lagrangian

$\mathcal{L}$.11)

$$\mathcal{L} = \ln W + \sum_i \lambda_i^{(1)} (X_i - \sum_j x_{ij}) + \sum_j \lambda_j^{(2)} (Y_j - \sum_i x_{ij}) + \beta (C - \sum_i \sum_j x_{ij} c_{ij})$$
 (2-13)

$\mathcal{L}$ x_{ij}^m x_{ij}^m

$\mathcal{L}$ 0 (解) .

,

,

가 가

.12)

④ (LQ)

LQ 2

, LQ

.

LQ

. LQ

11) Wilson, , pp17-19.
12) , . p36.

. LQ

가 .

가 LQ LQ가 1

, LQ가 1

가 . LQ

,

,

.

,

.

2 3

LQ

,

2

LQ가 1

LQ가 1

LQ가 1 LQ가 1

가

가 . 3

가 . 3

6

.13)

가 4

13) A, B, C 3

LQ

A>1, B<1, C<1, , A>1, B<1, C>1, , A<1, B>1, C<1, , A<1, B>1, C>1, , A<1, B<1, C>1

, C

A B

LQ가 1

가

LQ

.14)

2)

, 가

가 .

, 가 가

LQ , LQ
가 . 가

. LQ

LQ

LQ가 1 LQ
(,).

LQ

. ,

가

14) 4 LQ가 1
LQ가 1 LQ가 1

3

가

가 4

LQ

가

가

가

가

가

, 가

가

가 (: 3)

1

가

가

가

가

가

가

LQ

<표 2-3> 교역계수 조정방법의 장단점 검토(물동량에 의한 방법)

조정방법	장 점	단 점
화물 물동량에 의한 방법	가	(: 3) 가 가 가 가

4.

RAS 가 , LQ ,
 , LQ 가
 RAS , LQ
 Brand, Muhammad, Flegg,
 Douglas LQ RAS LQ
 (< 2-4>).

<표 2-4> 외국의 지역 산업연관표 작성 사례

연구자	대상 연도	대상지역	이용모형	비고
Steven Vrain 외 2인	2000	(Wales, Scotland, Westmidland)	LQ(RAS)	
일본의 도도부현	1990	(47 9)	RAS	

< 2-5> .

<표 2-5> 우리나라 지역 산업연관표 작성 사례

연구자	산업 분류	대상 연도	대상지역	모형구축방법
K. Han (1963)	19	1958	, ,	
국토개발연구원 (1983)	40	1980	5	: LQ, RAS :
국토개발연구원 (1984)	17 41	1980	5	: survey, RAS :
이주훈(1990)	19 20	1970 1978 1985	, , , ,	
이돈재(1993)	21	1988	,	: 가 : MRIO()
국토개발연구원 (1993)	31	1990		, MRIO KRIO, KMRI
경남개발연구원	26		,	LQ
삼성경제연구소 (1995)	26	1990	15	:
윤영선(1998)	18	1993	, ,	: 가 :
H. Ji(1999)	15	1993	5	: : (,)
한국개발연구원 (2000)	26	1995	15	RAS
조형제(2000)	26	1995		
김갑성(2000)	16	1994		
이춘근(2001)	24	1998	.	RAS LQ
박상우 · 이종열 (2001)	26	1998	.	RAS, LQ
박상우 · 이종열 (2002)	26	1998	16	RAS, LQ

제 3 장

다지역산업연관모형의 설정

1. 2000

1)

가 가 .
가 가
가 . 5
가 . 2000
가 ,

2)

(1)대상지역

가
7
9
16
가
가
가

<표 3-1> 지역구분

종 류	시·도 구분									
특별시(1)										
광역시(6)	,	,	,	,	,					
도(9)	,	,	,	,	,	,	,	,	,	,

(2) 산업부문 분류

, 가
, KRIHS 26
I-O 34
(, 19 , 13)

<표 3-2> 산업분류

code	통합대분류(34부문)	code	통합중분류(69부문)	IO code(2000년)
1	농림어업	1	농업	001-017
		2	축산업	018-022
		3	임업	023-026
		4	수산업	027-030
2	광업	5	광업	031-045
3	음식료 및 담배	6	음식료품	046-085
		7	담배	086
4	기타섬유제품	8	섬유사	087-093
		9	섬유직물	094-102
		10	기타섬유제품	109-111
5	의류	11	의류및장신품	103-108
		12	가죽제품 및 모피	112-114, 117
6	신발	13	신발	115-116
7	목재종이	14	목재및나무제품	118-123
		15	펄프및종이	124-132
8	석유화학고무	16	석탄화합물제조(1개업체)	137-138
		17	석유제품	139-147
		18	유기화학기초제품	148-151
		19	합성수지및고무	154-155
		20	플라스틱	172-174
		21	고무제품	175-177
9	정밀화학 (생물산업포함)	22	무기화학기초제품	152-153
		23	화학섬유	156-157
		24	비료및농약	158-160
		25	의약품및화장품	161-163
		26	기타화학제품	164-171
10	비금속광물	27	유리제품	178-180
		28	도자기및점토	181-184
		29	시멘트및콘크리트	185-187
		30	기타비금속	188-193
11	1차금속및금속 (철강)	31	선철및강반성품	194-196
		32	철강1차제품	197-206
		33	비철금속및1차제품	207-214
		34	금속제품	215-225
12	기계 (메카트로닉스포함)	35	일반목적용기계및장비	226-235
		36	특수목적용기계및장비	236-245
13	전기 및 가전	37	전기계및장치	246-253
		38	가전	270-274
14	반도체	39	반도체	256-257
15	정보통신기기 (IT, software)	40	전자기기부분품(반도체제외)	254-255, 258-261
		41	통신기기및방송장비제조	262-267
		42	컴퓨터및사무기기	268-269

(표계속)

code	통합대분류(34부문)	code	통합중분류(69부문)	IO code(2000년)
16	정밀기기(광산업포함)	43	정밀기기(광산업포함)	275-280
17	자동차	44	자동차	281-287
18	조선	45	조선	288-290
19	항공우주	46	항공우주	292
20	기타수송장비	47	기타수송장비	291, 293-294
21	가구및기타제조업제품	48	가구및기타제조업제품	295-304
22	전력가스수도	49	전력	305-308
		50	도시가스및수도	309-311
23	건설	51	건축및건축보수	312-316
		52	토목건설	317-328
24	도소매	53	도소매	329-330
25	음식숙박업	54	음식숙박업	331-332
26	물류	55	물류	333-336,339,340,342,344,345
27	해상물류	56	해상물류	337,338,341,343
28	문화	57	인쇄,출판,복제	133-136
		58	문화오락서비스 (IT software포함)	388-393
		59	방송	350-351
29	정보통신서비스	60	정보통신서비스	346-349
30	금융및보험관련서비스	61	금융	352-354
		62	보험	355-356
		63	금융및보험관련서비스	357
31	부동산 및 사업서비스	64	부동산	358-360
		65	사업서비스(IT software 포함)	361-371
32	공공행정및국방	66	공공행정및국방	372-373
33	교육및사회보장	67	교육및연구	374-380
		68	의료,보건,사회보장	381-387
34	사회및기타서비스	69	사회및기타서비스	394-404

, 가

34

<

3-3>

<표 3-3> 지역전략산업 및 동북아 경제중심 추진에 필요한 산업

code	시산표 대분류(34부문)	지역전략산업 및 동북아 경제중심 추진에 필요한 산업
1	농림어업	
2	광업	
3	음식료 및 담배	
4	기타섬유제품	대구
5	의류	서울, 대구
6	신발	부산
7	목재종이	
8	석유화학고무	충남, 전남
9	정밀화학(생물산업포함)	정밀화학(울산,충북) 생물(인천,대전,강원,충북,전북,전남,경북,경남)
10	비금속광물	
11	1차금속및금속(철강)	전남, 경북
12	기계(메카트로닉스포함)	대구, 경기, 경남, 전북
13	전기 및 가전	광주
14	반도체	경기, 충북
15	정보통신기기(IT, software)	동북아, 경기, 충남, 경북
16	정밀기기(광산업포함)	광주, 강원, 충남
17	자동차	부산, 광주, 울산, 전북
18	조선	울산, 경남
19	항공우주	
20	기타수송장비	
21	가구및기타제조업제품	
22	전력가스수도	
23	건설	
24	도소매	
25	음식숙박업	
26	물류	동북아, 부산, 인천
27	해상물류	동북아, 부산, 인천
28	문화	동북아, 서울, 경기, 부산, 대전, 강원, 제주
29	정보통신서비스	동북아, 서울, 대전
30	금융및보험관련서비스	동북아
31	부동산및 사업서비스	동북아, 서울, 대전, 부산
32	공공행정및국방	
33	교육및사회보장	
34	사회및기타서비스	

① 메카트로닉스

NC ,
,
(2000 IO 226-235)', '
(2000 IO 236-245)' . 가
,
가 (2000 IO 226-245)
.

② 생물산업(BT)

, , , , , ,
,
,
가 ' (2000 IO 161-163)'
, .

③ 신소재

, , , ,
, , 1 , 1 .
가
.
.

④ 환경산업

가 가 ,

2 ‘ (2000 IO 120)’ (2000
 IO 234)‘ IO 175,
 IO 226, 가 IO 206, 172, 148

⑤ 광산업

가
 가 ,
 가

⑥ 관광산업

(satellite account)

, 가

가

⑦ IT 소프트웨어

가

2.

1)

2000 KRIHS (open system) 가 . 가 , 가 . 가 . 가 . 2 . 가 , 1 . , 2 . 가 가 . RAS . RAS 가 , 가 ,

. RAS

product mix()

가

가

(Multi-regional I-O)

MRIO

RAS

,

2)

$$AX + Y + E - M = X \quad (3-1)$$

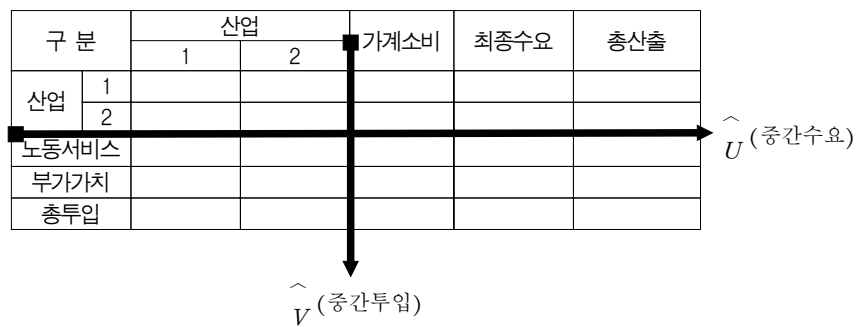
A , X , Y , E
, M

RAS

가가 ,

. RAS

<그림 3-1> 개 념 도



, $A(0)$, $\hat{U}$

, $\hat{V}$

$$A^1 = R^1 A(0)$$

$$R^1 = \begin{bmatrix} \hat{U}^1 \end{bmatrix} \begin{bmatrix} \hat{U}^1 \end{bmatrix}^{-1} \quad (3-2)$$

$$S^1 = \begin{bmatrix} \hat{V}^1 \end{bmatrix} \begin{bmatrix} \hat{V}^1 \end{bmatrix}^{-1} \quad (3-3)$$

2 A Matrix ,

(3-4)

n

3)

. 2000

가

가

가

가

가

가

가

4)

가

가 A, B, C 3 A i
가 0.5 A i 가 A 0.7, B
0.2, C 0.1 A i
A 0.35, B 0.1, C 0.05

(3-6)

.15)

$$A^L = \begin{pmatrix} a^L_{11} & a^L_{12} \\ a^L_{21} & a^L_{22} \end{pmatrix}, \quad A^M = \begin{pmatrix} a^M_{11} & a^M_{12} \\ a^M_{21} & a^M_{22} \end{pmatrix}$$

$$\widehat{C}^{LL} = \begin{pmatrix} c^LL_1 & 0 \\ 0 & c^LL_2 \end{pmatrix}, \quad \widehat{C}^{LM} = \begin{pmatrix} c^{LM}_1 & 0 \\ 0 & c^{LM}_2 \end{pmatrix}$$

15) , 1993, 「 - I」, : , pp.18-24.

$$\hat{C}^{ML} = \begin{pmatrix} c_1^{ML} & 0 \\ 0 & c_2^{ML} \end{pmatrix}, \quad \hat{C}^{MM} = \begin{pmatrix} c_1^{MM} & 0 \\ 0 & c_2^{MM} \end{pmatrix}$$

$$\hat{C}^{LL}A^L = \begin{pmatrix} c_1^{LL}a_{11}^L & c_1^{LL}a_{12}^L \\ c_2^{LL}a_{21}^L & c_2^{LL}a_{22}^L \end{pmatrix}, \quad \hat{C}^{LM}A^M = \begin{pmatrix} c_1^{LM}a_{11}^M & c_1^{LM}a_{12}^M \\ c_2^{LM}a_{21}^M & c_2^{LM}a_{22}^M \end{pmatrix}$$

$$\hat{C}^{ML}A^L = \begin{pmatrix} c_1^{ML}a_{11}^L & c_1^{ML}a_{12}^L \\ c_2^{ML}a_{21}^L & c_2^{ML}a_{22}^L \end{pmatrix}, \quad \hat{C}^{MM}A^M = \begin{pmatrix} c_1^{MM}a_{11}^M & c_1^{MM}a_{12}^M \\ c_2^{MM}a_{21}^M & c_2^{MM}a_{22}^M \end{pmatrix} \quad (3-5)$$

$$\begin{aligned} & \hat{C}^{LL}A^L, \quad \hat{C}^{MM}A^M \\ & \hat{C}^{LM}A^M, \quad \hat{C}^{ML}A^L \end{aligned}$$

가 .

,

가 가

3.

1)

RAS

, , 가 .
가 ,

(A(0)) . r
i (V) (X) 가가 (Q)

$$, \quad V_i^r = X_i^r - Q_i^r. \quad (3-6)$$

가 .

(X) (Y) (U) .

, , , , ,
6 가

(: KDI

).

가 ,
가 가
가 .
가 .

가

,

가

,

$$a_i^R = \sum_{k=1}^N a_{i_k}^N * x_{i_k}^R / x_i^R \quad (3-7)$$

$$\begin{array}{lll} a_i^R : \mathbb{R} & i & \\ a_{i_k}^N : & i & k \\ x_{i_k}^R : \mathbb{R} & i & k \\ x_i^R : \mathbb{R} & i & \end{array}$$

가 ,

2)

2000

.1)

가

가

가
2000

(2000)

가

가

(2000)

3)

(1) 최종수요의 구성부문과 정의

, , ,
 , , ,
 . 가 ,
 .

(2) 중간수요의 추계방법

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 .
 ,
 , 가,
 가 . 가
 가 .
 34 16
 .
 가 .
 가

<표 3-4> 민간 소비지출의 분류

재분류항목	도시가구	농가	어가
	, , , , , , . , ,	, , , , 가 , 가 , 가 , , , ,	, , 가 ,
	, . ,	, , , , , ,	, , , , ,
가	, , , , . , ,	, ,	-
	가	-	-
		-	-
가	가 ,가 ,	가 가	-
,		-	-

(Product mix method)

$$36 \quad \begin{matrix} i & j \\ (r_{ij}) & r_{ij}X \\ Y_j & \end{matrix},$$

$$Y_j = \sum_{n=0}^n Y_{ij} \cdot r_{ij} \quad (3-8)$$

， ， ， 가

가 .

， ，

，

가

가

가가

가가

(2000)

· 가가 ，

가

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4.

1)

2000
34
< 3-6> 가 .

<표 3-6> 지역내총생산 및 지출 통계와 34개 산업분류 비교

GRDP(2000)	34	
	1.	31.
	2.	
가		
	3.	
	4.	
	5.	
가	6.	
	7.	
	28.	
	8.	
	9.	
	8.	
	10.	
1	11.1 ()	
	12.	
	15.	
	13. 가	
	14.	15.
	16.	
	17.	

(표계속)

GRDP(2000)	34		
	18.	19.	20.
가	21.가		
가	22. 가		
	23.		31.
	24.		
	25.		
	26.		27.
	29.		
	30.		
	31.		
	33.		
	34.		
	28.		
. .			
,	34.		
,			
,	32.		
, ,	34.		
()			
()			
가			
()			

2)

(2000)

< 3-7> < 3-8> .

<표 3-7> 지역별 총산출액

(:)

1		631,630	1,256,128	148,252	398,534
2		32,096	10,285	6,918	134,150
3		1,971,738	1,850,045	930,170	3,186,788
4		1,338,478	1,330,225	2,367,106	206,554
5		5,130,002	854,911	266,708	455,263
6		287,859	581,056	11,003	61,350
7		585,891	596,023	772,554	1,909,895
8		768,970	1,014,959	815,014	6,649,846
9		512,698	874,340	411,465	2,180,580
10		389,787	401,239	259,967	705,144
11	1 ()	1,833,056	5,353,073	2,339,587	9,480,919
12		1,709,542	2,634,600	2,050,889	5,245,389
13		1,629,855	734,913	722,074	1,495,062
14		1,730,271	25,750	26,081	296,963
15		3,942,699	326,925	402,311	1,474,056
16		787,073	170,584	323,418	409,211
17		458,302	1,403,472	2,523,359	3,750,496
18		2,086	935,630	4,957	53,208
19		7,256	392,444	320	705
20		2,376	144,099	62,440	27,074
21		1,482,824	549,832	202,641	2,137,704
22		4,209,435	2,469,609	725,261	1,792,963
23		16,285,697	5,570,603	4,072,205	4,422,506
24		49,343,180	9,911,660	5,769,753	3,871,564
25		12,494,510	3,682,798	1,950,620	1,905,262
26		19,048,279	8,952,162	1,406,403	3,738,061
27		599,283	840,511	1,359	172,945
28		15,522,636	1,050,538	674,794	619,406
29		11,827,041	2,632,362	1,697,176	2,042,194
30		33,536,641	3,568,800	2,364,656	1,850,533
31		47,679,139	6,684,489	4,186,153	3,949,460
32		6,128,913	1,542,727	999,473	961,584
33		7,820,215	2,116,933	1,279,742	953,811
34		14,862,333	4,069,660	2,471,515	2,108,653

(표계속)

1		290,737	44,266	234,775	3,458,226
2		1,413	5,803	23,975	333,871
3		1,965,527	1,695,965	556,106	14,604,692
4		165,470	543,491	262,761	2,960,781
5		30,030	152,399	13,618	1,628,051
6		1,254	39,964	1,157	238,911
7		142,040	924,059	729,086	5,653,472
8		1,074,039	1,367,669	30,535,630	7,680,685
9		41,651	724,891	13,002,847	11,057,135
10		123,382	123,699	273,520	4,268,734
11	1 ()	780,990	509,017	6,123,053	11,963,573
12		2,573,723	1,089,208	519,199	11,736,336
13		579,480	187,290	181,315	9,643,943
14		364,024	12,009	14,640	20,038,200
15		210,502	167,701	4,256,871	73,063,353
16		40,066	133,274	4,960	2,053,691
17		2,023,570	151,228	17,198,908	14,786,675
18		5,742	1,010	8,654,872	24,048
19		0	4,185	0	10,761
20		1,914	115,441	3,730	227,758
21		90,531	157,504	67,778	3,908,369
22		423,636	518,644	1,346,415	6,073,920
23		2,538,488	2,603,945	2,294,350	23,353,364
24		3,146,348	3,441,862	2,061,532	12,648,544
25		1,495,239	1,290,793	829,109	7,113,756
26		893,663	921,785	3,121,912	3,984,535
27		278	0	229,301	5,175
28		440,526	79,469	207,790	4,582,813
29		942,726	885,990	616,409	3,117,845
30		1,503,374	1,437,105	811,820	6,786,616
31		2,200,969	2,435,390	1,380,786	19,686,671
32		604,455	833,148	368,279	3,965,270
33		758,977	810,259	219,311	3,608,134
34		1,665,387	3,164,846	934,108	7,690,221

(표계속)

1		1,678,682	1,305,336	2,910,658	2,521,741
2		600,701	154,745	166,496	108,097
3		3,087,180	4,938,463	5,969,204	5,233,746
4		2,373	669,204	495,814	807,564
5		98,876	117,201	63,947	273,714
6		545	30,839	13,452	2,235
7		94,997	1,507,444	1,786,268	1,714,870
8		172,052	1,282,961	6,903,083	440,335
9		244,803	3,618,781	6,995,953	2,671,636
10		2,058,476	2,003,454	1,077,678	1,164,574
11	1 ()	556,449	2,120,484	3,843,667	1,469,064
12		174,689	1,291,396	2,594,654	424,342
13		261,392	1,632,640	1,662,139	254,898
14		113	3,529,624	933,985	201,720
15		44,054	5,983,471	2,361,637	193,187
16		296,391	314,466	374,256	29,597
17		630,830	608,988	5,874,048	4,040,107
18		12,275	5,306	17,889	8,655
19		0	0	52,216	519
20		1,410	99,878	10,540	120
21		100,678	409,865	648,955	248,397
22		723,477	511,080	3,414,775	660,960
23		4,581,527	4,067,208	5,734,449	4,716,394
24		2,552,784	2,081,902	2,561,866	2,836,674
25		2,082,648	1,372,929	1,427,241	1,410,734
26		1,073,285	968,105	1,632,820	1,354,492
27		13,140	2,461	22,174	13,760
28		556,001	331,307	371,462	340,655
29		689,429	696,132	745,796	831,305
30		1,256,939	1,097,455	1,292,852	1,519,385
31		2,813,689	4,313,370	5,617,097	3,902,937
32		1,169,615	831,686	1,093,737	1,152,233
33		653,280	700,706	624,175	836,127
34		1,965,165	1,703,736	2,275,791	2,462,636

(표계속)

1		6,428,628	2,786,429	4,130,077	279,228
2		181,696	225,898	105,862	30,355
3		3,777,340	3,587,017	6,080,287	514,012
4		184,555	2,824,781	1,449,390	0
5		1,049,501	61,309	152,525	18,987
6		129,415	2,084	187,364	1,126
7		373,686	689,655	1,497,685	34,683
8		12,621,498	1,565,667	2,886,219	18,061
9		12,759,353	4,009,347	978,833	22,464
10		1,468,345	3,237,726	1,338,031	160,015
11	1 ()	14,352,354	21,376,631	8,938,351	42,790
12		260,809	1,447,037	11,935,421	7,608
13		57,177	2,681,889	2,289,506	4,220
14		12,385	1,180,213	777,687	0
15		19,991	17,503,742	6,213,053	0
16		38,580	210,695	576,164	0
17		58,441	2,520,793	4,379,248	0
18		638,561	92,104	6,739,224	2,978
19		0	0	1,032,492	0
20		1,832	11,656	1,358,675	0
21		62,459	487,910	263,195	4,400
22		3,200,672	4,866,724	3,371,201	141,831
23		5,664,202	6,961,318	7,132,676	1,507,633
24		2,642,278	3,778,153	4,571,161	1,063,036
25		1,851,775	2,318,789	2,487,858	1,074,740
26		3,530,918	2,273,358	2,683,893	582,805
27		319,521	52,192	44,224	27,677
28		320,984	648,197	670,230	404,924
29		878,738	1,143,180	1,246,749	263,482
30		1,639,334	1,878,487	2,074,835	496,162
31		2,872,445	7,431,299	4,720,702	2,242,415
32		1,512,956	1,701,730	1,456,988	375,983
33		677,562	881,945	1,389,456	227,036
34		2,393,147	3,088,210	3,003,774	595,079

<표 3-8> 지역별 중간투입

(:)

1		250,802	518,103	57,659	145,255
2		22,445	5,374	4,576	72,059
3		1,335,549	1,370,623	618,004	2,546,652
4		911,753	878,659	1,582,434	140,121
5		3,064,711	502,963	147,975	254,448
6		171,969	341,848	6,105	34,289
7		406,613	403,755	551,266	1,295,574
8		500,521	656,518	528,661	4,781,375
9		332,170	621,143	286,760	1,508,382
10		286,923	286,751	179,369	479,178
11	1 ()	1,156,346	3,673,887	1,454,659	6,621,484
12		1,096,649	1,662,653	1,340,912	3,445,996
13		1,032,559	469,409	470,460	1,005,144
14		1,178,820	15,942	15,816	201,496
15		2,686,129	202,407	243,974	1,000,180
16		513,427	100,286	205,311	270,923
17		296,691	908,916	1,618,086	2,451,640
18		1,263	607,761	3,157	33,358
19		4,392	254,922	204	442
20		1,439	93,603	39,762	16,973
21		1,029,981	367,255	143,287	1,514,377
22		2,369,161	1,106,431	354,259	1,005,031
23		8,161,788	2,888,868	2,140,494	2,286,199
24		26,573,612	4,217,061	2,673,512	1,944,224
25		9,192,861	2,584,545	1,460,943	1,440,817
26		9,592,538	5,360,259	502,963	2,171,880
27		301,793	503,270	486	100,484
28		8,659,831	417,850	279,688	265,138
29		6,128,396	1,401,160	905,909	1,128,441
30		11,643,643	1,147,440	751,317	558,939
31		15,794,300	2,061,232	1,317,852	1,153,948
32		1,944,292	338,177	250,175	275,571
33		3,356,674	893,751	557,749	450,814
34		16,569,386	2,111,388	1,377,512	1,036,209

(표계속)

1		65,573	16,763	96,071	1,489,980
2		1,066	3,418	10,771	175,287
3		886,860	791,399	426,493	9,865,328
4		112,912	363,390	179,134	1,982,871
5		13,985	83,869	8,624	1,113,994
6		584	21,993	733	163,475
7		98,702	657,700	517,789	4,016,493
8		696,778	832,344	22,376,059	5,196,509
9		26,729	478,235	10,187,405	6,767,500
10		86,904	88,314	195,702	2,973,739
11	1 ()	495,743	322,021	4,692,662	7,868,995
12		1,860,730	691,506	351,775	7,742,921
13		375,046	119,827	122,522	6,632,008
14		245,647	7,355	8,812	12,346,081
15		142,049	102,708	2,562,061	45,016,322
16		21,539	79,265	3,278	1,319,112
17		1,318,713	95,653	11,088,017	9,667,111
18		3,411	765	5,013,247	16,416
19		0	3,169	0	7,346
20		1,137	87,414	2,161	155,476
21		60,103	105,178	46,567	2,664,616
22		237,491	295,200	629,755	3,683,614
23		1,336,383	1,345,085	1,206,821	12,541,736
24		1,221,045	1,434,637	857,737	6,471,237
25		1,050,744	827,471	574,560	4,765,985
26		324,692	325,403	2,205,271	1,528,320
27		101	0	161,975	1,985
28		178,806	176,834	75,160	2,130,609
29		510,689	469,148	325,293	1,641,494
30		528,193	466,723	270,199	1,820,754
31		645,104	810,571	438,418	6,320,668
32		143,113	281,627	113,687	1,347,591
33		333,601	384,702	88,751	1,634,766
34		744,223	1,641,387	425,136	4,032,606

(표계속)

1		687,776	449,267	1,056,456	873,885
2		300,330	74,351	71,354	46,537
3		2,107,179	3,455,691	4,979,945	4,009,887
4		1,650	459,067	338,719	529,490
5		52,913	92,782	42,711	139,001
6		292	24,413	8,985	1,135
7		61,540	1,002,459	1,301,327	1,125,501
8		114,019	869,099	4,918,497	295,358
9		134,616	2,314,645	4,974,533	1,841,104
10		1,412,469	1,444,668	738,510	773,857
11	1 ()	362,492	1,396,778	2,844,716	931,138
12		114,274	939,151	1,771,804	274,414
13		176,875	1,084,364	1,113,389	170,493
14		76	2,128,089	613,865	126,746
15		29,810	3,607,568	1,552,194	121,384
16		176,111	187,160	234,446	17,796
17		398,991	393,155	3,769,694	2,653,322
18		6,777	3,672	11,438	4,512
19		0	0	33,386	270
20		778	69,118	6,739	62
21		69,739	300,222	454,178	179,283
22		301,171	159,847	1,533,427	321,946
23		2,397,133	2,139,059	2,992,356	2,457,452
24		1,122,969	967,867	1,191,885	1,211,321
25		1,221,783	919,703	936,999	859,565
26		470,072	362,053	891,179	639,426
27		5,755	920	12,102	6,496
28		212,820	130,001	173,772	125,362
29		353,228	365,942	382,271	421,250
30		343,141	310,795	300,106	426,874
31		1,019,522	1,512,130	1,964,768	1,330,163
32		327,028	228,431	292,119	294,920
33		314,112	294,767	289,542	382,494
34		913,028	792,930	1,175,674	1,163,166

(표계속)

1		2,389,519	1,103,184	1,549,558	86,567
2		74,910	103,485	44,631	14,246
3		3,263,784	2,916,837	4,406,466	401,547
4		125,812	1,945,434	980,256	0
5		487,328	39,787	98,249	9,765
6		60,093	1,353	120,691	579
7		257,123	477,426	1,059,508	24,629
8		9,180,082	1,053,014	2,006,628	11,710
9		9,979,813	2,809,174	738,884	16,623
10		1,045,789	2,128,121	937,774	122,156
11	1 ()	10,870,328	16,089,889	6,316,447	25,196
12		167,098	931,833	8,142,007	4,709
13		35,225	1,879,158	1,547,444	2,109
14		7,997	803,894	523,026	0
15		12,908	11,922,552	4,178,530	0
16		24,953	136,280	383,331	0
17		34,725	1,648,596	2,884,355	0
18		387,579	54,243	3,952,472	1,528
19		0	0	605,544	0
20		1,112	6,864	796,846	0
21		43,812	367,523	176,271	2,867
22		1,434,736	2,208,256	1,601,554	59,545
23		2,933,557	3,637,905	3,747,879	796,897
24		933,820	1,650,370	1,951,153	423,284
25		979,385	1,411,993	1,729,063	634,353
26		2,255,957	1,116,806	1,254,442	286,278
27		204,147	25,640	20,670	13,595
28		116,382	291,267	273,513	147,925
29		461,449	600,942	647,984	137,664
30		381,234	483,618	530,782	160,688
31		949,460	2,683,202	1,683,634	701,909
32		421,661	467,278	388,938	98,570
33		315,022	397,350	610,197	102,294
34		1,234,957	1,526,535	1,592,362	306,390

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(product mix method)

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<표 3-9> 지역별 부문별 중간수요

(단위: 백만원)

1		501,625	997,586	117,738	316,506
2		513,227	164,462	110,613	2,145,105
3		905,635	849,741	427,235	1,463,718
4		808,786	803,799	1,430,342	124,812
5		872,904	145,469	45,382	77,466
6		50,520	101,977	1,931	10,767
7		634,716	645,693	836,935	2,069,058
8		621,302	820,053	658,505	5,372,856
9		519,138	885,323	416,633	2,207,971
10		401,048	412,832	267,478	725,517
11	1 ()	1,904,239	5,560,949	2,430,441	9,849,093
12		1,038,562	1,600,542	1,245,933	3,186,620
13		1,236,385	557,495	547,756	1,134,133
14		1,411,483	21,006	21,276	242,250
15		1,532,950	127,111	156,421	573,124
16		666,851	144,528	274,017	346,705
17		191,735	587,157	1,055,674	1,569,059
18		321	144,073	763	8,193
19		9,694	524,348	427	942
20		1,095	66,390	28,768	12,474
21		558,134	206,956	76,274	804,630
22		2,831,732	1,661,332	487,891	1,206,145
23		1,480,384	506,372	370,167	402,010
24		20,293,863	4,076,467	2,372,984	1,592,297
25		0	0	0	0
26		9,680,505	4,549,568	714,746	1,899,716
27		174,374	244,564	395	50,322
28		8,146,476	551,336	354,140	325,072
29		6,778,038	1,508,598	972,646	1,170,374
30		20,931,877	2,227,465	1,475,899	1,155,009
31		25,428,664	3,565,031	2,232,597	2,106,361
32		0	0	0	0
33		1,465,197	396,629	239,773	178,706
34		9,798,506	2,683,064	1,629,432	1,390,202

(표계속)

1		230,896	35,155	186,452	2,746,438
2		22,597	92,792	383,371	5,338,700
3		902,782	778,971	255,424	6,708,054
4		99,987	328,408	158,776	1,789,075
5		5,110	25,932	2,317	277,024
6		220	7,014	203	41,930
7		153,877	1,001,067	789,845	6,124,609
8		867,788	1,105,031	24,671,784	6,205,741
9		42,174	733,997	13,166,182	11,196,029
10		126,947	127,273	281,422	4,392,067
11	1 ()	811,318	528,784	6,360,830	12,428,156
12		1,563,560	661,703	315,418	7,129,927
13		439,586	142,076	137,543	7,315,762
14		296,955	9,796	11,943	16,346,329
15		81,845	65,203	1,655,103	28,407,570
16		33,946	112,917	4,202	1,739,998
17		846,582	63,268	7,195,343	6,186,160
18		884	156	1,332,719	3,703
19		0	5,591	0	14,378
20		882	53,187	1,719	104,934
21		34,076	59,284	25,512	1,471,107
22		284,985	348,897	905,748	4,085,990
23		230,751	236,701	208,558	2,122,840
24		1,294,030	1,415,569	847,867	5,202,093
25		0	0	0	0
26		454,168	468,460	1,586,583	2,024,976
27		81	0	66,720	1,506
28		231,194	41,706	109,051	2,405,118
29		540,273	507,758	353,262	1,786,827
30		938,330	896,968	506,697	4,235,863
31		1,173,840	1,298,864	736,413	10,499,471
32		0	0	0	0
33		142,202	151,810	41,090	676,021
34		1,097,964	2,086,534	615,843	5,070,044

(표계속)

1		1,333,168	1,036,666	2,311,573	2,002,705
2		9,605,383	2,474,416	2,662,318	1,728,497
3		1,417,967	2,268,277	2,741,704	2,403,902
4		1,434	404,372	299,599	487,977
5		16,824	19,942	10,881	46,574
6		96	5,412	2,361	392
7		102,914	1,633,068	1,935,129	1,857,780
8		139,012	1,036,590	5,577,464	355,776
9		247,878	3,664,238	7,083,833	2,705,196
10		2,117,949	2,061,338	1,108,814	1,198,221
11	1 ()	578,058	2,202,829	3,992,929	1,526,112
12		106,125	784,534	1,576,275	257,792
13		198,288	1,238,498	1,260,875	193,362
14		92	2,879,321	761,906	164,555
15		17,129	2,326,418	918,222	75,112
16		251,119	266,433	317,090	25,076
17		263,914	254,777	2,457,469	1,690,221
18		1,890	817	2,755	1,333
19		0	0	69,766	693
20		649	46,016	4,856	55
21		37,895	154,273	244,266	93,496
22		486,690	343,809	2,297,155	444,635
23		416,465	369,713	521,266	428,724
24		1,049,909	856,245	1,053,644	1,166,667
25		0	0	0	0
26		545,453	492,000	829,814	688,365
27		3,823	716	6,452	4,004
28		291,797	173,874	194,948	178,780
29		395,110	398,951	427,413	476,418
30		784,518	684,976	806,933	948,323
31		1,500,622	2,300,445	2,995,760	2,081,549
32		0	0	0	0
33		122,399	131,284	116,946	156,657
34		1,295,603	1,123,247	1,500,394	1,623,578

(표계속)

1		5,105,459	2,212,913	3,280,006	221,756
2		2,905,369	3,612,169	1,692,767	485,381
3		1,734,963	1,647,546	2,792,726	236,090
4		111,519	1,706,896	875,805	0
5		178,580	10,432	25,953	3,231
6		22,713	366	32,883	198
7		404,828	747,129	1,622,496	37,573
8		10,197,755	1,265,007	2,331,970	14,593
9		12,919,629	4,059,711	991,129	22,747
10		1,510,768	3,331,270	1,376,689	164,638
11	1 ()	14,909,701	22,206,753	9,285,455	44,451
12		158,444	879,088	7,250,873	4,622
13		43,374	2,034,444	1,736,787	3,201
14		10,103	962,768	634,404	0
15		7,773	6,805,584	2,415,681	0
16		32,687	178,513	488,158	0
17		24,449	1,054,600	1,832,104	0
18		98,329	14,183	1,037,738	459
19		0	0	1,379,519	0
20		844	5,370	625,976	0
21		23,509	183,649	99,066	1,656
22		2,153,126	3,273,897	2,267,843	95,411
23		514,881	632,790	648,366	137,045
24		1,086,716	1,553,879	1,880,027	437,205
25		0	0	0	0
26		1,794,444	1,155,341	1,363,978	296,187
27		92,971	15,186	12,868	8,053
28		168,456	340,182	351,745	212,509
29		503,602	655,153	714,508	151,000
30		1,023,189	1,172,456	1,295,007	309,679
31		1,531,958	3,963,327	2,517,687	1,195,945
32		0	0	0	0
33		126,948	165,241	260,329	42,538
34		1,577,764	2,036,009	1,980,342	392,326

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<표 3-10> 전국 투입계수표의 수정

		1	2	3	4
1		0.04811	0.00186	0.39764	0.02189
2		0.00002	0.00000	0.00048	0.00005
3		0.10208	0.00000	0.13242	0.00127
4		0.00303	0.00023	0.00016	0.28177
5		0.00017	0.00017	0.00025	0.00102
6		0.00008	0.00001	0.00005	0.00002
7		0.00659	0.00709	0.01585	0.00590
8		0.03831	0.06823	0.03278	0.05442
9		0.05746	0.00881	0.00743	0.16860
10		0.00035	0.00034	0.00623	0.00036
11	1 ()	0.00179	0.00424	0.01331	0.00274
12		0.00534	0.01067	0.00203	0.00529
13		0.00186	0.00386	0.00030	0.00084
14		0.00000	0.00000	0.00000	0.00000
15		0.00017	0.00020	0.00010	0.00012
16		0.00116	0.00010	0.00015	0.00016
17		0.00065	0.01611	0.00070	0.00045
18		0.00288	0.00033	0.00000	0.00000
19		0.00000	0.00000	0.00000	0.00000
20		0.00014	0.00048	0.00000	0.00000
21		0.00012	0.00016	0.00201	0.00072
22		0.00308	0.03777	0.00746	0.02159
23		0.00069	0.00204	0.00048	0.00047
24		0.01170	0.00700	0.03523	0.02035
25		0.00000	0.00000	0.00000	0.00000
26		0.00616	0.01274	0.00953	0.00887
27		0.00191	0.00064	0.00098	0.00075
28		0.00038	0.00052	0.00158	0.00142
29		0.00302	0.00457	0.00271	0.00364
30		0.02343	0.06146	0.01264	0.02332
31		0.03783	0.07711	0.03154	0.02016
32		0.00000	0.00000	0.00000	0.00000
33		0.00252	0.00190	0.00363	0.00387
34		0.01473	0.03724	0.01217	0.02457

(표계속)

	5	6	7	8	9	10
1	0.00508	0.00411	0.04195	0.00246	0.00673	0.00000
2	0.00013	0.00000	0.00383	0.27715	0.01076	0.11410
3	0.05123	0.00000	0.00125	0.00037	0.01089	0.00005
4	0.36588	0.07510	0.00977	0.00343	0.00122	0.00159
5	0.06695	0.15814	0.00045	0.00013	0.00042	0.00040
6	0.00000	0.11675	0.00003	0.00001	0.00005	0.00004
7	0.01075	0.01708	0.40969	0.00214	0.01433	0.01334
8	0.03145	0.12134	0.04775	0.30889	0.25128	0.09111
9	0.01798	0.02788	0.03734	0.02519	0.13172	0.02878
10	0.00109	0.00033	0.00425	0.00093	0.01400	0.17539
11	0.00505	0.00450	0.00558	0.00671	0.02092	0.01784
12	0.00318	0.00407	0.00691	0.01039	0.00605	0.01347
13	0.00067	0.00072	0.00140	0.00072	0.00112	0.00324
14	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000
15	0.00006	0.00027	0.00037	0.00024	0.00038	0.00060
16	0.00015	0.00004	0.00045	0.00074	0.00151	0.00047
17	0.00062	0.00083	0.00141	0.00053	0.00135	0.00556
18	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000
20	0.00000	0.00000	0.00002	0.00000	0.00000	0.00001
21	0.01102	0.00401	0.00032	0.00006	0.00031	0.00011
22	0.00345	0.00543	0.03073	0.01872	0.02866	0.04011
23	0.00107	0.00037	0.00050	0.00035	0.00071	0.00061
24	0.04221	0.04199	0.02896	0.01276	0.03090	0.02062
25	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
26	0.01842	0.00910	0.01245	0.00480	0.01430	0.01531
27	0.00104	0.00085	0.00188	0.00225	0.00189	0.00652
28	0.00393	0.00567	0.00376	0.00102	0.00532	0.00152
29	0.00769	0.00602	0.00639	0.00253	0.00573	0.00904
30	0.01875	0.02532	0.02849	0.01502	0.02785	0.04176
31	0.05028	0.03487	0.02730	0.01657	0.06277	0.02790
32	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
33	0.00416	0.00363	0.00422	0.00493	0.03059	0.00683
34	0.02949	0.02643	0.01687	0.00946	0.02394	0.02403

(표계속)

	11	12	13	14	15	16
1	()					
1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	0.03291	0.00026	0.00014	0.00082	0.00004	0.00004
3	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000
4	0.00028	0.00040	0.00128	0.00006	0.00121	0.00107
5	0.00030	0.00059	0.00036	0.00016	0.00052	0.00232
6	0.00003	0.00007	0.00005	0.00001	0.00002	0.00003
7	0.00290	0.00413	0.01218	0.00107	0.00520	0.00650
8	0.03277	0.03419	0.06224	0.01704	0.03255	0.04965
9	0.00952	0.01119	0.01512	0.04102	0.01078	0.00702
10	0.01081	0.00384	0.01036	0.00452	0.02261	0.02281
11	0.52335	0.18027	0.14007	0.02648	0.02663	0.04888
12	0.01236	0.23915	0.02516	0.00704	0.00452	0.01191
13	0.00309	0.04402	0.19693	0.00388	0.06130	0.04402
14	0.00001	0.00320	0.02738	0.43458	0.14567	0.06617
15	0.00027	0.01114	0.03604	0.01012	0.30818	0.08517
16	0.00082	0.01297	0.01426	0.00297	0.01090	0.15605
17	0.00077	0.00417	0.00092	0.00009	0.00025	0.00083
18	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00002	0.00002	0.00000	0.00000	0.00000
21	0.00120	0.00022	0.00021	0.00009	0.00014	0.00101
22	0.03185	0.00932	0.00933	0.00764	0.00580	0.00874
23	0.00073	0.00060	0.00062	0.00036	0.00030	0.00029
24	0.01600	0.02754	0.03253	0.01288	0.03967	0.03898
25	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
26	0.00730	0.00986	0.00806	0.00523	0.00617	0.01081
27	0.00253	0.00089	0.00088	0.00026	0.00034	0.00056
28	0.00068	0.00110	0.00218	0.00088	0.00240	0.00225
29	0.00269	0.00330	0.00471	0.00334	0.00443	0.00547
30	0.01544	0.02107	0.01789	0.00977	0.01770	0.01937
31	0.02111	0.03499	0.03702	0.02236	0.03825	0.06886
32	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
33	0.00836	0.01578	0.01481	0.01785	0.02786	0.06941
34	0.01530	0.01856	0.01570	0.00721	0.00783	0.01512

(표계속)

	17	18	19	20	21	22
1	0.00000	0.00000	0.00000	0.00000	0.00401	0.00001
2	0.00003	0.00007	0.00000	0.00000	0.00100	0.20613
3	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000
4	0.01148	0.00460	0.00351	0.01336	0.03028	0.00010
5	0.00048	0.00052	0.00092	0.00110	0.01047	0.00019
6	0.00005	0.00007	0.00000	0.00009	0.00005	0.00006
7	0.00196	0.00659	0.00391	0.00680	0.12361	0.00006
8	0.07374	0.02410	0.03157	0.05303	0.08529	0.07218
9	0.00891	0.02208	0.01339	0.00864	0.04422	0.01962
10	0.00657	0.00672	0.00439	0.00985	0.01614	0.00091
11	0.08887	0.15310	0.14287	0.12613	0.09857	0.00322
12	0.04629	0.16129	0.03214	0.09740	0.00717	0.00741
13	0.03776	0.03766	0.02076	0.08360	0.00800	0.00942
14	0.00287	0.00018	0.00783	0.00294	0.00411	0.00001
15	0.01539	0.00891	0.00887	0.01310	0.00543	0.00049
16	0.00695	0.05068	0.02843	0.01558	0.00047	0.00205
17	0.35270	0.00052	0.00060	0.04316	0.00123	0.00053
18	0.00000	0.07243	0.00005	0.00000	0.00000	0.00000
19	0.00000	0.00001	0.32255	0.00000	0.00000	0.00000
20	0.00001	0.00005	0.00000	0.22412	0.00003	0.00001
21	0.01065	0.00245	0.00192	0.00240	0.03855	0.00009
22	0.00830	0.00552	0.00523	0.00743	0.01180	0.11325
23	0.00025	0.00018	0.00030	0.00052	0.00033	0.03034
24	0.02801	0.03082	0.02657	0.04981	0.04318	0.00460
25	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
26	0.00664	0.00627	0.00855	0.00897	0.01226	0.00206
27	0.00066	0.00106	0.00088	0.00116	0.00148	0.00111
28	0.00055	0.00090	0.00290	0.00149	0.00353	0.00054
29	0.00316	0.00310	0.00342	0.00415	0.00565	0.00282
30	0.01968	0.03299	0.03005	0.02920	0.01806	0.03035
31	0.02012	0.02987	0.07321	0.02733	0.04868	0.01708
32	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
33	0.01538	0.00624	0.02384	0.01259	0.00571	0.01116
34	0.00693	0.01055	0.01431	0.01463	0.03064	0.00819

(표계속)

	23	24	25	26	27	28
1	0.00239	0.00000	0.05531	0.00000	0.00000	0.00050
2	0.00380	0.00000	0.00023	0.00000	0.00000	0.00000
3	0.00000	0.00002	0.29970	0.00000	0.00000	0.00331
4	0.00061	0.00026	0.00124	0.00034	0.00079	0.00119
5	0.00051	0.00166	0.00047	0.00065	0.00032	0.00155
6	0.00016	0.00031	0.00011	0.00002	0.00005	0.00005
7	0.01717	0.00335	0.00560	0.00074	0.00032	0.10267
8	0.03395	0.02246	0.03194	0.18137	0.18869	0.01852
9	0.00875	0.00031	0.00207	0.00171	0.00129	0.02354
10	0.09182	0.00025	0.00224	0.00012	0.00006	0.00022
11	0.13052	0.00016	0.00190	0.00201	0.00240	0.00057
12	0.03618	0.00123	0.00101	0.00181	0.00189	0.00410
13	0.04095	0.00077	0.00319	0.00489	0.00103	0.00332
14	0.00001	0.00004	0.00000	0.00003	0.00000	0.00042
15	0.00310	0.00156	0.00081	0.00114	0.00053	0.00451
16	0.00224	0.00047	0.00004	0.00087	0.00007	0.00142
17	0.00112	0.00115	0.00026	0.02894	0.00909	0.00189
18	0.00000	0.00000	0.00000	0.00000	0.01788	0.00001
19	0.00000	0.00001	0.00000	0.01093	0.00000	0.00000
20	0.00002	0.00004	0.00008	0.00631	0.00005	0.00002
21	0.00460	0.00129	0.00597	0.00039	0.00020	0.00710
22	0.00239	0.01648	0.02377	0.00609	0.00103	0.01566
23	0.00026	0.00189	0.00387	0.00069	0.00014	0.00249
24	0.02488	0.03518	0.04402	0.01246	0.00531	0.02078
25	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
26	0.00850	0.01909	0.00753	0.06864	0.26683	0.00985
27	0.00104	0.00024	0.00054	0.00297	0.20161	0.00033
28	0.00119	0.00532	0.00138	0.00378	0.00106	0.11652
29	0.00387	0.05228	0.00629	0.00874	0.00495	0.02199
30	0.02008	0.03220	0.01142	0.02523	0.02313	0.02222
31	0.09595	0.12897	0.07190	0.07259	0.08214	0.11652
32	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
33	0.00868	0.00563	0.00464	0.00742	0.00138	0.00386
34	0.01565	0.03723	0.00761	0.02904	0.01375	0.04793

(표계속)

	29	30	31	32	33	34
1	0.00000	0.00000	0.00013	0.00036	0.00233	0.02228
2	0.00000	0.00000	0.00000	0.00006	0.00003	0.01876
3	0.00000	0.00000	0.00004	0.00023	0.00027	0.04674
4	0.00012	0.00003	0.00016	0.00069	0.00044	0.01935
5	0.00027	0.00034	0.00022	0.00390	0.00041	0.01111
6	0.00004	0.00002	0.00002	0.00004	0.00009	0.00119
7	0.00024	0.00015	0.00097	0.00078	0.00074	0.03124
8	0.00430	0.00453	0.00744	0.01968	0.01728	0.07477
9	0.00017	0.00018	0.00305	0.00559	0.09643	0.03933
10	0.00008	0.00002	0.00004	0.00041	0.00066	0.01285
11	0.00023	0.00090	0.00024	0.00309	0.00181	0.04424
12	0.00026	0.00014	0.00141	0.03441	0.00245	0.01585
13	0.01159	0.00052	0.00066	0.00182	0.00181	0.01804
14	0.00021	0.00000	0.00034	0.00002	0.00047	0.01363
15	0.01551	0.00294	0.00300	0.00555	0.00430	0.02233
16	0.00110	0.00001	0.00090	0.00223	0.00881	0.00454
17	0.00021	0.00044	0.00098	0.00207	0.00178	0.03879
18	0.00001	0.00000	0.00010	0.01434	0.00023	0.00086
19	0.00000	0.00000	0.00000	0.02340	0.00013	0.00091
20	0.00041	0.00000	0.00003	0.00032	0.00012	0.00072
21	0.00047	0.00060	0.00114	0.00157	0.00389	0.01553
22	0.00818	0.00555	0.01323	0.01512	0.01443	0.01648
23	0.00324	0.00071	0.04814	0.00657	0.00304	0.00542
24	0.00401	0.00224	0.00275	0.00988	0.01530	0.04728
25	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
26	0.00585	0.01056	0.00505	0.01386	0.00464	0.02909
27	0.00009	0.00003	0.00024	0.00023	0.00016	0.00229
28	0.00373	0.00883	0.03587	0.00831	0.00939	0.04480
29	0.17451	0.02138	0.01126	0.01171	0.00664	0.01541
30	0.01988	0.13680	0.05397	0.01422	0.01866	0.02892
31	0.06835	0.07591	0.06585	0.04595	0.04853	0.08612
32	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
33	0.00890	0.00393	0.00711	0.00625	0.01739	0.00783
34	0.07207	0.03550	0.02302	0.06544	0.04664	0.04764

제 4 장 지역기술계수 추정

1.

34 (A(0)) RAS
1
1 16 가 (4). 2 16
가 (5).
3
(6
). < 4-1>

<표 4-1> 작업단계 요약

구 분	1단계	2단계	3단계
기 법	· RAS	· ,	·
산출물	·	·	·
이용자료	· , ,	· ,	·

2.

1)

RAS 10 1

10,000

1 () 10

0.047

0.013672 0.004910

0.026344, 0.102647 가

0.015673

0.076513

15

16

<표 4-2> 지역기술계수표(서울)

		1	2	3	4
1		0.013672	0.000525	0.128075	0.007049
2		0.000008	0.000000	0.000231	0.000024
3		0.019487	0.000000	0.028651	0.000275
4		0.001394	0.000105	0.000083	0.146876
5		0.000292	0.000290	0.000487	0.001986
6		0.000082	0.000010	0.000058	0.000023
7		0.002145	0.002294	0.005848	0.002176
8		0.004095	0.007248	0.003971	0.006591
9		0.014735	0.002246	0.002160	0.048996
10		0.000118	0.000114	0.002381	0.000138
11	1 ()	0.001197	0.002819	0.010091	0.002077
12		0.005159	0.010246	0.002223	0.005792
13		0.001884	0.003886	0.000344	0.000964
14		0.000000	0.000000	0.000000	0.000000
15		0.000220	0.000257	0.000147	0.000176
16		0.002696	0.000231	0.000395	0.000421
17		0.000114	0.002809	0.000139	0.000089
18		0.000018	0.000002	0.000000	0.000000
19		0.000000	0.000000	0.000000	0.000000
20		0.000002	0.000006	0.000000	0.000000
21		0.000111	0.000148	0.002116	0.000758
22		0.004004	0.048808	0.010993	0.031809
23		0.000771	0.002265	0.000608	0.000595
24		0.071952	0.042786	0.245560	0.141816
25		0.000000	0.000000	0.000000	0.000000
26		0.024898	0.051179	0.043657	0.040626
27		0.002607	0.000868	0.001516	0.001160
28		0.001151	0.001566	0.005425	0.004875
29		0.005811	0.008740	0.005910	0.007937
30		0.097102	0.253162	0.059373	0.109519
31		0.085811	0.173847	0.081088	0.051820
32		0.000000	0.000000	0.000000	0.000000
33		0.003650	0.002735	0.005959	0.006352
34		0.031883	0.080116	0.029857	0.060266

(표계속)

	5	6	7	8	9	10
1	0.000904	0.000668	0.011815	0.001036	0.001599	0.000000
2	0.000035	0.000000	0.001612	0.174372	0.003819	0.048693
3	0.006125	0.000000	0.000236	0.000105	0.001738	0.000010
4	0.105414	0.019766	0.004454	0.002338	0.000469	0.000735
5	0.072061	0.155497	0.000766	0.000331	0.000603	0.000691
6	0.000000	0.068627	0.000031	0.000015	0.000043	0.000041
7	0.002192	0.003181	0.132173	0.001032	0.003900	0.004365
8	0.002105	0.007421	0.005058	0.048921	0.022453	0.009788
9	0.002888	0.004091	0.009490	0.009572	0.028240	0.007418
10	0.000230	0.000064	0.001420	0.000465	0.003946	0.059432
11	0.002116	0.001722	0.003699	0.006651	0.011698	0.011994
12	0.001924	0.002250	0.006616	0.014875	0.004887	0.013080
13	0.000425	0.000417	0.001406	0.001081	0.000949	0.003299
14	0.000000	0.000000	0.000000	0.000000	0.000030	0.000000
15	0.000049	0.000200	0.000474	0.000460	0.000411	0.000780
16	0.000218	0.000053	0.001037	0.002549	0.002934	0.001098
17	0.000068	0.000083	0.000245	0.000138	0.000198	0.000980
18	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
19	0.000000	0.000000	0.000000	0.000001	0.000000	0.000000
20	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
21	0.006410	0.002131	0.000295	0.000083	0.000241	0.000103
22	0.002809	0.004039	0.039596	0.036065	0.031151	0.052415
23	0.000749	0.000236	0.000554	0.000579	0.000663	0.000685
24	0.162584	0.147753	0.176506	0.116279	0.158863	0.127456
25	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
26	0.046631	0.021045	0.049871	0.028748	0.048319	0.062196
27	0.000889	0.000664	0.002543	0.004551	0.002157	0.008945
28	0.007457	0.009829	0.011289	0.004579	0.013474	0.004628
29	0.009268	0.006628	0.012186	0.007214	0.009217	0.017484
30	0.048670	0.060042	0.117018	0.092240	0.096491	0.173953
31	0.071434	0.045258	0.061372	0.055696	0.119033	0.063610
32	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
33	0.003774	0.003008	0.006058	0.010581	0.037041	0.009943
34	0.039980	0.032733	0.036189	0.030342	0.043320	0.052279

(표계속)

	11	12	13	14	15	16
1	()					
1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.012046	0.000077	0.000040	0.000214	0.000009	0.000008
3	0.000000	0.000000	0.000003	0.000000	0.000000	0.000000
4	0.000111	0.000128	0.000396	0.000017	0.000291	0.000231
5	0.000444	0.000706	0.000416	0.000169	0.000468	0.001874
6	0.000027	0.000050	0.000035	0.000006	0.000011	0.000014
7	0.000814	0.000937	0.002665	0.000214	0.000886	0.000995
8	0.003019	0.002546	0.004471	0.001121	0.001822	0.002495
9	0.002105	0.001999	0.002606	0.006473	0.001447	0.000846
10	0.003142	0.000902	0.002347	0.000938	0.003991	0.003615
11	0.301780	0.084011	0.062967	0.010898	0.009327	0.015370
12	0.010295	0.160982	0.016337	0.004185	0.002287	0.005410
13	0.002699	0.031069	0.134076	0.002418	0.032515	0.020964
14	0.000016	0.004058	0.033496	0.486726	0.138837	0.056624
15	0.000301	0.010042	0.031338	0.008056	0.208770	0.051803
16	0.001643	0.021003	0.022274	0.004247	0.013265	0.170504
17	0.000116	0.000510	0.000108	0.000010	0.000023	0.000068
18	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
19	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
20	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
21	0.000961	0.000142	0.000131	0.000051	0.000068	0.000441
22	0.035699	0.008443	0.008153	0.006112	0.003948	0.005342
23	0.000703	0.000467	0.000465	0.000247	0.000175	0.000152
24	0.084826	0.118002	0.134451	0.048736	0.127738	0.112695
25	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
26	0.025436	0.027766	0.021894	0.013006	0.013058	0.020540
27	0.002977	0.000846	0.000807	0.000218	0.000243	0.000359
28	0.001776	0.002322	0.004439	0.001640	0.003807	0.003205
29	0.004462	0.004424	0.006091	0.003954	0.004463	0.004948
30	0.055164	0.060840	0.049830	0.024913	0.038409	0.037739
31	0.041281	0.055299	0.056437	0.031207	0.045430	0.073431
32	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
33	0.010439	0.015925	0.014417	0.015908	0.021129	0.047264
34	0.028550	0.027990	0.022839	0.009602	0.008874	0.015386

(표계속)

	17	18	19	20	21	22
1	0.000000	0.000000	0.000000	0.000000	0.000935	0.000003
2	0.000013	0.000020	0.000000	0.000000	0.000348	0.089525
3	0.000000	0.000000	0.000000	0.000000	0.000002	0.000000
4	0.005196	0.001403	0.001153	0.003894	0.011429	0.000047
5	0.000812	0.000592	0.001129	0.001198	0.014764	0.000334
6	0.000051	0.000048	0.000000	0.000059	0.000042	0.000063
7	0.000628	0.001422	0.000909	0.001403	0.033018	0.000020
8	0.007755	0.001708	0.002409	0.003592	0.007480	0.007891
9	0.002248	0.003754	0.002451	0.001404	0.009305	0.005147
10	0.002179	0.001502	0.001057	0.002104	0.004465	0.000314
11	0.058488	0.067885	0.068219	0.053464	0.054101	0.002203
12	0.044004	0.103300	0.022167	0.059634	0.005684	0.007323
13	0.037637	0.025290	0.015013	0.053668	0.006650	0.009761
14	0.005140	0.000217	0.010175	0.003391	0.006139	0.000019
15	0.019591	0.007642	0.008192	0.010741	0.005765	0.000648
16	0.015893	0.078082	0.047169	0.022947	0.000896	0.004874
17	0.060878	0.000060	0.000075	0.004798	0.000177	0.000095
18	0.000000	0.000300	0.000000	0.000000	0.000000	0.000000
19	0.000000	0.000000	0.011454	0.000000	0.000000	0.000000
20	0.000000	0.000000	0.000000	0.001825	0.000000	0.000000
21	0.009731	0.001508	0.001273	0.001412	0.029375	0.000085
22	0.010618	0.004758	0.004854	0.006122	0.012589	0.150613
23	0.000275	0.000133	0.000239	0.000368	0.000302	0.034668
24	0.169486	0.125644	0.116645	0.194118	0.217896	0.028937
25	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
26	0.026406	0.016799	0.024669	0.022975	0.040661	0.008517
27	0.000886	0.000959	0.000857	0.001003	0.001658	0.001550
28	0.001639	0.001807	0.006272	0.002861	0.008775	0.001673
29	0.005983	0.003954	0.004698	0.005060	0.008921	0.005550
30	0.080250	0.090634	0.088903	0.076689	0.061416	0.128662
31	0.044905	0.044915	0.118548	0.039286	0.090608	0.039630
32	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
33	0.021919	0.005991	0.024650	0.011556	0.006786	0.016535
34	0.014759	0.015138	0.022111	0.020068	0.054420	0.018133

(표계속)

	23	24	25	26	27	28
1	0.000440	0.000000	0.017000	0.000000	0.000000	0.000071
2	0.001045	0.000000	0.000106	0.000000	0.000000	0.000000
3	0.000000	0.000002	0.061880	0.000000	0.000000	0.000314
4	0.000182	0.000067	0.000617	0.000101	0.000105	0.000272
5	0.000567	0.001596	0.000874	0.000724	0.000159	0.001324
6	0.000106	0.000178	0.000122	0.000013	0.000015	0.000026
7	0.003619	0.000610	0.001972	0.000156	0.000030	0.016613
8	0.002349	0.001343	0.003692	0.012565	0.005826	0.000984
9	0.001453	0.000044	0.000574	0.000284	0.000096	0.003001
10	0.020043	0.000047	0.000817	0.000026	0.000006	0.000037
11	0.056527	0.000060	0.001375	0.000871	0.000464	0.000190
12	0.022633	0.000665	0.001055	0.001133	0.000527	0.001969
13	0.026860	0.000436	0.003495	0.003211	0.000301	0.001672
14	0.000012	0.000041	0.000000	0.000035	0.000000	0.000380
15	0.002597	0.001129	0.001133	0.000956	0.000198	0.002900
16	0.003371	0.000611	0.000101	0.001311	0.000047	0.001641
17	0.000127	0.000113	0.000049	0.003291	0.000461	0.000165
18	0.000000	0.000000	0.000000	0.000000	0.000032	0.000000
19	0.000000	0.000000	0.000000	0.000352	0.000000	0.000000
20	0.000000	0.000000	0.000001	0.000053	0.000000	0.000000
21	0.002766	0.000670	0.005996	0.000235	0.000054	0.003277
22	0.002012	0.011990	0.033425	0.005132	0.000387	0.010121
23	0.000188	0.001181	0.004676	0.000500	0.000045	0.001383
24	0.099069	0.121062	0.292795	0.049666	0.009433	0.063523
25	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
26	0.022245	0.043175	0.032917	0.179819	0.311545	0.019790
27	0.000919	0.000183	0.000797	0.002627	0.079491	0.000224
28	0.002334	0.009019	0.004522	0.007423	0.000928	0.175471
29	0.004822	0.056291	0.013090	0.010900	0.002751	0.021033
30	0.053883	0.074674	0.051189	0.067773	0.027691	0.045775
31	0.140922	0.163701	0.176397	0.106725	0.053823	0.131381
32	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
33	0.008140	0.004563	0.007269	0.006966	0.000577	0.002779
34	0.021933	0.045093	0.017816	0.040742	0.008598	0.051570

(표계속)

	29	30	31	32	33	34
1	0.000000	0.000000	0.000018	0.000057	0.000512	0.003573
2	0.000000	0.000000	0.000000	0.000014	0.000010	0.000148
3	0.000000	0.000000	0.000004	0.000024	0.000040	0.009312
4	0.000034	0.000005	0.000036	0.000177	0.000157	0.007681
5	0.000282	0.000211	0.000183	0.003734	0.000545	0.023744
6	0.000025	0.000007	0.000010	0.000023	0.000072	0.001465
7	0.000047	0.000018	0.000153	0.000141	0.000186	0.010589
8	0.000279	0.000175	0.000385	0.001172	0.001428	0.005375
9	0.000026	0.000017	0.000378	0.000799	0.019125	0.009048
10	0.000016	0.000002	0.000007	0.000077	0.000172	0.002419
11	0.000093	0.000217	0.000078	0.001151	0.000936	0.007960
12	0.000153	0.000049	0.000659	0.018520	0.001831	0.005945
13	0.007133	0.000190	0.000324	0.001027	0.001418	0.011744
14	0.000232	0.000000	0.000299	0.000020	0.000662	0.003335
15	0.012191	0.001374	0.001878	0.004000	0.004303	0.016284
16	0.001553	0.000008	0.001012	0.002887	0.015836	0.006565
17	0.000022	0.000028	0.000083	0.000202	0.000241	0.006862
18	0.000000	0.000000	0.000000	0.000050	0.000001	0.000000
19	0.000000	0.000000	0.000000	0.000648	0.000005	0.000006
20	0.000003	0.000000	0.000000	0.000002	0.000001	0.000008
21	0.000265	0.000201	0.000512	0.000812	0.002794	0.018025
22	0.006461	0.002607	0.008324	0.010951	0.014509	0.013127
23	0.002199	0.000287	0.026022	0.004089	0.002626	0.002312
24	0.014982	0.004977	0.008184	0.033848	0.072768	0.298684
25	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
26	0.014365	0.015420	0.009877	0.031207	0.014504	0.119320
27	0.000075	0.000015	0.000159	0.000175	0.000169	0.000668
28	0.006865	0.009665	0.052586	0.014025	0.022001	0.165232
29	0.204007	0.014863	0.010484	0.012552	0.009881	0.020962
30	0.050055	0.204829	0.108234	0.032830	0.059808	0.067346
31	0.094194	0.062209	0.072280	0.058065	0.085135	0.171583
32	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
33	0.007832	0.002057	0.004983	0.005043	0.019480	0.003768
34	0.094775	0.027761	0.024111	0.078908	0.078075	0.101767

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가 ,
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< 4-3> .
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<표 4-3> 지역별 중간투입율

1		0.397071	0.412460	0.388926	0.364473	0.225539
2		0.699308	0.522508	0.661462	0.537152	0.754422
3		0.677346	0.740859	0.664399	0.799128	0.451204
4		0.681186	0.660534	0.668515	0.678374	0.682370
5		0.597409	0.588322	0.554824	0.558903	0.465700
6		0.597407	0.588322	0.554851	0.558908	0.465709
7		0.694008	0.677415	0.713563	0.678348	0.694887
8		0.650898	0.646842	0.648653	0.719020	0.648745
9		0.647886	0.710413	0.696924	0.691734	0.641736
10		0.736102	0.714664	0.689968	0.679546	0.704349
11	1 ()	0.630829	0.686315	0.621758	0.698402	0.634763
12		0.641487	0.631084	0.653819	0.656958	0.722974
13		0.633528	0.638728	0.651539	0.672310	0.647215
14		0.681289	0.619107	0.606418	0.678522	0.674836
15		0.681291	0.619124	0.606431	0.678523	0.674824
16		0.652324	0.587898	0.634816	0.662062	0.537593
17		0.647370	0.647620	0.641243	0.653684	0.651679
18		0.605465	0.649575	0.636877	0.626936	0.594045
19		0.605292	0.649576	0.637499	0.626951	0.000000
20		0.605640	0.649575	0.636803	0.626912	0.594045
21		0.694608	0.667941	0.707098	0.708413	0.663894
22		0.562822	0.448019	0.488457	0.560542	0.560601
23		0.501163	0.518592	0.525635	0.516947	0.526449
24		0.538547	0.425464	0.463366	0.502180	0.388082
25		0.735752	0.701788	0.748963	0.756230	0.702721
26		0.503591	0.598767	0.357623	0.581018	0.363327
27		0.503590	0.598766	0.357616	0.581017	0.363309
28		0.557884	0.397748	0.414479	0.428052	0.405891
29		0.518168	0.532282	0.533774	0.552563	0.541714
30		0.347192	0.321520	0.317728	0.302042	0.351338
31		0.331262	0.308360	0.314812	0.292178	0.293099
32		0.317233	0.219207	0.250307	0.286580	0.236764
33		0.429230	0.422191	0.435829	0.472645	0.439540
34		1.114858	0.518812	0.557355	0.491408	0.446876

(표계속)

1		0.378688	0.409204	0.430851	0.409712	0.344177
2		0.589005	0.449260	0.525014	0.499965	0.480474
3		0.466636	0.766927	0.675490	0.682559	0.699749
4		0.668630	0.681737	0.669712	0.695322	0.685989
5		0.550332	0.633279	0.684250	0.535145	0.791648
6		0.550323	0.633535	0.684250	0.535779	0.791627
7		0.711758	0.710189	0.710447	0.647811	0.665005
8		0.608586	0.732785	0.676568	0.662702	0.677416
9		0.659734	0.783475	0.612048	0.549896	0.639620
10		0.713943	0.715494	0.696632	0.686173	0.721088
11	1 ()	0.632632	0.766393	0.657746	0.651439	0.658707
12		0.634869	0.677534	0.659739	0.654157	0.727237
13		0.639794	0.675741	0.687686	0.676666	0.664179
14		0.612457	0.601912	0.616127	0.672567	0.602925
15		0.612447	0.601865	0.616127	0.676670	0.602924
16		0.594751	0.660887	0.642313	0.594185	0.595169
17		0.632509	0.644694	0.653772	0.632486	0.645587
18		0.757425	0.579240	0.682635	0.552098	0.692047
19		0.757227	0.000000	0.682650	0.000000	0.000000
20		0.757218	0.579357	0.682637	0.551773	0.692024
21		0.667784	0.687052	0.681772	0.692694	0.732489
22		0.569176	0.467727	0.606464	0.416283	0.312763
23		0.516556	0.525997	0.537042	0.523218	0.525928
24		0.416819	0.416068	0.511619	0.439899	0.464895
25		0.641054	0.692985	0.669967	0.586649	0.669882
26		0.353014	0.706385	0.383563	0.437974	0.373981
27		0.000000	0.706386	0.383575	0.437975	0.373831
28		2.225203	0.361711	0.464913	0.382768	0.392388
29		0.529517	0.527723	0.526483	0.512347	0.525679
30		0.324765	0.332831	0.268286	0.272997	0.283196
31		0.332829	0.317513	0.321063	0.362342	0.350568
32		0.338027	0.308698	0.339848	0.279603	0.274660
33		0.474789	0.404681	0.453078	0.480822	0.420671
34		0.518632	0.455125	0.524381	0.464606	0.465406

(표 계속)

1		0.362961	0.346540	0.371700	0.395913	0.375188	0.310021
2		0.428563	0.430512	0.412282	0.458105	0.421596	0.469311
3		0.834269	0.766157	0.864042	0.813164	0.724712	0.781200
4		0.683158	0.655663	0.681704	0.688702	0.676323	0.000000
5		0.667912	0.507833	0.464342	0.648958	0.644150	0.514297
6		0.667931	0.507830	0.464343	0.649232	0.644152	0.514208
7		0.728517	0.656318	0.688072	0.692268	0.707430	0.710123
8		0.712508	0.670761	0.727337	0.672566	0.695245	0.648378
9		0.711059	0.689130	0.782157	0.700656	0.754862	0.739996
10		0.685279	0.664500	0.712223	0.657289	0.700861	0.763425
11	1 ()	0.740106	0.633833	0.757390	0.752686	0.706668	0.588845
12		0.682868	0.646682	0.640691	0.643960	0.682172	0.618955
13		0.669854	0.668868	0.616070	0.700685	0.675886	0.499763
14		0.657255	0.628327	0.645700	0.681143	0.672540	0.000000
15		0.657255	0.628325	0.645691	0.681143	0.672541	0.000000
16		0.626433	0.601278	0.646786	0.646812	0.665316	0.000000
17		0.641755	0.656747	0.594189	0.653999	0.658642	0.000000
18		0.639388	0.521318	0.606957	0.588932	0.586488	0.513096
19		0.639383	0.520232	0.000000	0.000000	0.586492	0.000000
20		0.639375	0.516667	0.606987	0.588881	0.586489	0.000000
21		0.699861	0.721760	0.701452	0.753260	0.669735	0.651592
22		0.449057	0.487091	0.448261	0.453746	0.475069	0.419843
23		0.521821	0.521046	0.517912	0.522589	0.525452	0.528581
24		0.465241	0.427022	0.353415	0.436819	0.426840	0.398182
25		0.656508	0.609301	0.528890	0.608935	0.695000	0.590237
26		0.545792	0.472078	0.638915	0.491258	0.467398	0.491205
27		0.545774	0.472093	0.638916	0.491263	0.467393	0.491200
28		0.467805	0.368003	0.362579	0.449349	0.408088	0.365314
29		0.512568	0.506733	0.525127	0.525676	0.519739	0.522477
30		0.232127	0.280952	0.232554	0.257451	0.255819	0.323860
31		0.349784	0.340811	0.330541	0.361068	0.356649	0.313013
32		0.267084	0.255955	0.278700	0.274590	0.266948	0.262165
33		0.463880	0.457459	0.464934	0.450538	0.439163	0.450561
34		0.516600	0.472325	0.516039	0.494310	0.530120	0.514871

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60%가 10% 10% 100%

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65%가

<표 4-4> 전국투입계수와 지역기술계수 격차비교

구 분		서울	부산	대구	인천
≥		594	598	613	600
<		562	558	543	556
	10%	697(0.51)	646(0.56)	694(0.60)	684(0.59)
	50%	389(0.34)	245(0.21)	354(0.30)	293(0.25)
	100%	158(0.14)	132(0.12)	154(0.13)	142(0.12)
	500%	12(0.01)	4(0.00)	2(0.00)	5(0.00)

구 분		광주	대전	울산	경기
≥		530	579	437	683
<		626	577	719	473
	10%	676(0.59)	641(0.55)	699(0.61)	661(0.57)
	50%	346(0.30)	327(0.28)	498(0.43)	216(0.19)
	100%	99(0.09)	136(0.12)	118(0.10)	108(0.09)
	500%	0(0.00)	5(0.00)	27(0.02)	0(0.00)

구 분		강원	충북	충남	전북
≥		403	593	522	510
<		753	617	634	646
	10%	698(0.60)	680(0.59)	631(0.55)	696(0.60)
	50%	526(0.46)	355(0.31)	222(0.19)	386(0.33)
	100%	107(0.09)	137(0.12)	63(0.05)	109(0.09)
	500%	51(0.05)	11(0.01)	3(0.00)	15(0.01)

구 분		전남	경북	경남	제주
≥		444	530	589	419
<		712	626	567	737
	10%	685(0.59)	679(0.59)	683(0.59)	405(0.35)
	50%	434(0.38)	353(0.31)	290(0.25)	272(0.24)
	100%	104(0.09)	125(0.11)	108(0.09)	90(0.08)
	500%	14(0.01)	2(0.00)	22(0.01)	16(0.01)

제 5 장

지역교역계수 추정

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(1) 지역교역계수 산출의 자료

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(2) 지역교역계수

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① 지역별 산업별 생산량의 과부족 산출

< 5-4>

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1998

가

가

1	9	10	15
가	1998	5	1998

<표 5-4> 지역별 산업부문별 생산액 과부족

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구 분		서울	부산	대구	인천
1	농림수산	-2,426	-6,827	-8,764	-9,744
2	광산	7,259	7,903	-1,028	5,919
3	음식료	-37,405	-10,694	-12,870	22,161
4	섬유·가죽	10,197	13,914	-72,903	-4,652
5	목재·종이	-22,589	-5,310	15,908	1,688
6	인쇄,출판및복제	34,758	-3,951	-2,380	-2,966
7	석유·석탄	-103,797	-51,208	-16,824	32,809
8	화학	-49,082	-21,774	-17,988	-7,272
9	비금속광물	-8,221	-4,333	-3,443	-2,350
10	제1차금속	1,030	-2,463	-13,704	5,868
11	금속	-14,703	371	1,694	9,112
12	일반기계	22,869	-12,035	-6,808	15,028
13	전기전자기기	38,909	-27,352	-17,165	328
14	정밀기기	37,028	573	-4,094	5,927
15	수송장비	-29,667	-33,685	-7,085	-8,326
16	가구및기타제조업	-2,247	-2,234	-1,687	14,155
17	전력가스및수도	-6,781	5,590	-3,422	1,319
18	건설	-80,561	-26,849	-13,653	-8,925
19	도소매	259,007	2,924	-2,063	-19,043
20	음식점및숙박	54,789	10,682	1,569	1,468
21	운수및보관	51,854	24,878	-5,841	4,455
22	통신및방송	31,864	11,700	7,678	10,614
23	금융및보험	148,348	-4,883	-2,144	-9,868
24	부동산및사업서비스	128,042	-1,726	512	-10,990
25	공공행정	-27,398	-4,453	-3,251	-3,463
26	사회및기타서비스	160,225	29,160	15,500	3,038

(표계속)

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구 분		광주	대전	울산	경기
1	농림수산	-3,764	-6,606	-3,201	-43,796
2	광산	2,765	2,182	-80,131	18,642
3	음식료	-2,125	-538	-846	76,935
4	섬유·가죽	-403	1,464	-2,143	54,895
5	목재·종이	-1,132	3,925	390	6,842
6	인쇄,출판및복제	-1,113	-2,269	-1,759	-1,834
7	석유·석탄	-10,079	-13,278	226,438	-99,287
8	화학	-2,500	208	58,429	24,128
9	비금속광물	-2,157	-2,071	-4,205	-4,305
10	제1차금속	-5,602	-2,524	5,495	

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구 분		강원	충북	충남	전북
1	농림수산	2,648	-4,757	17,282	8,061
2	광산	4,876	5,397	29,341	5,403
3	음식료	-1,540	22,842	2,722	6,347
4	섬유·가죽	-4,628	5,437	-3,196	-2,316
5	목재·종이	-1,998	5,528	916	3,229
6	인쇄,출판및복제	-1,915	-1,845	-2,046	-2,512
7	석유·석탄	-13,618	-21,393	21,069	-20,415
8	화학	-9,113	18,405	4,682	-4,217
9	비금속광물	14,122	12,110	-9,297	2,820
10	제1차금속	-3,163	-4,624	-451	-2,983
11	금속	-3,392	1,837	-4,228	-4,583
12	일반기계	-10,308	-6,192	-1,625	-14,150
13	전기전자기기	-8,003	-8,152	-308,763	-6,701
14	정밀기기	-826	-1,350	-131,971	-959
15	수송장비	-497	-5,693	13,451	9,865
16	가구및기타제조업	-2,531	-424	-1,861	-3,813
17	전력가스및수도	-2,994	-7,339	9,823	-7,536
18	건설	16,221	10,198	20,423	6,792
19	도소매	-5,475	-14,086	-20,370	-11,475
20	음식점및숙박	2,155	-5,429	-14,854	-12,618
21	운수및보관	-3,719	-5,848	-7,678	-6,315
22	통신및방송	-3,083	-3,981	-10,096	-6,267
23	금융및보험	-3,723	-7,835	-12,707	-5,881
24	부동산및사업서비스	-11,674	2,564	-12,786	-12,015
25	공공행정	8,309	2,625	4,152	4,418
26	사회및기타서비스	-7,710	-16,446	-40,514	-22,611

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구 분		전남	경북	경남	제주
1	농림수산	31,572	20,838	-1,352	10,835
2	광산	-23,136	12,051	2,377	180
3	음식료	-23,493	-35,944	1,690	-7,239
4	섬유·가죽	-10,819	19,073	-1,666	-2,253
5	목재·종이	-2,560	-5,077	688	-449
6	인쇄,출판및복제	-3,146	-2,808	-3,680	-535
7	석유·석탄	143,095	-42,697	-26,061	-4,753
8	화학	52,489	-20,275	-22,569	-3,551
9	비금속광물	4,342	8,272	-1,505	221
10	제1차금속	32,048	54,093	-16,447	-838
11	금속	-4,227	-2,740	11,496	-1,110
12	일반기계	-16,007	-19,859	48,532	-3,826
13	전기전자기기	-10,143	64,195	11,343	-2,564
14	정밀기기	-276	3,030	83,299	-172
15	수송장비	-7,662	-18,001	26,979	-1,766
16	가구및기타제조업	-6,758	-4,223	-6,220	-1,401
17	전력가스및수도	2,162	11,410	5,214	-2,107
18	건설	12,943	13,221	8,894	3,179
19	도소매	-16,848	-30,523	-26,968	-659
20	음식점및숙박	-18,337	-19,783	-15,198	3,257
21	운수및보관	723	-12,639	-9,169	-37
22	통신및방송	-13,834	-13,366	-9,060	-1,833
23	금융및보험	-10,753	-18,627	-16,939	-652
24	부동산및사업서비스	-17,113	-16,873	-25,016	-1,142
25	공공행정	9,649	7,298	935	2,276
26	사회및기타서비스	-59,960	-56,969	-37,402	-6,355

1998 가

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3 23

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② 지역간 교역률 산출

가 1998 가

1 KRIHS

1 KRIHS .

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가

, 가 가

.16) ,

16) , , 1996, 5-6 .

(5-1)

16

4

가

가

(5-2) (5-3)

(Parameter) β , A_i , B_j , T_{ij}^*

$$\beta = \frac{A_i B_j}{T_{ij}^*} \quad (5-4) \quad (5-5)$$

A_i , B_j

(Balancing Factor) β (c_{ij})

(Deterrence Factor) β

β 가 가

Wilson β (5-4) (5-5)

$$A_i B_j \beta$$

(Systematic) 가

Step 0 : β

- β 0-1

Step 1 : (Bisection Method) β

- β 가 β

0.5가 0-1

Step 2 : ()

Step 2-0 : k 0 i

$$A_i = \frac{A_i(k)}{A_i(k) + B_j} \quad (5-6)$$

- $A_i(k)$ 1

$$B_j = \frac{A_i}{A_i(k)} \quad (5-7)$$

Step 2-1 Step 2-2

$$A_i = [\sum_j B_j D_j \exp(-\beta c_{ij})]^{-1} \quad (5-4)$$

$$B_j = [\sum_i A_i O_i \exp(-\beta c_{ij})]^{-1} \quad (5-5)$$

$$O_i : i$$

$$D_j : j$$

$$c_{ij} : i, j$$

$$\text{Step 2-1 : } j \quad B_j = [\sum_i A_i O_i \exp(-\beta c_{ij})]^{-1} .$$

$$\text{Step 2-2 : } i \quad A_i = [\sum_j B_j D_j \exp(-\beta c_{ij})]^{-1} .$$

$$\text{Step 2-3 : } i \quad A_i(k) \quad A_i(k+1) .$$

$$(k+1) \quad \text{가} \quad \text{Step 2-1} \quad \text{가}$$

$$. \quad A_i(k) \quad A_i(k+1) \quad \text{가 } 0.0001$$

$$\text{가}$$

$$\text{Step 2-4 : } T_{ij} = A_i(k) O_i B_j D_j \exp(-\beta c_{ij}) .$$

$$ij : i, j$$

$$O_i : i$$

$$D_j : j$$

$$c_{ij} : i, j$$

$$\beta : \text{Step 1}$$

$$\text{Step 3 : } \sum_i \sum_j c_{ij} T_{ij} \text{가 C} \quad \text{가} . \quad \text{C}$$

$$\text{Step 1} \quad \text{가} \quad \beta$$

$$ij \quad ij$$

$$\beta$$

$$\text{Step 4 : } T_{ij}^* = A_i(k) O_i B_j D_j \exp(-\beta^* c_{ij}) .$$

3)

(Gravity Model) Newton

Wilson(1967) Entropy- Maximizing Theory

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(Pull Factor) (Push Factor) , , , , , 가

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S j R i S j

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$$Z_{ij}^{RS} = G \frac{(\text{Prod}_i)_R^a \cdot (\text{Emp}_j)_S^\beta}{(\text{Dist}_{RS})^\gamma} \quad (5-6)$$

Z_{ij}^{RS} = R지역의 i산업에서 S지역의 j산업으로
의 산출물 이동량

$(\text{Prod}_i)_R$ = R지역의 i산업 생산량

$(\text{Emp}_j)_S$ = S지역의 j산업 고용자수

Dist_{RS} = R지역과 S지역의 거리

a, β, γ 는 각 변수들과 이동물량과의 탄성치

G = 상수

, 가 ,

a, β, γ

O-D가 , 1994

O-D

log

$$\log Z_{ij}^{RS} = \log G + a \log (\text{Prod}_i)_R + \beta \log (\text{Emp}_j)_S + \gamma \log (\text{Dist})_{RS} + \epsilon_{ij}^{RS} \quad (5-7)$$

OLS

$$\log Z_{ij}^{RS} = -3.156 + 0.8756 \log (\text{Prod}_i)_R + 0.6686 \log (\text{Emp}_j)_S - 2.0071 \log (\text{Dist})_{RS} + e$$

(4.165) (0.0995) (0.1375) (0.1356)

() standard error $R^2 = 0.640$, $Adj-R^2 = 0.630$

(5-8)

가 63% 가
1990 I/O
I/O
s, r I/O

$$Z^{seoul} = \begin{bmatrix} Z^{ss} & Z^{sr} \\ Z^{rs} & Z^{rr} \end{bmatrix} \quad (5-9)$$

Z^{ss} : 서울에서 서울로의 교역량

Z^{sr} : 서울에서 기타지역으로의 교역량

Z^{rs} : 기타지역에서 서울로의 교역량

Z^{rr} : 기타지역에서 기타지역으로의 교역량

2.

1)

RAS

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 KRIH
 16
 26 , 416 (416×416) 가
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제 6 장

다지역산업연관표의 작성

1.

2. 2000

제 7 장

요약 및 결론

1.

가
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가 가
(Regression analysis)
(Econometrics)

(constant returns to scale)
가 (isoquant)

RAS LQ

<표 6-1> 단계별 적용모형

구분	기법	산출물	이용자료
1단계	· RAS	·	· · , ,
2단계	· LQ,	·	· LQ · ·
3단계	·	·	· ·

1 RAS , 2
(location quotient)

3

RAS

(3) () 4

가

4 가

가

(6)

가

, (

LQ)

2.

RAS LQ

가

RAS

가

가

가

가

가

가

가

가

. 1

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. 3

가

가

가

가

. 3

가

28

가

26

가

. LQ

2

가 가

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< 1> KRIHS

< 2> 가가

<부표 1> KRIHS모형 및 한국은행 산업연관표 부문분류 비교

한국은행				국토연구원	
Code	통합대분류(28부문)	Code	통합중분류(77부문)	Code	통합대분류(26부문)
0001		1		1	
		2			
		3			
		4			
0002		5		2	
		6	가		
		7			
		8			
0003		9		3	
		10	가		
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0004	.가	19		4	가
		20			
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		23	가		
0005	.	24		5	
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0006	,	26		6	
0007	.	27			
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한국은행				국토연구원	
Code	통합대분류(28부문)	Code	통합중분류(77부문)	Code	통합대분류(26부문)
0009		38 39 40 41		8	
0010	1	42 43 44	1 1	9	1
0011		45		10	
0012		46 47		11	
0013		48 49 50 51 52	, 가	12	
0014		53		13	
0015		54 55 56		14	
0016	가	57 58	가	15	가
0017	가	59 60	가	16	가
0018		61 62		17	
0019		63		18	
0020		64		19	
0021		65		20	
0022		66		21	
0023		67		23	
0024		68 69		24	
0025		70		25	
0026		71 72	,	26	
0027		73 74			
0028		75 76 77	가		

<부표 2> 부가가치 추계

부문	코드	전국	서울	부산	대구	인천	광주
	1	22,686,452	585,918	659,492	132,585	355,576	269,318
	2	944,860	7,592	4,186	1,888	52,703	259
	3	12,897,706	525,023	454,874	169,235	838,480	283,553
가	4	12,920,256	2,869,397	1,138,485	1,485,783	345,095	122,861
	5	5,054,050	149,115	127,035	158,993	486,250	36,791
	6	3,974,778	2,715,802	96,323	58,491	47,648	61,410
	7	4,807,983	0	25,033	0	22,488	0
	8	24,913,298	373,123	438,054	303,150	1,167,500	469,046
	9	6,715,632	76,724	106,653	60,635	229,335	41,633
1	10	10,943,876	64,466	554,803	168,142	1,117,229	54,197
	11	7,171,664	174,879	495,788	311,626	874,402	139,169
	12	14,120,151	482,042	721,249	508,136	1,764,802	756,329
	13	43,049,401	1,601,474	417,526	232,458	1,280,608	501,047
	14	1,937,535	216,950	49,258	79,188	128,358	7,463
	15	23,386,357	40,719	761,943	580,601	632,062	621,459
가	16	3,186,209	312,068	147,164	42,597	672,978	39,272
가	17	14,695,071	1,549,574	1,182,449	318,979	663,965	156,856
	18	43,784,830	7,047,543	2,368,078	1,692,883	1,892,602	1,044,467
	19	49,382,641	19,318,958	4,961,222	2,677,182	1,651,542	1,688,277
	20	11,298,230	2,516,372	862,298	368,006	346,101	348,746
	21	23,740,820	8,354,599	3,265,509	796,721	1,371,106	501,010
	22	12,244,586	4,862,916	1,046,527	672,292	771,968	366,218
	23	38,078,980	19,317,322	2,143,980	1,429,228	1,146,470	859,943
	24	62,658,421	27,858,885	4,005,669	2,440,941	2,282,732	1,293,815
	25	15,539,783	3,707,316	1,078,976	669,060	610,069	412,522
	26	53,427,455	15,709,146	4,121,014	2,500,600	2,082,308	1,670,989
		523,561,023	120,437,924	31,233,589	17,859,401	22,834,377	11,746,652

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부문	코드	대전	울산	경기	강원	충북	충남
	1	60,384	152,419	2,403,330	1,114,657	1,427,386	2,981,879
	2	1,990	11,451	135,074	257,531	69,250	82,841
	3	287,622	158,885	4,141,538	457,881	1,173,506	975,303
가	4	231,882	93,478	3,420,198	33,825	398,488	317,554
	5	235,835	191,466	1,650,050	24,914	455,711	369,464
	6	46,936	9,820	673,084	20,208	38,741	35,635
	7	0	3,275,061	38,670	0	1,456	266,190
	8	883,125	3,654,395	7,326,132	150,012	1,569,237	1,918,714
	9	40,097	100,270	1,579,256	866,441	776,554	291,918
1	10	55,113	952,066	1,098,761	23,673	119,368	329,886
	11	65,500	261,035	2,447,084	39,527	265,312	303,440
	12	377,440	187,250	4,218,774	56,347	326,673	642,363
	13	193,137	1,653,799	24,243,989	91,981	2,907,952	2,239,931
	14	54,542	2,803	799,690	128,416	99,662	118,964
	15	130,089	8,779,041	4,544,679	197,671	175,073	1,440,341
가	16	53,674	24,120	1,375,623	30,990	136,258	102,295
가	17	187,745	619,081	1,980,364	368,536	311,350	1,631,577
	18	1,110,492	977,316	9,752,289	2,076,238	1,785,090	2,610,396
	19	1,751,489	1,050,564	5,280,554	1,242,255	962,940	1,184,084
	20	377,807	201,167	1,883,870	718,821	363,691	396,479
	21	525,780	769,810	2,158,199	530,700	533,985	636,408
	22	354,597	247,770	1,256,967	287,340	281,187	310,675
	23	858,853	478,853	4,425,409	813,914	699,852	888,111
	24	1,364,507	752,358	10,570,224	1,115,937	1,655,570	1,599,113
	25	487,260	225,798	2,312,094	749,920	537,214	714,471
	26	2,243,878	830,246	8,386,359	1,874,654	1,604,925	1,863,818
		11,979,775	25,660,322	108,102,262	13,272,389	18,676,432	24,251,848

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부문	코드	전북	전남	경북	경남	제주
	1	2,298,582	3,684,605	3,012,917	2,475,493	1,071,911
	2	53,581	93,256	105,963	53,384	13,911
	3	936,883	547,097	383,571	1,472,120	92,135
가	4	326,569	79,166	1,483,210	573,822	442
	5	521,438	146,149	136,642	357,370	6,828
	6	19,322	5,900	74,714	56,493	14,251
	7	0	1,149,317	9,109	20,658	0
	8	939,262	3,327,358	1,306,993	1,077,437	9,758
	9	415,106	587,241	1,075,374	429,180	39,214
1	10	201,787	2,542,913	2,778,111	883,359	0
	11	81,865	162,783	363,711	1,181,793	3,750
	12	128,112	107,439	366,764	3,474,668	1,763
	13	315,566	55,112	5,561,886	1,752,093	841
	14	11,837	13,543	54,651	172,209	0
	15	804,410	154,798	614,280	3,908,774	417
가	16	60,392	28,291	86,994	72,336	1,156
가	17	291,571	1,531,734	2,303,315	1,526,212	71,763
	18	2,047,040	2,497,918	3,138,401	3,125,343	618,734
	19	1,415,622	1,506,117	1,849,773	2,282,007	560,055
	20	456,099	742,252	750,502	598,794	367,225
	21	623,382	1,134,947	1,016,528	1,255,256	266,880
	22	350,972	355,414	461,766	510,737	107,240
	23	972,206	1,125,448	1,244,544	1,377,895	296,952
	24	1,306,784	1,399,517	2,336,474	2,225,398	450,497
	25	765,044	971,377	1,099,320	951,953	247,390
	26	2,156,629	2,034,151	2,700,845	2,940,826	707,067
		17,500,061	25,983,842	34,316,359	34,755,611	4,950,180

